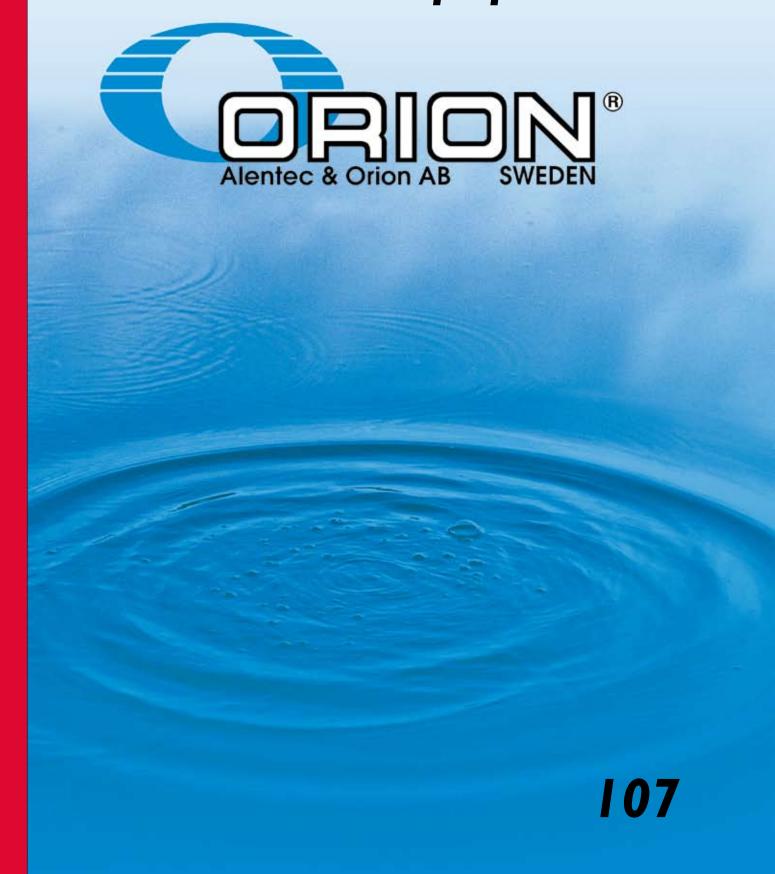
# Lubrication Equipment



# "We are in the frontline of lubrication equipment development"

Alentec & Orion AB develop, manufacture and market equipment and services in pumping, measuring and dosing to the automotive and general industry.

The product range consists of a wide range of stationary, mobile and portable pumps with accessories for; filling- dosing- control- and waste oil handling. Hose reels and systems for exhaust and welding smoke extraction are also in our range.

Orion is an international company with headquarters in Sweden. We are represented in more than 50 countries in the world and are expanding rapidly. Orion companies in United Kingdom, Belgium and Italy together with an extensive distributor base are supporting the market.



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11001   38   13520   41   18124   33   21609   28,80   22802   55   511002   38   13525   41   18125   33   21610   28,81   23008   66   611003   38   14001   42   18126   33   21613   27   23072   110   11004   38   14005   43   18128   33   21614   27   23132   110   11005   38   14006   43   18129   33   21615   27   23163   110   11012   45   14015   42   18130   33   21616   27   23167   110   11015   45   14016   42   18131   33   21616   27   23167   110   11017   40   14017   42   18132   33   21622   27   23183   110   11018   40   14018   42   18201   44   21625   27,80   23187   11025   38   14019   42   18300   31   21626   27,80   23191   110   11050   45   14035   42   18310   31   21626   27,80   23191   11055   41   14042   36   18525   32   21628   28,81   23334   111   1116   40   14043   36   18526   32   21629   28,81   23335   111   1118   40   14044   36   18527   32   21630   28,81   23335   111   11205   38   14046   42   18528   32   21630   28,81   23335   111   11205   38   14046   42   18528   32   21630   28,81   23335   111   11205   38   14046   42   18528   32   21630   28,81   23335   111   11205   38   14046   42   18528   32   21631   28,81   23335   111   11205   38   14046   42   18528   32   21630   28,81   23335   11   11205   38   14046   42   18528   32   21631   28,81   23335   11   11205   38   14046   42   18526   33   21631   28,81   23355   11   11205   38   14046   42   18526   33   21631   28,81   23376   11   11205   38   14046   42   18526   33   21633   28,81   23393   11   11220   38   14050   42   18556   33   21634   28,81   23393   11   11220   38   14055   42   18566   33   21635   28,60   23401   11   11225   39   14055   42   18566   33   21634   28,81   23393   11   11226   39   14055   42   18566   33   21635   28,60   23401   11   11226   39   14055   42   18570   32   21638   27,80   23402   11   11230   38   14056   42   18570   32   21638   27,80   23404   11   11300   40   14067   42   18571   32   21638   27,80   23405   11   11300   40   14067		,	12515	41			21607	20	22790	0.59
11002   38   13525   41   18125   33   21610   28, 81   23008   60   11003   38   14001   42   18126   33   21613   27   23072   110   11004   38   14005   43   18128   33   21614   27   23132   11   11005   38   14006   43   18129   33   21615   27   23163   11   11012   45   14015   42   18130   33   21616   27   23167   11   11015   45   14016   42   18131   33   21619   28, 60   23171   11   11017   40   14017   42   18132   33   21622   27   23183   11   11018   40   14018   42   18201   44   21625   27, 80   23187   11   11055   38   14019   42   18300   31   21626   27, 80   23191   11   11050   45   14035   42   18310   31   21626   27, 80   23192   11   11055   41   14042   36   18525   32   21628   28, 81   23334   11   1116   40   14044   36   18526   32   21629   28, 81   23335   11   1116   40   14044   36   18526   32   21630   28, 81   23335   11   11205   38   14046   42   18528   32   21630   28, 81   23355   11   11205   38   14046   42   18528   32   21631   28, 81   23355   11   11205   38   14046   42   18528   32   21631   28, 81   23355   11   11210   38   14046   42   18532   32   21631   28, 81   23376   11   11214   38   14047   36   18536   32   21631   28, 81   23376   11   11214   38   14047   36   18536   32   21631   28, 81   23393   11   11210   38   14046   42   18536   32   21631   28, 81   23393   11   11210   38   14046   42   18536   33   21635   28, 60   23401   11   11266   39   14055   42   18566   33   21635   28, 60   23401   11   11266   39   14055   42   18566   33   21635   28, 60   23401   11   11266   39   14055   42   18569   32   21636   27, 80   23402   11   11288   40   14067   42   18571   32   21638   27, 80   23403   11   11288   40   14067   42   18573   32   21646   27   23408   11   11709   40   14068   42   18575   32   21646   27   23408   11   11709   40   14069   42   18575   32   21646   27   23408   11   11709   40   14069   42   18575   32   21646   27   23408   11   11709   40   14069   42   18575   32   21646   27   23408   11   11709   40   40										
11003	11001	38	13520	41	18124	33	21609	28, 80	22802	58
11003	11002	38	13525	41	18125	33	21610	28 81	23008	60
11004										
11004										
11005         38         14006         43         18129         33         21615         .27         23163         11           11012         45         14015         42         18130         33         21616         .27         23167         11'           11015         45         14016         42         18131         33         21619         .28, 60         23171         11'           11017         40         14017         42         18132         33         21622         .27         23183         11'           11018         40         14018         42         18201         44         21625         .27, 80         23187         11'           11025         38         14019         42         18300         31         21626         .27, 80         23191         11'           11050         45         14035         42         18310         31         21626         .27, 80         23192         11'           11055         41         14042         36         18525         32         21628         .28, 81         23334         11'           1116         40         14043         36         18526         32			14005	43	18128	33	21614	2.7	23132	117
11012         45         14015         42         18130         33         21616         27         23167         11           11015         45         14016         42         18131         33         21619         28, 60         23171         11'           11017         40         14017         42         18132         33         21622         27         23183         11'           11018         40         14018         42         18201         44         21625         27, 80         23187         11'           11025         38         14019         42         18300         31         21626         27, 80         23191         11'           11050         45         14035         42         18310         31         21627         27, 80         23192         11'           11055         41         14042         36         18525         32         21628         28, 81         23334         11           1116         40         14043         36         18526         32         21629         28, 81         23335         11           11118         40         14044         36         18526         32										
11015         45         14016         42         18131         33         21619         28,60         23171         11           11017         40         14017         42         18132         33         21622         27         23183         11           11018         40         14018         42         18201         44         21625         27,80         23187         11'           11025         38         14019         42         18300         31         21626         27,80         23191         11'           11050         45         14035         42         18310         31         21626         27,80         23192         11'           11055         41         14042         36         18525         32         21628         28,81         23334         11'           11055         41         14042         36         18526         32         21629         28,81         23334         11'           1116         40         14043         36         18526         32         21629         28,81         23354         111,1           11205         38         14045         42         18528         32										
11015         45         14016         42         18131         33         21619         28,60         23171         11           11017         40         14017         42         18132         33         21622         27         23183         11           11018         40         14018         42         18201         44         21625         27,80         23187         11'           11025         38         14019         42         18300         31         21626         27,80         23191         11'           11050         45         14035         42         18310         31         21626         27,80         23192         11'           11055         41         14042         36         18525         32         21628         28,81         23334         11'           11055         41         14042         36         18526         32         21629         28,81         23334         11'           1116         40         14043         36         18526         32         21629         28,81         23354         111,1           11205         38         14045         42         18528         32	11012	45	14015	42	18130	33	21616	27	23167	117
11017       40       14017       42       18132       33       21622       27       23183       11         11018       40       14018       42       18201       44       21625       27, 80       23187       11'         11025       38       14019       42       18300       31       21626       27, 80       23191       11'         11050       45       14035       42       18310       31       21627       27, 80       23192       11'         11055       41       14042       36       18525       32       21628       28, 81       23334       11'         11116       40       14043       36       18526       32       21629       28, 81       23335       11'         11118       40       14044       36       18527       32       21630       28, 81       23354       111, 11'         11205       38       14045       42       18528       32       21630       28, 81       23354       111, 11'         1120       38       14046       42       18532       32       21631       28, 81       23355       11'         11210       38       1										
11018       40       14018       42       18201       44       21625       27, 80       23187       11         11025       38       14019       42       18300       31       21626       27, 80       23191       11'         11050       45       14035       42       18310       31       21627       27, 80       23192       11'         11055       41       14042       36       18525       32       21628       28, 81       23334       11         11116       40       14043       36       18526       32       21629       28, 81       23335       11         11118       40       14044       36       18527       32       21630       28, 81       23354       111, 11         11205       38       14045       42       18528       32       21630       28, 81       23355       11         11210       38       14046       42       18532       32       21631       28, 81       23376       11         11214       38       14047       36       18536       32       21632       28, 81       23376       11         11220       38       14050 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>231/1</td> <td> 11/</td>									231/1	11/
11018       40       14018       42       18201       44       21625       27, 80       23187       11         11025       38       14019       42       18300       31       21626       27, 80       23191       11'         11050       45       14035       42       18310       31       21627       27, 80       23192       11'         11055       41       14042       36       18525       32       21628       28, 81       23334       11         11116       40       14043       36       18526       32       21629       28, 81       23335       11         11118       40       14044       36       18527       32       21630       28, 81       23354       111, 11         11205       38       14045       42       18528       32       21630       28, 81       23355       11         11210       38       14046       42       18532       32       21631       28, 81       23376       11         11214       38       14047       36       18536       32       21632       28, 81       23376       11         11220       38       14050 </td <td>11017</td> <td>40</td> <td>14017</td> <td>42</td> <td>18132</td> <td>33</td> <td></td> <td></td> <td>23183</td> <td> 117</td>	11017	40	14017	42	18132	33			23183	117
11025       38       14019       42       18300       31       21626       27, 80       23191       11         11050       .45       14035       .42       18310       .31       21627       .27, 80       23192       .11         11055       .41       14042       .36       18525       .32       21628       .28, 81       23334       .11         11116       .40       14043       .36       18526       .32       21629       .28, 81       23335       .11         11118       .40       14044       .36       18527       .32       21630       .28, 81       23355       .11         11205       .38       14045       .42       18528       .32       .21631       .28, 81       23355       .11         11210       .38       14046       .42       18532       .32       .21632       .28, 81       23376       .11         11214       .38       14047       .36       18536       .32       .21632       .28, 81       23393       .11         11220       .38       14050       .42       18565       .33       .21634       .28, 81       23400       .11         11226 <td></td> <td></td> <td>14018</td> <td>42</td> <td>18201</td> <td>44</td> <td>21625</td> <td>27 80</td> <td>23187</td> <td>117</td>			14018	42	18201	44	21625	27 80	23187	117
11050         45         14035         42         18310         31         21627         27, 80         23192         11           11055         41         14042         36         18525         32         21628         28, 81         23334         11           11116         40         14043         36         18526         32         21629         28, 81         23335         11           11118         40         14044         36         18527         32         21630         28, 81         23354         111, 11           11205         38         14045         42         18528         32         21631         28, 81         23355         11           11210         38         14046         42         18532         32         21632         28, 81         23376         11           11214         38         14047         36         18536         32         21633         28, 81         23393         11           11220         38         14050         42         18565         33         21634         28, 81         23400         11           11225         39         14052         36         18566         33 <td></td>										
11055       41       14042       36       18525       32       21628       28, 81       23334       11         11116       40       14043       36       18526       32       21629       28, 81       23335       11         11118       40       14044       36       18527       32       21630       28, 81       23354       111, 11         11205       38       14045       42       18528       32       21631       28, 81       23355       11         11210       38       14046       42       18532       32       21632       28, 81       23376       11         11214       38       14050       42       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23393       11         11225       39       14052       36       18566       33       21634       28, 81       23400       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056 <td>11025</td> <td>38</td> <td>14019</td> <td>42</td> <td>18300</td> <td>31</td> <td></td> <td></td> <td>23191</td> <td> 117</td>	11025	38	14019	42	18300	31			23191	117
11055         41         14042         36         18525         32         21628         28,81         23334         11           11116         40         14043         36         18526         32         21629         28,81         23335         11           11118         40         14044         36         18527         32         21630         28,81         23354         111,11           11205         38         14045         42         18528         32         21631         28,81         23355         11           11210         38         14046         42         18532         32         21632         28,81         23376         11           11214         38         14047         36         18536         32         21633         28,81         23393         11           11220         38         14050         42         18565         33         21634         28,81         23393         11           11225         39         14052         36         18566         33         21634         28,81         23400         11           11226         39         14055         42         18569         32	11050	45	14035	42	18310	31	21627	27. 80	23192	117
11116       40       14043       36       18526       32       21629       28, 81       23335       11         11118       40       14044       36       18527       32       21630       28, 81       23354       111, 11         11205       38       14045       42       18528       32       21631       28, 81       23355       11         11210       38       14046       42       18532       32       21632       28, 81       23376       11         11214       38       14047       36       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23402       11         11238       40       14057 <td></td>										
11118       40       14044       36       18527       32       21630       28, 81       23354       111, 11         11205       38       14045       42       18528       32       21631       28, 81       23355       11         11210       38       14046       42       18532       32       21632       28, 81       23376       11         11214       38       14047       36       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067 <td></td>										
11118       40       14044       36       18527       32       21630       28, 81       23354       111, 11         11205       38       14045       42       18528       32       21631       28, 81       23355       11         11210       38       14046       42       18532       32       21632       28, 81       23376       11         11214       38       14047       36       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067 <td>11116</td> <td>40</td> <td>14043</td> <td>36</td> <td>18526</td> <td>32</td> <td>21629</td> <td>28, 81</td> <td>23335</td> <td> 113</td>	11116	40	14043	36	18526	32	21629	28, 81	23335	113
11205       38       14045       42       18528       32       21631       28, 81       23355       11         11210       38       14046       42       18532       32       21632       28, 81       23376       11         11214       38       14047       36       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21636       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067       42       18572       32       21644       28, 80       23405       11         11639       40       14068										
11210       38       14046       42       18532       32       21632       28, 81       23376       11         11214       38       14047       36       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067       42       18572       32       21644       28, 80       23405       11         11639       40       14068       42       18573       32       21645       28, 80       23407       11         11709       40       14069										
11214       38       14047       36       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067       42       18572       32       21644       28, 80       23405       11         11639       40       14068       42       18573       32       21645       28, 80       23407       11         11709       40       14069       42       18575       32       21646       27       23408       11	11205	38	14045	42	18528	32	21631	28, 81	23355	115
11214       38       14047       36       18536       32       21633       28, 81       23393       11         11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067       42       18572       32       21644       28, 80       23405       11         11639       40       14068       42       18573       32       21645       28, 80       23407       11         11709       40       14069       42       18575       32       21646       27       23408       11	11210	38	14046	42	18532	32.	21632	28 81	23376	115
11220       38       14050       42       18565       33       21634       28, 81       23400       11         11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067       42       18572       32       21644       28, 80       23405       11         11639       40       14068       42       18573       32       21645       28, 80       23407       11         11709       40       14069       42       18575       32       21646       27       23408       11										
11225       39       14052       36       18566       33       21635       28, 60       23401       11         11226       39       14055       42       18569       32       21636       27, 80       23402       11         11230       38       14056       42       18570       32       21637       27, 80       23403       11         11238       40       14057       42       18571       32       21638       27, 80       23404       11         11300       40       14067       42       18572       32       21644       28, 80       23405       11         11639       40       14068       42       18573       32       21645       28, 80       23407       11         11709       40       14069       42       18575       32       21646       27       23408       11										
11225       39       14052       36       18566       33       21635       28,60       23401       11         11226       39       14055       42       18569       32       21636       27,80       23402       11         11230       38       14056       42       18570       32       21637       27,80       23403       11         11238       40       14057       42       18571       32       21638       27,80       23404       11         11300       40       14067       42       18572       32       21644       28,80       23405       11         11639       40       14068       42       18573       32       21645       28,80       23407       11         11709       40       14069       42       18575       32       21646       27       23408       11	11220	38	14050	42	18565	33	21634	28, 81	23400	113
11226     39     14055     42     18569     32     21636     27, 80     23402     11       11230     38     14056     42     18570     32     21637     27, 80     23403     11       11238     40     14057     42     18571     32     21638     27, 80     23404     11       11300     40     14067     42     18572     32     21644     28, 80     23405     11       11639     40     14068     42     18573     32     21645     28, 80     23407     11       11709     40     14069     42     18575     32     21646     27     23408     11										
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OIL

# Air Operated Oil Pumps

# Part No

# Oil Pump, pressure ratio 1:1

Transfer pump for connection to bulk tank or drum. Remote stub pump version can be wall or floor mounted. Double acting air operated pump for transferring oil and non-corrosive liquids. Includes a bung adapter G2" (m).

#### Pressure ratio 1:1

Max 40 l/min., free flow, at 1,0 MPa, (10 bar) Capacity

Air pressure Max 1,0 MPa (10 bar) Connections G1/4"(f) Air:

Outlet G3/4" (f) Oil: Inlet (22700) G1" (f)

Weight (approx.) 22700 - 2,8 kg 22705 - 4,4 kg

# Description Stub pump

Stub pump with riser tube (1,2 m - 4ft) and foot valve air eliminator Barrel pump for 205 litre drums

22700 227004 22705



# Oil Pump, pressure ratio 3:1

Low pressure pump for the smaller oil distribution system and lower vicosity oils. Suitable for connection to a bulk tank or drum. Remote stub pump version can be wall or floor mounted. Double acting air operated pump for oil and noncorrosive liquids. Includes a bung adapter G2" (m).

# Pressure ratio 3:1

Max 22 l/min., free flow, at 1,0 MPa, (10 bar) Capacity

Max 1,0 MPa (10 bar) Air pressure G1/4" (f) Connections Air. Oil: Outlet G3/4" (f)

Inlet (22710) G3/4" (f)

22710 - 2,4 kg Weight (approx.)

22715 - 3,8 kg

Description Stub pump

22710 Stub pump with riser tube (1,2 m - 4ft) and foot valve air eliminator 227104 22715

Barrel pump for 205 litre drums

# 22710

22715

# Oil Pump, pressure ratio 5:1

Medium pressure pump for the larger oil distribution system and higher viscosity oils. Suitable for connection to a bulk tank or drum. Remote stub pump version can be wall or floor mounted. Double acting air operated pump for oil and noncorrosive liquids. Includes a bung adapter G2" (m).

#### Pressure ratio 5:1

Max 38 l/min., free flow, at 1,0 MPa, (10 bar) Capacity

Max 1,0 MPa (10 bar) Air pressure Connections G1/4" (f) Air: Outlet G3/4" (f) Oil:

Inlet (22750) G1" (f) 22750 - 4,9 kg

Weight (approx.) 22752 - 6,5 kg

Description

Stub pump 22750 Stub pump with riser tube (1,2 m - 4ft) and foot valve air eliminator 227504 Barrel pump for 205 litre drums 22752 Pump for tank, max depth 1 500 mm 227521550

NOTE! Do not use any air operated pump for volatile or highly inflammable liquids like Petrol (Gasoline).

\*\* The 3:1 and 5:1 pump are equipped with a pressure relief valve. The use of a Pressure Relief Valve protects the system components against excessive system pressure which can result from heat expansion.

(1°C temperature increase results in approx. 10 bar increase in the static system pressure)





# Air Operated Oil Pumps

# Part No

# Oil Pump, pressure ratio 15:1

High pressure oil pump for applications requiring higher pressure and lower flow rates. Suitable for connection to a bulk tank or drum. Remote stub pump version can be wall or floor mounted. Double acting air operated pump for oil and non-corrosive liquids. Includes a bung adapter G2" (m).

Pressure ratio 15:1

Capacity Max 15 l/min., free flow, at 1,0 MPa, (10 bar)

Air pressure Max 1,0 MPa (10 bar) Connections Air: G1/4 "(f) Oil:

Outlet G3/4" (f) Inlet (22760) G3/4" (f)

Weight (approx.) 22760 - 4,7 kg 22762 - 6,4 kg

Description Stub pump

Barrel pump for 205 litre drums

22760 22762



# Oil Pump, pressure ratio 10:1

High pressure oil pump for applications requiring higher pressure and higher flow rates. Suitable for connection to a bulk tank or drum. Remote stub pump version can be wall or floor mounted. Double acting air operated pump for oil and non-corrosive liquids.

Pressure ratio 10:1

Max 40 l/min., free flow, at 0,7 MPa, (7 bar) Capacity

Air pressure Max 1,0 MPa (10 bar) Connections Air: Oil:

Outlet G3/4" (f) Inlet (22410) G11/2 "(f)

Weight (approx.) 22410 - 14 kg

22410



#### Description

Stub pump, use wall bracket 28554



Low pressure high performance oil pump for applications requiring higher flow rates. Suitable for connection to a bulk tank or drum. Can be wall or floor mounted. Double acting air operated pump for oil and non-corrosive liquids.

Pressure ratio 2:1

Capacity Max 60 l/min., free flow, at 1,0 MPa, (10 bar)

Max 1,0 MPa (10 bar) Air pressure Connections Air: G1/4"(f) Outlet G3/4" (m)

Inlet G3/4" (m)

Weight (approx.) 22780 - 10 kg



High Performance 2:1 Oil Pump

22780





OIL



#### **Electric pump** Part No **Electric Pump for Oil** Self-priming electric gear pump, with built in by-pass and pressure switch for controlled oil dispensing. The pressure switch switches the pump on/off automatically when the oil valve is open/closed. Suitable for use with hydraulic oil, gear oil and other lubricating oils. Inlet: G3/4"(f) Outlet: G1"(f). Voltage: 230 V, 50 Hz. Capacity\* Max pressure Min pressure **Engine power** 52510 9,5 l/min 12 bar 6 bar 0,6 kW 52515 0,78 kW 13 l/min 16 bar 6 bar 25 bar 0,78 kW 52520 9.5 l/min 6 bar \* Engine oil (SAE 10W30) at 20C **Pressure Relief Valve** For protection of equipment against system pressure increase due to heat expansion. (1°C increase in temperature can cause 1,0 MPa, 10 bar increase in system pressure). Our 3:1 and 5:1 oil pumps are fitted with a pressure relief valve as standard. Description Information Pressure relief valve Releases pressure at 6 MPa (60 bar), with the 28623 possibility to connect a 1/4" hose or R1/8" fitting. Banjo fitting G 3/4" (m/f) and G1/4" (f) to fit the PRV to 28629 pumps without special PRV connection 28629 **Pressure Relief Hoses** Description Made of PVC to connect the PRV to a drum, L = 1.5 m, wo fittings. 28637 Made of PVC to connect the PRV to a tank, L = 3 m, with fittings. 28638 28637 28638 **Connection Oil Hoses** Connection hose of Nitrile rubber, wire braided, swaged 28078 couplings with swivelling nuts and adapter. Description Tank connection hose, Length 1,0 m, with one straight coupling, G1". 28078 28080 Tank connection hose, Length 1,0 m, with one straight and one 28080 90°-angle coupling, G1". Mainly used with pumps mounted in floor stands. Oil connection hose, Length 1,5 m, with two straight couplings, G1" and 28079 Tank connection hose, Length 2,5 m, with one straight and one 28272 90°-angle coupling, G3/4". Mainly used with pumps mounted in floor **Drum Suction Attachments** Riser tube with foot valve and G2" bung adapter, hose 1" i.d., with swaged couplings G1" swivelling nut incl. two adapters, G1" (m) - G1" (m) and G1" (m) - G3/4" (m). 28310 Riser tube length Hose length 1,08 m 2,0 m 28310 1,7 m 2,0 m28311 5,0 m (max tankheight 3 m) 28321

	Installation Kits for 227-series Pumps	Part No	
	Drum Pump Installation Kit Components for a drum mounted air operated oil pump. (205 litre drum or tank)  Information Air line hose 1,5 metre x 1/4" bore hose Oil line hose 1,5 metre x 3/4" bore hose Note! Pump not included.	99625	1 2 1500mm 3 1500mm 6
te to contact us!	Wall mounted Pump Installation Kit Components for a remote wall mounted air operated oil pump with drum suction attachment (205 litre drum)  Information Air line hose 1,5 metre x 1/4" bore hose Oil line hose 1,5 metre x 3/4" bore hose Drum suction attachment (28310) with 2,0 metre hose and 1,0 metre tube.  Note! Pump not included.	99626	1 2 5 4 2 7 - 5 0 1000m 1000m 1000m 1000m
for tanks, don't hesitate to contact us!	Wall mounted Pump Installation Kit Components for a remote wall mounted air operated oil pump with a suction hose connected to the bottom tank outlet  Information Air line hose 1,5 metre x 1/4" bore hose Oil line hose 1,5 metre x 3/4" bore hose Oil suction hose (28078) 1,0 metre hose  Note! Pump not included.	99627	5 42 7 4 5 7 6 8 6 9 10 112 11311
If you have a need for	Floor mounted Pump Installation Kit Components for a remote floor mounted air operated oil pump with a suction hose connected to the bottom tank outlet  Information Air line hose 1,5 metre x 1/4" bore hose Oil line hose 1,5 metre x 3/4" bore hose Oil suction hose (28080) 1,0 metre hose  Note! Pump not included.	99628	
_	Wall mounted Pump Installation Kit Components for a remote wall mounted air operated oil pump with a tank suction attachment  Information Air line hose 1,5 metre x 1/4" bore hose Oil line hose 1,5 metre x 3/4" bore hose Oil suction attachment (28311) 2,0 metre hose and 1,7 metre tube.  Note! Pump not included.	99629	1 2 1 3 5 42 7 6 8 9 2000m



# Installation Accessories

# Part No

# Pump Tubes for Drum and Tank Mounted Pumps, including a Foot Valve Air Eliminator

All the pump tubes listed below are designed for use with our stub pumps when installed in metered circuits for resale purposes.

Description	For pump	
Pump tube for 205 litre drum	22700, 27750	28315
Pump tube for 205 litre drum	22710	28316
Pump tube for 1,2 metre (4 ft) deep tank	22700, 22750	28317
Pump tube for 1,2 metre (4 ft) deep tank	22710	28318

Pump tubes including a Foot Valve Air Eliminator for Wall Mounted Stub Pump Applications, with priming facility and non-return valve when using a remote pump. G3/4"(f)

# Description

Pump tube for 1,2 metre (4 ft) deep tank	28319
Pump tube for 1,8 metre (6 ft) deep tank	28320



# **Bung Adapters**

With split collars for pump tube diameters shown below. G2" (m) thread for drum or drum covers.

#### For pump tube

diameter	Fits Orion pump models	
32	22710, 22715, 22760, 22762	28585
50	22700, 22705, 22720, 22725, 22750, 22752	28595
52	22802	28592
54	22770, 22775, 22410, 22412	2125753



# **Air Treatment Units**

Description	Conn. thread	Consist of:	
Air Treatment Unit	G1/4" (f)	42107, 42009, 42110, 301296	42103
Accessories:			
Bracket for Air Treatm	ent Unit mounted	on top of 22750-60 series pumps.	2026154
Air hose for Air treatm	nent unit		2226155



# **Air Line Hoses**

For connection of air motor to air ring main, made of armoured PVC, max. working pressure 1,5 MPa (15 bar), swaged couplings; one with swivelling nut and connection adapter (male/male).

Description	Hose Diameter	Length	Conn. thread	
Air line hose	1/4" i.d.	1,5 m	G1/4"(m)	48001
Air line hose	1/4" i.d.	3 m	G1/4"(m)	480013M
Air line hose	3/8" i.d.	1,5 m	G3/8"(m)	48002
Air line hose	3/8" i.d.	3 m	G3/8"(m)	480023M
Air line hose	1/2" i.d.	2 m	G1/2"(m)	48017





OIL

Installatio	on Aco	cessories		Part No	
Drum Co	over P	rotection (205	itre Drums		
		nd surroundings clear			
•	Diam.	Absorbing capacity	Weight/box		
	Ø56cm	2 l/sheet	3,6 kg	DTA25	
	Ø56cm	2 l/sheet	145 g	DTA1	
Pressure	Poliof	. Valvo			
		ipment against system	nressure in-		1
•		pansion. (1°C increase	•		T.
		0 bar increase in syste	-		
		s are fitted with a pres		_	
as standard.	ni punip	s are nitted with a pres	suic iclici vaive		28623
					_
Description		formation	() hor) with the	28623	
Pressure relief v		eleases pressure at 6 MPa (6 ossibility to connect a 1/4" h		28023	
	_		_		
Banjo fitting		3/4" (m/f) and G1/4" (f) to		28629	
	pι	imps without special PRV co	onnection		28629
Pressure	Palia	Losos			
	Nellel	1 10262			
Description  Mode of DVC t		the DDV to - J I 1 "	m 644:	20/27	
		the PRV to a drum, $L = 1.5$		28637	
made of PVC to	connect 1	the PRV to a tank, $L = 3 \text{ m}$ ,	with nuings.	28638	
					28637 28638
Connecti	on Oi	l Hoses			
Connection l	nose of l	Nitrile rubber, wire bra	ided, swaged		28078
		elling nuts and adapter.			267
Description					
-	hose, Le	ngth 1,0 m, with one straigh	t coupling, G1".	28078	28080
		ngth 1,0 m, with one straigh		28080	
	-	Mainly used with pumps mo			
Oil connection l G3/4"	iose, Leng	gth 1,5 m, with two straight	couplings, G1" and	28079	
Tank connection	n hose, Le	ngth 2,5 m, with one straigh	t and one	28272	28079
90°-angle coupl	ing, G3/4'	'. Mainly used with pumps r	nounted in floor	20212	20077
stands.					
Drum Su	ction	Attachments			
		valve and G2" bung ac	dapter, hose 1"		
		uplings G1" swivelling			1/ \
		G1" (m) and $G1$ " (m) -			20210
1,	` '	( ) 2- ()	<i>\ \ \ \</i> .		28310
Riser tube leng	rth	Hose length			
1,08 m	,	2,0 m		28310	
1,00 m		2,0 m		28310	
		5,0 m (max tankheight	3 m)	28321	
	_		_		28524
		and Floor Stand			
For mounting	g of pun	np. Pump mounting the	read G2" (f).		400
Description					
Wall bracket				28524	2855
Floor stand				28506	
	22410			28554	28506
Wall bracket for					





#### **Installation Accessories** Part No **Oil Filters** For mounting in pipe lines to prevent damage due to contamination. Body of aluminium. Description Conn. thread Strainer rating Max pressure 24661 Oil filter G3/4" (f) 20 μm 6 MPa (60 bar) Oil filter G3/4" (f) $10 \mu m$ 6 MPa (60 bar) 24662 Cartridge for 24662 $10 \mu m$ 2345893 Cartridge for 24661 $20 \mu m$ 2345892 **Oil Strainers** For mounting in pipe lines to prevent meters being damaged due to contamination. Washable cartridge of stainless steel. Max 5 MPa (50 bar). Conn. threads Strainer rating **Body** material 28022 28022 G1/2 "(f) $200 \mu m$ Brass 28059 28059 G3/4" (f) 200 µm Brass 24583 24583 In G3/4" (f) - Out G1/2 (f) $25 \mu m$ Aluminium **Shut-off Valves** Ball-valves made of brass with PTFE-seals, long or short levers, intended for oil and air lines. Conn. thread (f) Lever G3/8" 6,4 MPa (64 bar) Long 30101117 G1/2" 6,4 MPa (64 bar) Long 30101093 G3/4" 30101111 4,0 MPa (40 bar) Long G1" 4,0 MPa (40 bar) 30101081 Long G 1 1/4" 2,5 MPa (25 bar) Long 30101087 G 1 1/2" 30101084 2,5 MPa (25 bar) Long G2" Long 30101102 2,5 MPa (25 bar) G1/4" 6,4 MPa (64 bar) Short 30101129 30101144 G3/8" 6,4 MPa (64 bar) Short G1/2" 6,4 MPa (64 bar) Short 30101123 **Connection Adapters** Required when connecting hoses to pumps. Description 0101-16-12 Adapter, G1" (m) - G3/4" (m) 25102065 0101-16 Adapter, G1" (m) - G1" (m) 25102011 **Hose Reel, inlet Strainer Connection Kits** For installation in pipe lines to prevent damage due to contamination. Makes it easy to carry out maintenance on meters, valves etc. Includes strainer, valve, adapter and 2 dowty seals. Description Conn. thread Conn.kit G1/2" (f.) For 3/8" or 1/2" reels 99633 Conn. kit G3/4" (f.) For 3/4" or 1" reels 99634



#### **Spring Operated Hose Reels** Part No Series ORK, ORM Open hose reel with a steel braided hydraulic hose, fitted with swaged couplings. Diameter Length Conn. threads Working Pres. mm-inch MPa bar m 24911 Series ORK G1/2"(f) 10 12,5 - 1/2" 7,5 75 24922 Series ORM 12.5 - 1/2" 7.5 75 15 G1/2"(f) **Series ORS** Open singel arm hose reel made in aluminium with a steel braided hydraulic hose, fitted with swaged couplings. Conn. threads Length Diameter Working Pres. mm-inch MPa bar m Series ORS 10 G1/2"(f) 724911 12.5 - 1/275 7,5 724922 12,5 - 1/2" G1/2"(f) 7,5 75 Series ORS 15 **Series ORL** More information in the Hose reel section! Heavy duty open hose reel with longer hose lengths, fitted with swaged couplings. Length Diameter Conn. threads Working Pressure mm-inch m MPa bar 24931 Series ORL 20 12,5 - 1/2" G1/2"(f) 7,5 75 24932 Series ORL 15 19-3/4" G3/4"(f) 7,5 75 **Series OR** Open hose reel with longer hose lengths, fitted with swaged couplings. Length Diameter Conn. threads Working Pressure mm-inch MPa bar m 24920 Series OR G1/2"(f) 12,5 - 1/2 20 60 **Series LOR** Open hose reel with steel braided, oil resistant rubber hose. Length Diameter Conn. threads Working Pressure mm-inch MPa bar m 24941 Series LOR 25 12,5 - 1/2" G1/2"(f) 6 60 24943 Series LOR 20 19-3/4" 60 G3/4"(f) 6 24945 Series LOR 15 25 - 1" G1"(f) 60 **Series CRM** A medium sized enclosed hose reel. The hose reel can be mounted on the ceiling, the wall or the floor. The wall bracket can easily be moved to fit other installations. Length Diameter Conn. threads Working Pressure m mm-inch **MPa** bar 924905 Series CRM 15 10 - 3/8" G3/8"(f) 7,5 75 924910 Series CRM 12,5-1/2" 75 G1/2"(f) 7,5 **Series CR** Enclosed hose reels with swaged couplings. Length Diameter Conn. threads Working Pressure m mm-inch MPa bar 24905 Series CR 15 10 - 3/8" G3/8"(f) 60 6 12,5-1/2" 24910 Series CR 10 G1/2"(f) 60 6

# **Distribution Kits**

# Part No

28330

28331

28332

# Distribution Kit for drum with wall mounted pump, cased hose reel and hose end meter

Consisting of pump 22710, hose reel 924910, hose end meter 24780, air treatment unit 42103 and fittings.

Description	Connection Hose length
-------------	------------------------

Distribution kit 2 metre
Distribution kit 4 metre
Distribution kit 6 metre



# Distribution Kit for drum with drum pump, cased hose reel and hose end meter

Consisting of pump 22715, hose reel 924910, hose end meter 24780, air treatment unit 42103 and fittings.

Distribution kit 2 metre
Distribution kit 4 metre
Distribution kit 6 metre





Distribution Hoses ar	nd Kits		Part No	
<b>Distribution Hoses fo</b> Nitrile rubber hoses, 1/2" i.d. (138 bar), swaged couplings connection adapters, G1/2" (r - G3/4" (m).	steel braide G1/2" swive	elling nuts, incl. two		
Hose leng	gth	2 m 3 m 4 m 5 m 6 m 8 m	28009 28010 28011 28012 28013 28015	
Hose Storage Rack Designed for max. 30 m x 1/2 finished with brown epoxy la Two fixing holes ø6 mm for v Dimensions: approx. 200 x 36	cquer. vall mountir	ng.	28251	
Hose Storage Bracke	ts			p 9
<b>Description</b> A wall mounting bracket for storage etc. Two fixing holes ø5 mm.	of hoses, tools		6027	6027
For fixing to the wall to support hose the work area. Two fixing holes ø5 m		e would interfere with	28185	
Hose Reel Distribution	n Kits			
These kits consist of an oil str control options and drip pock	rainer, shut-o			\$-0- <b></b> -0-0
Hose end control/Part no	onn. Thread	11 1		
Oil control valve 24560 Oil control valve 2468010	G 1/2" G 1/2"	29020 29020	99635 99636	
Oil control valve 2468050	G 1/2 G 1/2"	29020	99637	
Oil control valve 24563	G 3/4"	29020	99638	<u> </u>
Digital commercial meter 2470010	G 1/2"	29020	99640	A A
Digital commercial meter 2470050	G 1/2"	29020	99641	
Digital commercial meter 24780	G 1/2"	29020	99642	
Digital pre-set meter 2470210	G 1/2"	29020	99645	
Digital pre-set meter 2470250	G 1/2"	29020	99646	
Digital Board of Trade approved meter 24101/D	G 1/2"	29020	99604	
Do not forget the ree	el!			





#### Oil Control Valves and Meters Part No **Hose End meters** Hose End Meter complete with swivel, inlet strainer, outlet hose 24786 (mechanical) and non-drip nozzle Hose End Meter complete with swivel, inlet strainer, outlet hose 24780 battery and non-drip nozzle Hose End Meter complete with swivel, inlet strainer, battery, 2470010 rigid outlet tube, and non-drip nozzle Hose End Meter complete with swivel, inlet strainer, 2470050 battery, non-drip nozzle and adjustable outlet hose Preset Hose End Meter complete with swivel, inlet strainer, battery, 2470210 rigid outlet tube and non-drip nozzle Preset Hose End Meter complete with swivel, inlet strainer, battery 2470250 non-drip nozzle and adjustable outlet hose 2470050 2470250 For other meter configurations refer to the Hose End Control section! Oil Control Valve Control valve made in aluminium, large flow capacity. Max pressure: 10,5 Mpa (105 bar). Swivel included. Inlet G1/2"(f). Description Oil Control Valve without outlet tube 24675 with 60° rigid tube and semi-automatic nozzle Oil Control Valve 24560 Oil Control Valve with hose and semi-automatic nozzle 24561 Oil Control Valve with 90° rigid tube and automatic nozzle 24562 Oil Control Valve with 135° rigid tube and automatic nozzle 24564 **Control Valve** The control valve has an inlet strainer which minimizes the 2468010 contamination risk. Max working pressure 5 MPa (50 bar), inlet G1/2" (m). Description Control Valve Rigid outlet (24170), non drip nozzle (24527) and 2468010 swivel (24586). 468050 Control Valve Hose outlet (2285346), non drip nozzle (24527) 2468050 and swivel (24586).

# For other control valve configurations, refer to the Hose End Control section!

# Oil Control Valve

High volume oil control valve for high flow of lubricants. Two-valve operation. Lockable trigger. Ball bearing swivel. Rigid outlet with semi-automatic non-drip nozzle.

Maximum flow Maximum pressure: Inlet thread: 48 l/min 10 MPa (100 bar) G3/4"(f) 24563



# **Drip Holsters**

To protect hose end meters and control valves when not in use and to collect any oil drips.

Description Drip holster 29020 Drip holster 29600 Drip holster 29085 Drip holster 29095







# If you have a need for Oil Dispensers in other configurations don't hesitate to contact us!

# Mobile Oil Dispensers, Air Operated

# Part No

26016 25016

# De-luxe Mobile Oil Dispensers for 20 and 60 litre drums

Consisting of a pump, fitted to the lid of a protective container, oil hose and oil control valve. The container is mounted on a trolley fitted with two large rubber wheels and two swivel castors.

Oil pump/ pressure ratio.	For drum	Max. drum- diameter	Length oil hose	LxWxH (mm)	Weight (approx.)
22705/1:1	60 litre	ø 405 mm	3 m	650x510x1280	23 kg
22700/1:1	20 litre	ø 320 mm	2 m	400x400x800	15 kg
Hand numr					

Hand pump

Accessories:

Description	For De-Luxe	Dimension	
Empty 60 litre drum*	26006, 26016	ø 365 x 680 mm	2345386
Empty 20 litre drum*	25006, 25016	ø 295 x 375 mm	1825106
* Inner container			



# Mobile Oil Dispensers for 60 litre drums

Consisting of an oil pump 22705, 1/2" oil hose (3m) with hose end meter and drum trolley 28526 or 28528.

Description	Dimension (WxDxH)	Del. with trolley	Hose end meter	
Oil dispenser	450 x 620 x 1200 mm	28528	24700	22052
Oil dispenser	500 x 450 x 1250 mm	28526	24700	22053
Oil dispenser	450 x 620 x 1200 mm	28528	24780	22152
Oil dispenser	500 x 450 x 1250 mm	28526	24780	22153
Oil dispenser Oil dispenser	500 x 450 x 1250 mm 450 x 620 x 1200 mm	28526 28528	24700 24780	22152



# Mobile Oil Dispensers for 200 litre drums

Consisting of an oil pump 22705, 1/2" oil hose (3m) with hose end meter and drum trolley.

Description	Dimension (WxDxH) Del.	with trolley	Hose end meter	
Oil dispenser	800 x 620 x 1200 mm	28276	24700	22054
Oil dispenser	800 x 620 x 1200 mm	28645	24780	22154
Oil dispenser	800 x 620 x 1200 mm	28276	24780	22155



# **Mobile Oil Dispensers for 200 litre drums**

Consisting of an oil pump 22715, 1/2" hose reel 924910 with hose end meter and drum trolley.

Description	Dimension (WxDxH) Del.	with trolley	Hose end meter
Oil dispenser	800 x 620 x 1200 mm	28645	24780





OIL

#### **Mobile Oil Dispensers** Part No Mobile Oil Dispensers for 20 and 60 litre Trolley (28528) with chain for holding 60 litre drums with two \u03b4 155 mm wheels. Pump delivered with 1,5 m outlet hose and hooked outlet nozzle. Description Dimension (WxDxH) Pump Hose 21656 Oil dispenser 450 x 230 x 1200 mm 21650 28569 21507 21506 24599 Oil dispenser 450 x 230 x 1200 mm 40801327 21656 Strap 1,5 meters long for small kegs 21507 Mobile Oil Dispenser for 60 litre drums with Heavy Duty Trolley Trolley (28526) with tubular drum support and a clamp screw for fixing the drum, two ø 75 mm swivel castors and two ø200 mm wheels. Pump (21650) delivered with 1,5 m outlet hose (28569), shut-off valve and hooked outlet nozzle. Description Dimension (WxDxH) Del. with trolley Oil dispenser 500x450x1060 mm 28528 21658 Mobile Oil Dispenser for 200 litre drums Consists of a hand operated oil pump (21503), 1/2" oil hose (1,5m) with 135° angled spout, valve and drum trolley. Description Dimension (WxDxH) Del. with trolley Oil dispenser 450 x 620 x 1200 mm 28645 21504 **Mobile Oil Dispenser** Mobile steel container with G2" (f) pump mounting thread. ø30 mm filler hole, sight gauge and two ø100 mm (4") wheels. Complete with hand operated oil pump, 1,2 m hose and straight ø20 mm outlet tube. Description Volume Capacity Dim. (mm) Weight LxWxH (approx.) (approx.) (approx.) 350x 380x780 12,2 kg Mobile oil dispenser 241 0.1 l/stroke\* 21017 \* Engine oil, +20°C. **Mobile Oil Dispenser** Air operated oil dispenser, comprising of a steel container with G2" (f) pump mounting thread, fitted with a compressed air connection and pressure gauge, ø30 mm filler hole, sight gauge and two ø100 mm wheels. Pre-load the container with compressed air 0,3-0,7 MPa (3-7 bar), and the dispenser can be used without permanent connection to air pressure. Max. admissible tank capacity is 3/4 of total capacity. Complete with 1,2 m hose and oil control valve 24560. Description Volume Dim. (LxWxH) Weight (approx.) 21036 approx. 24 l 350 x 380 x 780 mm Oil dispenser 11.5 kg



# **Hand Operated Pumps**

# Part No

# **Portable Oil Dispensers**

Portable oil pump fitted to a 16 litre container with carrying handle. Supplied with a 1,5m hose and angled outlet tube.

		Dimension	Capacity	Weight	
Description	Container	(LxWxH)	(approx.)*	(approx.)	
Oil dispenser	OriCan	400x150x630 mm	0,04 l/stroke	5,0 kg	21574
Oil dispenser	OriCan	400x150x900 mm	0,1 l/stroke	5,0 kg	21578
Oil dispenser	OriCan	400x150x900 mm	0,15-0,25 l/stroke	5,0 kg	21670
Oil dispenser	Oval steel	380x170x700 mm	0,1 l/stroke	7,85 kg	21016
Oil dispenser	Round stee	el490x240x730 mm	0,13 l/stroke	6,5 kg	21015

<sup>\*</sup> Engine oil, +20°C.





# Oil Dispensing Valve for Pump Installation

The valve is mounted direct on the pump outlet. To be used for filling of measures and cans.

**Description**Oil dispensing valve

Connection thread
G3/4"

Note! Order pump separately!



# Oil Bar

Oil dispensing bar for 1 to 4 products. Delivered with 1 valve for 1 product. Can be fitted with up to 4 valves for 4 different products.

DescriptionDimension (W x D x H)Oil dispensing bar460 x 300 x 580 mm

Extra valve kit

24101 24509





OIL

# Distribution Kits for 1000 Litre Containers Part No

# **Distribution Kit**

1:1 ratio air operated oil pump (22700) mounted on a bracket on the side on the container. The pump outlet is fitted with a shut off valve with hooked outlet nozzle for dispensing directly into measures or containers.

Note! Delivered without the container.

Bracket only

SPEC206 IBCT

92126



# **Distribution Kit**

3:1 ratio air operated oil pump (22710) mounted on a bracket on the side on the container. The pump outlet is fitted with a 3 metre  $\frac{1}{2}$ " distribution hose and digital hose end meter (24780).

Note! Delivered without the container.

Bracket only

SPEC206 IBCM

92126

SPEC206

**IBCRM** 



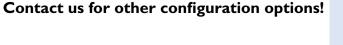
# **Distribution Kit**

3:1 ratio air operated oil pump (22715) mounted on a bracket on top of the container. Supplied with a 10 metre ½" hose reel (24911) and digital hose end meter (24780).

Note! Delivered without the container.

Bracket only 92128







# OriPac, Portable oil distribution system

# **OriPac**

OriPac incorporates 75 or 150 litres container, an air-operated oil pump (pressure ratio 3:1), built-in filter (20  $\mu$ m) and hose reel with 10 m x 1/2"-hose, complete with oil control valve.

OriPac 150L also includes an air supply hose reel, with 15 m 3/8"-hose. For filling of the OriPac container from barrel or tank a vacuum pump and hose kit can be supplied.

- Easily adaptable to a wide variety of applications due to the modular construction using standard "add-on" components.
- Complete and ready to use. No additional equipment needed.
- The containers are designed to fit Euro pallets, 800 x 1200 mm.
- Reinforced containers make it possible to use vacuum pumps for filling.
- Closed system gives an improved working environment and as a consequence reduces machine wear.
- Built-in 20 µm oil filter to eliminate contamination.

OriPac units can be combined, temporarily or permanently, and may also be mounted on Euro pallets. Mounting on pallets makes them easy to transport to the machines needing service. It is possible to use the container as a waste oil tank thus minimising the risks associated with contaminated oil causing increased wear and breakdown of machinery.

# Disadvantages of uncontrolled oil handling

- Risk of confusion when several oil grades are used.
- · Difficulty in using the economic advantage of bulk oil purchase
- Pollution of working environment.
- · Increased risk of skin allergies for work force.
- Difficulty of recruiting personnel for maintenance jobs.
- Negative effect on the environment through risk of direct dumping into the sewage system.
- Waste oil must be collected and disposed of.

# OriPac is designed for closed oil handling

# OriPac 75

OriPac 75 incorporates a 75 ltr capacity container, an air operated oil pump (pressure ratio 3:1), built-in filter  $(20\mu\text{m})$ , level indicator and hose reel with 10 m of 1/2" hose complete with oil control valve.

DescriptionVolumeWeight (approx.)Dimension (LxWxH)OriPac 7575 litre58 kg (empty)595 x 260 x 1300 mm

# OriPac 150

OriPac 150 incorporates a 150 ltr capacity container, an air operated oil pump (pressure ratio 3:1), built-in filter (20 $\mu$ m), level indicator and hose reel with 10 m of 1/2" hose complete with oil control valve.

DescriptionVolumeWeight (approx.)Dimension (LxWxH)OriPac 150150 litre90 kg (empty)595 x 520 x 1300 mm

# OriPac 150L

OriPac 150L incorporates a 150 ltr capacity container, an air operated oil pump (pressure ratio 3:1), built-in filter (20 $\mu$ m), level indicator and hose reel with 10 m of 1/2" hose compete with oil control valve. Also included is an additional air supply hose with 15 m x 3/8" hose.

DescriptionVolumeWeight (approx.)Dimension (LxWxH)OriPac 150L150 litre105 kg (empty)595 x 520 x 1300 mm







# **Hand Operated Pumps**

# Part No

# **Rotary Pump for Oil**

Rotary pump made of cast iron with ø26 mm outlet pipe and G2" (m) bung adapter.

Description	Suction tube length	Suction tube diam.	Capacity (approx.)**	Weight (approx.)	
Rotary pump	900 mm	ø 32 mm	0,25 l/turn	5,1 kg	21205

\*\* Engine oil, +20°C.

# Rotary Pump for Oil, Water Based Fluids and Other Chemicals

Rotary pump made of polypropylene with ø27 mm outlet pipe and G2" (m) bung adapter.

Description	Suction tube length	Suction tube diam.	Capacity (approx.)**	Weight (approx.)	
Rotary pump	tube in 3 sections	ø 44 mm	0,3 l/turn **	1,8 kg	21200

\*\* Engine oil, +20°C.

# **Drum Pump**

For transfer of oil and non corrosive fluids from 60 litre (110 lbs) and 205 litre (400 lbs) drums. Made of aluminium and steel with Nitrile seal, rigid outlet pipe, bung adaptor and telescopic suction tube. Capacity 0,45 l/stroke (0.12USG/stroke) approx. 16 l/min (4 1/4 USG/min)

Description	For drum	Capacity (approx.)**	
Drum pump, telescopic	60 to 200 litres	0,45 l/stroke	21012
** Engine oil, +20°C.			

# **Drum Pump**

Medium pressure lever pump for high viscosity lubricants. For transfer of oil and non corrosive fluids from 60 litre (110 lbs) and 205 litre (400 lbs) drums. Made of steel with Nitrile seal and rubber hose (1,5 m) with angled spout and valve. Capacity 0,1 l/stroke.

		Capacity	
Description	For drum	(approx.)**	
Drum pump with outlet hose	20 litres	0,1 l/stroke	21500
Drum pump with outlet hose	60 litres	0,1 l/stroke	21506
Drum pump with outlet hose	200 litres	0,1 l/stroke	21503
Outlet hose, 1,5 meters, with 13	5° angled spout and va	llve	24599

\*\* Engine oil, +20°C.

# Gear Oil Pump for 20 - 25 I Containers

Liftpump for high viscosity lubricants. For transfer of oil and non corrosive fluids from 20 to 25 litre containers. Made in steel and plastic with nitrile seals, delivered with a rubber hose (1,5 m) with angled spout and valve. G2"(m)

Capacity

		Cupucity	
Description	For drum	(approx.)	
Gear oil pump w hose	20 - 25 litres	0,2 l/stroke	21023





# **Hand Operated Pumps**

# Part No

# **Drum Pumps**

Pump with a telescopic (500-900 mm) suction tube. The lever can be mounted in different positions to change the stroke length and output. Delivered with a bung adapter G2"(m). Capacity 0,15 to 0,25 litres/stroke.

Pump-only , outlet thread G 1/2" (m) with telescopic suction tube

- with outlet hose 1,5 m (24599) and hooked outlet nozzle

- with In-Line Meter - (24720) for mounting between the pump and outlet hose 1,5 m (24599) with hooked outlet nozzle



# **Drum Pumps**

The lever can be mounted in 3 different positions to change the stroke length and output capacity, see below. Delivered with telescopic suction tube, G2" and G1 1/2" bung adapter. Suction tube length 340-900 mm, diameter 40 mm.

Description	Colour	Material pumpl	Mtrl Rod	Weight (approx)	
Drum pump	black/blue	Polypropylene	Steel	0,85 kg	21210
Drum pump	black/green	Polypropylene	Steel	0,85 kg	21211

# Capacity (Engine oil 20°C)

Lever mounted in position: 1. 0,3 l/stroke, 2. 0,37 l/stroke, 3. 0,45l/stroke



Drum pump with telescopic suction tube. Made of polypropylene and polyethylene with Nitrile rubber seals. G2" (m) bung adapter and outlet with 3/4" hose socket for max. 2 m long hose with open exit.

nose with	open exit.				
Description	Colour	Suction tube length	Suction tube diam.	Capacity (approx.)**	
Drum pump	black/blue	480 - 950 mm	ø27 mm	0,3 l/stroke	21022
Drum pump	black/green *	480 - 950 mm	ø27 mm	0,3 l/stroke	2102220



# **Drum Adapters and Accessories**

Description	Inform	ation
-------------	--------	-------

\*\* Engine oil, +20°C.

Description	inioi mation	
Adapter *	G2" (f) -Trisure ø 55 mm, pitch approx. 4 mm (m)	28235
Adapter	G2" (f) -Multi adapter with locking screw ø55-65 mm(f)	28236
Adapter	G2" (f) -Midland	28234
Adapter	G2" (f) - Mauser ø 68 mm, pitch approx. 6 mm (m)	28238
Adapter*	G2" (f) - Berg ø 53 mm, pitch approx. 3,5 mm (f)	28239
Adapter	G2" (f) - DIN 70 (f)	2310035
Adapter	G2" (f) - Mobil 20 l container	2310034
Adapter	G3/4" (f) - Trisure ø 55 mm, pitch 4 mm (m)	2310037
Adapter	G3/4" (f) - DIN 70 (f)	2310038
* For 21022	only	

<sup>2310037</sup> 2310038





28230









Hand Operated Pumps				erated Pumps Part No	
Drum Pun Drum pumps r G2" (m) bung Description Drum Pump Drum Pump	nade of Polypro		al in contact e liquid	21027 21047	21028 21048 21047
Drum Pump Drum Pump	1000 mm 500 mm	Polypro <sub>l</sub> Polypro <sub>l</sub>	pylene	21028 21048	
Manual operat	phon Pumped syphon pumer different conta	p with a poly	yethylene suctio	'n	21230
Description	For container size	Suction tube length	Capacitet approx.		21231 212.
Suction operated Piston operated Piston operated	25 litres 60 litres 200 litres	390 mm 590 mm 850 mm	6,5 litres/min 10 litres/min 18,5 litres/min	21230 21231 21232	
for transferring operation, capa for transferring	able of pumping fluids from dr	liquids. Sim g approx. 9 lt			
tube of 380mn		of the pump inose of 600mi	r diesel, keroser s 580mm, suctio		9
tube of 380mn Powered by 2 Suction Pu	er. Total length on & discharge hand a discharge ha	of the pump in ose of 600minies.	r diesel, keroser s 580mm, suctio	21235	
Suction Pu For filling and Description Suction pump Suction pump Hand Pum	er. Total length on & discharge has a discharg	of the pump in some of 600mm ries.  mall container le is pressed a	or diesel, keroser s 580mm, suction m.	21235 cc. 21040 21044	
Suction Pu For filling and Description Suction pump Suction pump Suction pump Suction pump Lever Han	er. Total length on & discharge hand	of the pump in the pump is the pump is the pump in the pump is the pump in the pump is the pump in the pump is the	against the fittin  Dimension  2 44 x 245 mm	21235 cc. 21040 21044	
Suction Pu For filling and Description Suction pump Suction pump Suction pump Suction pump Lever Han	er. Total length on & discharge har & discharge har a discharge har a word ha	of the pump in lose of 600minies.  mall container  le is pressed a  upling includ  Dimens	against the fittin  Dimension  2 44 x 245 mm	21235 cc. 21040 21044	
Suction Pu For filling and Description Suction pump Suction pump Suction pump Suction pump Lever Han Outlet tube wi	er. Total length on & discharge har & discharge har a discharge har a word ha	of the pump in lose of 600minies.  mall container  le is pressed a  upling includ  Dimens	against the fittin  Dimension  244 x 245 mm	21235 cc. 21040 21044 g.	

Druiii iap, Oi	l Cans, Measures et		Part No		
Drum Taps					
Drum Tap for horiz	zontal oil drums.				- A
Description	Material	Conn. thread			10
Drum Tap, push valve	Aluminium, Nitrile rubber	G2" (m)	24506		
Drum Tap, slide valve	Cast iron	G2" (m)	24598	24506	2.15
Drum Tap, slide valve	Cast iron	G3/4" (m)	24597	24300	2459
Drum Taps in	Plastic			Large are at	Æb.
Drum taps for oil of				- 40	A I
Description	Siutes container				W. J.
Drum tap	For Castrol/BP 25 litres		24593	24502	(III)
Drum tap	For Castrol/BP 20 litres		24594	24593	24594
Drum tap	For Mobil 20 litres		24596		24596
					21614
Oil Cans					
Description		Volume			1/
Standard					U
Oil can, with ridgid and	I flexible outlet tube	0,30 litre	21614	1	O Property
Oil can, with ridgid and		0,30 litre	21622		
		•		0.0	-
Industry					
Oiler with Double Pum		0,30 litre	21613	A 19	<u></u>
it is designed to dispens	se oil in any position.			21613	
Oiler with Flexible met	al hose 200 mm	0,30 litre	21615	1400	9
		*,5 * *****		21	615
Oiler with Brush Nozzl		0,30 litre	21616	21	
enables the operator to	put a thin oil film on surfaces.				21616
M14: D	MAL T CALALA NY A			*	/ i
Multi Purpose Oiler w Multi Purpose Oiler wi	th Lockable Nozzle	0,125 litre	21646		
Multi Purpose Oiler wi		0,25 litre	21647	100	8
Multi Purpose Oiler wi		0,5 litre	21648	9/	
Plastic Measu	res				
	th handle, made of heavy l	Polvethylene			
	oline and chemicals.	21, 2011, 10110,			9
	Volume				-
<b>Description</b> Liquid measure	volume 1 litre		21625	-	
Liquid measure	2 litres		21626		
Liquid measure	3 litres		21657		00
Liquid measure	5 litres		21627		
Tin M		-			
Tin Measures		. 1			
0,0	th handle, made of tinned	metal, resistant			
to oil, gasoline and	chemicals.				
Description	Volume		01/0/		
Liquid measure	0,5 litre		21636		1
Liquid measure	1 litres		21637		
Liquid measure	2 litres		21638	-	
Calibration M	leasure				
	neters must be calibrated				
Description	Volume				
	2,0 liter		4342000		
Calibration Measure	,		4342000		





# Measures, Funnels & Wash/Oil Drain Bowls Part No

Graduating measuring Jugs moulded from high quality plastic in various sizes as a set.  Description Time 0.1, 0.25, 0.5, 1.0, 2.0, 3.0, 8, 5.0 litros	21609	
7 jugs 0.1, 0.25, 0.5, 1.0, 2.0, 3.0 & 5.0 litres		
Oil Containers Container with handle, made of heavy polyethylene. Filling hole with lid and capped nozzle		21645
DescriptionVolumeLiquid measure6 litresLiquid measure10 litres	21644 21645	21644
Funnels Funnels with handle, made of chemical resistant Polyethy-		21630
lene with splash rim and removable brass strainer.		21631
<b>Description</b> Volume		21031
Funnel with straight spout 1,3 litres	21630 21631	
Funnel with spout off-set approx 180 mm 1,3 litres	21031	
Funnel kit (Ø 65, 75, 100 och 120 mm) 0,05-0,27 litre	21633	21633
Anti-splash funnel		
Description		
Ø 190mm funnel with anti-splash rim, filter and flexispout.	21632	21632
Ø 230mm funnel with anti-splash rim, filter and flexispout.	21605	21605
Garago Eumnal		
Garage Funnel		
<b>Description</b> 300mm garage funnel with filter.	21606	21606
300mm garage funnel c/w diesel/water separator filter.	21607	21607
Tin Funnels		
Funnels with handle, made of tinned metal, resistant to oil,		Car
gasoline and chemicals.		
DescriptionDimensionTin funnelØ 160 mm	21628	
Tin funnel Ø 200 mm	21628	
Threaded spout Ø 300 mm	21634	-
Oil Drain & Parts cleaning pan		21635
Handy oil drain & parts cleaning pan for washing small parts		
or for oil drain. Made of oil and chemical resistant polyethy-		21619
lene.		
<b>Description</b> Oil Drain & Parts cleaning pan with 8 litre capacity.	21635	
Oil Drain & Parts cleaning pan with 14 litre capacity.	21619	
Oil Drain & Parts cleaning pan with 14 litre capacity. Green	21649	21649
Garage kit		
Includes the most used measures, funnels, container and oil	21610	4 - 1
drain.		
OIL		

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Air Opera	ted Grease Pumps	Part.No	
Grease Pu	mp, pressure ratio 60:1		n.
	rease pump. For both mobile and fixed	l instal-	
	dapter G 2" (part No 28591) included		
_	1 4	Veight	
Pump tube length 450 mm (effective	_	,6 kg 12750	
750 mm (effective	,	,6 kg 12751	12552
930 mm (effective	, .	,0 kg 12/51 ,25 kg 12752	12752
`	r uses 30 mm of total pump tube length.	,20 Ng 12/32	
Technical data	uses 30 mm of total pump tube length.		
Pressure ratio	60:1		
Air motor	Diameter: ø 80 mm		
	Height: 250 mm		
~ .	Stroke length: approx. 100 mm	·	
Capacity	1000 g/min. free flow, air pressure 0,7 MPa, N		
	20°C, 600 g/min. through 10 m 1/4"-hose and gun (14612)	grease	
Air Consumption	in normal conditions 150 l/min.		
Air Pressure	Max 1 MPa (10 bar)		
Pump tube	ø 30 mm		
Connections	Air: G 1/4" (f)		7
	Grease: Outlet G 3/8" (f)		55
Grease Pu	mp Heave Duty , Special Ve	rsion	
	• • •	. 51011	- Barrell
for "Sticky		.1	
	rease pump with separated air motor fi		
	oid "sticky" grease to enter into the air	r motor.	
For both mobil	e and fixed installations.		12652
Pump tube lengtl		Veight	12652
450 mm (effective		,6 kg 12650	Hall-
750 mm (effective		,6 kg 12651	
930 mm (effective	, ,	,25 kg 12652	
Technical data			
Pressure ratio	60:1		
Air motor	Diameter: ø 80 mm		
	Height: 250 mm		
Capacity	Stroke length: approx. 100 mm 1000 g/min. free flow, air pressure 0,7 MPa, N	LGL2	
Capacity	20°C, 600 g/min. through 10 m 1/4"-hose and		
	gun (14612)		
Air Consumption	in normal conditions 150 l/min.		
Air Pressure	Max 1 MPa (10 bar)		
Pump tube	ø 30 mm		
Connections	Air: G 1/4" (f) Grease: Outlet G 3/8" (f)		I
	Groupe. Outlet G 3/0 (1)		•
Gresse D	mp, pressure ratio 80:1		11237
		No.	
	rease pump. Bung adapter G 2" (part N	NU	
28591) include			
		Veight	
Pump tube lengtl		(1	
450 mm (effective	420 mm*) 12-20 kg 700 mm 4	,6 kg 12755	12757
450 mm (effective 750 mm (effective	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5	,6 kg 12756	12757
450 mm (effective 750 mm (effective 930 mm (effective	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6	12,00	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5	,6 kg 12756	12757
450 mm (effective 750 mm (effective 930 mm (effective	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6	,6 kg 12756	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte * Technical data	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.	,6 kg 12756	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte * Technical data Pressure ratio	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.  80:1 Diameter: Ø 80 mm Height: 250 mm	,6 kg 12756	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte * Technical data Pressure ratio Air motor	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.  80:1 Diameter: Ø 80 mm Height: 250 mm Stroke length: approx. 100 mm	,6 kg 12756 ,25 kg 12757	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte * Technical data Pressure ratio	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.  80:1 Diameter: Ø 80 mm Height: 250 mm Stroke length: approx. 100 mm 730 g/min. free flow, air pressure 0,7 MPa, N	,6 kg 12756 ,25 kg 12757	12757
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450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte * Technical data Pressure ratio Air motor	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.  80:1 Diameter: Ø 80 mm Height: 250 mm Stroke length: approx. 100 mm 730 g/min. free flow, air pressure 0,7 MPa, N: 20°C, 450 g/min. through 10 m 1/4"-hose and grease gun (14612)	,6 kg 12756 ,25 kg 12757	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte Technical data Pressure ratio Air motor Capacity	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.  80:1 Diameter: Ø 80 mm Height: 250 mm Stroke length: approx. 100 mm 730 g/min. free flow, air pressure 0,7 MPa, N. 20°C, 450 g/min. through 10 m 1/4"-hose and grease gun (14612) in normal conditions 150 l/min.	,6 kg 12756 ,25 kg 12757	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte * Technical data Pressure ratio Air motor	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.  80:1 Diameter: Ø 80 mm Height: 250 mm Stroke length: approx. 100 mm 730 g/min. free flow, air pressure 0,7 MPa, N: 20°C, 450 g/min. through 10 m 1/4"-hose and grease gun (14612)	,6 kg 12756 ,25 kg 12757	12757
450 mm (effective 750 mm (effective 930 mm (effective * The bung adapte * Technical data Pressure ratio Air motor Capacity Air Consumption Air Pressure	420 mm*) 12-20 kg 700 mm 4 720 mm*) 60 kg 1000 mm 5 900 mm*) 180 kg 1180 mm 6 r uses 30 mm of total pump tube length.  80:1 Diameter: Ø 80 mm Height: 250 mm Stroke length: approx. 100 mm 730 g/min. free flow, air pressure 0,7 MPa, NI 20°C, 450 g/min. through 10 m 1/4"-hose and grease gun (14612) in normal conditions 150 l/min. Max 0,7 MPa (7 bar)	,6 kg 12756 ,25 kg 12757	12757

2 GREASE

#### Air Operated Pump and Accessories Part.No Grease Pump, pressure ratio 65:1 High capacity grease pump. For drum or fluid-bag installations. Pump tube length For drum Total length Weight 1370 mm 10 kg 850 mm 180 kg12852 Technical data Pressure ratio 65:1 Air motor Diameter: ø 80 mm Height: 270 mm Stroke length: approx. 100 mm Capacity 1800 g/min. free flow, air pressure 0,7 MPa. Air Pressure Max 1 MPa (10 bar) Pump tube ø 35 mm Connections Air: G 1/4" (f) Grease: Outlet G 3/8" (f) Installation Kit for pump in drums (pump and follower plate not included). Includes all the necessary components to install a 55:1 or 75:1 air operated grease pump in a drum and connect to the air supply and distribution pipework. Information Air line hose 1/4" L= 1.5 m Grease line hose 3/8" L= 1,5 m For 180 kgs drum 99601 For 50-60 kgs drum 99602 For 20 kgs drum 99604 Two Post Ram

Function like a lift, but also exert downward force.

Ram air cylinders push pump and follower plate into the fluid Rams feature two-posts that exert downward force on pump to maintain prime. Ram also lifts pump to ease change over of empty fluid containers.

# Measurements

Base - 39" (991 mm) x 24" (610 mm) Raised Height - 101" (2.5 m) Lowered Position Height - 63" (1.6 m)

18300

# Two Post Ram with Pump (12852)

Function like a lift, but also exert downward force.

Ram air cylinders push pump and follower plate into the fluid Rams feature two-posts that exert downward force on pump to maintain prime. Ram also lifts pump to ease change over of empty fluid containers .

Kit includes pump, follower plate and ram.

# Measurements

Base - 39" (991 mm) x 24" (610 mm) Raised Height - 101" (2.5 m) Lowered Position Height - 63" (1.6 m)





Accessories	Part.No
Inlet Strainer Filter for Grease Pumps 12750-52, 12755-57, 12560-62. The strainer is mounted directly on to the inlet to prevent any contamination of the grease.	1125372
Bung Adapters         With split collar. G2" (m) thread for drum or drum covers.         Tube diameter       Fits Orion pump models         35       12852         30       12750, 12751, 12752, 12755, 12756, 12757, 12650, 51,52         26       12540, 12541, 12542	28587 28591 28586
Drum Covers  Made of sheet metal with G2"(f) thread for the pump bung adapter and three retaining screws,  Drum size Fits drum with outer diameter  18-20 kg 265-310 mm (prepared with 2 extra holes for fixation of carrying handle)  18-20 kg 285-330 mm  50 kg 340-380 mm  50 kg 360-405 mm  180 kg 565-610 mm  180 kg 580-620 mm for 12626  Carrying handle for 18527  Spare screw kit (3 screws)  T-screw kit for plastic buckets ( 20 kgs)	18527  18528  18528  18532  18526  18525  18536  1125357  1485016  1385111  1125357
Follower Plates  Eliminate cavitation and help pump priming. Rubber flange minimises waste by wiping the inner drum wall. Can be used with pump tube diameters 26-42 mm.  Drum size Fits drum with inner diameter  12,5 kg 230-260 mm  18-20 kg 260-290 mm  50 kg 300-330 mm  50 kg 340-370 mm  50 kg 360-390 mm  180 kg 560-590 mm	18569 18570 18575 18575 18571 18572 18573



2 GREASE

#### Typical Assembly and Accessories Part.No Adapter for follower plates 18565 Attaches to the follower plate to further maximise emptying of the grease drum. Fits the follower plates on the previous 18109 Grease Pumps series 127 series 18565 Grease pump 12852 18566 By-pass hose Mainly used in two-line centralized lubricating systems to 18109 feed grease back to the follower plate. Typical Assembly The picture shows a complete grease pump assembly for 180 kg drums in a centralized lubrication system. For information, It consists of the following parts: 12752 Grease pump Drum cover 18525 18573 Follower plate Adapter 18565 By-pass hose 18109 Outlet hose 18107 **Grease Supply Hoses** High pressure hose, 3/8" i.d., double wire braided Nitrile rubber with swaged couplings and two connection adapters, G3/8"(m). Burst pressure min 112 MPa (1120 bar), 18107 Description Length 1,5 metres 18107 Length 4,0 metres 18110 18112 Length 6,0 metres **Air Treatment Units** 2026154 Description Conn. thread Air treatment unit G1/4" (f) 42103 Accessories: Bracket for 42103 to mount on top of 125 series pumps. 2226155 2026154 Air hose for Air Treatment Unit 2226155 **Air Line Hoses** Used to connect the compressed air supply to the pump, made of armoured PVC, max. working pressure 1,5 MPa (15 bar), with swaged couplings; one with swiveling nut and connection adapter (male/male). Conn. thread 48001 Description **Hose Diameter** Length 48001 1/4" i.d. G1/4(m) Air line hose 1,5 m 480013M 1/4" i.d. Air line hose 3 m G1/4(m)48002 Air line hose 3/8" i.d. 1,5 m G3/8(m) 480023M Air line hose 3/8" i.d. 3 m G3/8(m) 48017 1/2" i.d. Air line hose 2,0 mG1/2(m)**Distribution Hoses for Grease** High pressure hose, 1/4"i.d., double braided Nitrile rubber. Burst pressure min 140 MPa (1400 bar), swaged couplings, connection threads G1/4"(f) swivelling nuts incl. two adapters G1/4"(m) and one bushing G1/4"(f) - G3/8"(m). Part No **Hose Length** Part No **Hose Length** 18122 2 m 18128 9 m 18123 3 m 18129 10 m 18130 18124 4 m 12 m 18131 15 m 18125 5 m

6 m

18132

20 m

	Hose Re	eels					Part.No		
	Grease Line Filter For installation in grease distribution pipework (grease outlets). Built-up with discs which provide simplified cleaning. The filter withstands high pressure drops which eliminates the risk of cartridge bursting when contaminated.								
	DescriptionFilter rating Grease filterConn.thread (m) G 3/8",G1/2", G3/4"Max pressure 50 MPa (500 bar)						14527		
	Shut-off Valves								
	To be installed before the hose reel and after the pump to								•
	facilitate ea	ase of ma	aintenance.			~4	(1)		
	Description Thread (f)			Max. pressure			30201330		
	BKH R 1/4				50 MPa (500 bar)				
	BKH R 3/8				50 MPa (500 bar)				8
Ž	BKH R 1/2	3KH R 1/2 G 1/2"			50 MPa (500 bar)				
Ę.	BKH R 3/4 G 3/4"			40 MPa (400 bar)			30201345		
ŭ	BKH R 1 G 1"			35 MPa (350 bar)			30201300		
se	Saving ORK ORM								
<u></u>	Series ORK, ORM								
O)		Length	Diameter	Conn.threads	Work pres	ssure			( Company)
٢	G : OBY	m	mm-inch		MPa	bar	14206	6	C. X
Ð	Series ORK	10	6,3 - 1/4"	G1/4" (f)	40	400	14206		
0	Series ORM	15	10 - 3/8"	G3/8" (f)	40	400	14218		
Ĭ	Series ORS								_
<b>a</b>	Jeries C	)NJ							I I
ڲ		Length	Diameter	Conn.threads					120
<b>+</b>		m	mm-inch		MPa	bar			
e e	Series ORS	10	6,3 - 1/4"	G1/4" (f)	40	400	714205		
Š	Series ORS	15	10 - 3/8"	G3/8" (f)	40	400	714215		
nformation, see the Hose reel section!	Series OR								
Ĕ		Length	Diameter	Conn.threads	Work pres	ssure			
E		m	mm-inch		MPa	bar			
More infor	Series OR	15	10 - 3/8"	G3/8" (f)	40	400	14216		
	<u> </u>	<b>O</b> D							
	Series L	.OR							
		Length	Diameter	Conn.threads		ssure			
	C LOD	m 25	mm-inch	C2/9" (A)	MPa	bar	14225		
	Series LOR	25	10 - 3/8"	G3/8" (f)	40	400	17223		
	Series CRM							1	*
		Length	Diameter	Conn.threads	Work pres	ssure			
		m	mm-inch	a	MPa	bar	01.420.5		
	Series CRM	10	6,3 - 1/4"	G1/4" (f)	35	350	914205		
	Series CRM	15	6,3 - 1/4"	G1/4" (f)	35 35	350	914210 914215	The same of the sa	
	Series CRM	10	10 - 3/8"	G3/8" (f)	35	350	914213		
	Series CR								
		Length	Diameter	Conn.threads	Work pres	ssure			
		m	mm-inch	Comment caus	MPa	bar			
	Series CR	10	6,3 - 1/4"	G1/4" (f)	40	400	14205		
	Series CR	15	6,3 - 1/4"	G1/4" (f)	40	400	14210		-
	Series CR	10	10 - 3/8"	G3/8" (f)	40	400	14215		I
									. 1

2 GREASE

Grease Cor	ntrol Valves		Part.No	
Comprises a gre Z - swivel and 4	ease gun (14612) with it is 50 mm flexible outlet	inlet adapter (G1/4"), hose.	99600	
Grease Cor Control valve w MPa (500 bar).	ith outlet tube and hyd	raulic nozzle, PN 50		
<b>Description</b> Grease control valve	Conn. thread	Max .pressure 50 MPa (500 bar)	14612	
	ntrol Valves - Hig increased to 80 MPa (		14625	
<b>Description</b> Grease control valve inlet filter and release valve included		Max connection pressure 50 MP (500 bar)	14625	
Grease control valve  NOTE! Do not us	e G1/4"(m) e with outlet hose.	50 MP (500 bar)	14626	14626
and resettable as powered by two	neter, equipped with cund non-resettable totalion 1,5 V AAA batteries. The sessure 50 MPa(500 batter) batteries.	sors. Digital display		
<b>Description</b> Meter with control In-line meter	Conn. thread valve G1/4"(f) G1/8"(f)	<b>Max .pressure</b> 50 MPa (500 bar) 50 MPa (500 bar)	14720 14710	
high pressure. F pump and distril and grease contri Description Straight swivel C Z-swivel G	le to handle grease hos or best results use a str bution hose and a Z-sw	aight swivel between	18070 18071	18071 18073 18070



Adapters For assembling hoses to pumps and grease control valves.  Description Connection threads Adapter G1/4*(m) - (1/4*NPT(m)   25102734 Adapter G1/4*(m) - (1/4*NPT(m)   18066 Adapter G1/4*(m) - 1/4*NPT(m)   18066 Adapter G1/4*(m) - 1/4*NPT(m)   18066 Adapter G1/4*(m) - 1/4*NPT(m)   20214 Adapter G1/4*(m) - 1/4*NPS(m)   02014 Adapter G1/4*(m) - 1/4*NPS(m)   43379R Adapter G1/8*(n) - G1/8*(m)   45120 Adapter G1/8*(n) - G1/8*(m)   25102032 Adapter G1/8*(n) - G1/8*(m)   25102032 Adapter G1/8*(n) - G1/8*(m)   25102032 Adapter G1/4*(m) - 38*(n)   25102032 Adapter G1/4*(m) - 38*(n)   25102032 Adapter G1/4*(m) - 38*(n)   25102737   Outlet Hoses for Grease Control Valves High pressure hose, 3/16*(d), Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.  Description Hose length G1/8*(male-male) Hose length Outlet hose 1000 mm G1/8*(male-male) 14042 Outlet hose 1000 mm G1/8*(male-male) 14047 Outlet hose 1000 mm G1/8*(male-male) 14052   Mobile Grease Pumps for   2 to   180 kg drums  Consisting of pump (pressure ratio 55:1 or 75:1), 1/4* quick coupling, drum lid, grease hose, z-s-siviet and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min Description For container For container Hose length Trolley Grease pump with trolley 180 kg 3 m 28528 12201 Grease pump with trolley 180 kg 3 m 28528 12213 Grease pump with trolley 180 kg 3 m 28645 12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min Description For container Hose length For length For container Hose length Trolley Grease pump with trolley 50 kg 3 m 28528 12201 Grease pump with trolley 50 kg 3 m 28528 12201 Grease pump with trolley 50 kg 3 m 28528 12201 Grease pump with trolley 50 kg 3 m 28528 12201 Grease pump with trolley 50 kg 3 m 28528 12201 Grease pump with trolley 50 kg 3 m 28528 12201 Grease pump with trolley 50 kg 3 m 28528 122	Pumps, Air ope	rated, Mob	oile		Part.No		
Description	Adapters						
Description   Connection threads   Adapter   G14*(m) - G14*(m)   Z510198    Z5102032		to pumps and	grease contro	ol valves.			-
Adapter G14"(m) - G14"(m) 25101931 25102032 Adapter G14"(m) - 14"NPTF(m) 18066 Adapter G14"(m) - 14"NPTF(m) 18066 Adapter G14"(m) - 14"NPTF(m) 18066 Adapter G14"(m) - 14"NPTF(m) 43379R Adapter G14"(m) - 12"27(m) 43379R Adapter G18"(f) - G14"(m) 45120 G18"(m) G14"(m) 25102032 Adapter G18"(f) - G16"(m) 25102032 Adapter G18"(f) - G18"(f) - G18"(f) G14"(m) 25102032 Adapter G18"(f) - G18"(f) - G18"(f) G14"(m) 25102032 Adapter G18"(f) - G18"(f) G18"(f) G14"(m) 35" NPTF (m) 25102737    Outlet Hoses for Grease Control Valves High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.  Description Hose length G18"(male-male) 14043 Outlet hose 200 mm G18"(male-male) 14044 Outlet hose 300 mm G18"(male-male) 14044 Outlet hose 1000 mm G18"(male-male) 14047 Outlet hose 2500 mm G18"(male-male) 14052    Mobile Grease Pumps for 12 to 180 kg drums  Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min Poscription For container Hose length Trolley Grease pump with trolley 50 kg 3 m 28528 12205 Grease pump with trolley 180 kg 3 m 28276 12210 Grease pump with trolley 180 kg 3 m 28276 12210 Grease pump with trolley 180 kg 3 m 28645 12211 Grease pump with trolley 180 kg 3 m 28276 12210 Grease pump with trolley 180 kg 3 m 28276 12210 Grease pump with trolley 180 kg 3 m 28528 12201 Grease pump with trolley 180 kg 3 m 28528 12201 Grease pump with trolley 50 kg 3 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12235 Grease pump with trolley 50 kg 3 m 28528 12235 Grease pump with trolley 50 kg 3 m 28528 12235 Grease pump with trolley 50 kg 3 m 28528 12235 Grease pump with trolley 50 kg 3	=		_			1	o Keng
Adapter					25101981	25102032	
Adapter G1/4"(m) - 1/4"NPS(f) 43379R Adapter G1/8"(f) - G1/4"(m) 435120 Adapter G1/8"(f) - G1/4"(m) 25102032 Adapter G1/8"(f) - G1/4"(m) 25102032 Adapter G1/8"(f) - G1/8" (f) 25102032 Adapter G1/4"(m) - 3/8" NPTF (m) 25102033  Outlet Hoses for Grease Control Valves High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.  Description Hose length Conn. thread Outlet hose 200 mm G1/8"(male-male) 14043 Outlet hose 300 mm G1/8"(male-male) 14044 Outlet hose 450 mm G1/8"(male-male) 14047 Outlet hose 1000 mm G1/8"(male-male) 14052  Mobile Grease Pumps for 12 to 180 kg drums  Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min Description For container Hose length Trolley Grease pump with trolley 12-20 kg 2 m 28528 12205 Grease pump with trolley 180 kg 3 m 28526 12305 Grease pump with trolley 180 kg 3 m 28645 12213 Grease pump with trolley 180 kg 3 m 28645 12213 Grease pump with trolley 180 kg 3 m 28645 12214 Drum not included.  With 75:1 grease pump capacity appr. 730 g/min Description For container Hose length Trolley Grease pump with trolley 180 kg 3 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pum	Adapter	G1/4"(m) - 1/	4"NPTF(m)		25102734		June 1
Adapter G1/4"(m) - 1/2"-27(m) 43379R Adapter G1/8"(n) - G1/4"(m) 25102032 Adapter G3/8"(m) - G1/4" (m) 25102032 Adapter G1/8" (n) - G1/8" (n) 25102032 Adapter G1/8" (n) - G1/8" (n) 25102032 Adapter G1/8" (n) - G1/8" (n) 25102737  Outlet Hoses for Grease Control Valves High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.  Description Hose length Con. thread G1/8"(male-male) 14043 Outlet hose 300 mm G1/8"(male-male) 14044 Outlet hose 450 mm G1/8"(male-male) 14045 Outlet hose 1000 mm G1/8"(male-male) 14047 Outlet hose 2500 mm G1/8"(male-male) 14052  Mobile Grease Pumps for 12 to 180 kg drums  Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min Description For container Hose length Trolley Grease pump with trolley 12-20 kg 2m 28528 12201 Grease pump with trolley 50 kg 3m 28526 12305 Grease pump with trolley 180 kg 3m 28276 12210 Grease pump with trolley 180 kg 3m 28276 12211  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min Description For container Hose length Trolley Grease pump with trolley 12-20 kg 2m - 12220 Grease pump with trolley 12-20 kg 2m - 12220 Grease pump with trolley 12-20 kg 2m - 12220 Grease pump with trolley 50 kg 3m 28526 12315 Grease pump with trolley 50 kg 3m 28528 12221 Grease pump with trolley 50 kg 3m 28528 12221 Grease pump with trolley 50 kg 3m 28528 12225 Grease pump with trolley 50 kg 3m 28528 12225 Grease pump with trolley 50 kg 3m 28528 12225 Grease pump with trolley 50 kg 3m 28528 12225 Grease pump with trolley 50 kg 3m 28528 12225 Grease pump with trolley 50 kg 3m 28526 12325 Grease pump with trolley 50 kg 3m 28526 12325 Grease pump with trolley 50 kg 3m 28526 12325 Grease pump with trolley 50 kg 3m 28526 12325 Grease pump with trolley 50 kg 3m 28526 12325	-	G1/4"(f) - 1/4	l"NPTF(m)		18066		
Adapter G1/8"(f) - G1/4"(m) 25102032 Adapter G3/8"(m) - G1/4" (m) 25102032 Adapter G1/8" (f) - G1/8" (f) 25102032 Adapter G1/8" (f) - G1/8" (f) 25102032 Adapter G1/8" (f) - G1/8" (f) 25102032 Adapter G1/4"(m) - 3/8" NPTF (m) 25102737   Outlet Hoses for Grease Control Valves High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.  Description Hose length Con. thread G1/8"(male-male) 14043 Outlet hose 200 mm G1/8"(male-male) 14044 Outlet hose 300 mm G1/8"(male-male) 14044 Outlet hose 1000 mm G1/8"(male-male) 14047 Outlet hose 2500 mm G1/8"(male-male) 14052   Mobile Grease Pumps for 12 to 180 kg drums  Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min Poscription For container Hose length Trolley Grease pump with trolley 50 kg 3 m 28528 12205 Grease pump with trolley 50 kg 3 m 28526 12305 Grease pump with trolley 12-20 kg 2 m 28276 12210 Grease pump with trolley 180 kg 3 m 28526 12305 Grease pump with trolley 180 kg 3 m 28526 12213 Grease pump with trolley 180 kg 3 m 28526 12213 Grease pump with trolley 180 kg 3 m 28528 12221 Grease pump with trolley 180 kg 3 m 28528 12221 Grease pump with trolley 180 kg 3 m 28528 12221 Grease pump with trolley 180 kg 2 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 5	Adapter	G1/4"(m) - 1/	/4"NPS(f)		02014		
Adapter   G3/8"(m) - G1/4" (m)   25102032   25101915	Adapter	` /	\ /		43379R		
Adapter G18" (f) - G18" (f)   25101915  Adapter G18" (f) - G18" (f)   25101915  Adapter G18" (f) - G18" (f)   25102737   Outlet Hoses for Grease Control Valves  High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.  Description Hose 1000 mm G18" (male-male) 14042 Outlet hose 200 mm G18" (male-male) 14044 Outlet hose 300 mm G18" (male-male) 14044 Outlet hose 1000 mm G18" (male-male) 14047 Outlet hose 2500 mm G1/8" (male-male) 14052   Mobile Grease Pumps for 12 to 180 kg drums Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min Description For container Hose length Trolley Grease pump with trolley 50 kg 3 m 28528 12205 Grease pump with trolley 50 kg 3 m 28528 12205 Grease pump with trolley 180 kg 3 m 28526 12305 Grease pump with trolley 180 kg 3 m 28645 12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min Description For container Hose length Trolley Grease pump with trolley 180 kg 3 m 28526 12215 Grease pump with trolley 180 kg 3 m 28526 12216 Grease pump with trolley 180 kg 3 m 28526 12216 Grease pump with trolley 50 kg 3 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 50 kg 3 m 28526 12325	Adapter					CHESTON OF	25101015
Adapter   G1/4"(m) - 3/8" NPTF (m)   25102737	•	` '	` /				23101913
Outlet Hoses for Grease Control Valves           High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.           Description         Hose length         Conn. thread           Outlet hose         200 mm         G1/8"(male-male)         14042           Outlet hose         300 mm         G1/8"(male-male)         14044           Outlet hose         1000 mm         G1/8"(male-male)         14044           Outlet hose         2500 mm         G1/8"(male-male)         14047           Outlet hose         2500 mm         G1/8"(male-male)         14047           Outlet hose         2500 mm         G1/8"(male-male)         14047           Outlet hose         2500 mm         G1/8"(male-male)         14042           Outlet hose         2500 mm         G1/8"(male-male)         14052           Might probable grease hose, z-swivel and grease control valve.           With 55:1 grease pump with trolley         50 kg         3 m         28528         12205	•	` '	· /				
High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar), swaged couplings.  Description  Hose length Outlet hose 200 mm G1/8"(male-male) 14043 Outlet hose 300 mm G1/8"(male-male) 14044 Outlet hose 450 mm G1/8"(male-male) 14044 Outlet hose 1000 mm G1/8"(male-male) 14047 Outlet hose 2500 mm G1/8"(male-male) 14047 Outlet hose 2500 mm G1/8"(male-male) 14052   Mobile Grease Pumps for 12 to 180 kg drums Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min Description For container For container For container Grease pump with trolley 12-20 kg 2 m 28528 12205 Grease pump with trolley 50 kg 3 m 28528 12205 Grease pump with trolley 180 kg 3 m 28526 Grease pump with trolley 180 kg Hose Reel 28645 12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min Description For container For container Hose length Trolley Grease pump with trolley 180 kg 3 m 28526 12215  Grease pump with trolley 180 kg 3 m 28528 12221  Grease pump with trolley 180 kg 3 m 28528 12221  Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m - 12220 12220	Adapter	G1/4"(m) - 3/	/8" NPTF (m)		25102737		
braid, PN 50 MPa (500 bar), swaged couplings.    Description	<b>Outlet Hoses fo</b>	r Grease	Control Va	alves			
Description   Hose length   Conn. thread   G1/8" (male-male)   14042   14043   Outlet hose   300 mm   G1/8" (male-male)   14043   14044   Outlet hose   450 mm   G1/8" (male-male)   14044   Outlet hose   1000 mm   G1/8" (male-male)   14047   Outlet hose   2500 mm   G1/8" (male-male)   14047   Outlet hose   2500 mm   G1/8" (male-male)   14052      Mobile Grease Pumps for 12 to 180 kg drums   G1/8" (male-male)   14052	-			one Nylon			
Outlet hose	`	,, .	1 0	and		450	-
Outlet hose					14042	-	-
Outlet hose			`		14043	-0.0	
Mobile Grease Pumps for   2 to   180 kg   12220   12221	Outlet hose	450 mm	G1/8"(mal	e-male)	14044	-	
Mobile Grease Pumps for 12 to 180 kg drums  Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min  Per container Hose length Trolley  Grease pump, Portable 12-20 kg 2 m - 12200  Grease pump with trolley 50 kg 3 m 28528 12201  Grease pump with trolley 50 kg 3 m 28526 12305  Grease pump with trolley 180 kg 3 m 28276 12210  Grease pump with trolley 180 kg 3 m 28645 12213  Grease pump with trolley 180 kg 3 m 28645 12213  Grease pump with trolley 180 kg 3 m 28645 12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min  Description For container Hose length Trolley  Grease pump with trolley 12-20 kg 2 m - 12220  Grease pump with trolley 12-20 kg 2 m - 12220  Grease pump with trolley 12-20 kg 2 m 28528 12221  Grease pump with trolley 50 kg 3 m 28526 12335  Grease pump with trolley 50 kg 3 m 28526 12335  Grease pump with trolley 50 kg 3 m 28526 12335  Grease pump with trolley 50 kg 3 m 28526 12325  Grease pump with trolley 50 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28526 12325	Outlet hose	1000 mm	G1/8"(mal	e-male)	14047		
Mobile Grease Pumps for 12 to 180 kg drums  Consisting of pump (pressure ratio 55:1 or 75:1), 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.  With 55:1 grease pump capacity appr. 1000 g/min  Description  For container  Hose length  12-20 kg  2 m  -  12200  Grease pump with trolley  50 kg  3 m  28528  12205  Grease pump with trolley  50 kg  3 m  28526  12305  Grease pump with trolley  180 kg  3 m  28645  12213  Grease pump with trolley  180 kg  3 m  28645  12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min  Description  For container  Hose length  Trolley  Grease pump with trolley  180 kg  Hose Reel  28645  12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min  Description  For container  Hose length  Trolley  Grease pump with trolley  12-20 kg  2 m  -  12220  Grease pump with trolley  12-20 kg  2 m  -  12220  Grease pump with trolley  12-20 kg  3 m  28528  122215  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216  Grease pump with trolley  50 kg  3 m  28528  122216	Outlet hose	2500 mm	G1/8"(mal	e-male)	14052		
Grease pump with trolley	With 55:1 grease pur						
Grease pump with trolley 50 kg 3 m 28528 12205 12305 Grease pump with trolley 50 kg 3 m 28526 12305 Grease pump with trolley 180 kg 3 m 28645 12213 Grease pump with trolley 180 kg 3 m 28645 12213 Grease pump with trolley 180 kg Hose Reel 28645 12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min Description For container Hose length Grease pump, Portable 12-20 kg 2 m - 12220 Grease pump with trolley 12-20 kg 2 m 28528 12221 Grease pump with trolley 50 kg 3 m 28528 12225 Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 180 kg 3 m 28526 12325 Grease pump with trolley 180 kg 3 m 28526 12230	Grease pump, Portable	12-20 kg	2 m	-	12200		
Grease pump with trolley		12-20 kg	2 m			- L	
Grease pump with trolley 180 kg 3 m 28276 12210 Grease pump with trolley 180 kg 3 m 28645 12213 Grease pump with trolley 180 kg Hose Reel 28645 12214   Drum not included.  With 75:1 grease pump capacity appr. 730 g/min  Description For container Hose length Trolley  Grease pump, Portable 12-20 kg 2 m - 12220  Grease pump with trolley 12-20 kg 2 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12225  Grease pump with trolley 50 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28276 12230		-	3 m				
Grease pump with trolley 180 kg 3 m 28645 12213  Grease pump with trolley 180 kg Hose Reel 28645 12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min  Description For container Hose length Trolley  Grease pump, Portable 12-20 kg 2 m - 12220  Grease pump with trolley 12-20 kg 2 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12225  Grease pump with trolley 50 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28276 12230	1 1					12223	
Grease pump with trolley 180 kg Hose Reel 28645 12214  Drum not included.  With 75:1 grease pump capacity appr. 730 g/min  Description For container Hose length Trolley  Grease pump, Portable 12-20 kg 2 m - 12220  Grease pump with trolley 12-20 kg 2 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12225  Grease pump with trolley 50 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28276 12230		_				TO LA	i
With 75:1 grease pump capacity appr. 730 g/min  Description For container Hose length Trolley  Grease pump, Portable 12-20 kg 2 m - 12220  Grease pump with trolley 12-20 kg 2 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12225  Grease pump with trolley 50 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28276 12230		_				1111	
With 75:1 grease pump capacity appr. 730 g/min  Description For container Hose length Trolley  Grease pump, Portable 12-20 kg 2 m - 12220  Grease pump with trolley 12-20 kg 2 m 28528 12221  Grease pump with trolley 50 kg 3 m 28528 12225  Grease pump with trolley 50 kg 3 m 28526 12325  Grease pump with trolley 180 kg 3 m 28276 12230	Grease pump with trolley	180 kg	Hose Reel	28043	12214		- 1
DescriptionFor containerHose lengthTrolleyGrease pump, Portable12-20 kg2 m-12220Grease pump with trolley12-20 kg2 m2852812221Grease pump with trolley50 kg3 m2852812225Grease pump with trolley50 kg3 m2852612325Grease pump with trolley180 kg3 m2827612230	Drum not included.						
Grease pump, Portable         12-20 kg         2 m         -         12220           Grease pump with trolley         12-20 kg         2 m         28528         12221           Grease pump with trolley         50 kg         3 m         28528         12225           Grease pump with trolley         50 kg         3 m         28526         12325           Grease pump with trolley         180 kg         3 m         28276         12230	With 75:1 grease pur			1			
Grease pump with trolley         12-20 kg         2 m         28528         12221           Grease pump with trolley         50 kg         3 m         28528         12225           Grease pump with trolley         50 kg         3 m         28526         12325           Grease pump with trolley         180 kg         3 m         28276         12230	_		_	Trolley			
Grease pump with trolley         50 kg         3 m         28528         12225           Grease pump with trolley         50 kg         3 m         28526         12325           Grease pump with trolley         180 kg         3 m         28276         12230		· ·				. 1	
Grease pump with trolley 50 kg 3 m 28526 12325 Grease pump with trolley 180 kg 3 m 28276 12230		_				1	
Grease pump with trolley 180 kg 3 m 28276 12230		-					12
		_					\
Grease pump with noney 100 kg 5 m 28045 12255		_				/   \	1
12210 12230	Grease pump with trolley	180 kg	3 m	∠8043	12255	12210	



2 GREASE

### **Mobile Grease Pump**

### Part.No

# Mobile Grease Pump, "De-Luxe", for 12-20 kg and 60 kg drums

Consists of a pump fitted to the lid of a protective container, incl. air coupling, grease hose, z-swivel and grease control valve. The container is mounted on a trolley fitted with four wheels.

With 55:1 grease pump capacity appr. 1000 g/min

Description For conta		iner	Hose length	
Grease pump "De-Luxe"	12-20 kg		2 m	12234
Grease pump "De-Luxe"	50 kg		3 m	12235
Description		For	Dimension	
Empty inner container 60 kg	12235	ø365x680 mm	2345386	
Empty inner container 20 kg	12234	ø295x375 mm	1825106	



# Mobile Grease Pump for 12-20 kg and 60 kg drums

Consisting of a pump (pressure ratio 55:1) capacity approx. 600 g/minute, 1/4" quick coupling, drum lid, grease hose, z-swivel and grease control valve.

Description	For container	Hose length	
Grease pump, Portable	12- 20 kg	2 m	12130
Grease pump with trolley	12-20 kg	2 m	12121
Grease pump with trolley	50 kg	3 m	12131
Grease pump with troney	30 Kg	<i>y</i> m	12131
Grease pump "De-Luxe"	12-20 kg	2 m	12134
Grease pump "De-Luxe"	50 kg	3 m	12135
Grease pump (bare pump)	12-20 kg		12540
Grease pump (bare pump)	50 kg		12541
Grease pump (bare pump)	180 kg		12542
Bung adapter, see page 37.			

Description	For	Dimension	
Empty inner container 60 kg drum	12135	ø365x680 mm	2345386
Empty inner container 20 kg drum	12134	ø295x375 mm	1825106







### **Mobile Pump for Chassis Lube**

Complete unit for 180 kg drum. Consisting of pump 22762, pressure ratio 15:1, 1/2"-hose (4 m) with quick coupling for transferring grease to vehicle chassis lube containers. Delivered with trolley for 180 kg drum, drum cover 28525 and follower plate 18572

**Description**Chassis lube unit

Dimension
450 x 620 x 1200 mm

22057





Hand operated Grease Pumps	Part.No	
Hand operated Grease Pump Simple hand pump. The nozzle is pressed against the fitting. Made of zinc coated steel with plastic lid. Max. pressure 25 MPa (250 bar), capacity 0,6 cm³/stroke.  Volume Dimension Type of nozzle 60 cm³ Ø 30 x 115 mm Funnel/hydraulic nozzle 60 cm³ Ø 30 x 115 mm Pointed nozzle 150 cm³ Ø 40 x 240 mm Funnel nozzle 150 cm³ Ø 40 x 240 mm Pointed nozzle 150 cm³ Ø 40 x 240 mm Simple hydraulic nozzle 150 cm³ Ø 40 x 240 mm Simple hydraulic nozzle	11001 11002 11003 11004 11005	11001
Lever Grease Pump, Standard  For use either with bulk grease (filled by hand or by loader pump) or the international 400 g lubricant cartridge, ø53 x 237 mm. Outlet tube with hydraulic coupling (4 jaws, ø14 mm) included. Capacity approx. 0,8 g/stroke (NLGI 2). Max pressure approx. 35 MPa (350 bar).  Description  Weight (approx.)  Lever grease pump, basic version 1,1 kg 11205 with 200 mm grease hose - part.no 14042 11205 with 300 mm grease hose - part.no 14044	11205 1120510 1120520 1120530	O Total Control of the Control of th
<b>Lever Grease Pump, large container</b> With an extra large container (1000 cm <sup>3</sup> ). For use with bulk grease filled by hand or by loader pump. Performance - see 11205.	11214	C
Lever Grease Pump, Heavy duty For use with either bulk grease (filled by hand or by loader pump) or 400 g lubricant cartridge, ø53 x 237 mm. Outlet tube with hydraulic coupling included. Capacity approx.0,8 g/stroke (NLGI 2). Max pressure approx. 50 MPa (500 bar).  Description Lever grease pump with bleeder nipple and hydraulic coupling 11210 with 300 mm grease hose (part.no 14043)	11210 1121020	
<b>Lever Grease Pump, Professional Duty</b> For use with either bulk grease (filled by hand or by loader pump) or 400 g lubricant cartridge, ø53 x 237 mm . Outlet tube with hydraulic coupling included. Capacity approx.1,3 g/stroke (NLGI 2). Max pressure approx. 70 MPa (700 bar).	11220	
<b>Lever Grease Pump, Extra Heavy Duty</b> For use with either bulk grease (filled by hand or by loader pump) or 400 g lubricant cartridge, <i>φ</i> 53 x 237 mm. Outlet tube with hydraulic coupling included. Capacity approx. 1,1 or 1,7 g/stroke (NLGI 2). Max pressure approx. 70 MPa (700 bar). Features a heavy duty lever with adjustable linkage for high pressure or high volume operation.	11230	

2 GREASE

### Hand and Air operated Grease Pumps Part.No Lever Grease Pump (Single hand operation) Grease gun, operated by one hand, for use with either bulk grease (filled by hand or by loader pump) or the internatio-11226 nal 400 g lubricant cartridge, Ø53 x 237 mm (Ø2 3/32" x 9 1/3"). Outlet tube with hydraulic coupling (4 jaws, Ø14 mm) included. Capacity approx. Model Max pressure Standard 0,7 g/stroke (NLGI 2) 45,5 MPa (455 bar) 11226 0,8 g/stroke (NLGI 2) 45,5 MPa (455 bar) Industry 11225 **Air Operated Grease Pump** Air operated grease gun complete with air bleeder valve and connection thread for loader fitting (part No 18002), outlet with nozzle (4 jaws, Ø14 mm). Each operation of the trigger delivers approx. 1,3 g of grease. Pressure ratio 60:1. Description Max air Follower Outlet Canacity pressure (approx.) Air operated 1 MPa (10 bar, Spring Rigid $500 \text{ cm}^3$ 12517 150 psi) grease pump 1 MPa (10 bar. 1000 cm<sup>3</sup> 12527 Air driven Hose Air operated grease pump 150 psi) **Grease Pump Outlet Hose** High pressure hose, 3/16"i.d. Nitrile rubber with one Nylon braid PN 50 Mpa (500 bar) and swaged couplings. Description Hose length **Connection thread** Outlet hose 200 mm G 1/8" (male - male) 14042 G 1/8 "(male - male) Outlet hose 300 mm 14043 Outlet hose 450 mm G 1/8 "(male - male) 14044 Outlet hose 1000 mm G 1/8 "(male - male) 14047 G 1/8" (male - male) Outlet hose 2500 mm 14052 Adapter (0105-2) G 1/8 "(female - female) 25101915 **Loader Pump for Grease Pumps** For loading bulk grease into lever and air operated grease guns. Capacity 50 gr/stroke. Included loader nipples for Ø9 and Ø12 mm. Description Loader Pump for 12 - 18 kg drums 11710 Loader Pump for 20 kg drums 11711 Loader Pump for 60 kg drums 11712 **Loader Nipple** For loading bulk grease into 11200 and 12500-series pumps with a loader pump. Description Connection thread Size Ø12 mm 18102 18103 18102 Loader nipple for lever pumps G 1/8"(m) Loader valve for the loader pump, G 1/4"(m) 18103 to be used with nipple 18102 Size Ø9 mm 18104 Loader nipple for lever pumps G 1/8"(m) Loader valve for the loader pump, 18105 to be used with nipple 18104 G 1/4"(m) 18104

Hand oper	ated C	Grease F	Pumps		Part.No	
_			vith hose and hyd	raulic		
coupling.  Description  Portable pump Round container	Volume 16 kg	Max pressure 15 MPa (150 bar)	Dimension (LxWxH) 490x240x630 mm	Weight (appr.) 7,3 kg	11017	11017
Portable pump Oval container	16 kg	35 MPa ( 350 bar)	380x170x620 mm	9,15 kg	11018	11018
Portable pump OriCan container	16 kg	15 MPa (150 bar)	490x240x639 mm	7,3 kg	11639	11639
1	directly to pressure ded. Capa mp 2gr/s	to a standa hose, outl	rd grease drum. F et tube and hydra pressure Diam (drun Pa (350 bar) Ø 265	ulic	11116 11118	
and hydraulic i  Description	ırable an	d dense. G cluded. Max p		netres) Capacity 2 gr/stroke	11300	
Grease Resolution Medium pressit tor for centralist Description Filler Pump for 51 Filler Pump for 20 Filler Pump for 66	ure pump sed greas kg drums 2 - 18 kg dr 0 kg drums	with 1,5 is reservoi	m hose and quick	connec-	11238 11713 11714 11715	11714
Bearing Pa This unit remoraller or ball be Includes a pro-	acker oves old gearings a tective co	and re-pack over to kee s for attack	n the race and cag ks them with fresl ep dirt out when n hing it to a workb	n grease. not in use	11709	



### **Cordless Grease Pump**

### Part.No

### 12 Volt Cordless Grease Pump

For use with either bulk grease (filled by hand or by loader pump) or the international 400 g lubricant cartridge, ø53 x 237 mm. High pressure delivery up to 45 MPa (450 bar) and 150 gr/min. Delivered with a high-capacity 12 V NiCd battery (1500 mAH), one-hour fast charger, 1 metre high pressure flexible hose with hydraulic coupler, bleeder valve and loader nipple. Delivered in a heavy duty carrying case (Total weight 6,2 kg) with space for an extra battery and cartridge.

Description	Max capacity	Max Pressure	Weight	
Grease pump	150 gr/min vith meter 14710	45 MPa (450 bar)	3,0 kg	13510 13520
Extra battery	vitii illetei 14/10			1355000
Extra hose				1355001





### 18 Volt Cordless Grease Pump

For use with either bulk grease (filled by hand or by loader pump) or the international 400 g lubricant cartridge, ø53 x 237 mm. High pressure delivery up to 45 MPa (450 bar) and 160 gr/min, has a capacity to deliver 8 cartridges per battery charge. Supplied with two high-capacity 18 V batteries, fast charger, 0,75 metre high pressure flexible hose with hydraulic coupler, bleeder valve and loader nipple.

All delivered in a heavy duty carrying case (Total weight 8,4 kg).

Description	Max capacity	Max Pressure	Weight		
Grease pump Extra battery	160 gr/min	45 MPa (450 bar)	4,0 kg	13515 1355010	
Grease pump with meter 14710					



### Cartridge Warmer

In cold weather conditions the Cartridge Warmer will keep the grease pump and/or cartridges at the optimum working temperature. The Cartridge Warmer can be used to heat either, the grease gun and one spare cartridge, or two cartridges.

11055





Grease Nozzles	Part.No
Grease Pump Outlet Tube Grease pump outlet tubes. Connection thread: G1/8" (m).  Description  Diameter incl nozzle jaws	14715
Outlet tube only, L=140 mm  Outlet tube + nozzle, L=140 mm  Outlet tube + nozzle, L=140 mm  Ø 15 mm  14512  4 pcs  Outlet tube + nozzle, L=140 mm  Ø 18 mm  14514  3 pcs	14715 14517 14519 14519
Hydraulic nozzle Connection thread on all nozzles G1/8" (f).	14512
DescriptionDiameterJawsCommentHydraulic nozzleØ 15 mm4 pcsHydraulic nozzleØ 18 mm3 pcsHydraulic nozzleØ 14 mm3 pcsHydraulic nozzleØ 18 mm3 pcsRelease valve, for releasing of looked nozzles	14512 14514 14560 14001 14523 14560
Slip-Sleeve Connectors For easy change of different nozzles.  Description  Slip- Sleeve connector for 14514  Slip- Sleeve connector for 14512  Needle 45 mm	14015 14016 14017  14018 14019  14018 14019  14018 14019 14018 14019 14035 14070
Slip-Sleeve, Needle nozzles For connection to all hydraulic nozzles.  Description Needle Slip-Sleeve Needle nozzle Ø 6 mm 21 mm Slip-Sleeve Needle nozzle Ø 6 mm angel 45° 21 mm Slip-Sleeve Needle nozzle Ø 1,5 mm 45 mm Slip-Sleeve Needle nozzle Ø 2 mm Kit of all four in a plastic box	14071 14072 14073 14074 14076
Needle nozzles Connects with G1/8"(f) to a hose or a rigid tube.  Description Needle nozzle with protection Needle nozzle with rubber tip Needle nozzle	14067 14068 14069 14067 14068 14069
Button Head Nozzles Connects with G1/8 " (f) to a hose or a rigid tube.  Description Nipple head Height Sulton Head Ø 16 mm, 15 mm 6-hex 20 mm Rubber Button Head Ø 16 mm, 15 mm 6-hex 21 mm Metallic Button Head Ø 16 mm, 15 mm 6-hex 22 mm Rubber Button Head Ø 22 mm 28 mm Rubber Button Head Ø 22 mm 44 mm Rubber Button Head Ø 22 mm 21 mm Metallic Button Head Ø 22 mm 21 mm Metallic	14045 14046 14055 14046 14055 14050 14056 14057 14050 14056 14057 398726



2 GREASE

Hydraulic	Grea	se Fittings		Part.No	
LUB-Nozz Connects with Description LUB, Zerk LUB, Flush		r(f) to a rigid tub	e.	14005 14006	14005
Hydraulic ( Material: Zine Stai Principal: Jaw (rub	c coate nless S rs grip ober or the fitt Part 90° 535F 535	ed steel, hardened Steel equivalent the fitting head,	to SS 2346 (AISI303) metallic seal . The nozzle is twisted		509 547K 525 509F
monly used hyproof plastic.  19009 contains and G 1/8" in stings. The box ments.  Description  Grease fitting select	350 fi draulic an ass straight is mad	ttings selected fit fittings. The bosortment of M6x 4, 45°, 90° design	rom the 17 most com- x is made of crush  1, M8x1,25, M10x1 1, in all a total of 140 fi 12 different compart-	19002 19009	19002
	ulic gr		se Fittings n ingress of dirt.	P499	



LUB- a	and Bu	itton Head	l Fittings		Part.No				
Material: Principal:	Zinc of The p	Fittings coated steel. comp nozzle is lic seal.  Conn. thread (m) G1/8" G1/8" G1/4" M6x1 M8x1,25 M10x1 W1/4" W5/16" Ø 6 mm Ø 6 mm Ø 8 mm Ø 8 mm	pressed against th  Remark  Zerk type Flush type Zerk type Flush type Zerk type Terk type Zerk type	c h		129		112	119B
Material: Principal: Part No 6 22 mm  1824 ND6151 1823 1822A 18201	Zinc of Stainle The n	ozzle grips the	thread (m) G1/8" G1/8" Stain 1/8" NPTF G1/4" G3/8" G3/8" 1/4" NPTF 3/8" NPTF 1/2" NPTF M10x1	ng when		211	ND616	0 A1186	ND615
Extens Makes it lubricatio  Description Extension	possible n. Length 32 mm			ds	171		•	25 mm	D
	e tool to w straigh 1/4" - 28"	nt and angle-ty	n fittings, re-thread pe fittings.	d holes and	315790 315791	315790	h	315791	

2 GREASE

## The Grease Joint Rejuvenator Part.No The Grease Joint Rejuvenator Simply fill the tool with a light oil and with a few taps the joint will open. The Grease Joint Rejuvenator will allow a clogged grease fitting and /or joint to take on grease by injecting a light viscosity oil into the grease joint via the grease fitting, thus breaking up and removing any dirt, rust or debris. The purpose of this tool is to free up the joint and the fitting enabling them to be greased. When using the tool, be sure to bleed any air out that may be trapped in the tool body. Once the tool is installed onto the grease fitting, only a tapping of 11012 the piston is required to open a joint Description 11015 The Heavy Duty Grease Joint Rejuvenator cleans and unclogs grease joints and fittings. Supplied with a 125 mm (5") Flex Hose and a Plastic Storage Replacement nozzle for 11015 14516 The Pen Model Grease Joint Rejuvenator cleans and unclogs grease joints 11012 and fittings **ZEE LITE** Grease pump light, fits to the outlet tube on the grease pump, helps to locate grease fittings in dark places. The intense, focused beam, can swivel through 360° and tilt 53001 90°. 100 hours battery life, LED (no bulb to replace). Weight 30 grams. **Grease Paddle** Tool that helps you to clean the drum walls in a drum when 11050 it is nearly empty. Length: 1 000 mm

N	otes:	

# Waste Oil



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Electric Vacuum Systems	48-49
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Waste Oil Containers and Trollies	55-5
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Air Driven Vacuum Pump	61-62







### **Information**

### Waste Oil Handling

The easiest way of collecting waste oil when servicing vehicles is to use a waste oil bowl in a container or in a drum, on a trolley under the vehicle on the lift. To extract waste oil directly through the dip stick hole, waste oil units with suction probes are used. In lubrication pits, waste oil containers on wheels running on the pit rails are another possibility. If the containers can not be emptied by gravity, an air-operated suction pump can be used. The pump can either be mounted on the container or be part of a fixed installation on a wall or floor and connected to the container by a suction hose. The waste oil is usually pumped through pipes to a remote collector tank which is emptied by waste reclamation companies when needed.

Waste oil is harmful and considered to be a hazardous product, with local authorities having special rules & regulations that have to be observed.

We have the knowledge and can help you with solutions.

### Centralized Vacuum Systems

### THE WASTE OIL SYSTEM THAT NEVER LOOSES ITS POWER!

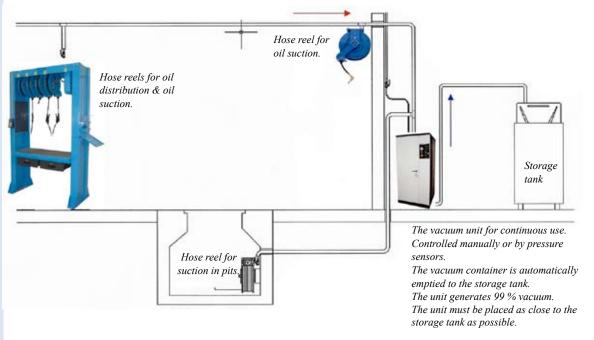
- Direct from the engine to the storage tank.
- No personal contact with the waste oil.
- No need of mobile equipment.
- Suction probe with quick connections.
- Fixed installation with hose reels.







### **Vacuum Systems**



# Automatic Vacuum units for up to 8 work places in simultaneous use.

High Vacuum automatic unit for use in centralized waste oil suction systems in large vehicle maintenance workshops. The unit is easy to install and does not require any special on the field adjustments. It simply requires connecting it to a compressed air supply (8 bar maximum pressure) and to a 220-240 V power supply once the discharge to the waste oil storage tank pipeline and the vacuum pipeline have been installed.

- Vacuum reservoir that can be pressurized up to 8 bar for its discharge once it is full with waste oil.
- Reservoir includes two level sensors that controls the automated discharge of the reservoir to a remote storage tank. Once the discharge is completed, the unit automatically generates the optimal vacuum conditions again.
- Maximum vacuum in reservoir: 99%.
- Electronic control board for controlling main functions and manual discharge knob.

The units are designed and manufactured for its use with waste oil only.

Vacuum unit for 1 to 3 work places in simultaneous use.

Vacuum unit for up to 8 work places in simultaneous use.



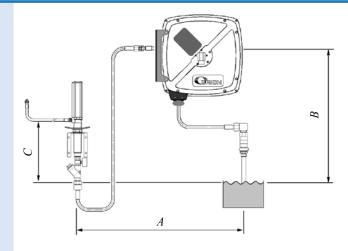
29735





WASTE OIL 3

### **Installation of Suction Pumps**



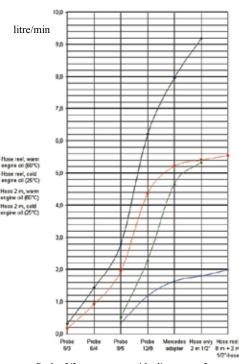
# Installation of Suction and Waste Oil Pump, 22802

For maximum efficiency, the pump should be installed as close as possible to the suction point at the same level as the liquid. Installing the pump in any another way will increase the emptying time. The drawing above shows an installation with acceptable capacity and emptying time.

- A Max recommended length between pump and suction point incl. hose reel:
- 12 m
- **B** Max recommended suction height, from liquid level to hose reel centre:
- 2,5 m
- C Max recommended distance, between pump outlet and liquid level:
- 1 m

A non return valve at the pump outlet is recommended.

### Capacity Chart



Probe 5/3 means: outside diameter ø 5 mm inside diameter ø 3 mm

# Waste Oil Suction Kit with Suction Probes and Hose Reel

Complete kit to drain waste oil using probes. The kit includes the following: hose reel, suction pump 22802, wall bracket, quick coupling with suction probes 2295014, suction strainer with vacuum gauge and air quick coupling. Capacity when using ø8 mm suction probe (engine oil +60°C): 2 l/min.

### Description

Waste oil suction kit with suction probes and hose reel

Probe bracket, to be mounted on the wall

### SPEC6044 28291



### **Waste Oil Suction Unit**

Stationary waste oil suction unit with air operated piston pump. The unit is installed at the service bay and enables the cleanest method of waste oil collection.

An air operated piston pump sucks out the waste oil and transfers it directly to a remote storage tank. Waste oil is sucked out through a probe or connector inserted in place of the oil dip stick.

### Description

Waste oil suction kit with suction probes







# For optimum capacity, always choose the largest diameter and the shortest possible length of hose!

# Hose Reels for Waste Oil Suction

### Part.No

### **Hose Reel for Waste Oil Suction**

Open hose reel, series ORK. Delivered with handle 2195075 for quick connection/change of the probes.

Description	Hose diam.	Hose lengths (metres)	
Hose Reel ORK	1/2"	10	24470
Hose Reel ORK	1/2"	6	24471
Hose Reel ORK	3/4"	6	24472



### Hose Reel for Waste Oil Suction

Cased hose reel, CR Series. Delivered with handle 2195075 for quick connection/change of the probes.

Description	Hose diam.	Hose lengths (metres)	
Hose Reel CR	1/2"	10	24480
Hose Reel CR	1/2"	6	24481



### **Hose Reel for Waste Oil Suction**

Cased hose reel, MR Series. Delivered with handle 2195075 for quick connection/change of the probes.

Description	Hose diam.	Hose lengths (metres)	
CRM Series	1/2"	10 m	24490
CRM Series	1/2"	6 m	24491
CRM Series	3/4"	5 m	24492



### Accessories for waste oil suction

### Description

Probe Kit comprising a probe holder, VAG adapter, BMW adapter, two plastic probes 700 mm long ø 6 and 8 mm, two metal tubes 700 mm long ø 5 and 6 mm and a 1200 mm long plastic probe ø 8 mm.

Suction Hose, to be connected to the hose reel, 0,7 m, with strainer (29312) and used together with probe kit 2295014 (Mercedes adapter included)

Suction Strainer, to be connected between the hose reel and the suction hose, to prevent contamination to the hose and pump





### Pit Equipment





### **Automatic Waste Oil Equipment**

This system is designed for use in lubrication pits but can also be used with lifts. The collector arm is connected to the drain bowl (24555). Oil is gravity fed into a 25 litre tank with a float switch, which controls the air supply to the discharge pump. When maximum level is reached in the 25 litre tank the air operated pump starts and the waste oil is pumped to a remote container tank.

### **Collection Bowl for cars**

Swivel arm collector bowl with adjustable height and strong swivel joints. Constant flow rate independent of bowl height.

Description	<b>Bowl dimension</b>	Capacity	Connection
			thread
Collection bowl	700 x 250 mm	approx. 18 litre	G 1 1/2" (f)

### **Collection Bowl for Commercial Vehicles**

Complete set, with swing arm and support bar on castors.

1 /	C	1 1	
Description	<b>Bowl dimension</b>	Capacity	Connection
			thread
Collection bowl	1000x400 mm	approx. 50 litre	G 1 1/2" (f)

mm approx. 50 litre G 1 1/2" (f) 24549





### Waste Oil Bowl on rail in pit.

An alternative solution with a pneumatic adjustment of the bowl and pump level for emtying waste oil. Bowl dimension 700x300 mm (approx 30 litres). Connected with quick coulplers.

### Description

Waste Oil Arm with 1:1 pump Waste Oil Arm with 5:1 pump Quick Coulpler Kit Rail 4 m with fastening Kit

Part.No

24555



### Waste Oil Unit for Pit Use

With adjustable wheels for mounting on pit rails. The unit can be emptied by a pump system, 29068 must be fitted with a quick coupling set (29108) for easy connection of the discharge hose.

Description	Volume	Dimension	Weight	
	(approx.)	$(L \times W \times H)$	(approx.)	
Waste oil unit for pit use,	90 litre	1030-1450 x820x460 mm	45 kg	29068
Waste oil unit for pit use,	55 litre	880-1330 x660x190 mm	31 kg	29003
Quick coupling set, must be used when emptied using discharge pump.				





### **Automatic Emptying Unit**

The automatic emptying unit consists of a 25 litre collector tank with float switch and an air operated (1:1) transfer pump with wall bracket and all necessary oil and air line accessories.

Description	Connection	thread
-------------	------------	--------

Automatic emptying unit Pump: Air inlet

Pump: Air inlet G1/4" (f)
Oil outlet G3/4" (f)
Oil inlet G1" (f)

Tank: Oil inlet (from 24555) G1 1/2" (f)
Oil outlet (to pump) G1" (f)

SPEC6011





### Pit Platform and Lift

### Part.No

64010

### Pit Platform

The pit platform runs on a rail fixed to the pit floor and is height adjustable, enabling ease of access to all the places under the vehicle. Driven by compressed air it has the capacity to lift a person and tools. Standard accessories include a tool tray, air connection and brake. Safety features include trap protection.

Description Lift capacity WxD

 height
 weight

 Pit Platform
 670mm
 200 kg
 1200 x 840 mm

atform 670mm 200 kg 1200 x 840 mm 64000



### **Hydraulic Pit Lift**

Hydraulic pit lift for heavy transport vehicles. The carriages are manufactured for all types of inspection pits (ask for a form to submit your pit dimensions).

Three modes of operation: Neutral, fast moving and lifting mode. When released the valve automatically returns to neutral mode and the lift is locked in the existing height mode.

Min height above floor: 100 mm

Hoist travel: 500 mm Lifting time: appr. 40 sec.

The lift can be supplied with a piston extension for lifts up to 900 mm.

Description Capacity Max air pressure

Hydraulic Pit Lift 15 000 kg 8 bar





# For other configurations, contact us!

### Mobile Waste Oil Units With Bowl

### Part.No

### **Waste Oil Units**

Waste oil units for gravity collection of motor and gear oil into a 20 litre bowl. All units can be used underneath lifts or in pits.

The unit can be discharged by gravity, air pressure or be emptied by a pump on the unit or externally placed. Discharge by air pressure is carried out through a 2m hose with the unit connected to a tyre inflator. A safety valve ensures that the pressure never exceeds 0,5 bar.

Some of the units can be used for pneumatic suction through suction probes. Vacuum is generated by an ejector on the unit, driven by 7- 10 bars air pressure. Once the vacuum is generated they can be used without being connected to the airline.

The vacuum unit can be fitted with a transparent 10 litres container, to measure the volume of oil evacuated. Vacuum units are delivered with a probe kit comprising a probe holder, Mercedes adapter, VAG adapter, BMW adapter, two plastic probes 700 mm long ø 6 and 8 mm, two metal tubes 700 mm long ø 5 and 6 mm and a 1200 mm long plastic probe ø 8 mm.All units are suitable for all noncorrosive fluids.

NOTE! Do not use for volatile or highly inflammable liquids like petrol (gas).

# 100 litre Waste Oil Container with a unique bowl design

The container is fitted with an asymmetric swivelling bowl with a specially designed anti splash mesh. The top of the container has a fixed tray for tools, washers, oil plugs etc. The base has a special outlet hose holder.

Description	Dimension (W x D x H)	Weight
Waste Oil Container	630 x 500 x 1500- 2000 mm	28 - 33 kg

Description

Waste Oil Container, Standard.

Waste Oil Container with ejector and suction probes

Waste Oil Container with ejector, suction probes and transparent vacuum chamber

Waste Oil Container with air operated pump for suction and pumpaway, suction probes included

Waste Oil Container with ejector and suction probes, without bowl

# 29505 29508

### Accessories for the 295 and 294 series Units

Description

Probe Kit comprising a probe holder, VAG adapter, BMW adapter, two plastic probes 700 mm long ø 6 and 8 mm, two metal tubes 700 mm long ø 5 and 6 mm and a 1200 mm long plastic probe ø 8 mm  $^{\circ}$ 

Quick Coupling Kit, to be used when emptied using an external discharge pump

Pump kit for pumpaway, to be fitted on to the unit (29505, 29405). Pump 22700 included

Pump kit for pumpaway and suction from engines, to be fitted on to the unit (29505, 29405). Pump 22702 included

Waste oil filter, for use on waste oil containers to prevent contamination to enter into the pumps.





29505

29507

29508

29506

29517

2295017

29320

29325

29310

### Mobile Waste Oil Units With Bowl

### Part.No

29405

29406

29417

29049

29551

### **Waste Oil Units**

Waste oil units for gravity collection of motor and gear oil into a 20 litre bowl. All units can be used underneath lifts or

The unit can be discharged by gravity, air pressure or be emptied by a pump on the unit or externally placed. Discharge by air pressure is carried out through a 2m hose with the unit connected to a tyre inflator. A safety valve ensures that the pressure never exceeds 0,5 bar.

Some of the units can be used for pneumatic suction through suction probes. Vacuum is generated by an ejector on the unit, driven by 7- 10 bars air pressure. Once the vacuum is generated they can be used without being connected to the air line

The vacuum unit can be fitted with a transparent 10 litres container, to measure the volume of oil evacuated. Vacuum units are delivered with a probe kit comprising a probe holder, Mercedes adapter, VAG adapter, BMW adapter, two plastic probes 700 mm long ø 6 and 8 mm, two metal tubes 700 mm long ø 5 and 6 mm and a 1200 mm long plastic probe ø 8 mm. All units are suitable for all noncorrosive fluids.

NOTE! Do not use for volatile or highly inflammable liquids like petrol (gas).

### 65 Litre Waste Oil Container with a Bowl

Small efficient unit, just what you need, perfect for the small garage.

Accessories are the same as for the 100 litre unit.

Dogo	in	tion	
Desc	rıp	uoi	ı

Waste Oil Container, Standard 29407 Waste Oil Container with ejector and suction probes 29408 Waste Oil Container with ejector, suction probes and transparent vacuum chamber

Waste Oil Container with air operated pump for suction and pumpaway, suction probes included

Waste Oil Container with ejector and suction probes, without bowl

### 24 Litre Mobile Waste Oil Suction Unit

24 Litres capacity waste oil suction unit with 2 m oil suction hose.

### Description

Waste Oil Container with ejector and suction probes

### 35 Litre Mobile Waste Oil Unit for **Motor Bikes**

35 Litres capacity waste oil unit with a low bowl for motor bikes. The unit can be discharged by gravity or air pressure.

### Description

Waste Oil unit for Motor Bikes







### **Waste Oil Equipment** Part.No **Basic Waste Oil Unit** 95 litre capacity waste oil unit with appox 20 litre capacity adjustable height collector bowl. With the addition of various accessories to the base unit, a number of models are available, including gravity discharge, pump away, wall pump discharge and dipstick suction units. Description Dimension (L x W x H) Weight Waste oil unit 600 x 550 x 1150-1750 mm 25 kg Complete Waste Oil Units Description 29520 with gravity discharge through a valve and angled outlet tube 29521 29520 with quick coupling nipple. Emptied with SPEC 6025 or 6026. 29526 29520 with pump and quick coupling nipple. 29527 As 29527 with waste oil outlet hose included. 29528 As 29527 with waste oil outlet hose and air connection kit included. 29529 As 29528 with alternatively as a dip stick suction unit using the probe 29527/BT 29527 29528 **Waste Oil Bowl for Drums** Waste oil bowl, with adjustable bung adapter, G2" (male), suitable for mounting in a 200 l or 60 l drum. ø 480 mm. Description Adjustable height **Bowl volume** Weight 26502 Waste oil bowl approx. 600 mm approx. 20 litre Low level Mobile Drainer (95 Litre) Gravity drain collection unit which is discharged using a 29077 wall mounted pump kit and quick coupling set. Description Volume Dimension Weight $(L \times W \times H)$ (approx.) (approx.) 29077 Low level mobile drainer 200 litre 1450x820x360 mm 60 kg 29075 44 kg Low level mobile drainer, 95 litre 1250x610x260 mm Low level mobile drainer, 55 litre 1000x660x210 mm 29 kg 29001 29073 29073 Low level mobile drainer, 20 litre 770x470x130 mm 18 kg 29108 Quick coupling set, must be used when emptied using discharge pump **Collection and Refilling Unit for Coolants** Suitable for draining and refilling the same liquid after completing the service. Consists of a low level waste oil unit (29075), liquid pump (22720), strainer (28022), hoses and necessary accesories. Description Volume Dimension Weight (approx.) $(L \times W \times H)$ Collection unit 1250x610x260 mm 53 kg 29004 1060 mm (42") "Filter rug" 400 mm (16") 30 mm (11/4") thick, for use in waste oil bowls to prevent 29139 splatter and contamination entering the discharge pump. Struktur

### **Suction & Waste Oil Pumps**

### Part.No

22802

22575

### Suction & Waste Oil Pumps 1:1 & 5:1

Double acting, air operated oil pumps for non-corrosive liquids, waste oil etc. For wall or floor installation, the pumps are designed to create maximum vacuum and will not race when there is no liquid in the suction side. Recommended when you can't control the pumping process or when using suction probes. In other cases use the standard oil pumps (Refer to the oil section).

Bung adapter G2" (m) included (part no 28595).

Pressure ratio: 22802 1:1

22575 5:1

Capacity 22802 Max 18 l/min., free flow, air press.

1,0 MPa (10 bar)

22575 Max 38 l/min., free flow, air press.

1,0 MPa (10 bar)

Air pressure Max 1 MPa (10 bar)

Connections G1/4" (f) Air. Oil:

Inlet G3/4" (f) Outlet G1" (f)

Weight 22802 - 2,8 kg

22575 - 4,9 kg

22802

NOTE! Do not use for volatile or highly inflammable liquids like petrol (gas).

### Suction & Waste Oil Pump 2:1

Double acting, air operated oil pump for non-corrosive liquids, waste oil etc. For wall or floor installation, the pump is designed to create maximum vacuum and will not race when there is no liquid in the suction side.

Pressure ratio: 22780 2:1 22780

Capacity Max 60 l/min, free flow, air press. 1,0 MPa (10 bar)

Air pressure Max 1 MPa (10 bar)

G1/4" (f) Connections Air.

Inlet G3/4" Oil:

Outlet G3/4"

Weight (approx.) 10 kg

NOTE! Do not use for volatile or highly inflammable liquids like petrol (gas).



		Part.No	
Wall Mounted Pump I Components for a wall mounte return valve (28295) and strain	ed air operated oil pump, non	99631	
NOTE! Pump not included.			+-(1)
Select a pump 22700, 22802 or	r 22575.		
Floor Mounted Pump Components for a floor mounter return valve (28295) and strain	ed air operated oil pump, non	99632	(i) (i) (ii) (iii)
NOTE! Pump not included.			8
Select a pump 22700, 22802 or	r 22575.		
used in a modern car workshop stainless steel filter cartridge. (tions). The filtration is sufficie from entering the pump and the cleaned regularly to remove a BSP(f) threads on the top of the vacuum gauges. The strainer is to the strainer chamber. When \$\partial 3\$ mm hole must be drilled in Attaching two vacuum gauges over the cartridge. Max work pressure:  Max work pressure:  Max working temperature:  Dimension:  Weight:  Effective strainer area:  Connection thread:	using is resistant to most fluids p and equipped with a 32 mesh Equivalent to ~0.6 mm perforant to prevent harmful particles e washable strainer should be ny contamination. The two ¼ e strainer can be used to attach s delivered without a hole down attaching a vacuum gauge a	1	29300
Description Suction Strainer Gauge for vacuum Lock nut for gauge. Used to lock the g Extra strainer insert, 32 mesh Installation kit for connection direct to		29300 2326013 1988211 2390169	$ \begin{array}{c} A \\ B \end{array} $ $ \begin{array}{c} C \\ D \end{array} $ $ \begin{array}{c} F \\ G \\ H \end{array} $
pumps 1:1 and 5:1,including following A, B, C, D, G (H and I).  Installation kit if the strainer is installed be required including following comp	g components.  ed remote from the pump a hose will	2490171 2490172	
A, B, C, E, F, G (H och I).  Installation kit, for connecting direct t following components:  pos. C. D. G (H och I).	o the 2:1 ratio suction pump including	2490173	C



pos. C, D, G (H och I).

### **Installation Kits and Accessories** Part.No **Pump Timer** With the timer installed in the air supply line it is possible to put in a running time for the pump, to increase the lifetime on the pump, by reducing the time where the pump is running without liquid. The timer can be set between 0- 120 minutes. Description **Connection Threads** Weight Max. pressure 23008 Pump timer In: G1" or G3/4" or G1/2"(f) 0,2 kg 8 bar Out: G3/4" (m) Non Return Valve Connects to the pump outlet. Connection G3/4"(f). 28295 **Hand Operated Suction Unit** For evacuating up to 41 of liquid using a pre-pumped vacuum. Ideal for evacuating motor oil from lawnmowers, or other liquids from hard-to-access areas. Tank can be emptied into a collection tank after the pump is disconnected. Tank, hose and suction probe made of high-quality plastic, pump tube and control valve made of brass. With vacuum meter. Max liquid temperature +30°C. Weight 1,4 kgs. Description Work.Pressure Pressure Generator 3253P Suction unit,4 litres - 0.7 bar vacuum Hand pump **Suction Pump** For filling and emptying small containers, gear boxes etc. Volume Description 21040 $500 \text{ cm}^3$ Suction pump 21044 800 cm<sup>3</sup> Suction pump 21635 Oil Drain & Parts cleaning pan Handy oil drain & parts cleaning pan for washing small parts or for oil drain. Made of oil and chemical resistant polyethylene. Description Oil Drain & Parts cleaning pan with 8 litre capacity. 21635 21619 Oil Drain & Parts cleaning pan with 14 litre capacity. Black Oil Drain & Parts cleaning pan with 14 litre capacity. Green 21649 21619 21649

### **Vacuum Pump**

### Part.No



### Air Operated Vacuum Pump/Liquid Pump

A reliable drum mounted vacuum pump for fast emptying of cutting fluids, paint sludge, water, waste oil etc. from machine tools, spray booths, engines or other machines. The vacuum is easily adjusted with a needle valve and is indicated on a gauge. When the drum is full, the pump stops automatically and an indicator shows current status.

### Vacuum Pump, basic model

Basic model, (22582) comprising pump body and bung adapter only, for mounting in drums or tank with G2" (f) thread.

 Description
 Dimension Vacuum pump, basic model
 Air 270 mm
 Air Consumption approx. 60 l/min Air: G1/4" (f)
 Connection Air: G1/4" (f)

 Suction hose:ø25 mm



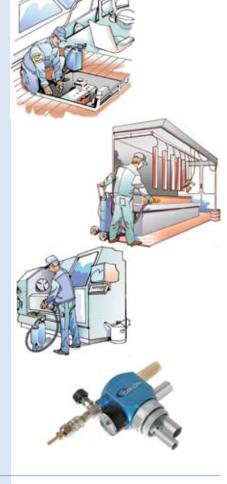
Vacuum pump (22582) complete with air connection kit (22587).

Description
Vacuum pump, with air connection kit

Connection
Air: 1/4" hose socket

22584

22582



### **Vacuum Pump with Suction Hose**

Vacuum pump (22584) complete with suction hose (22588).

 Description
 Connection

 Vacuum pump, with suction hose
 Air: G1/4" (f)





# Vacuum Pump with Air Connection Kit and Suction Probes

Vacuum pump (22582) complete for evacuating oil through suction probes inserted into the crankcase, gearbox, etc. Complete with air connection kit (22587), suction hose (2295018) & probe kit (2295014).

**Description**Vacuum pump, with suction hose,

air connection kit and suction probes Air: 1/4" hose socket





1	/acuum Pum	ıp	Part.No	
1	Accessories for Vacuum Pump			F -
	Pos Description A Air connection kit	Remark Consisting of shut-off valve, gauge, nipple, quick coupling and hose clamp	22587	A B
E	3 Suction hose	Consisting of hose (ø25 mm, length 2,2 m) and aluminium tube length 200 mm	22588	С
C	Suction probe kit	Probe Kit comprising a probe holder, VAG adapter, BMW adapter, two plastic probes 700 mm long $\varnothing$ 6 and 8 mm, two metal tubes 700 mm long $\varnothing$ 5 and 6 mm and a 1200 mm long plastic probe $\varnothing$ 8 mm	2295014	
(	Suction probe kit	same as above with a wall barcket	28291	
Ι	Suction hose	2 m suction hose with handle and valve to be used with suction probe kit 2295014	2295018	
E	Suction tube	Aluminium, length approx. 1 m	2090151	D
F	Gauge	Indicates vacuum, 0 to -1 bar	2326013	Е
(	Bung adapter	To be used when the vacuum pump is frequently moved between different container	2085147	G S
F	I Reducer	Reduce adapter to be used when connecting the suction hose to the vaccuum pump	25201297	<b>а</b>

### **OriDrain - Mobile Suction Drain Unit**

This unit can be used to drain most fluids - even heavily contaminated - from machinery, engines, gear boxes, coolant containers, etc. The unit consists of a 36 litre polyethylene container, an aluminium stand with wheels and a vacuum pump 22585. The pump stops automatically when the container is full. The container can be emptied by pouring out the fluid or by moving the vacuum pump to an empty drum and using it to drain the liquid. Max. working temperature +60°C, temperature may be allowed to reach +90°C for a short period.

Description (W x D x H) OriDrain	<b>Dimension</b> 380x280x950 mm	Air consumption 60 l/min.	Volume (approx.) 36 litre	Weight (approx.) 8,5 kg	29510
OriDrain with probe kit	380x280x950 mm	60 l/min.	36 litre	8,5 kg	29511



### Portable Suction Drain Unit, OriCan

This unit can be used to drain most fluids - even heavily contaminated - from machinery, engines, gear boxes, coolant containers, etc. The unit consists of an air operated vacuum pump 22585, fitted to an OriCan container made of polyethylene, with carrying handle and ø100 mm filling hole. Including 2,2 m suction hose (22588). Suction capacity max. 60 l/min. (water) Max. vacuum 50%. Max. temperature +60°C.

OriCan, container only, approx. 16 litre Pump adapter, G 2" (f) - G2" (f) 22590

1085112 1085076









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**Spring operated Hose Reels** 

### Part.No Series ORK, ORM Open hose reel. Length Diameter Conn. threads Work. Pressure mm-inch MPa bar Series ORK G3/8" (f) 1,5 1,5 44231 10 10 - 3/8" 15 12,5 - 1/2" 15 Series ORM 15 G1/2" (f) 44241 **Series ORS** More information in the Hose reel section! Open hose reel. Length Diameter Conn. threads Work. Pressure mm-inch MPa bar m G3/8" (f) 744220 Series ORS 15 10 - 3/8" 1,5 15 G1/2" (f) Series ORS 1,5 15 12,5 - 1/2" 15 744230 **Series OR** An open hose reel with longer hose lengths. If mounted to the ceiling the hose guide must be located to give correct hose direction. The hoses are fitted with swaged couplings. Length Diameter Conn. threads Work. Pressure mm-inch MPa bar Series OR 12,5 - 1/2" G1/2" (f) 15 44240 1,5

### **Series CRM**

Medium sized enclosed hose reel.

The hose reel can be mounted to the ceiling, the wall or the floor. The wall bracket can easily be moved to fit other installations.

	Length	Diameter	Conn. threads	Work. Pressure		
	m	mm-inch		MPa	bar	
Series CRM	15	10 - 3/8"	3/8" (m)	1,5	15	944220
Series CRM	10	12,5-1/2"	1/2" (m)	1,5	15	944230





### **Spring operated Hose Reels**

### Part.No

### **Series CR**

Enclosed hose reels. The hose reel can be mounted to the ceiling, the wall or the floor. The wall bracket can easily be moved to suit other installations. All hoses have swaged couplings.

	Length Diameter		Conn. threads	Work. Pressure		
	m	mm-inch		MPa bar	Series	
Series CR	15	10 - 3/8"	G3/8" (m)	1,5	15	44220
Series CR	10	12,5-1/2"	G1/2" (m)	1,5	15	44230



### **Series CRS**

Enclosed hose reels for air, supplied complete with a pivoting wall bracket. Hoses are fitted with swaged couplings.

	Length m	Diameter mm-inch	Conn. threads	Work. l MPa	Pressure bar	
Series CRS	12	8 - 5/16"	G1/4" (m)	2	20	44205
Series CRS	15	8 - 5/16"	G1/4" (m)	2	20	44206
Series CRS	10	10 - 3/8"	G3/8" (m)	2	20	44210



For the complete range of hose reels see the hose reel section!



	Inits (FRL)	Part.No	
proven materials and p air flows up to 900 l/m	its combine the best of design broduction methods. They can in. Material: Zinc. Volume 40 n <sup>3</sup> (lubricator), max working p	handle cm <sup>3</sup>	42105
Description	Conn. Consist of:		1111 4.
Air treatment unit, complete, assembled	thread G1/4" (f) 42107, 42108, 42009,	42112 42105	42104
Air treatment unit	G1/4" (f) 42107, 42108, 42112	2 42104	
Air treatment unit	G1/4" (f) 42107, 42009, 42112	42103	42103
Shut-off valve Shut-off valve with dov Description Shut-off valve	wnstream air bleed. Material:  Conn. thread G1/4" (f) 1 MPa (10 bar)	Brass. 42009	
5 μm filter element. Ma	Pa, lockable, two stage filtration aterial: Zinc		42107
<b>Description</b> Conn. thread Filter-regulator G1/4" (f)	pressure	to +60°C 42107	ų.
Filter-regulator G1/4" (f)  Lubricator	pressure 40 cm³ 1,2 MPa (12 bar) +5  a fill port and adjustment knob  Volume Max working Te pressure	to +60°C 42107	42108



	tives, biov	w Gun			Part.No	
Shut-off va	lves					
Ball-valves ma		with PTFE-	-seals, long o	or short		
levers, intende			, - 5	-		-
	Conn. thread (1		PN	Lever		
7640-3/8	G3/8"	*	/IPa (64 bar)	Long	30101117	
7640-1/2	G1/2"	,	/Pa (64 bar)	Long	30101117	
7640-3/4	G3/4"		IPa (64 bar)	Long	30101033	CONTRACT OF THE PARTY OF THE PA
7640-1	G1"		/Pa (40 bar)	Long	30101111	_
7640-1-1/4	G 1 1/4"		1Pa (25 bar)	Long	30101081	_
7640-1-1/2	G 1 1/2"		4Pa (25 bar)	Long	30101087	
7640-2	G2"		/Pa (25 bar)	Long	30101001	震
7641-1/4	G1/4"		/Pa (64 bar)	Short	30101102	
7641-3/8	G3/8"		/IPa (64 bar)	Short	30101129	
7641-1/2	G1/2"	,	/Pa (64 bar)	Short	30101123	28513
Needle valve	G1/4"		/Pa (25 bar)	Knob	28513	
	· · · · · · · · · · · · · · · · · · ·	_,- 11	, <del></del> /		20010	
Blow gun						
Blow gun for e	efficient clear	ning, made	of impact re	esistant		(0)323(1)
plastic with er						
approx. 100 m		C		_		
11						
Description		thread	Weight (a	pprox.)	44502	
Blow gun	G1/4"	(1)	100 g		44503	
<b>Tyre inflate</b> For connection -10 bar ( 10 - 1) Delivered with	n to a pneuma 170 psi), is pr	rotected by	a rubber co			
For connection -10 bar (10 - 1 Delivered with <b>Description</b> Tyre inflator	n to a pneuma 170 psi), is pr 1 0,3 m hose Conn. G1/4"	rotected by and air noz thread (f)	a rubber co	ver.	44635	
For connection -10 bar ( 10 - 1 Delivered with Description Tyre inflator	n to a pneuma 170 psi), is pri 1 0,3 m hose Conn. G1/4"	rotected by and air noz thread (f)	a rubber co zzle. Weight (a	ver.	44635	44634
For connection -10 bar ( 10 - 1 Delivered with Description Tyre inflator  Tyre inflator	n to a pneuma 170 psi), is pri 1 0,3 m hose a Conn. G1/4"	rotected by and air noz thread (f) duty ic line.	a rubber co zzle. Weight (a	ver.	44635	44634
For connection -10 bar ( 10 - 1 Delivered with Description Tyre inflator	n to a pneuma 170 psi), is pri 1 0,3 m hose a Conn. G1/4"	rotected by and air noz thread (f) duty ic line.	a rubber co zzle. Weight (a	ver.	44635	44634
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  For connection Delivered with	n to a pneuma 170 psi), is pri 1 0,3 m hose Conn. G1/4"	rotected by and air noz thread (f)  duty ic line. air nozzle.	a rubber cov zzle. Weight (a 850 g	pprox.)	44635	44634
For connection -10 bar ( 10 - 1 Delivered with Description Tyre inflator  Tyre inflator	n to a pneuma 170 psi), is pri 1 0,3 m hose Conn. G1/4"	rotected by and air noz  thread (f)  duty ic line. air nozzle.  Hose	a rubber covizile.  Weight (a 850 g	ver. pprox.) Weight	44635	44634
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  Delivered with Description	to a pneuma 170 psi), is pri 1 0,3 m hose Conn. G1/4"	rotected by and air noz thread (f)  duty ic line. air nozzle.  Hose length	a rubber covizile.  Weight (a 850 g  Pressure range	Weight (approx.)		44634
For connectior -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Delivered with Description Tyre inflator Tyre inflator	to a pneuma 170 psi), is print 1,3 m hose a Conn. G1/4" or, heavy and to pneumation a hose and a Conn. thread G1/4" (f)	thread (f)  duty ic line. air nozzle.  Hose length 0,5 m	a rubber covizile.  Weight (a 850 g  Pressure range 0-9,6 bar	Weight (approx.) 1 200 g	44634	44634
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  Delivered with Description	to a pneuma 170 psi), is print 1,3 m hose a Conn. G1/4" or, heavy and to pneumation a hose and a Conn. thread G1/4" (f)	rotected by and air noz thread (f)  duty ic line. air nozzle.  Hose length	a rubber covizile.  Weight (a 850 g  Pressure range	Weight (approx.)		
For connectior -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Delivered with Description Tyre inflator Tyre inflator	to a pneuma 170 psi), is print 1,3 m hose a Conn. G1/4" or, heavy and to pneumation a hose and a Conn. thread G1/4" (f)	thread (f)  duty ic line. air nozzle.  Hose length 0,5 m	a rubber covizile.  Weight (a 850 g  Pressure range 0-9,6 bar	Weight (approx.) 1 200 g	44634	44634
For connectior -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Delivered with Description Tyre inflator Tyre inflator	to a pneuma 170 psi), is print 1,3 m hose a Conn. G1/4" or, heavy and to pneumation a hose and a Conn. thread G1/4" (f)	thread (f)  duty ic line. air nozzle.  Hose length 0,5 m	a rubber covizile.  Weight (a 850 g  Pressure range 0-9,6 bar	Weight (approx.) 1 200 g	44634	
For connection -10 bar ( 10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator, cars Tyre inflator, truck	to a pneuma 170 psi), is print 1,3 m hose a Conn. G1/4" or, heavy in to pneumation a hose and a Conn. thread G1/4" (f) is G1/4" (f)	thread (f)  duty ic line. air nozzle.  Hose length 0,5 m	a rubber covizile.  Weight (a 850 g  Pressure range 0-9,6 bar	Weight (approx.) 1 200 g	44634	
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck	to a pneumation to a pneumation of the second of the secon	totected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m	a rubber covizle.  Weight (a 850 g  Pressure range 0-9,6 bar 3-21 bar	Weight (approx.) 1 200 g 1500 g	44634	
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the	to a pneumation to a pneumation of the second of the secon	totected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m	a rubber covizle.  Weight (a 850 g  Pressure range 0-9,6 bar 3-21 bar	Weight (approx.) 1 200 g 1500 g	44634	
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC	to a pneumation to a pneumation of the second of the secon	thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m	a rubber conzele.  Weight (a 850 g  Pressure range 0-9,6 bar 3-21 bar  iir ring main e 1,5 MPa (	Weight (approx.) 1 200 g 1500 g	44634	
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC swaged coupli	to a pneuma 170 psi), is print of the print of the preumation of the pneumation of	thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m	a rubber conzele.  Weight (a 850 g  Pressure range 0-9,6 bar 3-21 bar  iir ring main e 1,5 MPa (	Weight (approx.) 1 200 g 1500 g	44634	
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC	to a pneuma 170 psi), is print of the print of the preumation of the pneumation of	thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m	a rubber conzele.  Weight (a 850 g  Pressure range 0-9,6 bar 3-21 bar  iir ring main e 1,5 MPa (	Weight (approx.) 1 200 g 1500 g	44634	
For connection -10 bar (10 - 1) Delivered with Description Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC swaged coupli adapter (male/	n to a pneuma 170 psi), is pi 1 0,3 m hose and an a hose and an a hose and an	totected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m  otor to an a ing pressur	Pressure range 0-9,6 bar 3-21 bar ir ring main. e 1,5 MPa (1,5 mut and con range range range)	Weight (approx.) 1 200 g 1500 g	44634	44636
For connection -10 bar (10 - 1) Delivered with Description Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC swaged coupli adapter (male/Description	n to a pneuma 170 psi), is print of the second of the sec	rotected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m  otor to an a ing pressur a swiveling  Length	a rubber conzele.  Weight (a 850 g  Pressure range 0-9,6 bar 3-21 bar  iir ring main e 1,5 MPa (1 g nut and concent.)	Weight (approx.) 1 200 g 1500 g . Made of 15 bar), nection thread	44634 44636	
For connection -10 bar (10 - 1) Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator, cars Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC swaged coupli adapter (male/ Description Air line hose	n to a pneuma 170 psi), is pi 1 0,3 m hose and an a hose and an a hose and an	totected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m  otor to an a aing pressur a swiveling  Length 1,5 m	a rubber conzele.  Weight (a 850 g  Pressure range 0-9,6 bar 3-21 bar  ir ring main. e 1,5 MPa (1 g nut and con G1/4")	Weight (approx.) 1 200 g 1500 g . Made of 15 bar), nection thread (m)	44634 44636 48001	44636
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC swaged coupling adapter (male/ Description Air line hose Air line hose Air line hose Air line hose	to a pneuma 170 psi), is print of the preumation of the pneumation of the pneumatio	totected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m  otor to an a aing pressur a swiveling  Length 1,5 m 3 m	Pressure range 0-9,6 bar 3-21 bar  ir ring main. e 1,5 MPa (1) g nut and con  Conn. G1/4" G1/4"	Weight (approx.) 1 200 g 1500 g  Made of 15 bar), mection  thread (m) (m)	44634 44636 48001 480013M	44636
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC swaged coupli adapter (male/ Description Air line hose Air line hose Air line hose Air line hose	to a pneuma 170 psi), is print of the preumation of the pneumation of the pneumatio	totected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m  otor to an a aing pressur a swiveling  Length 1,5 m 3 m 1,5 m	Pressure range 0-9,6 bar 3-21 bar  iir ring main. e 1,5 MPa (1,5 mut and con Conn. G1/4" G1/4" G3/8"	Weight (approx.) 1 200 g 1500 g 1 bar), nection thread (m) (m) (m)	48001 480013M 48002	44636
For connection -10 bar (10 - 1 Delivered with Description Tyre inflator  Tyre inflator  Tyre inflator  For connection Delivered with Description  Tyre inflator, cars Tyre inflator, truck  Air Line H To connect the armoured PVC swaged coupli adapter (male/ Description  Air line hose	to a pneuma 170 psi), is print of the preumation of the pneumation of the pneumatio	totected by and air noz thread (f)  duty ic line. air nozzle.  Hose length 0,5 m 2,0 m  otor to an a aing pressur a swiveling  Length 1,5 m 3 m	Pressure range 0-9,6 bar 3-21 bar  ir ring main. e 1,5 MPa (1) g nut and con  Conn. G1/4" G1/4"	Weight (approx.) 1 200 g 1500 g 1 bar), nection thread (m) (m) (m)	44634 44636 48001 480013M	44636



### **Quick-couplings**

### **Quick-couplings for Compressed Air**

### **Hose Adapters**

Hose Ø Part No 1/4" 48510 5/16" 48511 3/8" 48512



### **Quick-Coupling**

**Thread** Part No G1/4" (f) 44516



### **Nipples**

ThreadPart NoR1/8" (m)48500R1/4" (m)48501R3/8" (m)48502



G1/4" (f) 48503 G3/8" (f) 48504

### **Hose Connector**

Hose Ø Part No
1/4" 48520
5/16" 48521
3/8" 48522

### **Hose Adapters**

Hose Ø Part No 1/4" 48540 5/16" 48541 3/8" 48542

**Hose Adapters** 

Hose Ø Part No

1/4" 3/8" 48603

48600



### **Quick-Coupling**

**Thread** Part No G3/8" (f) 44521





### **Nipples**

ThreadPart NoR1/4"(m)48594R3/8"(m)48530R1/2"(m)48590R3/4"(m)48592













# Hose Connector Hose Ø Part No

1/4" 48550 5/16" 48551 3/8" 48552 1/2" 48553



Safety-Coupling ORION, connection 1/4", for Compressed Air









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### **Mixing Units**

### Part.No

24890

24893

### Mixing Pump, Ratio 50/50

Air driven mixing pump for glycol and windshield fluids with a fixed 50/50 mix. The wall mounted unit has a suction attachment for connection to the concentrate container. Complete unit to connect directly to the air supply line and distribution pipework.

We recommend that you invest in control equipment for the concentrate container to prevent unmixed water being distributed when the concentrate container is empty.

Description Capacity

Mixing pump 50/50 Appr. 15 l/min free flow,

air pressure 0,7 MPa (7 bar)

Mixing pump 70/30 Appr. 15 l/min free flow,

air pressure 0,7 MPa (7 bar)



### Mixing Unit with Ejector from 25% to 50%

Water driven mixing unit with ejector for glycol and windshield fluids, adjustable with nozzles between 25% to 50%. The wall mounted unit has a suction attachment for connection to the concentrate container. Complete unit for connection to the water line.

Description Capacity Mixing unit Appr. 15 l/min

24186

### To put together a Complete Mixing and **Distribution kit**

Use a mixing unit (24186), installation kit (99630), pump (22770). All necessary items are included.

We recommend that you invest in control equipment (SPEC8121) for the concentrate container to prevent unmixed water being distributed when the container is empty.



Water

Anti Freeze

Windshield Wash

Detergents

(Concentrated Glycol; see the Oil Section)



# WATERBASED FLUIDS/DETERGENTS

### Liquid Pumps, Air Operated

### Part.No

### Liquid Pump, Stainless Steel, pressure ratio 4:1

Stainless steel, air operated, double acting liquid pump for corrosive liquids, windscreen liquid etc.

Bung adapter G 2 "(m) (part No 2125753) included.

4:1 Pressure ratio For connection to Tank or drum

Capacity Max 30 l/min (free flow, air pressure 0,7 MPa, water)

Air Pressure Max 1 MPa (10 bar) Connections Air: G 1/4" (f)

Fluid: Outlet G 1 "(f) Inlet (foot valve) G1" (f)

Weight (approx) 9.0 kg

Accessories Suction tube (Stainless Steel), length 500 mm, G1"

(m), part No 2226214

Material list

Pump part Material Aluminium

Liquid parts (in- and outlet) Stainless Steel, ISO 2343/2346 (DIN

1.4436/1.4305) Teflon

Seals Central bar Chromated Stainless Steel, ISO

2333(DIN1.4101)

Description

Stainless Steel pump, stub

Stainless Steel pump complete with suction tube (2226214)

22770 22775



### Liquid Pump, corrosion protected, pressure ratio 1:1

Corrosion protected, air operated, double acting liquid pump for windscreen liquid etc.

Bung adapter G 2" (m) (part No 28595) included.

Pressure ratio

For connection to Tank or drum

Capacity Max 40 l/min (free flow, air pressure 1,0 MPa, 95 cSt

oil). Recommended free flow approx. 25 l/min at 0,7

MPa, 95 cSt

Air Pressure Max 1 MPa (10 bar) Air: G 1/4" (f) Connections

Oil: Outlet G 3/4" (f) Inlet (foot valve) G1" (f)

Weight (approx)

Suction tube (Stainless Steel), length 500 mm, G1" Accessories

(m), part No 2226214

Material list

Pump part Material Aluminium Air motor Liquid parts (in- and outlet) Nickel plated steel Nitrile and Polyurethane Seals Central bar Nickel plated aluminium

Description Liquid pump

Water

Liquid pump complete with suction tube (2226214)

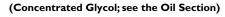
22720 22725





Windshield Wash

Detergents





## **Installation Kits** Part.No (1)(2) **Drum Pump Installation Kit** 42 Components for a drum mounted air operated pump. (205 litre drum) Information 99625 Air line hose 1,5 metre x 1/4" bore hose **(6)** 99675 Line hose 1,5 metre x 3/4" bore hose Note! Pump not included! 12 **Wall Mounted Pump Installation Kit** Components for a remote wall mounted air operated pump with drum suction attachment (205 litre drum) 42 Information Air line hose 1,5 metre x 1/4" bore hose 99626 Line hose 1,5 metre Drum suction attachment, tube length = 1,08 m 99676 Note! Pump not included! **Wall Mounted Pump Installation Kit (1)(2)** Components for a remote wall mounted air operated pump with a tank suction attachment Information Air line hose 1,5 metre x 1/4" bore hose 2 pcs Line hose 1,5 metre x 1/2" bore hose 99630 Note! Pump not included! (9 Windshield Wash Water Anti Freeze Detergents (Concentrated Glycol; see the Oil Section)

IIIStaliati	on Aco	essorie	es		Part.l	No
Bung Ada	apters					190200 0040
With split co	llars for	pump tub		s shown below.		
G2" (m) thre	ead for d	rum or dr	um covers.			
For pump tube	or pump tube					
diameter		Prion pump	models		2050	05
50 54		, 22725			2859 21257	
54 22770, 22775					21237	133
Air Treat	ment	Units				2026154
Description		onn. thread	l			
Air Treatment U	Jnit G	1/4" (f)			4210	
Accessories:	traatmant	unit mounta	d on ton of the	22770 and 22775	20261	42103
Air hose for Air			d on top of the	22770 and 22773	22261	2226733
						8
Air Line						
For connecti						1
				5 MPa (15 bar), and connection		445
adapter (mal			viveiing nu	and connection		48001
Description	Hose Di		Length	Conn. thread		48001
Air Line Hose	1/4" i.d.		1,5 m	G1/4"(m)	4800	01
Air Line Hose	1/4" i.d.		3 m	G1/4"(m)	48001	
Air Line Hose	3/8" i.d.		1,5 m	G3/8"(m)	4800	
Air Line Hose	3/8" i.d.		3 m	G3/8"(m)	48002	23M
Drum Co	ver P	rotecti	on	• • •	•	
Keeps drum	cover an	nd surrour	ndings clear	1.		A1111111111111111111111111111111111111
	Diam.		g capacity	Weight/box		C (V)
	Ø56cm	~2 1/ shee		3,6 kg	DTA	VEATURE AND PARK PARK PARK PARK PARK PARK PARK PARK
1	Ø56cm	~2 1/ shee	t	0,14 kg	DTA	Al
Connecti	ion Ho	se				10000
Connection 1	hose of l	Nitrile rub	ber, wire b	raided, swaged		28078
couplings w	ith swive	elling nuts	and adapte	er.		28080
Description						28080
Tank Connection	n Hose, L	ength 1,0 m	, with 1 straigh	nt coupling, G1"	2807	78
Tank Connection coupling, G1".	n Hose, L	ength 1,0 m	with 1 straigh	nt and 1 90°-angle	2808	80
coupiling, GT.	ıvıanıny uS	ca wini pum	ps mounted III	moor stalles		49900
Connection Hos	se, Length	1,5 m, with	2 straight cou	plings, G1" & G3/4"	2807	
Connection Hos	se, Length	1,5 m,with	2 straight coup	olings,G1/2" & G3/4"	2863	39 28079
Connection Hos	se, Length	1,5 m, with	2 straight cou	plings, G1/2" & G1"	2864	49
	. •	<b>.</b>				D
Drum Su				1 4		1
Riser tube w	ith foot	valve and	G2" bung a	adapter.		
Riser tube leng	gth 1	Hose length	Conn.th	read		28310
1,08 m	•	2,0 m	G 3/4"		2831	
1,70 m		2,0 m	G 3/4"		2831	
1,08 m		2,0 m	Hose 3/4		2830	
_	;	5,0 m	G3/4" (n	nax 3 m tank depth)	• 2832	<u> </u>
• Water			Anti Freeze	e	Windshie	eld Wash • Detergents

#### **Accessories** Part.No Wall bracket and Floor Stand 28506 For pump mounting. Pump mounting thread G2" (f). Description Wall bracket 28524 Floor stand 28506 Water Inlet Filter For installation in pipe lines to prevent contamination. Description Conn. threads Max pressure 28303 Filter, 100 mesh G3/4" 14 bar Spare Cartridge 100 mesh 2390196 2390196 **Strainer** For installation in pipe lines to prevent meters being damaged due to contamination. Washable cartridge of stainless steel. Max 5 MPa (50 bar). Conn. threads **Strainer rating** Body material Dimension G1/2 "(f) 200 µm Brass 28022 G3/4" (f) 200 μm Brass 28059 28059 In G3/4" (f) - Out G1/2 (f) ø60x111 mm 25 μm Aluminium 24583 **Shut-off valves** Ball-valves made of brass with PTFE-seals and long or short levers. Conn. thread (f) Lever G3/8" 6,4 MPa (64 bar) Long 30101117 G1/2" 6,4 MPa (64 bar) 30101093 Long G3/4" 4,0 MPa (40 bar) 30101111 Long G1" 4,0 MPa (40 bar) 30101081 Long G 1 1/4" Long 30101087 2,5 MPa (25 bar) G 1 1/2" 30101084 2,5 MPa (25 bar) Long G2" 2,5 MPa (25 bar) Long 30101102 G1/4" 6,4 MPa (64 bar) Short 30101129 G3/8" 30101144 6,4 MPa (64 bar) Short G1/2" 6,4 MPa (64 bar) Short 30101123 **Distribution Hoses** Nitrile rubber hoses, 1/2" i.d. steel braided, PN 13,8 MPa (138 bar) with swaged couplings G1/2" swivelling nuts and two connection adapters, G1/2" (m) - G1/2" (m) and G1/2" (m) - G3/4" (m). Hose length 2 m 28009 28010 3 m 28011 4 m 28012 5 m 28013 6 m 28015 8 m **Hose Storage Rack** Designed for max. 30 m x 1/2"-hose. For wall mounting. 28251 Dimensions: approx. 200 x 300 x 120 mm (W x H x D). Water Anti Freeze Windshield Wash (Concentrated Glycol; see the Oil Section)

# WATERBASED FLUIDS/DETERGENTS

#### **Spring operated Hose Reels** Part.No Hose reel, inlet filter connection kit For installation in pipe lines to prevent damage due to contamination. Makes it easy to carry out maintenance on meters, valves etc. Includes filter, valve and adapter. Description Conn. thread Conn.kit G1/2" (f) For 3/8" or 1/2" reels 99672 **Series ORM** More information in the Hose reel section! \* Suitable fot hot water Length Diameter Conn. Work. Pressure mm-inch m threads **MPa** bar Series ORM • 15 10 - 3/8 G1/2" (f) 18 180 24935\* **Series ORS** Length Diameter Work. Pressure Conn. mm-inch threads **MPa** bar 744220 Series ORS 15 10 - 3/8" G1/2" (f) 15 1,5 744230 Series ORS 10 12,5 - 1/2" G3/8" (f) 1,5 15 Series ORS 13 10 - 3/8" G3/8" (f) 180 724951\* **Series OR** Length Diameter Conn. Work. Pressure mm-inch threads **MPa** bar m 44240 Series OR 20 12,5 - 1/2G1/2" (f) 1.8 18 Stainless Steel Reels Series OR 10 - 3/8" G3/8" (f) 18 180 24957\* **Series LOR** Length Diameter Conn. Work. Pressure mm-inch MPa m threads har Series LOR 25 10 - 3/8" G3/8" (f) 40 400 24961\* Series LOR 12.5 - 1/2" G1/2" (f) 30 300 24963\* Stainless Steel Reel Series LOR 24965\* 25 12,5 - 1/2" 300 G1/2" (f) 30 **Series CRM** Length Diameter Conn. Work. Pressure mm-inch threads **MPa** bar Series CRM 15 10 - 3/8" G1/2" (m) 1,5 15 944220 G3/8" (m) Series CRM 12,5 - 1/2" 10 15 1.5 944230 Series CRM • 13 10 - 3/8" G3/8" (f) 18 180 924951\* Series CRM 10 10 - 3/8" G1/2" (f) 75 7,5 924440 Series CRM 15 10 - 3/8" G1/2" (f) 7,5 75 924445 **Series CR/CRS** Work. Pressure Length Diameter Conn. MPa m mm-inch threads bar 24951\* Series CR 10 10 - 3/8" G3/8" (f) 18 180 Series CR 6,35 - 1/4" G1/4" (f) 24953 15 6 60 8 - 5/16" Series CRS 20 44205 12 G1/4" (m) 2 CRSeries CRS 15 8 - 5/16" G1/4" (m) 2 20 44206 44210 Series CRS 10 10 - 3/8" G3/8" (m) 2 20 Water Anti Freeze Windshield Wash Detergents

(Concentrated Glycol; see the Oil Section)

### **Hose end Control** Part.No Water Control Valve Water control valve with rubber outlet. Inlet G1/4" (f). Weight approx. 0,3 kg. Description Water control valve with rubber nozzle 24105 Water control valve with rubber nozzle G3/8" connection 2410564 Water control valve with rubber nozzle G1/2" connection 2410561 **Water Control Valve** Water control valve with rigid outlet. Inlet G1/4" (f). Weight approx. 0,3 kg. Description Water control valve 24106 Water control valve for G3/8" connection 2410664 Water control valve for G1/2" connection 2410661 Control Valve for Water Based Fluids •••• Water control valve with special rubber outlet that prevents foaming. Weight approx. 0,35 kg. Description 2468060 Water control valve with swivel G1/2"(m) 2468061 Water control valve with swivel G1/2"(f) 2468064 Water control valve with swivel G3/8"(f) Water control valve with swivel G1/2"(m) and Meter 24142 Wash Handle Heavy duty wash handle made of rubber covered die-cast brass. Flow pattern regulated by the trigger. Max pressure 3 MPa (30 bar). Connection thread G1/2"(f). Description Wash handle G1/2"(f) 28182 Wash handle G3/8"(f) 2818262 Wash Nozzle Straight form wash gun on/off and flow pattern regulated by turning the sleeve. For use with 1/2" hose. Max pressure 3 MPa (30 bar). Description Wash nozzle for 1/2" hose connection in brass 28268 2085398 Bare hose adapter G1/2" (m) with 60° cone Wash Handle Heavy duty wash handle made of die-cast brass with rubber covered handle. Supplied with two nozzles, 2 and 4 mm jet holes. Flow pattern adjustable with control knob. Max pressure 3 MPa (30 bar). Description Wash handle for 1/2" hose connection in brass 16004 Wash handle for 3/4" hose connection in brass 16006 Windshield Wash Water Anti Freeze Detergents (Concentrated Glycol; see the Oil Section)



Spray Handle and Mobile Sprayer	Part.No	
Sauge Handle with Sauge to be		
Spray Handle with Spray tube Designed for use with detergents. Consists of a brass valve		Cal Cal
ody with 580 mm brass outlet tube and two nozzles, one		
vith an adjustable spray pattern.		
Connection thread. G 3/8" (m).		
Description		
Spray handle with spray tube	24029	
pare adjustable nozzle	550012	
Spray Handle with Spray tube		An .
Designed for use with detergents. Consists of a thermoplas-		
ic valve body with a 915 mm outlet tube of stainless steel.		
Two different spray nozzles for water- and petroleumbased		
detergents.		
Connection G1/2" (f).		
Description		
Spray handle with spray tube	24099	
pare adjustable nozzle	550012	
Orip Holsters		
To protect hose end meters and control valves when not in		
se and to collect any oil drip.		
Description		
rrip Holster rrip Holster	29020 29095	B
	27073	
Hose Storage Brackets		,
Description A wall mounting bracket for storage of hoses, tools	6027	6027
te. Two fixing holes ø5 mm.	0027	2818.
or fixing to the wall to support hoses that otherwise would interfere with	28185	0
ne work area. Two fixing holes ø5 mm.		
1obile Sprayer		Ł
Air operated sprayer, comprising of a steel container, fitted		
with a compressed air connection and pressure gauge, ø30		
nm (1 1/4") filler hole, sight gauge and two ø100 mm (4")		
wheels. Preload the container with compressed air 0,3-0,7		
MPa (3-7 bar). The dispenser can be used without per-		i I 🍄
nanent connection to air pressure. Max. admissible tank		
apacity is 3/4 of total capacity. Complete with 1,5 m hose		
and spray handle.		<b>CSSTAR</b>
Description Volume Dim. (LxWxH) Weight (approx.)		
	22420	
. , , , , ,	22420	
pray dispenser approx. 24 l 350 x 380 x 780 mm 11,5 kg	22420	



(Concentrated Glycol; see the Oil Section)

### **Sprayers**

### Part.No

3590P 3615F

3960

Windshield Wash

### **General Information**

In practice, industrial substances are mixtures whose compositions and effects on other materials are known only by their manufacturers. This is why testing by the user – possibly in coordination with the manufacturer of the spray medium – is so essential. Safety datasheets are usually not sufficient for an accurate evaluation of the material compatibility. Metal sprayers are not suitable for hydrogen peroxide, and plastic units can only be used after preliminary testing and with limited concentrations and exposure periods.

### Important factors to consider in choosing a sprayer:

Highest operational temperature (spray medium):

Plastic sprayers 30 °C

Sprayers with metal tanks 40 °C

Viscosity of spray medium:

Up to approx. 1.5 times the viscosity of water. If coarser droplets and a reduced spray angle are acceptable, the viscosity can be even greater.

Flammable liquids:

Flammable liquids with a flash point below 55 °C must not be used in sprayers.

### **High-Pressure Compression Sprayer**

For forming oil, vehicle cleaning with mildly caustic cleaning agents. Durable stainless steel tank for extra resistance, Viton seals, special oil hose that is flexible at low temperatures, 50 cm continuously rotatable brass spray wand, fine special flat spray nozzle with fine filter. Pressure is generated by using the hand pump. The 10 litre sprayer can also be filled with compressed air from an external line.

NOTE! Not suitable for spray mediums that are corrosive to brass or stainless steel.

Description	Work. Pressure	<b>Pressure Generator</b>	Weight
Sprayer, 5 litres	6 bar	Hand pump	4 kg
Sprayer, 10 litres	6 bar	Compressor/hand pump	4,7 kg
Accessories Trolley for above			

### **Hand Held Sprayers**

For cleaning, corrosion protection, lubrication, impregnation. Flexi plus and Universal has a powerful air pump to build up pressure. A safety valve protects against over compression. Tank with fill level scale, viton seals and adjustable nozzle.

Description	Work. Pressure	Pressure Generator	
Industry Sprayer, 1,5 litres	3 bar	Hand pump	3131P
Universal Sprayer, 1,5 litres	3 bar	Hand pump	3132PG
Universal Sprayer, 1,0 litres	3 bar	Hand pump	3132PK
Hand sprayer, 1,0 litres			3111P

Anti Freeze

(Concentrated Glycol; see the Oil Section)

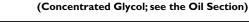


Detergents

Water

# WATERBASED FLUIDS/DETERGENTS

#### **Drum Pumps, Hand Operated** Part.No Rotary Pump for waterbased fluids, oil and Special drum adapters, see the Oil section other chemicals Rotary pump made of polypropylene with ø 27 mm outlet pipe. G2" (m) bung adapter. Suction tube in 3 sections. **Suction tube** Suction tube Description Capacity Weight Length (approx.) (approx.) 1 section: 280mm 21200 Rotary Pump ø 44 mm 0.3 1/turn 1,8 kg 2 sections: 660 mm 3 sections: 1030 mm **Drum Pump** The lever can be mounted in three different positions to change the stroke length and output capacity, (see below). Delivered with telescopic suction tube and G2" and G1½" bung adapter. Suction tube length 340-900 mm, diameter 40 mm. Mtrl Rod Description Colour Material pump Polypropylene 21210 Drum pump black/blue Steel 21211 Drum pump black/green Polypropylene Steel 21215 Drum pump black Stainless Steel Ryton Capacity (Engine oil 20°C): Lever mounted in position: 1. 0,3 l/stroke, 2. 0,37 l/stroke, 3. 0,45l/stroke. Weight 0,85 kg. **Drum Pump** Drum pump with telescopic suction tube. Made of Polypropylene and Polyethylene with Nitrile rubber seals. G2" (m) bung adapter and outlet with 3/4" hose socket for max. 2 m long hose with open exit. \*\* Engine oil, +20°C. Description Colour Suction tube Suction tube Capacity (approx.)\*\* length diam black/blue 480 - 950 mm ø27 mm 0.3 l/stroke 21022 Drum pump 2102220 480 - 950 mm ø27 mm 0.3 l/stroke Drum pump black/green black/blue 480 - 950 mm ø27 mm 0,3 l/stroke 21122 Drum pump with viton seals 0,3 l/stroke 21029 Drum pump, AdBlue 480 - 950 mm ø27 mm with EPDM seals Compability chart avaiable! Drum Pump Drum pumps made of Polypropylene or Nylon 6. G2" (m) bung adapter. Description **Suction tube** Material in contact 21027 21028 Length with the liquid 21047 21027 Drum Pump 1000 mm Nylon 6 21048 500 mm Drum Pump Nylon 6 21047 21028 Drum Pump 1000 mm Polypropylene 500 mm Polypropylene 21048 Drum Pump **Manual Syphon Pumps** 21231 21230 Manual operated syphon pump with a polyethylene suction tube, made for different container sizes. Description For container Suction Capacitet size tube length approx. Suction operated 25 litres 390 mm 6.5 litres/min 21230 60 litres Piston operated 590 mm 10 litres/min 21231 Piston operated 200 litres 850 mm 18,5 litres/min 21232 Water Anti Freeze Windshield Wash Detergents



#### Drum Tap, Measures etc Part.No **Drum Tap** Drum Tap for horizontal drums. Description Material Conn. thread Drum Tap, push valve Aluminium, nitrile rubber G2" (m) 24506 **Graduating measuring** Jugs moulded from high quality plastic in various sizes as a Description 7 jugs 0.1, 0.25, 0.5, 1.0, 2.0, 3.0 & 5.0 litres 21609 **Plastic Measures** Measuring jugs with handle, made of heavy Polyethylene, resistant to oil, gasoline and chemicals. Volume Description 21625 Liquid measure 1 litre 21626 Liquid measure 2 litres 21657 Liquid measure 3 litres 21627 Liquid measure 5 litres **Tin Measures** Measuring jugs with handle, made of tinned metal, resistant to oil, gasoline and chemicals. Description Volume 21636 Liquid measure 0,5 litre 21637 Liquid measure 1 litres 21638 Liquid measure 2 litres **Container** Container with handle, made of heavy Polyethylene. Filling hole with lid and capped nozzle Description Volume 21644 6 litres Liquid measure 21645 10 litre Liquid measure 21635 Oil Drain & Parts cleaning pan Handy oil drain & parts cleaning pan for washing small parts or for oil drain. Made of oil and chemical resistant polyethylene. Description 21635 Oil Drain & Parts cleaning pan with 8 litre capacity. Oil Drain & Parts cleaning pan with 14 litre capacity. Black 21619 21619 Oil Drain & Parts cleaning pan with 14 litre capacity. Green 21649 21649 Windshield Wash Water Anti Freeze Detergents (Concentrated Glycol; see the Oil Section)

### **Funnels** Part.No **Funnels** 21630 Funnels with handle, made of oil and chemical resistant Polyethylene with splash rim and removable brass strainer. Funnel with straight spout 1.3 litres 21630 21631 Funnel with spout off-set approx 180 mm 1,3 litres 21631 21633 Funnel kit (Ø 65, 75, 100 och 120 mm) 0,05-0,27 litre 21632 21605 **Anti-splash funnel** Description Ø 190mm funnel with anti-splash rim, filter and flexispout 21632 Ø 230mm funnel with anti-splash rim, filter and flexispout 21605 **Garage Funnel** Description 21606 21606 300mm garage funnel with filter 21607 21607 300mm garage funnel c/w diesel/water separator filter **Tin Funnels** Funnels with handle, made of tinned metal, resistant to oil, gasoline and chemicals. Description Dimension 21628 Tin funnel 160 mm 21629 Tin funnel 200 mm 21634 Threaded spout 300 mm Garage kit Includes the most used measures, funnels, container and oil 21610 drain Water Anti Freeze Windshield Wash Detergents

(Concentrated Glycol; see the Oil Section)



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AdBlue	85







# **DIESEL/ADBLUE**

	esel Pumps	Part.No	
70 l/min pump mounting. The off switch and lautomatic nozzl the pump. Fluid	ted Pump Kit 220V- 70 I/min mounted on a bracket for wall or tank unit includes a 220 V diesel pump with on/ 1.8 m cable, wall bracket, 4 m delivery hose, le and a three digit meter, flange mounted to 1 inlet connection: 1" BSP (F).	53700	
50 l/min pump mounting. The off switch and a aluminium nozi the pump. Fluid	ted Pump Kit 220V- 50 I/min mounted on a bracket for wall or tank unit includes a 220 V diesel pump with on/ 1.8 m cable, wall bracket, 4 m delivery hose, zle and a three digit meter, flange mounted to I inlet connection: 1" BSP (F). non commercial applications only.	53701	
220 V AC diese	sfer Pump Kit 220V- 50 I/min Il transfer pumps equipped with 4 m delivery n delivery nozzle and 2 m cable.	53710	
D: IT			
24 V diesel tran	sfer Pump Kit 24V- 40 I/min sfer pumps equipped with 4 m x Ø 19 mm luminium delivery nozzle and 2 m cable amps	53711	
24 V diesel tran delivery hose, a with alligator cl	sfer pumps equipped with 4 m x Ø 19 mm luminium delivery nozzle and 2 m cable amps  **PACCESSORIES**  Information** 100 l/min. Reliable, easy to install and simple to calibrate. G1" (f) and inlet and outlet, both with flange for flange mounted applications. Maximum pressure: 10 Bar. Flow range: 10 to 100 l/minute. Precision after calibration: ± 1%. Meter valid for non	23600	23600
24 V diesel trandelivery hose, a with alligator cl	sfer pumps equipped with 4 m x Ø 19 mm luminium delivery nozzle and 2 m cable amps  **PACCESSORIES**  Information** 100 l/min. Reliable, easy to install and simple to calibrate. G1" (f) and inlet and outlet, both with flange for flange mounted applications. Maximum pressure: 10 Bar. Flow range: 10 to 100 l/minute.		23600
24 V diesel trandelivery hose, a with alligator cl	sfer pumps equipped with 4 m x Ø 19 mm luminium delivery nozzle and 2 m cable amps  **PACCESSORIES**  Information  100 l/min. Reliable, easy to install and simple to calibrate. G1" (f) and inlet and outlet, both with flange for flange mounted applications. Maximum pressure: 10 Bar. Flow range: 10 to 100 l/minute. Precision after calibration: ± 1%. Meter valid for non commercial applications only.  Fluid inlet: G1 " (f). Maximum delivery: 45 l/min.  Fluid inlet: G1 " (f). Maximum delivery: 100 l/min.	23600	
24 V diesel trandelivery hose, a with alligator cluber Diesel Pum  Description Diesel meter  Automatic nozzle	sfer pumps equipped with 4 m x Ø 19 mm luminium delivery nozzle and 2 m cable amps  **PACCESSORIES**  Information** 100 l/min. Reliable, easy to install and simple to calibrate. G1" (f) and inlet and outlet, both with flange for flange mounted applications. Maximum pressure: 10 Bar. Flow range: 10 to 100 l/minute. Precision after calibration: ± 1%. Meter valid for non commercial applications only.  Fluid inlet: G1 " (f). Maximum delivery: 45 l/min.	23600	23605
24 V diesel trandelivery hose, a with alligator cluber of the properties of the prop	sfer pumps equipped with 4 m x Ø 19 mm luminium delivery nozzle and 2 m cable amps  **PACCESSORIES**  Information** 100 l/min. Reliable, easy to install and simple to calibrate. G1" (f) and inlet and outlet, both with flange for flange mounted applications. Maximum pressure: 10 Bar. Flow range: 10 to 100 l/minute. Precision after calibration: ± 1%. Meter valid for non commercial applications only.  Fluid inlet: G1 " (f). Maximum delivery: 45 l/min.  Fluid inlet: G1 " (f). Maximum delivery: 100 l/min. Includes inlet swivel and lockable trigger.	23600 23605 23606	
24 V diesel trandelivery hose, a with alligator classification.  Diesel Pum  Description Diesel meter  Automatic nozzle  Manual nozzle  Inlet swivel	sfer pumps equipped with 4 m x Ø 19 mm luminium delivery nozzle and 2 m cable amps  Information  100 l/min. Reliable, easy to install and simple to calibrate. G1" (f) and inlet and outlet, both with flange for flange mounted applications. Maximum pressure: 10 Bar. Flow range: 10 to 100 l/minute. Precision after calibration: ± 1%. Meter valid for non commercial applications only.  Fluid inlet: G1 " (f). Maximum delivery: 45 l/min.  Fluid inlet: G1 " (f). Maximum delivery: 100 l/min. Includes inlet swivel and lockable trigger.  For G1" (f) nozzles. Inlet/outlet threads: G1" (f).	23600 23605 23606 23607	23605



Spring (	Opera	ted Hos	e Reels for	Diesel		Part.No	
Series C	ORK						
Open hose	reel wit	th a steel br	aided hydraulic	hose, fitte	ed		
with swag			,	,			
C	-	Diameter	Conn. threads	Working	Pres.		
	m	mm-inch		MPa	bar		
Series ORK	6	19-3/4"	G3/4" (f)	7,5	75	24472	
Series (	ORL						•
Heavy dut	y open h	ose reel wi	th longer hose l	lengths, fit	ted		
with swag			C				
Č	Length	Diameter	Conn. threads	Working			100
	m	mm-inch		Pressure MPa	bar		Mr. Carlot
Series ORL	<b>m</b> 15	mm-incn 19-3/4"	G3/4" (f)	7,5	<b>5</b> 75	24932	
series OKL	13	19-3/4	G3/4 (1)	1,3	13	24932	\
							1
Series L	OR						
Open hose	reel wit	h steel brai	ded, oil resistar	nt rubber h	ose.		
-		Diameter	Conn. threads	Working			
	_			Pressure			
	m	mm-inch		MPa	bar		
Series LOR	20	19-3/4"	G3/4" (f)	6	60	24943	
eries LOR	15	25 - 1"	G1" (f)	6	60	24945	-
	n easily	-	wall or the flood of fit other instal		111		
	Length	Diameter	Conn. threads	Pressure			
	m	mm-inch		MPa	bar		
Series CRM	6	19-3/4"	G3/4" (f)	7,5	75	24492	
							-
Anti-sp	lash fu	ınnel					
Description							
_	nnel with	anti-splash rin	n, filter and flexispo	out.		21632	107
		-	n, filter and flexispo			21605	21632
		1					21605
Garage	Funn	el					
Description							
300mm garaş	ge funnel v	with filter.				21606	
300mm garaş	ge funnel o	c/w diesel/wat	er separator filter.			21607	
							21606
							21607
							2100/



#### AdBlue Pumps & Spring Operated Hose Reels Part.No Air Operated Drum Pump Manufactured of Polypropylene and Polyethylene with EPDM sealings. Delivered with telescopic suction tube with G2" drum adapter and 2 m delivery hose with outlet valve. Suction tube Description Suction tube Capacity Length diam. (approx.) 22049 Air operated drum pump 480 - 950 mm ø27 mm 20 l/min **Hand Operated Drum Pump** Manufactured of Polypropylene and Polyethylene with EPDM sealings. Delivered with telescopic suction tube with G2" drum adapter and 2 m delivery hose with outlet valve. Description Suction tube Suction tube Capacity Length diam. (approx.) Hand operated drum pump 480 - 950 mm ø27 mm 0,3 l/stroke 21029 **Rotary Pump** Rotary pump made of polypropylene with ø27 mm outlet pipe and G2" (m) bung adapter. Suction tube Description Suction tube Capacity Weight (approx.) length diam. (approx.) 21200 Rotary pump tube in ø 44 mm 0,3 l/turn 1,8 kg 3 sections Series OR Open stainless steel hose reel with longer hose lengths, fitted with stainless steel swaged couplings. Length Diameter Conn. threads mm-inch Series OR 20 12,5 - 1/2" G1/2" (f) 24971 **Series CRM** Enclosed hose reel with stainless steel swivel and swaged fittings. The hose reel can be mounted on the ceiling, the wall or the floor. The wall bracket can easily be moved to fit other installations. Length Diameter Conn. threads mm-inch 924971

Series CRM 12,5-1/2" G1/2" (f)

### **Drum Adapters and Accessories**

Description	Information	
Adapter	G2" (f) -Trisure ø 55 mm, pitch approx. 4 mm (m)	28235
Adapter	G2" (f) -Multi adapter with locking screw ø55-65 mm(f)	28236
Adapter	G2" (f) -Midland	28234
Adapter	G2" (f) - Mauser ø 68 mm, pitch approx. 6 mm (m)	28238
Adapter	G2" (f) - Berg ø 53 mm, pitch approx. 3,5 mm (f)	28239
Adapter	G2" (f) - DIN 70 (f)	2310035
Adapter	G2" (f) - Mobil 20 l container	2310034
Adapter	G3/4" (f) - Trisure ø 55 mm, pitch 4 mm (m)	2310037
Adapter	G3/4" (f) - DIN 70 (f)	2310038
Suction Tube	Telescopic, length max 1100 mm (for IBC)	2410031
Hose	2 m, with shut off valve	28400















2310034



# **Hose Reels**



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### Hose Reels, Open

### Part.No

Wherever longer hoses are required it is strongly recommended that hose reels be used. There are several advantages from using hose reels, such as longer hose life, increased safety and improved efficiency. Once installed the hose is always readily available but can be retracted out of the way when not in use. Hose free floors will reduce the risk of accidents due to tripping and will also aid identification. As a consequence they help to increase the efficiency and hence the profitability of the workshop. Hose reels can be installed on the wall or ceiling or to special frameworks. We recommend that they should be installed at least 2,5 meters above the floor.

### **Series ORK**

Open hose reels for air, water, oil, grease and waste oil suction. Manufactured in sheet metal, painted in blue. The air and water reels have a simple cord braided hose and the oil and grease reels have a steel braided

220 + 130 + 130 + 140 + 1

hydraulic hose. All hoses are fitted with swaged couplings. The Vacuum hose reel is specially designed for this purpose and the hose is fitted with a waste oil nozzle for quick connection of probes.





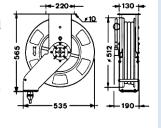
Outlet thread BSP G1/4" (m) G½ (m & f 60°) G1/4" (f) Waste oil nozzle G3/8" (f) shaft

Media I	Hose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar		Inlet thread BSP
Air/Water	10	10-3/8"	1,5-15	44231	$G^{1}/_{2}$ (m)
Oil/ Air	10	12,5-1/2"	7,5-75	24911	G½ (m & f 60°)
Grease	10	6,35-1/4"	40-400	14206	G1/4" (f)
Waste oil suction	6	19-3/4"	vacuum	24472	G3/4" (f)
Various	max 10	without hose	7,5-75	24903	G1/2" (f) swivel
Pivoting wall brack	cket			28903	

#### **Series ORM**

Open hose reel for air, water, oil and grease.

Manufactured in sheet metal, painted in blue. The air reels have a simple cord braided hose and oil and grease reels have a steel braided hydraulic hose.



All hoses are fitted with swaged couplings.





Media	Hose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar	
Air/Water	15	12,5-1/2"	1,5-15	44241
Oil/ Air	15	12,5-1/2"	7,5-75	24922
Grease	15	10-3/8"	40-400	14218
Hot water	15	10-3/8"	18-180	24935
Various	max 15	without hose	7,5-75	24904
Pivoting wall b	racket			28903

Inlet thread BSP	Outlet thread BSP
$G^{1}/_{2}$ (m)	$G^{1}/_{2}$ (m)
G½ (m & f 60°)	G½ (m & f 60°)
G3/8" (f)	G3/8" (f)
G1/2" (f)	G3/8" (m)
G1/2" (f) swivel	G3/8" (f) shaft



### Hose Reels, Open

### Part.No

### **Series ORS**

Single arm longer hose lengths for oil, grease, air and water. If mounted to the ceiling the hose guide must be located to give correct hose direction. All hoses are fitted with swaged couplings.



Media	Hose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar		Inlet thread BSP	Outlet thread BSP
Air/Water, Rubber	r-hose15	10-3/8"	1,5-15	744220	G1/2"(f)	G3/8"(m)
Air/Water, Rubber	r-hose 10	12,5-1/2"	1,5-15	744230	G1/2"(f)	G1/2"(m)
Oil/Air/Water	15	12,5-1/2"	7,5-75	724922	G1/2" (f)	G3/8" (f)
Oil/Air/Water	10	12,5-1/2"	7,5-75	724910	G1/2" (f)	G1/2" (f)
Grease	10	6,35-1/4"	35-350	714205	G1/4" (f)	G1/4" (f)
Grease	15	10-3/8"	35-350	714215	G3/8" (f)	G3/8" (f)
Hot water, max 1	50°C 15	10-3/8"	18-180	724951	G3/8" (f)	G3/8" (f)
Wind screen wash	/ 10	10-3/8"	7,5-75	724440	G1/2" (f)	G1/2" (f)
Degreaser	15	10-3/8"	7,5-75	724445	G1/2" (f)	G1/2" (f)
AdBlue	10	12,5-1/2"	7,5-75	724971	G1/2" (f)	G1/2" (f)
Waste oil suction	6	19-3/4"	Vacuum	724492	G3/4" (f)	Waste oil nozzle
Pivoting wall brace	eket			28912		

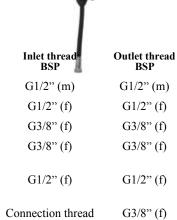
### **Series OR**

Open hose reel with longer hose lengths for oil, grease, air and water. If mounted to the ceiling the hose guide must be located to give correct hose direction. All hoses are fitted with swaged couplings.



with swaged couplings.					
Media	Hose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar		
Air	20	12,5-1/2"	1,8-18	44240	
Oil/ Air	20	12,5-1/2"	6-60	24920	
Grease	15	10-3/8"	40-400	14216	
Hot water/ Stainless steel	20	10-3/8"	18-180	24957	
AdBlue/ Stainless steel	20	12,5-1/2"	6-60	24971	
Various with stainless s	max 20 teel swivel	without hose	40-400	24955	
Pivoting wall b	racket			28902	







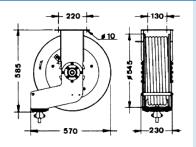
# **HOSE REELS**

### Hose Reels, Open

### Part.No

### **Series ORL**

Heavy duty open hose reel with longer hose lengths for oil and air. All hoses are fitted with swaged couplings.



-	TE
	-
	/

Media	Hose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar	
Oil/Air	20	12,5-1/2"	7,5-75	24931
Oil/Air	15	19-3/4"	7,5-75	24932

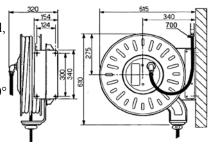
 
 Inlet thread BSP
 Outlet thread BSP

 G½ (m & f 60°)
 G½ (m & f 60°)

 G3/4 (m & f 60°)
 G3/4 (m & f 60°)

### **Series LOR**

Open hose reel for oil, grease, air and water. Steel braided, oil resistant rubber hose. Max temperature +50°





Media Ho	se leng	ths Hose dim.	Max. pressure MPa-bar	
Oil/ Air	25	12,5-1/2"	6-60	24941
Oil/ Air	20	19-3/4"	6-60	24943
Oil/ Air	15	15-1"	6-60	24945
Grease	25	10-3/8"	40-400	14225
Hot water, max 150°C	25	10-3/8"	40-400	24961
Hot water, max 150°C	25	12,5-1/2"	30-300	24963
Hot water/Stainless max 150°C	25	12,5-1/2"	30-300	24965
Stainless steel	25	Without swivel and	hose	24960
Steel	25	Without swivel and	hose	24969

Inlet thread BSP	Outlet thread BSP
G1/2" (f)	G1/2" (f)
G3/4" (f)	G3/4" (f)
G1" (f)	G1" (f)
G3/8" (f)	G3/8" (f)
G3/8" (f)	G3/8" (f)
G1/2" (f)	G1/2" (f)
G1/2" (f)	G1/2" (f)

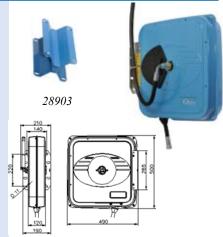


### Hose Reels, Enclosed

### Part.No

### **Series CRM**

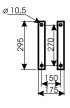
A medium sized enclosed hose reel for different types of media. For example air, water, oil or grease. The hose reel can be mounted on the ceiling, the wall or the floor. The Vacuum hose reel is specially designed for waste oil suction, the hose is fitted with a waste oil nozzle for quick connection of probes.



Media F	Iose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar		Inlet thread BSP	Outlet thread BSP
Air/Water, Rubber-h	iose15	10-3/8"	1,5-15	944220	hose 12,5-1/2"	G3/8"(m)
Air/Water, Rubber-h	iose 10	12,5-1/2"	1,5-15	944230	hose 12,5-1/2"	G1/2"(m)
Oil/Air/Water	15	10-3/8"	7,5-75	924905	G1/2" (f)	G3/8" (f)
Oil/Air/Water	10	12,5-1/2"	7,5-75	924910	G1/2" (f)	G1/2" (f)
Grease	10	6,35-1/4"	35-350	914205	G1/4" (f)	G1/4" (f)
Grease	15	6,35-1/4"	35-350	914210	G1/4" (f)	G1/4" (f)
Grease	10	10-3/8"	35-350	914215	G3/8" (f)	G3/8" (f)
Hot water, max 150	°C 13	10-3/8"	18-180	924951	G3/8" (f)	G3/8" (f)
Wind screen wash/	10	10-3/8"	7,5-75	924440	G1/2" (f)	G1/2" (f)
Degreaser	15	10-3/8"	7,5-75	924445	G1/2" (f)	G1/2" (f)
Waste oil suction	5	19-3/4"	Vacuum	24492	G3/4" (f)	Waste oil nozzle
AdBlue	10	12,5-1/2"	7,5-75	724971	G1/2" (f)	G1/2" (f)
Pivoting wall bracket	et			28903		

### **Series CR**

Enclosed hose reels for oil, grease, air, water and detergents. All hoses have swaged couplings.





Media I	Hose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar	
Air	15	10-3/8"	1,8-18	44220
Air	10	12,5-1/2"	1,8-18	44230
Oil/Air	15	10-3/8"	6-60	24905
Oil/Air	10	12,5-1/2"	6-60	24910
Grease	10	6,35-1/4"	40-400	14205
Grease	15	6,35-1/4"	40-400	14210
Grease	10	10-3/8"	40-400	14215
Hot water, max 150	°C 10	10-3/8"	18-180	24951
Degreaser	15	6,35-1/4"	6-60	24953
Various	max 15	without hose	40-400	24950
Pivoting wall bracket	et			28900

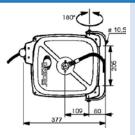


BSP	BSP
G3/8" (f)	G3/8" (m)
G1/2" (f)	G1/2" (m)
G3/8" (f)	G3/8" (f)
G1/2" (f)	G1/2" (f)
G1/4" (f)	G1/4" (f)
G1/4" (f)	G1/4" (f)
G3/8" (f)	G3/8" (f)
G3/8" (f)	G3/8" (f)
G3/8" (f)	G1/4" (f)
Connection thread	G3/8" (f)

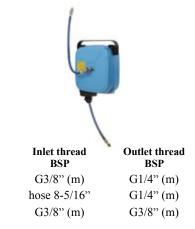
# Hose Reel Enclosed & Electric, Accessories Part.No

### **Series CRS**

Enclosed hose reel for air and water, complete with pivoting wall bracket. Hoses have swaged couplings.



Media	Hose lengths metre	Hose dim. mm-inch	Max. pressure MPa-bar	
Air/Water	12	8-5/16"	2-20	44205
Air/Water	15	8-5/16"	2-20	44206
Air/Water	10	10-3/8"	2-20	44210



### **Electric Cable Reels**

Electric cable reels with impact resistant plastic covers. Supplied with earth connection and cable.

Media	Cable lengt metre	hs Cable	Power Volt	
Electric cable	6	HO5VV-F 3x1,5 mm <sup>2</sup>	230	53610
Electric cable	10	HO5VV-F 3x1,5 mm <sup>2</sup>	230	53620
Electric cable	15	HO5VV-F 3x1,5 mm <sup>2</sup>	230	53630
Electric cable	20	H07RN-F 5x1,5 mm <sup>2</sup>	400	53640



### **Drip Pan**

To be placed below hose reels to prevent liquid drop to the floor. Made in stainless steel.

Description	Length	
Drip pan, wall hanged	1000 mm	24204
Drip pan, wall hanged	1250 mm	24205
Drip pan, wall hanged	1500 mm	24206
Drip pan, ceiling hanged wit	h four 2 metres chains 1250mm	24207





### Hose Outlet Roller guide

Additional hose outlet roller guide, used when mounting a hose reel in a cabinet. Max. hose dimension ø 25 mm.

**Description Dimension** Hose Outlet "round" 150x150 mm Hose Outlet 110x110 mm



2245931

2145998







# **HOSE REELS**

Hose Reel, Accessories	Part.No	
Mounting Rack Mounting racks are used to facilitate the mounting of several nose reels. Time is reduced and the work can easily be done by one person. Pre-drilled holes for ORK, ORM,ORS, ORL and MR reels.		, , , , ,
Description LxWxH (mm)	92143	
For up to three reels 820x310x60 For up to five reels 1375x310x60	92145	92143
Support Post for Hose Reels To mount one or two reels (side by side). Easy to assemble. Pre-drilled holes.  Description Support Post, one or two reels( H 2300 mm) (side by side)  For reels ORK, ORM, ORS,MR	92130	
Service Stand Standard service stand, for up to three hose reels, manufactured in blue laquered steel. Pre-drilled holes for ORK, ORM, ORS, ORL and CRM reels. The stand is delivered complete as per picture. Dimensions H xW x D 2400 x 1300 x 310mm	92133	
Service Stand Standard service stand, for up to six hose reels, manufac-		Mannag

Standard service stand, for up to six hose reels, manufactured in blue laquered steel. The stand has two lockable drawers, waste basket, wipe off paper holder, writing desk, tool hangers and drip tray.

Pre-drilled holes for ORK, ORM, ORS, ORL and CRM reels.

**Dimensions** H xW x D 2500 x 1530 x 500 mm





92150

### Hose Reel, Accessories

### **Service Tower**

The workshop tower can be equipped with a variety of product and provides a single source center for oil, grease, antifreeze, air and exhaust systems.

### Description

Service tower	92125
Concrete fastener (floor bracket), Zinc plated	92124
Extra bracket for another exhaust hose reel	9220122
Sidepiece for a computorscreen and a keyboard	9220123



### **Service Stand**

An alternative to the Service Tower, when space is limited. Supplied in sections according to your requirements. Supply pipework can be from the floor or from above. Also available with drip tray and work bench. Suitable for use with all hose reels and exhaust extraction units.





# **Hose End Control**



### Index:

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Digital Line Meters	107-108





Grease Control	Part.No	
Grease Control Valve Control valve with outlet tube 14715 and nozzle 14514, connection thread G1/4" (f), PN 50 MPa (500 bar), weight 550 gr.  Description Conn. thread Grease control valve G1/4" (f)  Max pressure 50 MPa (500 bar)	14612	
Grease Control Valve - High pressure Pressure can be increased to 80 MPa (800 bar) by pumping the handle. Inlet filter and release valve included.  Description Conn. thread Grease control valve G1/4"(m)  Max connection pressure 50 MP (500 bar)  NOTE! Do not use with outlet hose.	14625	
Grease Control Valve - High pressure Pressure can be increased to 80 MPa (800 bar) by pumping the handle.  Description Grease control valve G1/4"(m)  NOTE! Do not use with outlet hose.	14626	
Grease Control Valve Component Kit Comprises a grease gun (14612) with inlet adapter (G1/4"), Z - swivel and 450 mm flexible outlet hose.  Note! Adapter 25102032 is required when 3/8" hose reel is used.	99600 25102032	



### **Grease Control**

### Part.No

### **Grease Meter**

Digital grease meter, equipped with current dispense display and resettable and non-resettable totalisors. Digital display powered by two 1,5 V AAA batteries.

Max working pressure 50 MPa(500 bar)

Max flow 1000 gr/min. Accuracy +/- 3 %.

Description	Connection thread	Max working pressure	
Meter with control valve	G1/4"(f)	50 MPa (500 bar)	14720
Inline meter	G1/8"(f)	50 MPa (500 bar)	14710
Line meter with pulse transmitter output	G1/8"(f)	50 MPa (500 bar)	14730



### **Swivels for Grease**

1450 pulses/litre

Makes it possible to handle grease hoses with ease even at high pressure. For best results use a straight swivel between pump and distribution hose and a Z-swivel between hose and grease control valve.

Description	Connection threads	Max. pressure	
Straight swivel	G1/4"(m) - G1/4"(f)	50 MPa (500 bar)	18070
Z-swivel	G1/4"(m) - G1/4"(f)	50 MPa (500 bar)	18071
Z-swivel	1/4 "NPT(m) - 1/2"-27(m)	50 MPa (500 bar)	18072
Z-swivel	G1/8"(m) - G1/4"(f)	50 MPa (500 bar)	18073
Adapter	G 3/8"(m) - G1/4" (m)	50 MPa (500 bar)	25102032
Adapter (0105-2)	G1/8" (f - f)	50 MPa (500 bar)	25101915
Adapter	G1/4" (m) - 3/8" NPTF (m)	50 MPa (500 bar)	25102737





18071 18073

### **Outlet Hoses for Grease Control Valves**

High pressure hose, 3/16"i.d., Nitrile rubber with one Nylon braid, PN 50 MPa (500 bar) and swaged couplings.

Description	Hose length	Conn. thread	
Outlet hose	200 mm	G1/8"(male-male)	14042
Outlet hose	300 mm	G1/8"(male-male)	14043
Outlet hose	450 mm	G1/8"(male-male)	14044
Outlet hose	1000 mm	G1/8"(male-male)	14047
Outlet hose	2500 mm	G1/8"(male-male)	14052
Adapter (0105-2)	-	G1/8"(female-female)	25101915





Water and Antifreeze Control	Part.No	
Water Control Valve Water control valve with rubber outlet. Inlet G1/4" (f). Weight approx. 0,3 kg.  Description Water control valve with rubber nozzle. G1/4" (f) Water control valve with rubber nozzle. G3/8" (f) Water control valve with rubber nozzle. G1/2" (f)	24105 2410564 2410561	
Water Control Valve Water control valve. Inlet G1/4" (f). Weight approx. 0,3 kg.  Description Water control valve. G1/4"(f) Water control valve. G3/8"(f) Water control valve. G1/2"(f)	24106 2410664 2410661	
Control Valve for water based fluids Water control valve with special flexible rubber outlet to prevent foaming.  Description Water control valve with swivel G1/2" (m) Water control valve with swivel G1/2" (f) Water control valve with swivel G3/8" (f)	2468060 2468061 2468064	
Hose end Meter for water based fluids Digital hose end meter for water based fluids, powered by 2 replaceable AAA 1,5 V alkaline batteries. The meter is fitted with a special flexible rubber outlet to prevent foaming. Flow range: 5 to 15 l/min. Max work pressure: 4 MPa (40 bar)  Description Water control valve with swivel G1/2" (m) Water control valve with swivel G1/2" (f) Inline meter G1/2"(f)	24142 24141 24140	24140
Wash Control Valve Heavy duty wash control gun made of rubber covered diecast brass. Flow pattern regulated by the trigger. Max pressure 3 MPa (30 bar). Connection thread G1/2"(f).  Description Wash control gun G1/2"(f) Wash control gun G3/8"(f)	28182 2818264	
Wash Nozzle Straight form wash nozzle with on/off and flow pattern regulated by turning the sleeve. Supplied with 1/2" hose connection. Max pressure 3 MPa (30 bar).  Description Wash nozzle for 1/2" hose connection in brass Bare hose adapter G1/2" (m) with 60° cone	28268 2085398	



## **Detergent and Air control** Part.No Wash Handle Heavy duty wash handle made of die-cast brass with rubber covered handle. Supplied with two nozzles, 2 and 4 mm jet holes. Flow pattern adjustable with control knob. Max pressure 3 MPa (30 bar). Description Wash handle for 1/2" hose connection in brass 16004 Wash handle for 3/4" hose connection in brass 16006 Spray Handle with Spray tube Designed for use with detergents. Consists of a brass valve body with 580 mm brass outlet tube and two nozzles, one with an adjustable spray pattern. Connection thread. G 3/8" (m). Description 24029 Spray handle with spray tube 550012 Spare adjustable nozzle Spray Handle with Spray tube Designed for use with detergents. Consists of a thermoplastic valve body with a 915 mm outlet tube of stainless steel. Two different spray nozzles for water- and petroleumbased detergents. Connection G1/2" (f). Description Spray handle with spray tube 24099 550012 Spare adjustable nozzle **Blow Gun** Blow gun for efficient cleaning, made of impact resistant plastic with ergonomically designed handle. Tube length approx. 100 mm. Connection thread, G1/4" (f) Description 44503 Blow Gun

Oil & Gly	col Control		Part.No	
Max pressure: G1/2" (f).  Description Oil Control Valve Oil Control Valve Oil Control Valve Oil Control Valve	made in aluminium with large 10,5 Mpa (105 bar). Swivel in without outlet tube with 60° rigid tube and semi-automate with hose and semi-automatic nozzl	ncluded. Inlet  atic nozzle  cle ozzle	24675 24560 24561 24562 24564	24675 24560 24561
contamination inlet G1/2" (n  Description Control Valve	alve has an inlet strainer which r risk. Max working pressure 5	5 MPa (50 bar),	2468010	2468010
;	Rigid outlet (24170), non drip nozzle (swivel (24585) G1/2"(f).  Hose outlet (2285346), non drip nozzle		2468011 2468050	2468050
;	swivel (24586) G1/2"(m). Hose outlet (2285346), non drip nozzle		2468051	,
;	swivel (24585) G1/2"(f).  complete with assembly instructions (s	, ,	24679	24679
Two-valve op	oil control valve for high flow eration. Lockable trigger. Ball vith semi-automatic non-drip no Maximum pressure:	bearing swivel.	24563	



### Control Valves for Oil, Water, Windscreen liquids, Antifreeze etc.

### **Control Valve**

A range of valves with ergonomically designed handgrip of glass filled polyamide. Available in several combinations or as individual parts. Max working pressure 5 MPa (50 bar). Weight approx. 0,65 kg complete with swivel and outlet hose.

#### Description

Control valve without accessories

#### Latch Kit

The latch kit is intended to be used for example when it is desired to make large fluid dispenses without manually holding the valve open. The kit contains three different latches. Latch 1 is used to lock the valve in both open and closed positions. Latch 2 is used to lock in the open position. Latch 3 is used to lock the valve in the closed position.

# How to order a complete control valve with accessories

The desired combination of accessories is indicated using a four (4) digit code immediately after the article number of the valve 24680. The position of the figure in the code corresponds to a specific accessory according to the following:

**Position 1 = Type of inlet swivel** 

Position 2 = Adapter with rubber/steel washer

Position 3 = Type of outlet hose

**Position 4 = Type of non-drip nozzle** 

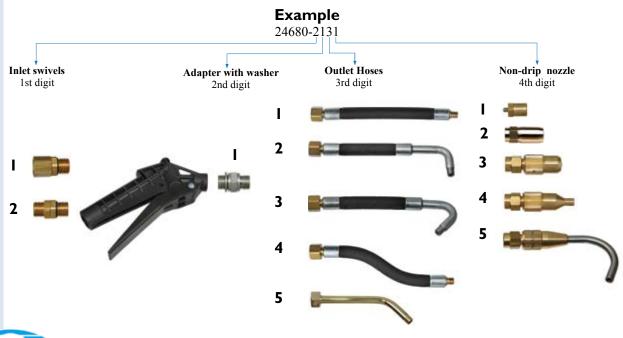




If a specific accessory is not required insert the figure zero (0) in the code, in the position of that accessory. The code must always consist of four (4) digits.

### **Example**

Control valve 24680 with inlet swivel G1/2" (m) - G1/2" (m) (24586), adapter with washer (2145895), outlet hose with 135° angle (2285345) and automatic non-drip valve (24519) Code: 24680-2131



Hose End Meters	Part.No	
Mechanical Hose End Meter  Functions:  • For measuring oil and glycol  • 4 digit display  • Resettable trip meter  • Non resettable totaliser  • Accuracy ±1%  • No need of battery, Environment friendly  Technical Data  Hose End Meter including swivel, valve handle, inlet strainer, outlet hose and semi-automatic non-drip nozzle.  Connections: Inlet: G1/2" (f) Outlet: G1/2" (f)  Weight: Approx. 1,0 kg  Flow range: 1-25 litres/min (0-25 to 5,3 USG/minute)  Working pressure: (0,5-70 bar, 8-1000 psi)  Temperature range: 0°C to +55°C  Fluid compability: All types of mineral and synthetic lubricants up to 140SAE (5-5000 mPa/s)	24786	24786
Digital Hose End meters with semi - automatic non-drip nozzles		
Description Hose End Meter including swivel G1/2"(f), valve handle,inlet strainer, outlet hose,battery and non-drip nozzle	24780	24780
Hose End Meter including swivel G 1/2" (f), inlet strainer,battery, ridged outlet tube, and non-drip nozzle	2470011	
Hose End Meter including swivel G 1/2" (m), inlet strainer,battery, ridged outlet tube, and non-drip nozzle	2470010	The state of the s
Hose End Meter including swivel G1/2" (f), inlet strainer, battery, non-drip nozzle and adjustable outlet hose	2470051	
Hose End Meter including swivel G1/2" (m), inlet strainer, battery, non-drip nozzle and adjustable outlet hose	2470050	
Preset Hose End Meter including swivel G1/2" (f), inlet strainer, battery, ridged out let tube and non-drip nozzle	2470211	
Preset Hose End Meter including swivel G1/2" (m), inlet strainer, battery, ridged out let tube and non-drip nozzle	2470210	
Preset Hose End Meter including swivel G1/2" (f), inlet strainer, battery non-drip nozzle and adjustable outlet hose	2470251	
Preset Hose End Meter including swivel G1/2" (m), inlet strainer, battery non-drip nozzle and adjustable outlet hose	2470250	



For other models and configurations, refer to page 105

Part.No

### Hose End Meter

### **Hose End Meter**

#### **Functions:**

- · For measuring oil and glycol
- 4 digit display
- · Resettable trip meter
- Non resettable totaliser
- Easy calibration (accuracy ±0,5%)
- Simple battery change

#### **Technical Data**

Hose End Meter including swivel, valve handle, inlet strainer, outlet hose

and semi-automatic non-drip nozzle.

Connections: Inlet: G1/2" (f) Outlet: G1/2" (f)

Weight: Approx. 1,1 kg

Flow range: 1-20 litres/min (0-25 to 5,3 USG/minute)

Working pressure: (0,5-70 bar, 8-1000 psi)

**Temperature range:** 0°C to +55°C

Accuracy: < ±0,5% (after calibration at 5-20 litres/minute)

Fluid compability: All types of mineral and synthetic lubricants up to

140SAE (5-5000 mPa/s)

**Battery:** 2 x LR03 Alkaline - 7000 hours average life



### **Hose End Meter**

A hand-held digital volume meter which is microprocessor based and ergonomically designed.

A safety lock prevents accidental operation of the trigger as a locking button must be depressed before the trigger can be released.

The trigger can be locked in the open position and then closed by a light upward pressure.

**Technical Data** 

Material: The meter cover and trigger housing is moulded from

impact resistant acetal plastic.

Measuring chamber: Die cast zinc
Valve housing: Die cast aluminium

Measure wheel: Vectra®

Conn. thread: Inlet: Gl/2" (f)

Outlet:  $G1/2^{\infty}$  (m),  $60^{\circ}$  cone seal 270 x 85 x 75 mm (L x W x H) Weight: Approx. 0.85 kg (without hose)

**Flow:** 1,5-15 litres/min.

Pressure drop: 0,02-0,45 MPa (0,2-4,5 bar)
Accuracy: <±0,3% (after calibration)
Working pressure: 1-5 MPa (10-50 bar, 145-725 psi)

**Temperature range:** 0°C to + 50°C

### Description

Basic model designed for oil and glycol. Meter range 0,01-999,99 litres. Equipped with resettable totaliser as well as a non resettable totaliser. Note! Without accessories.

Pre-set model with an automatic cut off when the pre-set value is reached. Meter range 0,01-999,99 litres.

Equipped with resettable totaliser as well as a non resettable totaliser.

Designed for oil and glycol. Note! Without accessories.

Pre-warning model. A buzzing sound will be heard when the pre-warn value is reached, manual final reading and valve closing. Meter range 0,01-999,99 litres.

Equipped with resettable totaliser as well as a non resettable totaliser.

Designed for oil and glycol. Note! Without accessories.

#### **Functions:**

- Current dispense, resettable
- · Resettable totaliser
- Non resettable totaliser
- Pre-set dispense mode 0,1-999,9 litres (24702)
- Pre-warn dispense mode 0,1-999,9 litres (24704)
- Low battery warning

### **Keys:**

- Reset (incl. display segment test)
- Selection of functions
- Volume setting (24702, 24704)

### Unit of measurement

- Volume is shown in litres.
- Possible to show in
  US gallon (G) US Quarts (Q)

and US pint (P).



24700



24704

24700

24702



### Approved Hose End Meter and Line Meter Part.No

### Subject for approval

#### **Functions:**

- Current dispense, resettable
- · Resettable totaliser
- · Non resettable totaliser
- Pre-set dispense mode 0,2-99,9 litres (24712)
- · Low battery warning

#### Keys:

- Reset (incl. display segment test)
- Selection of functions
- Volume setting (24712)

#### Unit of measurement

Volume is shown in litres

### **Meters, Subject For Approval**

A digital volume meter which is microprocessor based and ergonomically designed. A safety lock prevents accidental operation of the trigger as a locking button must be depressed before the trigger can be released.

The trigger can be locked in the open position and then closed by a light upward pressure.

#### Description

Hose end meter, basic model designed for oil and glycol Meter range 0,2-99,999 litres. Equipped with resettable totaliser as well as non resettable totaliser.

Note! Without accessories.

Hose end meter, pre-set model with an automatic cut off when the pre-set value is reached. Meter range 0,2-99,999 litres.

Equipped with resettable totaliser as well as non resettable totaliser.

Designed for oil and glycol.

Note! Without accessories.

Line Meter with 2x100 pulses/litre pulse transmitter output. Incl.1,5 m cable. Equipped with resettable totaliser as well as non resettable totaliser. Note! 10-30V DC power supply required.

### Technical Data

Material: The meter cover and trigger housing is moulded from

impact resistant acetal plastic. Measuring chamber: Die cast zinc Valve housing: Die cast aluminium

Measure wheel: Vectra®

Conn. thread: Hose end meter: Inlet: Gl/2 "(f)

Outlet: G1/2" (m), 60° cone seal Line meter: Inlet: G1/2 (m), 60° cone seal

Outlet: G1/2" (m), 60° cone seal

**Dimension:** Hose end meter: 270 x 85 x 75 mm (L x W x H)

Line meter: 185 x 95 x 48 mm (L x W x H)

Weight: Hose end meter: Approx. 0,85 kg (without hose) Line meter: Approx. 1,1 kg

Flow: 1,5-15 litres/min.

**Pressure drop:** 0,02-0,45 MPa (0,2-4,5 bar)

Accuracy:  $<\pm0.3\%$ Viscosity:  $<\pm0.00$  mPa·s

**Working pressure:** 1-5 MPa (10-50 bar, 145-725 psi)

**Temperature range:** 0°C to + 50°C



24710



24712



24710

24731

24712





### Hose End Meter for Oil and Glycol

# How to order a hose end meter complete with accessories.

A meter with a combination of accessories is ordered by adding a four digit code after the meter article number. The position of the digit in the code corresponds to a specific accessory as follows:

**Position 1 = Type of inlet swivel** 

Position 2 = 9V battery

**Position 3 = Type of outlet hose** 

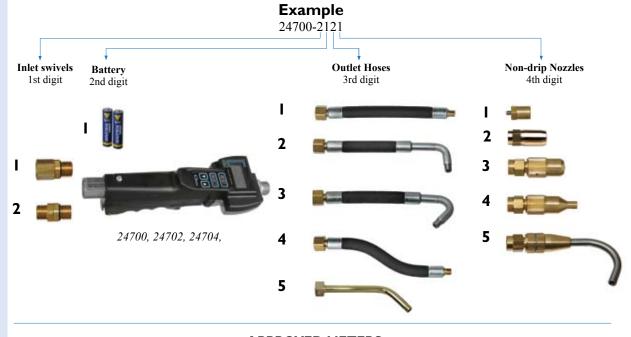
**Position 4 = Type of non drip nozzle** 



If a specific accessory is not required insert the figure zero (0) in the code in the position of that accessory. The code must always consist of four (4) digits.

### **Example**

Hose end meter 24700 with swivel G1/2" (m) - G1/2" (m) (24586), 9V battery (2245634), flexible outlet hose with 90° angle (2285344) and automatic non drip nozzle (24519) Code: 24700-2121







	Part.No	
Inlet Swivels		
Max working pressure: 5 MPa (50 bar)		24585
Material: Brass ISO/SS 5170		2.000
Material in O-ring: Nitrile rubber N70		
Connection threads:		
G1/2" (m) - G1/2"(f)	24585	
G1/2" (m) , 60° cone - G1/2" (m)	24586	
Note! The O-ring on the above swivels must be mounted against the		24586
note: The O-ring on the above swivets must be mounted against the	vaive body.	22052
Outlet Hoses		22853
Max working pressure: 5 MPa (50 bar)		2285
Material: Hoses: Braided Nitrile/Chloroprene rubber.		
<u>.</u>		
Tube: Steel		2285.
Connection threads: At valve body: G1/2" (f)		•
At non-drip: M 12x1 (m)		2205
Description:		2285
Outlet hose, straight	2285343	
Outlet hose, straight for Lockable Non-drip Nozzles	2285441	2285
Outlet hose 90°	2285344	2203
Outlet hose 135°	2285345	
Outlet hose, flexible	2285346	2417
Rigid outlet, steel tube	24170	
Water hose	2245997	2245
	2145895	2243
Adapter for use together with oil control valve 24680, to connect outlets	2145895	2145
Max working pressure: 5 MPa (50 bar)  Material: Brass ISO/SS 5170  Material in O-ring: Nitrile rubber N70  Connection thread: M 12x1 (f)  Description: Fully automatic opening and closing	24519 24527 24528	24519 24529 24529 24539
manually by 90° turn ø 8 mm	24529	24337
Lockable, with bent outlet pipe 135°, opened and closed		
manually by 90° turn ø 8 mm	24537	
Note! For lockable nozzles use 24170 or 2285441	outlets!	
Drip Holsters		
To protect hose end meters and control valves when not in		
		2000
use and to collect any oil drips.		
use and to collect any oil drips.  Description	20020	29020
use and to collect any oil drips.  Description	29020	29020
use and to collect any oil drips.  Description Drip holster, Standard	29020 29600	
use and to collect any oil drips.  Description Drip holster, Standard Drip holster, De Luxe		29020 29095 29095 29085
	29600	29095 29085
Description Drip holster, Standard Drip holster, De Luxe Drip holster. with removible dropbowl. Drip holster. with removible dropbowl.  Battery	29600 29085 29095	29095 29085
Description Drip holster, Standard Drip holster, De Luxe Drip holster. with removible dropbowl. Drip holster. with removible dropbowl.	29600 29085	29095 29085



#### **Line Meters** Part.No **Line Meter Functions:** • For oil and glycol (24764, 24765 even for Diesel) • 4 digit display Resettable trip meter Non resettable totaliser Easy calibration (accuracy 0,5%) 24790 Simple battery change **Technical Data** Working pressure: (0,5-70 bar, 8-1000 psi) 0°C to +55°C Temperature range: Accuracy: < 0,5% (after calibration) 24764 2 x LR03 Alkaline - 7000 hours average life **Battery: Description Connections** Flow rate Work Pres. Max Line meter G1/2" (inv) 1-20 litres/min 7 MPa (70 bar) 24790 Line meter G1/2" (inv) 1-20 litres/min 7 MPa (70 bar) 24762 1-100 litres/min Line meter G1" (inv) 3 MPa (30 bar) 24764 Pulse meter G1" (inv) 1-100 litres/min 3 MPa (30 bar) 24765 24762 36 pulses/litre pulse transmitter output Line Meter, Mechanical **Functions:** · For oil and glycol Non resettable totaliser Accuracy ±1% • 4 digit display · Resettable trip meter 24796 **Technical Data** (0,5-70 bar, 8-1000 psi) Working pressure: Temperature range: 0°C to +55°C For Oil and Glycol Description Basic model. Meter range 0,1-999,99 litres. Equipped with resettable 24720 totaliser as well as non resettable totaliser. Note! Battery not included. 2472001 24720 with battery. Line meter with 100 pulses/litre pulse transmitter output. For connection to monitoring systems in combination with remote display Monitor 23362 24722 or with a separate digital display D3240. Incl.1,5 m cable. Equipped with resettable totaliser as well as non resettable totaliser. Note! 10-30V DC power supply required. 24721 As 24722 but with 10 pulses/litre output. Line meter with 328 pulses/litre pulse transmitter output. Only for 24738 connection to monitoring systems (Orilink/Oilmon). Equipped with connection terminal and reel open indication light. This meter does not have a display or function buttons. **Technical Data** Material: The meter cover is moulded from impact resistant acetal plastic. Measuring chamber: Die cast zinc Measure wheel: Connection thread: Inlet: G1/2" (m), 60° cone seal Outlet: G1/2" (m), 60° cone seal 185 x 95 x 48 mm (L x W x H) **Dimension:** Weight: Approx. 1,1kg Flow: 1,5-15 litres/min. Pressure drop: 0,01-0,12 MPa (0,1-1,2 bar) $<\pm 0.3\%$ Accuracy: 24738 **Working pressure:** 1-5 MPa (10-50 bar, 145-725 psi) **Temperature range:** $0^{\circ}$ C to $+50^{\circ}$ C

Line Meters Part.No

# Stainless Steel Line Meter for Windscreen Fluids

Line meter with 328 pulses/litre output for oil and water based fluids (windscreen wash and detergents mixed with water). Only suitable for connection to monitoring systems. This meter does not have a display or function buttons. Inlet strainer included.

Description

Line meter for windscreen fluids

**Technical Data** 

Material: Stainless Steel SS/ISO 2346

Packings: Viton

**Connection thread:** Inlet: G1/2 (m), 60° cone seal

Outlet: G1/2 (m), 60° cone seal 80 x 110 mm (D x H)

 Dimension:
 80 x 110 mm (D x H)

 Weight:
 Approx. 1,65 kg

 Flow:
 1,5-30 litre/min.

Accuracy: <±1% (after calibration)
Pressure drop: 0,01-0,1 MPa (0,1-1,0 bar)
Max working pressure: 15 MPa (150 bar)
Min burst pressure: 40 MPa (400 bar)
Temperature range: 0°C to +50°C

24775

24760



#### Line Meter for Waterbased Fluids

Line meter with 300 pulses/litre (adjustable) for antifreeze (water-glycol) and detergents mixed with water.

Only for connection to monitoring systems.

This meter does not have a display or function buttons.

Note! 10-30V DC power supply required.

Description

Line meter for waterbased fluids

**Technical Data** 

Connection thread:

Material: Measuring housing: Acetal Copolymer

Valve housing: Nylon

Measure wheel: Acetal Copolymer Inlet: G1/2" (m), 60° cone seal

Outlet: 0,5 m flexible hose with

G1/2" (f), 60° cone seal

**Dimension:** 220 x 125 x 110 mm (L x W x H)

Weight: Approx. 1,1 kg Flow: 1,5-30 litre/min

Flow: 1,5-30 litre/min.

Accuracy:  $<\pm5\%$  (after calibration) Pressure drop: 0,001-0,1 MPa (0,01-1,0 bar)

Max working pressure: 2,0 MPa (20 bar)
Temperature range: 0°C to + 50°C

Note! Not suitable for windscreen fluids.





# Monitoring



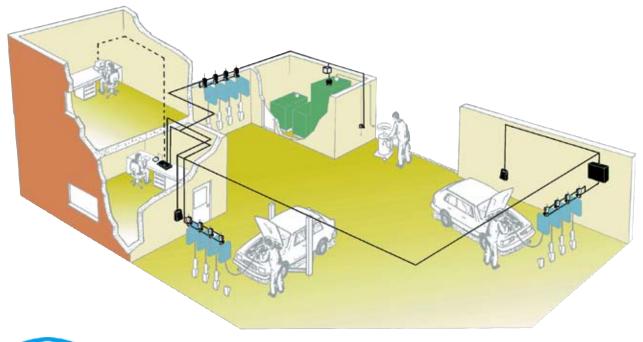


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Solenoid Valves	116
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#### **Dosing Equipment, Industry and Automotive**



#### **Industry, Description Part No 23455**

A high performance wall mounted pre-set dispense unit for industrial use that helps you to accurately fill objects with the correct amount of fluid. It reduces the amount of buttoning to get the needed volume and removes the measuring tool from the floor and other risky places. The need for battery changes is eliminated because of that the unit is mains supplied. It can be used for a wide variety of products that needs to be dispensed accurately. It can be connected to an OriLink® monitoring system if further functionality is needed at a later time.



#### Automotive, Description Part No 23457

A high performance wall mounted pre-set dispense unit that helps you to accurately fill objects with the correct amount of fluid. It reduces the amount of buttoning to get the needed volume and removes the measuring tool from the floor and other risky places. The need for battery changes is eliminated because of that the unit is mains supplied. It can be used for a wide variety of products that needs to be dispensed accurately. It can be connected to an OriLink® monitoring system if further functionality is needed at a later time.

#### Technical specification

Power supply Industrial, 110-230 VAC 50/60Hz, Automotive Common mains adapter, 110-230 VAC 50/60Hz

Solenoid valve output 24VDC max. 1 A Solenoid short-cirquit Yes ,protection PPU 1-6553

Calibration From buttons (or from OriLink® keypad or Neighbourhood)

Pre-set adjust From buttons (or from OriLink® keypad)

Number of pre.sets 16

Number of decimals 0, 1, 2, 3, 4 or AUTO

#### **Industry Part No 23455**

Box Black steel LED box with polystyrene over lay and a rugged sealed aluminium button box .

Buttons Ni-coated brass, flat design, "vandal proof", IP65
Cable between LED 5 m 7-lead halogen free cable and button box

#### Automotive Part No 23457

Box Black steel powder painted with polystyrene overlay. Buttons Painted metal, IP67.

Distance between LED Buttons mounted in LED

and buttons

#### Additional

Optional button support Fast dispense Pre-set 1, 2, 3 and 4. (not included)

Expansion possibilities Fully compatible with OriLink®, can be equipped with Clock module 23405



### **Product Specification**

	OriLink P
	Basic functions OriLink
Max No. Hose Reels	253
Max No. Oil Grades	Unlimited
Max No. Keypads	Unlimited
Max No PIN Codes	Unlimited
Stores Control	•
Technician Access	•
Preset Dispense Qty.	•
Preset Codes	•
Job No. Validation	•
PC-connection	•
ADB integration, see below	•
Dealer Management System Interface, see below•	
More than one ticket printer	•
Printout Data	
Date and time of dispense	•
Reel number identification	•
Job number (alphanumeric)	•
Technician Name and number	•
Unique transaction number	•
Fluid name and part number	•
Quantity dispensed in litres (two decimals)	•
Re-order Prompt	•
Total Sales Value	•
Stock level	•
Management Data	
Oil Usage by Grade	•
Oil Usage by Operator	•
Oil Usage by Job No.	•
Oil Usage by Hose Reel No.	•
Oil Usage by Transaction No.	•
Stock Re-order Report	•
Current Stock Level	•
Transaction Data Storage/Recall Facility	•
Waste Oil Control Facility	•

ADB integrated systems (May 2006)

List of names:

Acosy, AD2000, Auto 2000, Automaster, Autovision, Axapta, Concord, Cosware, Dracar, GDS, Kerridge, Kobra 2, Maximo, Navision, Optima 21, Tacdis, Winassist, Universal Auto, Generic Text, Generic SQL.

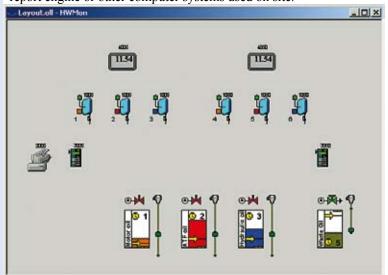
PC

Alentec & Orion AB reserves the right to change specifications in this publication without notice.



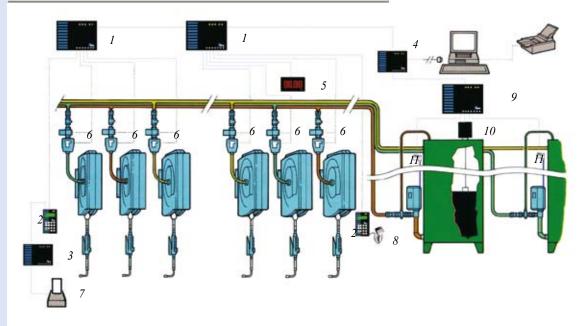
#### **OriLink**

The Orilink system is an advanced oil management system with no upper limit for number of reels, oilgrades or reels used simultaneously. An overview of the workshop oil system layout is presented as miniatures on the screen where all activities are graphically visible in real time! As all data is stored in the Windows environment comprehensive management reports can be obtained by using the advanced report engine in the system, or by exporting data to a report engine or other computer systems used on site.



#### PC minimum requirements:

PC pentium 400 MHz 256 Mb RAM memory 2 Gb hard disc drive CD disc drive Windows 95 or higher



Part.No	Pos	Description	Part.No	Pos	Description
23400	1	Main Module (MPDM)	23354	7	Receipt Printer
23401	2	Keypad	23407	8	Bar Code Reader
23402	3	Printer Module	23408	9	Tank Module
23403	4	PC-interface	23417	10	Tank Level Alarm
23404	5	Digital LED Display	48059	11	Solenoid Valve
SPEC2289	6	Flow Meter/Solenoid Valve			



OriLink	Part.No	
Main Module (MPDM)  Each MPDM has connections to control up to four solenoid valves and is equipped with a key switch with normal operation, emergency over-ride and On/Off functions. Suitable for meter units with flow direction function.  230 V AC power supply required	23400	Conclusion?
<b>Key Pad</b> To be installed in the workshop in order to give the operator access to the system using a personal ID-code. 2x16 signs window, 20 buttons display. Can be equipped with serial port kit (23415) for external reader (23407 or 23409).	23401	
<b>Key Pad, Grafical</b> To be installed in the workshop in order to give the operator access to the system using a personal ID-code. 2x16 signs window, 20 buttons display. Can be equipped with serial port kit (23415) for external reader (23407 or 23409).	23410	
Printer Module With the printer module it is possible to connect a printer to the system (Model 23354). When the system has no PC (Program 23413) the information is stored in the printer module. Maximum 912 transactions, 32 users and 8 tanks can be stored. A system can have more than one printer module where there is a need for more than one ticket printer.	23402	Chican Control
<b>Communication adapter/ PC-interface</b> For connecting the system to a PC. Can also be used as a line amplifier when the communication cable is longer than 2000 metre.	23403	Charles of the Charle
<b>LED Display</b> Display with 40 mm numbers. Displays the dispensed volume. When equipped with a clock module or PC-connected it shows the actual time when the system is not in use. One extra port for a solenoid valve.	23404	
Tank Module  The tank module has four connections for controlling air solenoid valves to start and stop the pumps and can also work together with a low level or low and re-order level sensor. Is equipped with a key switch with normal operation, emergency override and On/Off functions. Controls waste oil solenoid valves plus the re-order warning on the PC. This module only works together with PC software 23414. 230 V AC power supply required	23408	Charles (City)

# **MONITORING**

OriLink	Part.No	
Clock Module Can be mounted in a printer module or LED display for showing the actual time, when the system is not in use. Maximum one per system. Not required when a PC is included in the system.	23405	Will E W
<b>Bar Code Reader</b> Complete laser reader for both hand held and bracket mounted bar code reading. Reads all one dimensional codes. Supplied with trigger, cable, net adapter ( 230 V AC) and a bracket.	23407	
Card Reader For both bar code and magnetic strip. Can read all the three tracks on the magnetic strips according to the ISO-standard. Cable and net adapter (230 V AC) are included.	23409	
<b>Dallas Key Reader</b> By equipping a OriLink® keypad with this kit it is possible to read the laser cut unique serial number of Dallas keys/IButtons. It requires Flash chip in keypad an updated keypad software.	23419	900
<b>Serial Port Kit</b> To connect the Bar Code or the Card readers to the Keypad (23401).	23415	0300 € 0300 €
Basic Program Shows outlets and updates the printer module, user, tank register and simple export of transaction data to the PC.  Professional Program	23413	
PC database with report functions. Must be installed when the system is to be connected to an ADB system or when several printers are used.	23414	
Ticket Printer  40 column dot matrix printer.  Delivered complete with cables, paper and ribbon, ready for connection to the printer module in the system. (230 V AC)  Description Ticket printer, parallel	23354	
Spare ticket roll for 23354 Spare ink ribbon for 23354	23334 23335	
Communication Cable Two twisted pairs, each pair shielded 4-core 0,36 mm <sup>2</sup> . Use between 23400-23408.	23411	
<b>Control Cable</b> 5-core 0,5 mm <sup>2</sup> . Use between MPDM and meter/solenoid valve.	23393	

				Part.No	
Line Meter K Line Meters with se			valve Strai-		9
ner part no 28022 i					THE RESERVE TO SERVE
Description	Max Pressure Pulses	Conn. thread	Postions Included		
Meter for oil 24738, solenoid valve 28127	5 MPa(50 bar) 328 pulses/l	G1/2" (m)		SPEC2290	<i>SPEC2290</i> <i>SPEC2289</i>
Meter for oil 24738, solenoid valve 28127	5 MPa(50 bar) 328 pulses/l	G1/2" (m)	w/o strainer	23355	
Meter for oil 24738, solenoid valve 28306	5 MPa(50 bar) 328 pulses/l	G1/2" (m)	1-6	SPEC2289	
Meter for oil 24738, solenoid valve 28306	5 MPa(50 bar) 328 pulses/l	G1/2" (m)	w/o strainer	23376	
Meter for oil 24765 solenoid valve 28306	2,5 MPa(25 bar 36 pulses/l	G3/4" (m)	1-6	SPEC2293	SPEC2293
Line Meter ki Detergents a	nd AdBlue.		•		
Line Meter with so ner, part no 28022		icates open	valve. Strai-		
<b>Description</b> Meter incl. solenoid valve 28306		SS/ISO 2346 G1/2" (m)	Packings: Viton	SPEC7291	(INCOME)
AdBlue meter incl. solenoid valve		SS/ISO 2346 G1/2" (m)		SPEC7293	SPEC7291
Meter for antifrages and	d detergents				10
Meter for antifreeze and incl. solenoid valve 28306	5 Mpa (50 bar)	Brass G1/2" (m)	Packings: Viton	SPEC7292	
incl. solenoid valve	5 Mpa (50 bar) 300 pulses/l it for Diesel 5) with solenoid v	G1/2" (m)	Viton	SPEC7292	
Line Meter K Line Meter ( 2476)	5 Mpa (50 bar) 300 pulses/l it for Diesel 5) with solenoid v	G1/2" (m) alve (2830)	Viton	SPEC7292 SPEC2292	
Line Meter K Line Meter ( 2476: Strainer, part no 28  Description Meter for diesel incl.	5 Mpa (50 bar) 300 pulses/l it for Diesel 5) with solenoid v 3059 included. 1,0 Mpa (10 bar) 36 pulses/l	G1/2" (m) alve (2830)	Viton  8).  Packings:		
Line Meter K Line Meter ( 2476: Strainer, part no 28  Description Meter for diesel incl. solenoid valve  Meter Kit for	5 Mpa (50 bar) 300 pulses/l it for Diesel 5) with solenoid v 3059 included. 1,0 Mpa (10 bar) 36 pulses/l	G1/2" (m) alve (2830)	Viton  8).  Packings:		
Line Meter K Line Meter ( 2476: Strainer, part no 28  Description Meter for diesel incl. solenoid valve  Meter Kit for Meter kit with sole Description Meter for grease incl.	it for Diesel 300 pulses/l  it for Diesel 5) with solenoid v 8059 included.  1,0 Mpa (10 bar) 36 pulses/l  Grease enoid valve.  30 Mpa (300 bar) 1450 pulses/l	G1/2" (m)  alve (2830)  G3/4" (m)  G1/4" (f)	Viton  8).  Packings: Viton	SPEC2292	



### **MONITORING**

#### **Monitoring Equipment**

#### Part.No

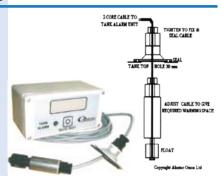
#### Tank Level Alarm

Reversible float to allow high level or low level sensing. Suitable for oil and diesel tanks. Alerts user when level has been reached. Low voltage, 9 V operated, no mains wiring required. Can be connected to remote visual alarm.

#### Description

Tank Level Alarm incl tank level sensor Tank Level Sensor, 5 metre cable included 23449 2330287

23072



### Pressure Gauge/Low Pressure Switch

Can be mounted in the outlet tubing for grease to alarm and/ or shut off the pump when the pressure is too low. Will also prevent the pump from dry running in case of empty barrel. Built in pressure switch (10MPa, 100 bar) and micro switch (max 50 V 1A) incl. 1,5 m connection cable.

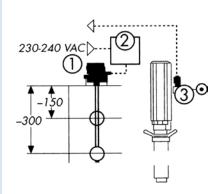
DescriptionPressure rangeConn. threadDiameterGauge with pressure<br/>switch, for grease0-60 MPa<br/>(0-600 bar, 8700 psi)G3/8" (m)ø100 m



#### **Waste Oil Control Equipment**

A level sensor (1) senses the level in the waste oil tank. At a pre determined level, a repeated warning of approaching high level is printed on the transaction printout. When the tank is full, the solenoid valve (3) shuts off the air supply to the waste oil discharge pump preventing an overfill situation. An EX ia-barrier (2) is installed between the level sensor and central unit to isolate the explosive environment inside the tank. (Dependent on local regulations or laws).

turni. (2 cp critical or re-cur regulations or rules).		
Description	Pos	
Level sensor	1	23132
EX ia-barrier [EEX ia] IIC appr (230 V AC)	2	23187
Solenoid valve, 24 V DC for air	3	48059



#### Solenoids for Air

For the control of oil and waste oil pumps. 24 V DC

	1 1	
Description	Conn. thread	
Solenoid 24V DC	G 1/4" (f)	48059
Solenoid 24V DC	G 1/2" (f)	48081
Solenoid 24V DC	G 3/4" (f)	48082
Solenoid 24V AC/DC Ex. G 1/2" (f)	G 1/2" (f)	48080

#### Solenoids for Fluids

For flow control. 24 V DC

Description	Conn.thread	Max Pressure	
Special solenoid for high viscosity fluids	G 1/2"(f)	5 MPa(50 bar)	28127
Solenoid for oil, glycol, wind screen fluids	s G 1/2"(f)	5 MPa(50 bar)	28306
Solenoid for Grease	G 1/4"(f)	30 MPa(300 bar)	38013
Solenoid for Diesel	G 3/4"(f)	2,5 MPa(25 bar)	28308
Solenoid for Oil	G 1"(f)	6,0 MPa(60 bar)	28304
Solenoid for AdBlue	G 1/2"(f)	1 MPa(10 bar)	28338







Protection Kits	Part.No	
Control panel for drum or tanks Protects the pneumatic pumps from dry pumping and the waste oil tanks from over filling. The panel can handle 4 different pumps/tanks at the same time. On the front of the panel there are 8 lamps, one stop and one alarm per drum/tank with test button. Two levels for each drum/tank. In case of inflammable fluids, the unit must be completed with Model 23187. When need of more solenoid valves ad relay box (23167). The unit can be connected to the OriLink system. (230 VAC, Solenoid Valve 24 V DC)	23430	Continue Con
Tank Level Sensors, 60, 200 litres drums & 1000 litres containers  Switch on/off when the liquid level is appr. 30 mm from the bottom. 24 V DC 1 A. Fits in the drums 3/4" thread.  Max height of container 1080 mm.  Description  Level sensor, switch off with low level, for oil.  Level sensor, switch on/off with low level, for alcohol and similar. Reversible float.  2-level sensor, switch off with low level and warning 300 mm from bottom, for oil.  2-level sensor, switch off with low level and warning 300 mm from bottom, for alcohol and similar.  Level sensor for tank, see page 116	23171 23183 23191 23192 2330287	
<b>Level Switch, Waste Oil</b> For control of waste oil tank level. Equipped with two switch levels. The lower is 300 mm from the tank top and the upper 150 mm from the tank top. Other levels possible on special request. The body is equipped with a terminal strip for the connection of cables. Conn. thread G 2" (m)	23132	<b>8</b> -
<b>Analogue Level Sensor</b> 4-20 mA level sensor for tanks up to 4 m height. Self calibrated against the surrounding air pressure. To be connected to the OriLink Tank module Model 23408. Thread G 2".	23417	
Safety Relay This ATEX classified relay is to be installed outside of inflammable places. It is connected between the sensor in the inflammable place and the control panel. To be used in connection with sensors for waste oil or windscreen fluids. (230 V AC)	23187	Que I
<b>Relay Box</b> To be used when more that two solenoids is used for waste oil. (230 V AC)	23167	555
Overflow Protector  For oil tanks. Designed for connection to the over flow system of the supply tanker. Level switch with thermo element. Connection plug for mounting at filling coupling included.  Description  Length level switch electric cable  Overflow protector  200 - 500 mm  15 m  Connection thread G1/2" (m), clamp coupling	23163	

### **MONITORING**

#### **Protection Kits**

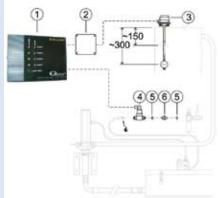
#### Part.No

### Two Stage Alarm equipment for Waste Oil

The equipment is EX-classified in accordance with waste oil handling regulations. The box can handle 6 different solenoid valves (24 V DC).

1 Control panel 23430 3 Level switch 23132

4 Solenoid valve 48059 2 Ex ia Barrier 23187 SPEC8042



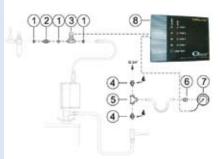
### **Pump Protection Kit for Grease Pumps**

Used to prevent air from entering the pump tube and dry running the pump when the drum is empty. Pressure sensor, resistant to fluids.

Equipment delivered unassembled in a kit, the major items are:

- 3 Solenoid valve, 24V DC, G1/4" (f) (48059)
- 4-6 Grease connection kit (1180033)
- 8 Control panel (23430)
- 7 Pressure sensor (23072), gauge





### **Pump Protection Kit, Oil and Liquid Pumps**

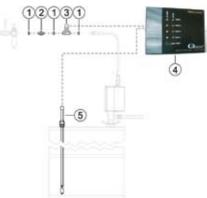
Used to prevent air from entering the pump tube and dry running the pump when the drum is empty.

Level sensor made of plastic, resistant to fluids commonly supplied in 205 litre drums.

Equipment delivered unassembled in a kit consisting of the following:

- 3 Solenoid valve, 24V DC, G1/4" (f) (48059)
- 4 Control panel (23430)
- 5 Low level sensor (23171), (for alcohol use 23183)

#### SPEC8120



# Pump Protection Kit for Pumps in EX proof areas

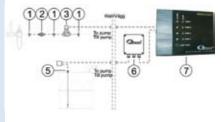
Used to prevent air from entering the pump tube and dry running the pump when the drum is empty.

Level sensor made of plastic, resistant to fluids commonly supplied in 205 litre drums.

Equipment delivered unassembled in a kit consisting of the following:

- 3 Solenoid valve, 24V DC, G1/2" (f) (48080)
- 7 Control pane (23430)
- 5 Low level sensor (23183), (for oil use 23171, not included)
- 6 Ex ia barrier (EEX ia) 11C appr (23187), 230 V AC

SPEC8121





# **Drum Handling**



# **DRUM HANDLING**

			Part.No		
Trolley for 12 l	12 kg Buckets to 6 kg to 60 kg drums with cl Wheel diameter ø 155 m	hain for holding the		28528	1
<b>Description</b> Trolley	Dimension (LxWxH) 300x390x1000 mm	Weight (approx.) 5,9 kg	28528		28557
with a pipe clamp.	G2" (f) thread. Mounts on the	trolley	28557 40801327		
Drum trolley for support and a c	ey for 60 kg Drum or 60 kg drums only. With lamp screw for fixing the n and two Ø 160 mm whe	n tubular drum e drum. Two swivel			
<b>Description</b> Drum trolley	Dimension (LxWxH) 500x450x1060 mm	Weight (approx.) 6 kg	28526		28557
Accessories Pump bracket with	G2 (f) thread. Mounts on the tr	rolley with a pipe clamp.	28557		
	ey for 180 kg Drui			5	
ø200 mm and oped with a brak  Description Drum trolley  Accessories Pump bracket.	or 180 kg drums with three one support wheel ø100 me. The handle is supplied Dimension (LxWxH) 785x800x900 mm	nm, which is equip-	28645 28651		>
ø200 mm and oped with a brak  Description Drum trolley  Accessories Pump bracket. Reel bracket. For O  Drum Troll Drum trolley for ø250 mm and t with a brake. T	one support wheel ø100 me. The handle is supplied  Dimension (LxWxH)	nm, which is equip- l loose.  Weight (approx.) 16 kg  ms r wheels, 2 large mm, one equipped			
ø200 mm and oped with a brak  Description Drum trolley  Accessories Pump bracket. Reel bracket. For Common trolley for properties of the same screw  Drum Troll  Drum trolley for properties of the same screw  Description Drum Troll  Drum Troll  Drum trolley for properties of the same screw  Description Drum trolley for properties of the same screw	Dimension (LxWxH) 785x800x900 mm  DRK,ORM and CRM Series  ey for 180 kg Drui or 180 kg drums with fou wo support wheels ø100 he handle, supplied loose s as the support wheels.  Dimension (LxWxH)	ms r wheels, 2 large mm, one equipped e, is held in place by  Weight (approx.)  20 kg  r 180 kg Drume wheels, 2 large tyres	28651 28652 28276		



Trolleys and	d accessories		Part.No	
four wheels, 2 la	n Trolley r all containers up to 180 arge ø 250 mm, and two s quipped with a brake.			
<b>Description</b> Safety drum trolley	Dimension (LxWxH) 785x800x900 mm	Weight (approx.) 20 kg	28277	
adjustable drur	<b>y</b> 0-600 mm diameter drum n attachments and three (none with a brake.			
<b>Description</b> Drum dolly	<b>Dimension (LxWxH)</b> Height approx. 110 mm	Weight (approx.) 7,5 kg	28582	THE REAL PROPERTY.
	d <b>Dolly</b> ly with an adjustable steel lax ø 375) fitted with four			
<b>Description</b> Trolley	<b>Dimension (LxWxH)</b> Max ø 375 mm	<b>Weight (approx.)</b> 7 kg	28579	8
	ey ley for transporting and n anually handling heavy 20 Dimension (LxWxH) 1400x700x300 mm		21110	21110
upright position easily tilted and horizontal posti station. The additional of	e enables drums to be pice. Using the extra long had lowered into a horizonta on the cradle can be used of two wheels converts the for use on any surface.	ndles, the drum is I position. In the as a dispensing	à	21103
<b>Description</b> Trolley	Dimension (LxWxH) 1500x700x500 mm	Weight (approx.) 8 kg	21103	21103 + 21104
Accessories Wheels	Pair		21104	
	th a litre scale for exact m n drums. The gauge fits in		29120	29120



# **DRUM HANDLING**

		1
<b>Drum wrench</b> Fits the most common types of drum caps.	29250	
Safety Pallet Safety pallet for upright drum storage, with built in spill containment. Suitable for all sizes and types of drum, the unit, which has a minimum sump capacity of 220 litre, addresses both Health and Safety and Environmental requirements.  Dimension (LxWxH) Weight Material Safety pallet for 2 drums  1240x820x360 mm 65 kg Metal 1240x820x360 mm 45 kg Plastic	29142 29143	
Drum Lift Drum lift for upright oil drums. Simple to use, easy to apply. Approved for lifting up to 250 kg.  Description Drum Lift	21100	
Drum Lift Drum lift for lifting horizontal drums. Particularly useful when storing drums in a drum store. Approved for lifting up to 250 kg.  Description Drum Lift	21108	
Hydraulic Drum Lift Designed to handle drums on safety pallets and equipped with a pedal operated hydraulic lift.  Description Hydraulic Drum Lift	DT300	

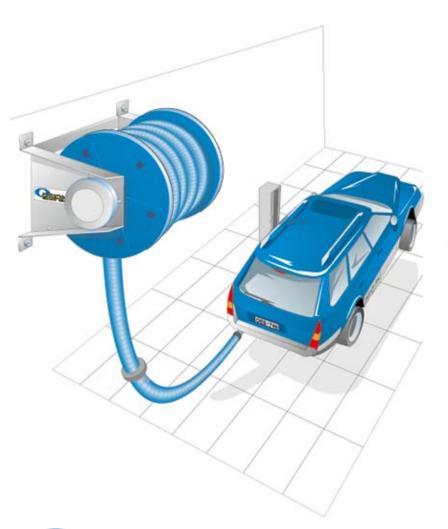


# Exhaust Equipment



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ınjormation	124
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Exhaust Nozzles	131
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#### Information, Exhaust Extraction

#### **Dimensioning of Fans and Hoses**

Generally speaking most users prefer small diameter hoses because they are easier to handle. As the required airflow is known, a fan should be selected according to the pressure drop in the hose. As a basic rule, the smaller the diameter of the hose chosen, the more powerful the fan required will need to be and vice versa. The length of the hose is also an important factor, since this has a direct effect on pressure drop. It will be seen from this that for any given work shop a suitable compromise needs to be found.

In theory a decrease in hose diameter of 50% will correspond to a four-fold increase in flow velocity which in turn leads to a sixteen-fold increase in pressure drop. Since the power consumption of the fan motor is proportional to the pressure it follows that the fan would need to be increased by sixteen times. As a result of this, best practice indicates that hoses less than 75 mm in diameter for cars and 125 mm for lorries should not be selected. In normal circumstances use 100 mm for cars and 150 mm for trucks.

Experience has also shown that the nominated flow rate of 1080 m<sup>3</sup>/h is insufficient when heavy trucks, construction machinery, large farm vehicles, military vehicles etc. or

longer periods of running at high engine RPM are undertaken. In these cases it will be necessary to choose larger hose and ducting diameters in order to avoid excessively large fans.

#### Guide values for airflow

Cars = 360 m<sup>3</sup>/h Lorries = 1080 m<sup>3</sup>/h Air velocity in ducting: 10 - 15 m/s

# Guide values for airflow Hose dimension:

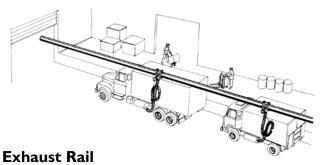
Ø 75 mm at airflow < 270 m<sup>3</sup>/h Ø100 mm at airflow < 540 m<sup>3</sup>/h Ø125 mm at airflow < 810 m<sup>3</sup>/h Ø150 mm at airflow < 1080 m<sup>3</sup>/h



### Exhaust Rails Part.No

#### **Straight Exhaust Rails**

Straight rails solve the exhaust emission problem with vehicles being driven along a straight section indoors. The system comprises of exhaust hoses mounted on moving connectors which run along a suction rail fitted to the ceiling. The moving trolleys can be supplied for internal or external travel, with or without automatic uncoupling of the nozzle.



with wall brackets, connectors, rubber seal, end cover and trolley stop. Nozzles not included, order separately. We recommend nozzles with wise grip.

Length	15,0 m	84201
	18,0 m	84202
	21,0 m	84203
	24,0 m	84204
	27,0 m	84205
	30 0 m	84206

# Internal exhaust trolley for nozzle with wise grip

With balanzer och hose hanger, without hose (order separetaly. Can be used for vehicle in motion.

Desc	rin	tion
Desc	rıp	uon

Internal exhaust trolley Ø100 mm/4" 84211
Internal exhaust trolley Ø150 mm/6" 84212

Not! Hose and nozzle order separately!

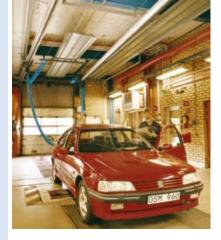
# Extarnel exhaust trolley for nozzle with wise grip

With balanzer och hose hanger, without hose (order separetaly. Can be used for vehicle in motion. då skenan påverkas av sidokrafter



External exhaust trolley Ø100 mm/4" External exhaust trolley Ø150 mm/6"

84215 84216









### **Spring Operated Exhaust Reels**

#### **General information**

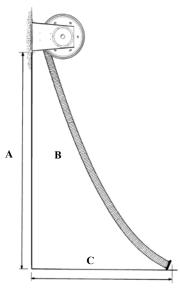
Exhaust reels are controlling exhaust gas fumes and prevent extraction hoses from trailing over the workshop floor. The exhaust reels take up a small space and can be mounted to the ceiling or on a wall. A flexible and economic solution for workshops with fixed working areas. The manually operated exhaust reel works with a spring recoil system. Pull the hose and it will stay at the required height; pull it once more and it will return to the initial position. The hose stop is set to the required height when returning the hose to the reel. The reels are available for various hose sizes and can often service more than one work place.

#### Advantages

- Need minimum space handles large working areas
- Simple and cost efficient exhaust extraction
- A flexible solution for fixed working areas
- Very long life under normal running conditions

#### Reach

A=Mou	nting heig	ht B=	Hose lengtl	1	C=Max	reach
A	В	C	В	C	В	C
2,5 m	5,0 m	3,5 m				
3,0 m	5,0 m	3,2 m	7,5 m	6,2 m		
3,5 m	5,0 m	2,6 m	7,5 m	5,9 m	10,0 m	8,5 m
4,0 m	5,0 m	1,9 m	7,5 m	5,5 m	10,0 m	8,3 m
4,5 m			7,5 m	5,2 m	10,0 m	8,0 m
5,0 m			7,5 m	4,7 m	10,0 m	7,7 m
5,5 m					10,0 m	7,4 m



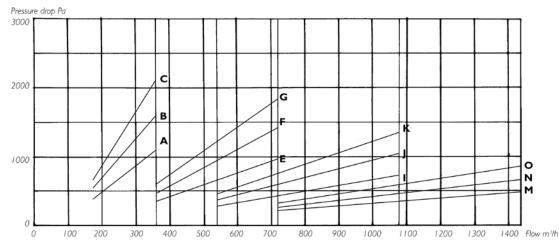
#### **Pressure Drop**

The diagram shows the pressure drop in exhaust reels with different air flows. Use the following recommended air flows when using the diagram:

Cars  $100 \text{ l/s} = 360 \text{ m}^3/\text{h}$ Lorries  $300 \text{ l/s} = 1080 \text{ m}^3/\text{h}$ 

The curves show these combinations of exhaust reel/hose diameter/hose length:

Curve	Description	Hose diameter and length	Curve	Description	Hose diameter and length
A	Spring operated reel	ø75 mm, 5 m	I	Spring operated reel	ø125 mm, 5 m
В	Spring operated reel	ø75 mm, 7,5 m	J	Spring operated reel	ø125 mm, 7,5 m
C	Spring operated reel	ø75 mm, 10 m	K	Spring operated reel	ø125 mm, 10 m
E	Spring operated reel	ø100 mm, 5 m	M	Spring operated reel	ø150 mm, 5 m
F	Spring operated reel	ø100 mm, 7,5 m	N	Spring operated reel	ø150 mm, 7,5 m
G	Spring operated reel	ø100 mm, 10 m	О	Spring operated reel	ø150 mm, 10 m





#### **Spring Operated Exhaust Reels**

#### Part.No

# Spring Operated Exhaust Reel for max. 10m ø150 mm Hose (6")

For mounting on the ceiling or on the wall. Connecting adapter ø 160mm for fan or central exhaust system included. Max. capacity 10m ø 150mm hose. For selection of hose mounting kit, hose, nozzle, fan etc., see following pages.

Description

Exhaust reel without hose

Complete reels with hose ( +150°C). Just add a nozzle.

Description

Hose dimension

Exhaust reel for Trucks

Length

Exhaust reel for Trucks

Log th

Log th

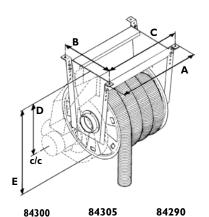
Langth



# Spring Operated Exhaust Reel for max. 10m ø100 mm Hose (4")

For mounting on the ceiling or on the wall. Connecting adapter Ø 160mm for fan or central exhaust system included. Max. capacity 10m Ø100 mm (4") hose. For selection of hose mounting kit, hose, nozzle, fan etc., see following pages.

Description		Weigth	
Exhaust reel without hose		49 kgs	84305
Complete reels with hose (+15	0°C). Just add a i	nozzle.	
Description	Hose dimension	Length	
Exhaust reel for Small Trucks/Cars	100 mm (4")	5 metres	84307
Exhaust reel for Small Trucks/Cars	100 mm (4")	7,5 metres	84308
Exhaust reel for Small Trucks/Cars	100 mm (4")	10 metres	84310



A 1030 mm	A 830 mm	A 630 mm
B 500 mm	B 500 mm	B 500 mm
C 974 mm	C 774 mm	C 574 mm
D 490 mm	D 490 mm	D 490 mm
E 700 mm	F 790 mm	F 790 mm

# Spring Operated Exhaust Reel for max. 7,5m ø100 mm Hose (4")

For mounting on the ceiling or on the wall. Connecting adapter  $\emptyset$  160mm for fan or central exhaust system included. Max. capacity 7,5m  $\emptyset$ 100 mm (4") hose. For selection of hose mounting kit, hose, nozzle, fan etc., see following pages.

Description		Weigth	
Exhaust reel without hose		44 kgs	84290
Complete reels with hose (+150	0°C). Just add a	nozzle.	
Description	Hose dimension	Length	
Exhaust reel for Small Trucks/Cars	100 mm (4")	7,5 metres	84311



To connect the exhaust hose to the reel a mounting kit must be used.

ø 75 mm (3")	88300
ø100 mm (4")	88301
ø125 mm (5")	88302
ø150 mm (6")	88303
	ø100 mm (4") ø125 mm (5")





#### **Electric Driven Exhaust Reels**

#### Part.No

83005

# Electric Driven Exhaust Reel for max. 10m ø150 mm Hose (6")

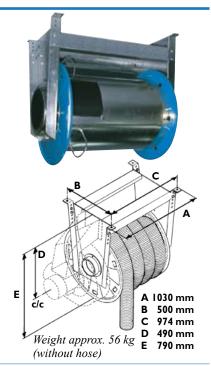
For mounting on the ceiling or on the wall. Connecting adapter ø 160mm for fan or central exhaust system included. Max. hose capacity 10m ø 150mm hose.

For selection of hose mounting kit, hose, nozzle, fan etc., see following pages. 1 phase 220-240 V, 50 Hz.

Description	Hose dim.	Length	
Electric Exhaust reel without hose	N/A	N/A	83105

Complete reels with hose (+150°C). Just add a nozzle. Control box included. Delivered unassembled.

Description	Hose dim.	Length	
Electric Exhaust reel with hose for Trucks	125 mm (5")	10 metres	83106
Electric Exhaust reel with hose for Trucks	150 mm (6")	10 metres	83107



# Electric Driven Exhaust Reel for max. 10m ø100 mm Hose (4")

For mounting on the ceiling or on the wall. Connecting adapter Ø 160mm for fan or central exhaust system included. Max. hose capacity 10m Ø100 mm (4") hose. For selection of hose mounting kit, hose, nozzle, fan etc., see following pages.1 phase 220-240 V. 50 Hz.

Description	Hose dim.	Length	
Electric Exhaust reel without hose	N/A	N/A	83102

Complete reels with hose (+150°C). Just add a nozzle. Control box included. Delivered unassembled.

Description	Hose dim.	Length	
Electric Exhaust reel with hose for Cars	100 mm (4")	10 metres	83103
Electric Exhaust reel with hose for Trucks	125 mm (5")	7,5metres	83104

# Electric Exhaust reel with hose for Trucks 125 mm (5") 7,5metres 83104

For control of electric driven

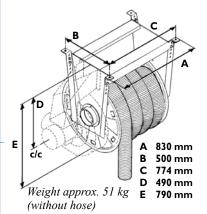
**Control Box** 

Exhaust Hose Reels.

Hose reels on swinging arm
The combination of a swinging suspension arm and a spring operated exhaust reel is a good solution when the reel needs to be moved between different work places.

· · · · · · · · · · · · · · · · · · ·		
Length	3,5 m	88416
	4,5 m	88417









### Exhaust Hoses Part.No

#### Hose Mounting Kits for Electric hose reels

To connect the exhaust hose to the reel

ast mose to the ree		
For hose diameter	ø100 mm (4")	88305
	ø125 mm (5")	88306
	ø150 mm (6")	88307



### **Exhaust Hoses**

Exhaust Hoses						
Hose diameter	Length	150°C	200°C	300°C	650°C	
		Standard				
ø 75 mm (3")	5 m	<u>88330</u>	88335	88445	88645	
ø100 mm (4")	5 m	<u>88340</u>	88345	88450	88470	
ø125 mm (5")	5 m	<u>88350</u>	88355	88455	88475	
ø150 mm (6")	5 m	<u>88360</u>	88365	88460	88480	
ø 75 mm (3")	7,5 m	88333	88336	88446	88466	
ø100 mm (4")	7,5 m	<u>88343</u>	88346	88451	88471	
ø125 mm (5")	7,5 m	<u>88353</u>	88356	88456	88476	
ø150 mm (6")	7,5 m	<u>88363</u>	88366	88461	88481	
ø 75 mm (3")	10 m	<u>88331</u>	88337	88447	88467	
ø100 mm (4")	10 m	<u>88341</u>	88347	88452	88472	
ø125 mm (5")	10 m	<u>88351</u>	88357	88457	88477	
ø150 mm (6")	10 m	<u>88361</u>	88367	88462	88482	
ø 75 mm (3")	12,5 m	<u>88334</u>	88338	88448	88468	
ø100 mm (4")	12,5 m	<u>88344</u>	88348	88453	88473	
ø125 mm (5")	12,5 m	<u>88354</u>	88358	88458	88478	
ø150 mm (6")	12,5 m	88364	88368	88463	88483	
3.5		-	,	, ,	,	



Note! A mounting kit must be used to connect the hose to the reel (see above). Approx. 0,5 m of the total hose length will be used inside the reel.

### **Exhaust Hose, Heavy Duty**

The hose is crush proof with nylon coil incl. one Y-adapter and two hose clamps (temp. resistant +150°C)

and two hose clamps (temp. re	sistant +150°C).	
Hose diameter	Length	
ø 75 mm (3")	2x1,5 m	88339
ø100 mm (4")	2x1,5 m	88349
ø125 mm (5")	2x1,5 m	88359
ø150 mm (6")	2x1,5 m	88369



### **Hose Connecting Kits**

To connect hoses with the same diameter. The kit consists of a hose adapter and two hose clamps.

a nose adapter and two nose clamps.		
For hose diameter	ø 75 mm (3") ø100 mm (4")	88485 88486
	ø125 mm (5'') ø150 mm (6'')	88487 88488



#### **Safety Disconnect Coupling**

The safety disconnect coupling is to protect your equipment from unexpected work place events, such as when a service technician forgets to remove the exhaust hose from the vehicle before moving it. The safety disconnect coupling will automatically separate to protect the vehicle and your exhaust system.

Description	Hose diameter	
Safety disconnect coupling	75 mm	88490
Safety disconnect coupling	100 mm	88491
Safety disconnect coupling	125 mm	88492
Safety disconnect coupling	150 mm	88493





#### **Basic Exhaust Extraction**

#### Part.No

#### **Fixed Exhaust Extractors**

A fixed exhaust extractor is easily designed by selecting hose, nozzle, hose support, balancer and hose clamps. For suitable hoses and nozzles, see previous pages. Balancer, see below.

Α

Hose supports make it possible to hang the hose on a balancer.

Description	For hose diam.	
Support	ø100 mm (4")	88441
Support	ø150 mm (6'')	88442

В

Hose clamps are used to fix the hose directly on to the ducting.

Description	For hose diam.	
Hose clamp	ø100 mm (4")	72101011
Hose clamp	ø150 mm (6'')	72101021

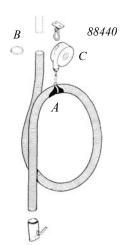
C

#### **Balancer**

This balancer supports loads (5-14 kg) within an area of 0-4,5 m and at an angle of max 30° from the plumb line. The balancer is equipped with a locking device which locks the extension wire in the extended position. The locking device disengages when the wire is pulled out approx. 0,2 m and then released. Temperature range -10°C to +60°C.

Delivered complete with safety chain and spring safety hooks.

	1		_	-	
Description	Wire length.				
Balancer	3 metres				88440
Balancer	4.5 metres				84435
	controll, can be mounted on 84	435			84436



Nozzle see following pages.



#### **Complete Exhaust Extraction Kits**

Consisting of a fan, 5 m standard hose and balancer. Just add the required nozzle.

Description	Hose dim.	Fan	
Kit for Cars	75 mm (3")	0,37 kW - 1 300 m3/h	84440
Kit for Cars	100 mm (4")	0,37 kW - 1 300 m3/h	84441
Kit for Trucks	125 mm (5")	0,75 kW - 2 100 m3/h	84442
Kit for Trucks	150 mm (6")	0,75 kW - 2 100 m3/h	84443

Note! Exhaust Nozzle must be ordered separately.



#### Exhaust drop on swinging arm

5m exhaust hose, (temp. resistance +150°C). Suspension belt and balancer with ratchet. (Cable length: 3.0 m.) Fans fits directly on the wallbracket.

Description	Exnaust nose	Length Arm
Swing arm	Ø150 mm/6"	4,5 m
Swing arm	Ø150 mm/6"	6 m
Swing arm	Ø150 mm/6"	8 m
Note! Exhaust Nozzle a	nd Fan must be ordere	ed separately.





#### **Exhaust Nozzles**

#### Part.No

#### Rubber Nozzles, General information

A rubber nozzle is used to connect the exhaust hose with the exhaust system of the vehicle. The nozzle is designed to take in cooling air, thereby reducing the exhaust fume temperature and resistance in the exhaust system and guaranteeing the accuracy of exhaust readings.

These nozzles are highly suitable for use with fixed extractors, exhaust reels and straight rails (clamp fixing essential).

#### Specifications

The rubber nozzle is composed of moulded, high temperature resistant rubber. The nozzle is provided with an opening (which can be sealed with a rubber plug) suitable for insertion of an exhaust probe, diameter ø20mm. The nozzle is designed for today's lorries, private cars and especially vehicles with twin exhaust pipes. The nozzle is attached to the exhaust hose via an angled pipe so as to facilitate connection to the exhaust pipe of the vehicle.

Temperature resistance: -40°C to +220°C

## Rubber Nozzle with Probe Opening and Clamp Fixing

O			
Description	Hose diameter	Nozzle opening	
Rubber nozzle	ø 75 mm	155x90 (ø115 mm)	88320
Rubber nozzle	ø100 mm	155x90 (ø115 mm)	88324
Rubber nozzle	ø100 mm	210x115 (ø160 mm)	88321
Rubber nozzle	ø125 mm	210x115 (ø160 mm)	88322
Rubber nozzle	ø150 mm	210x115 (ø160 mm)	88323



# Rubber Nozzle with Probe Opening and Damper

Description	Hose diameter	Nozzle opening	
Rubber nozzle	ø 75 mm	155x90 (ø115 mm)	88315
Rubber nozzle	ø100 mm	155x90 (ø115 mm)	88316
Rubber nozzle	ø100 mm	210x115 (ø160 mm)	88317
Rubber nozzle	ø125 mm	210x115 (ø160 mm)	88318
Rubber nozzle	ø150 mm	210x115 (ø160 mm)	88319



## Rubber nozzle with Probe Opening, Damper and Clamp Fixing

_ ap c. aa			
Description	Hose diameter	Nozzle opening	
Rubber nozzle	ø 75 mm	155x90 (ø115 mm)	88325
Rubber nozzle	ø100 mm	155x90 (ø115 mm)	88326
Rubber nozzle	ø100 mm	210x115 (ø160 mm)	88327
Rubber nozzle	ø125 mm	210x115 (ø160 mm)	88328
Rubber nozzle	ø150 mm	210x115 (ø160 mm)	88329



## Rubber nozzle with Probe Opening, Spring Fixing

Description	Hose diameter	Nozzle opening	
Rubber nozzle	ø 75 mm	155x90 (ø115 mm)	88520
Rubber nozzle	ø100 mm	155x90 (ø115 mm)	88521
Rubber nozzle	ø100 mm	210x115 (ø160 mm)	88522
Rubber nozzle	ø125 mm	210x115 (ø160 mm)	88523
Rubber nozzle	ø150 mm	210x115 (ø160 mm)	88524



#### **Metal Nozzle with Rubber Lid**

Description	Hose diameter	Nozzle opening	
Metal nozzle	ø 75 mm	ø100 mm	88310
Metal nozzle	ø100 mm	ø100 mm	88311
Metal nozzle	ø125 mm	ø125 mm	88312
Metal nozzle	ø125 mm	ø150 mm	88313
Metal nozzle	ø150 mm	ø150 mm	88314





Starter, Control Units	Part.No
Stacker nozzle for vertical exhaust pipes  Description For Exhaust hose Nozzle for vertical exhaust 0125 mm/5" 0200mm/8" Nozzle for vertical exhaust 0150 mm/6" 0250mm/10"  Telescopic handle for Stacker nozzles.  Spring clip for Stacker nozzles.	88396 88397 88398 88399
Exhaust Funnel  For simple, fast and accurate exhaust fume readings. The adjustable exhaust funnel is placed behind the vehicle exhaust pipe in order to capture and remove exhaust fumes. The exhaust fume readings are entirely resistance free and cooling air reduces the temperature. To be used with ø150 mm hoses and nozzles.  Description  Opening facing exhaust pipe Exhaust funnel  Opening facing exhaust pipe	88395
Starter  For automatic start and stop of the fan when one or two exhaust reels are installed. Used together with a micro switch (88400). Comes complete with built-in contactor and transformer. It must be fitted with relevant motor overload protector (not included), see next page.  Description  Power supply Starter  3~230/400 V	83000
Fully automatic control box for operation of the fan. The fan can be controlled manually or by using the pressure sensor (88405). It can also be combined with automatic damper (84315). Adjustable over run period of 7 sec. to 6 min. Built-in contactor must be equipped with suitable overload protector (not included), see next page.  Description  Power supply Control box  Power supply Control box	83020 884315 88405 alt 88400
Motor Overload Protector The rating of the protector depends on which fan is used.  Description Overload, 0,9 - 1,3 A Overload, 1,4 - 2,0 A Overload, 2,3 - 3,2 A Overload, 4,5 - 6,3 A Overload, 7,2 - 10 A	88421 88422 88423 88424 88425



Damper, Sensor, Micro Switch, Overload	Part.No	
Frequency Inverter The DCV-Controller will operate your process ventilation by monitoring the air pressure of your system. The DCV-Controller will only run the fans to meet the demand of your production and do it automatically.  Description		
DCV Controller 1,1 KW, PID regulator, EMC-filter, 380 - 460 V DCV Controller 2,2 KW, PID regulator, EMC-filter, 380 - 460 V DCV Controller 4,0 KW, PID regulator, EMC-filter, 380 - 460 V DCV Controller 5,5 KW, PID regulator, EMC-filter, 380 - 460 V	84370 84371 84372 84373	
DCV Controller 7,5 KW, PID regulator, EMC-filter, 380 - 460 V Pressure sensor (0-2500 Pa) Pressure sensor (0-1600 Pa)	84374 83015 83040	
<b>Fan starter with push-button</b> To be used when no automatic start or controll units are used. Mounted in a plastic-encased box.		
Description           Motorstarter         IP55 w. overload 1,0 - 1,6 A 230 - 690 VAC           Motorstarter         IP55 w. overload 1,6 - 2,5 A 230 - 690 VAC           Motorstarter         IP55 w. overload 2,5 - 4,0 A 230 - 690 VAC           Motorstarter         IP55 w. overload 4,0 - 6,3 A 230 - 690 VAC           Motorstarter         IP55 w. overload 6,3 - 10,0 A 230 - 690 VAC           Motorstarter         IP55 w. overload 10,0 - 16,0 A 230 - 690 VAC	84245 84246 84247 84248 84249 84250	
<b>Automatic Damper</b> Fully automatic, motorised damper, Ø 160 mm, with built -in energy saver. Adjustable delay 7 sec. to 6 min. Can also be controlled manually if fitted with a switch assembly (88400).		
DescriptionPower supplyAutomatic damper $1 \sim 230 \text{ V}$	84315	
Automatic Damper Fully automatic, motorised damper, Ø 160 mm. Can also be controlled manually if fitted with a switch assembly (88400).  Description Power supply Automatic damper 24 V AC	84312	
	- 10-2	
<b>Transformer</b> Transformer for halogen lamp cartridge (88430), 230V/24 V, 75 W. <b>Description</b> Transformer	88431	Marine Trans.
Micro Switch Used for control of damper and fan in spring operated exhaust reels. This device can be used with starter (83000) or automatic damper (84315) and control unit (83010).		



#### **Extraction Arms**

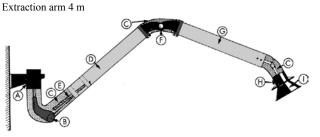
#### Part.No

#### **Extraction Arms**

Ball-bearing jointed extraction arms for dust, welding fumes, soldering fumes, oil mist, fumes from solvents etc. Delivered complete with wall mounting bracket on which the fan may be directly fitted. A ø160 mm spigot for connection to a central duct work system is also provided. The detachable hood with manual damper and safety mesh can be angled 110° forwards, backwards and to the sides. A 20W/24V halogen lamp cartridge (88430) can be fitted in the hood.

#### Description

Extraction arm 2 m Extraction arm 3 m



84400 84402 84405

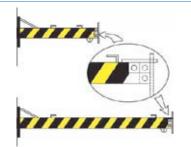
88432



#### **Bracket**

Bracket 1.1 m or 2,2 m long, for ceiling, floor, wall or bench mounting of Extraction arms. 50 kg equipment can be suspended from the tool ancher plate at the end.

Description	Length			
Bracket	1,1 m	88418		
Bracket	2,2 m	88419		



#### **Extention Swing Arm**

Arm with wall bracket, hose and Ø160 mm ventilation tube and channel including connection to extraction arms. Extraction arms orders separetely.

Desciption	Length	
Extention arm	1,5 m	84416
Extention arm	2,5 m	84414
Extention arm	4,5 m	84415



#### Halogen Lamp Cartridge

To be fitted in the hood. Consists of 20W/24V halogen lamp, switch assembly and 10 m cable.

#### Description

88430 Halogen lamp cartridge with switch Switch without lamp 88433



#### **Inductive Sensor for additional workstations**

Description

Inductive Sensor





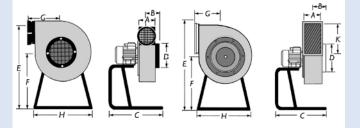
the fan.

Fans Part.No

#### Fans for Exhaust and Fumes

Delivered with tubular support (84320-84330). Models 84320-84325 can be mounted directly to exhaust hose reels with the aid of a mounting kit (88410), see below.

Descript.	Free flow	Power supply	Rated	Output		Vehicle	Max no.	Hose Dim	Hose length
Fan	capacity 1400 m³/h	3~ 230/400 V, 50 Hz	current 1,0-1,1 A	0,37 kW	84320	Cars	< 2	100 mm	7,5 m
Fan	1800 m³/h	3~ 230/400 V, 50 Hz	1,4-1,5 A	0,55 kW	84323	Cars Trucks	< 3 1	100 mm 150 mm	7,5 m 10 m
Fan	2160 m³/h	3~ 230/400 V, 50 Hz	1,9-2,0 A	0,75 kW	84325	Cars Trucks	< 4 1	100 mm 150 mm	7,5 m 12,5 m
Fan	$3000 \text{ m}^3/\text{h}$	3~ 230/400 V, 50 Hz	2,5-2,7 A	1,1 kW	84330	Cars Trucks	< 5 < 2	100 mm 150 mm	10 m 10 m



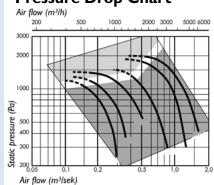
<b>Dimensions</b> in mm										
A	В	C	D	E	F		H		Weight	
ø160	95	430	ø160	650	415	245	445	-	15,6 kg	84320
ø160	95	430	ø160	650	415	245	445	-	16,4 kg	84323
ø160	95	430	ø160	660	425	245	445	-	19,4 kg	84325
142	110	450	ø250	740	410	230	445	215	24 0 kg	84330

### **Pressure Drop Chart**

Rough recommendations

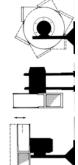
Beside each respective fan you can

see our rough recommendations for



Recommended working range
Critical working range
Fans unsuitable

The universal support offers numerous mounting options.



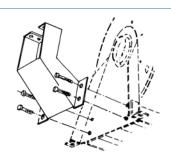
#### Fan Mounting Kit

For mounting of fans 84320-84325 directly on exhaust reels. Consists of bracket, rubber ring and fan socket.

**NB!** The standard tubular support should be removed. Description

Fan mounting kit

88410



Fans Part.No

#### **Fans**

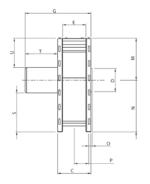
A series of robust fans, generally designed for extended systems of exhaust hose reels, straight rails and fume extractors. Can also be used for general ventilation and similar tasks.

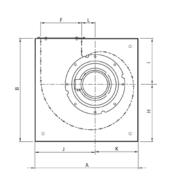
Stand, fan housing are made in steel and fan wheels are made of aluminium. Suitable to be used with frequency converter.

Free flow capacity	Power supply	Output	
2500 m³/h	3~ 220/380 V	0,75 kW	84360
5500 m <sup>3</sup> /h	3~ 220/380 V	2,2 kW	84361
7500 m³/h	3~ 220/380 V	4,0 kW	84362
12000 m³/h	3~ 220/380 V	7,5 kW	84364



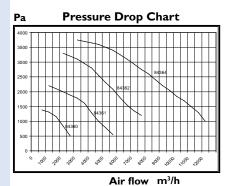






#### **Measures**

A	В	C	D	E	F	G	H	I	J	K	Weight	
640	640	230	160	160	254	453	355	288	373	267	31 kg	84360
785	785	270	200	200	322	535	444	341	475	310	51 kg	84361
980	980	290	250	220	402	695	603	377	583	397	78 kg	84362
1100	1100	320	320	250	448	805	621	479	653	447	137 kg	84364



	_	•
L-0 10	^ -	 Ories

Desciption	For Fan	
Outlet from rectangular to round Ø 250 mm.	84360	84380
Outlet from rectangular to round Ø 315 mm	84361	84381
Outlet from rectangular to round Ø 400 mm	84362	84382
Outlet from rectangular to round Ø 500 mm	84364	84383
Soft connection for noise and vibration free connection.	Ø160 mm	84384
Soft connection for noise and vibration free connection.	Ø200 mm	84385
Soft connection for noise and vibration free connection.	Ø250 mm	84386
Soft connection for noise and vibration free connection.	Ø315 mm	84387
Soft connection for noise and vibration free connection.	Ø400 mm	84388
Soft connection for noise and vibration free connection.	Ø500 mm	84389
Anti-vibration dampers to isolate noise and vibration	84360,84361	84390
Anti-vibration dampers to isolate noise and vibration	84362,84364	84391
Weather protection for fan motor	84360	84392
Weather protection for fan motor	84361	84393
Weather protection for fan motor	84362	84394
Weather protection for fan motor	84364	84395











# Installation Equipment

# How to assemble cutting ring couplings of steel or stainless steel.

#### ı

Saw the tube at right angles, do not use tube cutters. Lightly debur tube ends inside and outside. If possible use a sawing device.

#### 2

Couplings should preferably be pre-assembled in a vice. We recommend the pre-assembly adaptors type FM.

#### 3

Clean and oil cutting ring, inner cone and thread of the coupler body. Use Molybdenumdisulfide lubricants with stainless steel couplings.

#### 4

Press the tube into fitting body up to the tube abutment. The tube must always reach the bottom!

#### 5

Turn the nut until the ferrule grips the tube and you can not turn the tube by hand. Finalise the assembly by turning the nut a further 3/4-1 turn. The tube must nut be turned!

#### 6

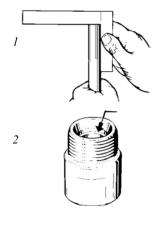
Loosen the nut and check the penetration of the cutting edge. A visible ring of material should fill the space in front of the ring end face. The ring may turn on the tube but should not be capable of axial displacement.

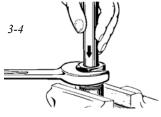
#### 7

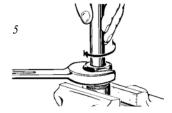
For tube bends, the length of the straight tube end up to the start of the bending radius must be at least twice the nut length.

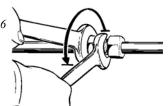
#### R

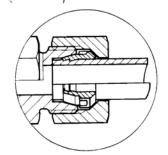
Final assembly in the fitting body. Tighten the nut until a noticeable increase in force is required. Tighten the nut by approx. 1/4 of a turn beyond this point for final assembly.

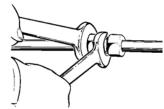














Pos. 3 & 10

Zinc coated

### **Installation Components, Oil**

### Pipe dimensioning with different pipe lengths (EN10305-4)

Tube Length Diameter ø22x1,5 mm 0-50 m 51-100 m  $\emptyset 28x2 \ mm$ 101-300 m ø35x3 mm

#### E-Coated steel tubes for oil

Part No		Description
90101120	22x1,5FZ	E-Coated Steel tube
90101162	28x2FZ	E-Coated Steel tube
90101192	35x3FZ	E-Coated Steel tube

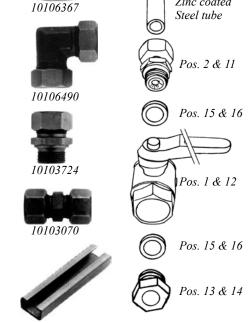
# ø22 x 1,5 mm, pipe length 6 m

### Dimension, ø x wall thickness

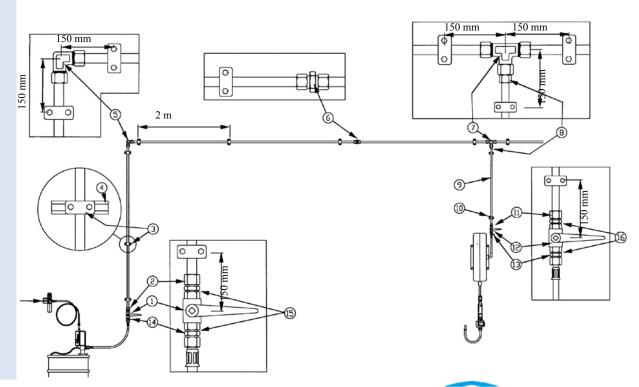
ø28 x 2 mm, pipe length 6 m ø35 x 3 mm, pipe length 6 m

#### **Installation Components**

Item Nos refer to the drawing below							
Item	Description	Pipe diameter	Pipe diameter	Pipe diameter			
	-	ø22 x 1,5 mm	ø28 x 2 mm	ø35 x 3 mm			
1	Shut-off valve	30101111	30101081	30101087			
2	Male connector	10103724	10103292	10103325			
3	Pipe clamp	70101249	70101273	70101297			
4	Bracket for clamp	70501423	70501423	70501423			
		(Length= 2 m)	(Length= 2 m)	(Length= 2 m)			
5	Angle connector	10106490	10106496	10106502			
6	Union connector	10103070	10103079	10103088			
7	Tee connector	10106367	10106373	10106379			
8	Reducer	-	10101519	10101564			
9	Pipe	90101120	90101120	90101120			
		(L=6 m)	(L=6 m)	(L=6 m)			
10	Pipe clamp	70101249	70101249	70101249			
11	Male connector	10103265	10103265	10103265			
12	Shut-off valve	30101111	30101111	30101111			
13	Adapter	25102053	25102053	25102053			
14	Adapter	-	10105962	10105941			
15	Rubber/Steel washer	10103544	10103517	10103523			
16	Rubber/Steel washer	10103544	10103544	10103544			



70501423



# **INSTALLATION EQUIPMENT**

### Installation Components, Grease

# Pipe dimensioning with different pipe lengths (EN 10305-4) Tube Length Diameter

 Tube Length
 Diameter

 0-20 m
 ø20x3 mm

 21-35 m
 ø25x3 mm

 36-60 m
 ø38x4 mm

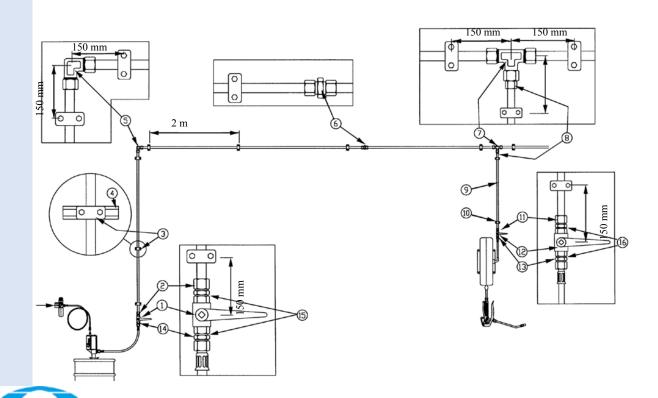
### E-Coated steel tubes for grease

Part No	Description	Dimension, ø x wall thicknes
73202	E-Coated Steel tube	ø20 x 3 mm, pipe length 6 m
73252	E-Coated Steel tube	ø25 x 3 mm, pipe length 6 m
73383	E-Coated Steel tube	ø38 x 4 mm, pipe length 6 m

### **Installation Components**

Item	Item Nos refer to the drawing below.						
Item	Description	Pipe diameter	Pipe diameter	Pipe diameter			
	_	ø20 x 3 mm	ø25 x 3 mm	ø38 x 4 mm			
1	Shut-off valve	30201345	30201300	30201309			
2	Male connector	10103250	10103280	10103337			
3	Pipe clamp	70101237	70101261	70101303			
4	Bracket for clamp	70501423	70501423	70501423			
	_	(Length=2 m)	(Length= 2 m)	(Length= $2 \text{ m}$ )			
5	Angle connector	10106487	10106493	10106505			
6	Union connector	10103064	10103073	10103091			
7	Tee connector	10106364	10106370	10106382			
8	Reducer	-	10101498	10101588			
9	Pipe	73202 (L=6 m)	73202 (L=6 m)	73202 (L=6 m)			
10	Pipe clamp	70101237	70101237	70101237			
11	Male connector	10103250	10103250	10103250			
12	Shut-off valve	30201345	30201345	30201345			
13	Adapter	10105998	10105998	10105998			
14	Adapter	10106001	10105965	10105941			
	-			+25102047			
15	Rubber/steel washer	10103544	10103517	10103523			
16	Rubber/steel washer	10103544	10103544	10103544			





### Installation Components, Water Based Fluids

#### Pipe dimensioning with different pipe lengths

 Tube Length
 Diameter

 0-50 m
 ø15 x1,5 mm

 51-300 m
 ø22x1,5 mm

### Stainless Steel tubes for water, glycol etc.

 Part No
 Description
 Dimensio

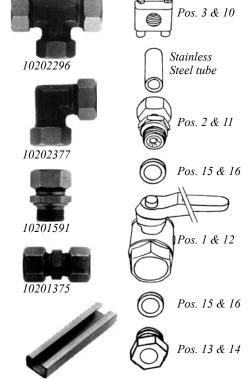
 90201015
 Welded Stainless Steel, (EN1.4301/TP304)
 ø15 x 1,5 mm, 6 m

 90201030
 Welded Stainless Steel, (EN1.4301/TP304)
 ø22 x 1,5 mm, 6 m

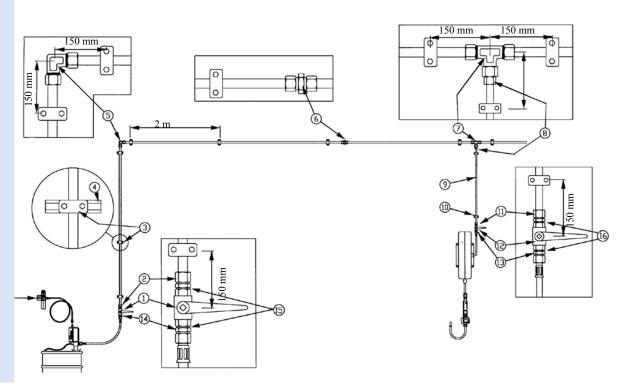
### **Installation Components**

Item Nos refer to the drawing below

Iten	Item Nos refer to the drawing below							
Iten	1 Description	Pipe diameter	Pipe diameter					
		ø15 x 1,5 mm	ø22 x 1,5 mm					
1	Shut-off valve	30101093	30101111					
2	Male connector	10201441	10201459					
3	Pipe clamp	70101207	70101249					
4	Bracket for clamp	70501423	70501423					
	_	(Length= $2 \text{ m}$ )	(Length= 2 m)					
5	Angle connector	10202365	10202377					
6	Union connector	10201363	10201375					
7	Tee connector	10202275	10202296					
8	Reducer	-	10201474					
9	Pipe	90201015	90201015					
		(Length= $6 \text{ m}$ )	(Length= 6 m)					
10	Pipe clamp	70101207	70101207					
11	Male connector	10201441	10201441					
12	Shut-off valve	30101093	30101093					
13	Adapter	25101999	25101999					
14	Adapter	-	10106004					
15	Rubber/Steel washer	10103526	10103544					
16	Rubber/Steel washer	10103526	10103526					



70501423



# **INSTALLATION EQUIPMENT**

		ponents, On	and Grease	Part.No	
Rubber	Steel Was	sher			
Description	Descrip	ntion			
GBR 1/8	_	steel washer		10103532	
GBR 1/4		steel washer		10103532	
GBR 3/8		steel washer		10103547	
GBR 3/8		steel washer		10103547	
				10103520	
GBR 3/4		/steel washer			
GBR 1		steel washer		10103517	
GBR 1-1/4		steel washer		10103523	
GBR 1-1/2		steel washer		10103520	
GBR 2	Rubber/	steel washer		10103538	
Adapte	rs, in <b>S</b> tee	ı			
Description	,	Threads male - male	Max. pressure		
0101-4	1	G1/4" - G1/4"	64 MPa (640 bar)	25101981	
0101-6-4	-	G3/8" - G1/4"	64 MPa (640 bar)	25102032	
0101-6	•	G3/8" - G3/8"	64 MPa (640 bar)	25101987	
0101-8-6	•	G1/2" - G3/8"	64 MPa (640 bar)	25102041	THIN IN A NIM
0101-8	•	G1/2" - G1/2"	64 MPa (640 bar)	25101999	
0101-12	•	G3/4" - G3/4"	64 MPa (640 bar)	25102008	
0101-12-6	•	G3/4" - G3/8"	64 MPa (640 bar)	25102047	
0101-12-8	•	G3/4" - G1/2"	64 MPa (640 bar)	25102053	
0101-16	1	G1" - G1"	40 MPa (400 bar)	25102011	
0101-16-8	•	G1" - G1/2"	40 MPa (400 bar)	25102056	
0101-16-12	•	G1" - G3/4"	40 MPa (400 bar)	25102065	
0101-20-16	1	G11/4"-G1"	40 MPa (400 bar)	25102071	
0101-24	Adapter	G2"-G2"	40 MPa (400 bar)	25102020	
<b>Bushing</b> Description	gs, in Steel Threads	Max. pressure male - male	Max. pressure		A-
		Max. pressure	Max. pressure 40 MPa (400 bar)	10105998	
Description	Threads	Max. pressure male - male	•	10105998 10106001	
<b>Description</b> RIO 3/4-1/4	Threads  Bushing	Max. pressure male - male G3/4" - G1/4"	40 MPa (400 bar)		
<b>Description</b> RIO 3/4-1/4 RIO 3/4-3/8	Threads  Bushing Bushing Bushing	Max. pressure male - male G3/4" - G1/4" G3/4" - G3/8"	40 MPa (400 bar) 40 MPa (400 bar)	10106001	
Description RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec	Threads  Bushing Bushing Bushing	Max. pressure male - male G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)	10106001 25101864	
RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description	Bushing Bushing Bushing Bushing Bushing Sushing	Max. pressure male - male G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) Max. pressure	10106001 25101864 10105941	
Description RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description BORO 2215I	Bushing Bushing Bushing Bushing Bushing Bushing	Max. pressure male - male - male - G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension  er ø22 - ø15 mm	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) Max. pressure	10106001 25101864 10105941 10101474	
Description  RIO 3/4-1/4  RIO 3/4-3/8 0103-12-8  RIO 1 1/4-34  Connec Description  BORO 22151  BORO 28221	Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St	Max. pressure male - male - male - G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension  er	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) Max. pressure 25 MPa (250 bar) 25 MPa (250 bar)	10106001 25101864 10105941 10101474 10101519	
Description  RIO 3/4-1/4  RIO 3/4-3/8 0103-12-8  RIO 1 1/4-34  Connec Description  BORO 22151  BORO 28221	Bushing Bushing Bushing Bushing Bushing Bushing	Max. pressure male - male - male - G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension  er ø22 - ø15 mm	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) Max. pressure 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar)	10106001 25101864 10105941 10101474 10101519 10101567	
Description RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description BORO 2215I BORO 2822I BORO 3528I	Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St	Max. pressure male - male - male - G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension  er	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) Max. pressure 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar)	10106001 25101864 10105941 10101474 10101519	
Description  RIO 3/4-1/4  RIO 3/4-3/8 0103-12-8  RIO 1 1/4-34  Connec Description  BORO 2215L  BORO 2822L  BORO 3528L  BORO 3522L	Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil	Max. pressure male - male - male - male - male G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension er	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) Max. pressure 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar)	10106001 25101864 10105941 10101474 10101519 10101567	
RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description  BORO 2215I BORO 2822I BORO 3528I BORO 3522I BORO 2520S	Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil	Max. pressure male - male - male - male - G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension  er	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) Max. pressure 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar)	10106001 25101864 10105941 10101474 10101519 10101567 10101564	
RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description  BORO 2215I BORO 2822I BORO 3528I BORO 3522I BORO 3522I BORO 3825S	Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil Reducing, oil Reducing, grea	Max. pressure male - ma	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)  Max. pressure  25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)	10106001 25101864 10105941 10101474 10101519 10101567 10101564 10101498	
Description RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description BORO 2215I BORO 2822I BORO 3528I BORO 3522I BORO 3522I BORO 3820S BORO 3820S	Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil Reducing, grea Reducing, grea Reducing, grea Reducing, grea	Max. pressure male - ma	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)  Max. pressure  25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)	10106001 25101864 10105941 10101594 10101519 10101567 10101564 10101498 10101591	
Description RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description BORO 2215I BORO 2822I BORO 3528I BORO 3522I BORO 3522I BORO 3820S BORO 3820S	Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil Reducing, oil Reducing, grea Reducing, grea Reducing, grea	Max. pressure male - male - male - male - male G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension  ### ### ### ### ### ### ### ### ### #	40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)  Max. pressure  25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)	10106001 25101864 10105941 10101594 10101519 10101567 10101564 10101498 10101591	
RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description  BORO 2215I BORO 2822I BORO 3528I BORO 3522I BORO 3825S BORO 3820S  Adaptei	Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil Reducing, grea Reducing, grea Reducing, grea Reducing, grea	Max. pressure male - ma	40 MPa (400 bar)  Max. pressure  25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar)	10106001 25101864 10105941 10101594 10101519 10101567 10101564 10101498 10101591	
RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description  BORO 2215I BORO 2822I BORO 3528I BORO 3522I BORO 3820S  Adapter Description	Bushing Bushing Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil Reducing, great	Max. pressure male - male - male - male - male - male G3/4" - G1/4" G3/4" - G3/8" G3/4" - G1/2" G1 1/4" - G3/4"  Eeel  Pipe dimension  er Ø22 - Ø15 mm Ø28 - Ø22 mm Ø35 - Ø22 mm Ø35 - Ø22 mm Ø35 - Ø20 mm Ø38 - Ø3	40 MPa (400 bar)  Max. pressure 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 41 MPa (400 bar) 42 MPa (400 bar) 43 MPa (400 bar) 44 MPa (400 bar)	10106001 25101864 10105941 101015941 10101519 10101567 10101564 10101498 10101591 10101588	
Description  RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description  BORO 2215I BORO 2822I BORO 3528I BORO 3522I BORO 3522I BORO 3825S BORO 3820S  Adapter Description	Bushing Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil Reducing, grea Reducing, grea Reducing, grea Reducing, grea Reducing, grea Great Grea	Max. pressure male - ma	40 MPa (400 bar)  Max. pressure 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 41 MPa (400 bar) 42 MPa (400 bar) 43 MPa (400 bar) 44 MPa (400 bar)	10106001 25101864 10105941 101015941 10101519 10101564 10101498 10101591 10101588	
RIO 3/4-1/4 RIO 3/4-3/8 0103-12-8 RIO 1 1/4-34  Connec Description  BORO 2215I BORO 2822I BORO 3522I BORO 3522I BORO 3522I BORO 3820S  Adapter Adapter Adapter	Bushing Bushing Bushing Bushing Bushing Bushing Bushing Bushing  tors, in St  Reducing, wate Reducing, oil Reducing, oil Reducing, grea Reducing, grea Reducing, grea Reducing, grea Great Thread male - G1/4" G3/8"	Max. pressure male - ma	40 MPa (400 bar)  Max. pressure 25 MPa (250 bar) 25 MPa (250 bar) 25 MPa (250 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 40 MPa (400 bar) 41 MPa (400 bar) 42 MPa (640 bar) 44 MPa (640 bar) 64 MPa (640 bar)	10106001 25101864 10105941 101015941 10101519 10101567 10101564 10101498 10101591 10101588 25102341 25102344	



Installation Co	mponents	Part.No		
A				
Adapters, in B	rass			
<b>Description Threads</b>				
DNIA 1/0 1/0 A J	male - male		25201216	
RNA 1/8-1/8 Adapter	G1/8" - G1/8"		25201216 25201210	
RNA 1/4-1/4 Adapter	G1/4" - G1/4"		25201210	esteroit Wanted
RNA 1/2-1/2 Adapter	G1/2" - G1/2" G1/2" - G3/8"		25201192	GARRIA GARRIA
RNA 1/2-3/8 Adapter RNA 1-1 Adapter	G1/2 - G5/8 G1" - G1"		25201201	
RNA 11/2-1 Adapter	G11/2" - G1"		25201171	
RNA 2-2 Adapter	G2" - G2"		25201219	
Bushings, in B	rass			
Description	Threads			
•	male - female		25201057	
RNI 1/4-3/8 Bushing	G1/4" - G3/8"		25201057	
RNI 1/4-1/8 Bushing	G1/4" - G1/8"		25201279	
RNI 3/8-1/4 Bushing	G3/8" - G1/4"		25201303 25201294	
RNI 3/4-1/2 Bushing	G3/4" - G1/2"		25201294	
RNI 3/4-3/8 Bushing	G3/4" - G3/8"		25201300	ALTERNY CO.
RNI 3/4-1/4 Bushing	G3/4" - G1/4"		25201297	( 100 min
RNI 1-3/4 Bushing	G1" - G3/4"		25201273	
RNI 1-1/2 Bushing	G1" - G1/2"		25201245	
RNI 1-3/8 Bushing	G1" - G3/8"		25201270	
RNI 11/2-3/4 Bushing	G11/2" - G3/4"		25201285	
RNI 2-11/2 Bushing	G2" - G11/2"		25201282	
RNI 2-1 Bushing	G2" - G1"			
Hose Fitting in	n Brass			
Description	Hose Dimension	Thread (m)		
Hose Fiting	3/8" (10 mm)	G1/2"	38220806	AND THE REAL PROPERTY.
Hose Fiting	1/2" (13 mm)	G1/2"	38220808	ANTONIO DE LA CONTRACTOR DE LA CONTRACTO
Hose Fiting	3/8" (10 mm)	G3/8"	38220406	WADON.
Hose Fiting	1/2" (13 mm)	G1/2"	38220408	
Hose Fiting	3/4" (20 mm)	G 1"	38221612	
Llaca Clamak				
Hose Clamb				
Description	Dimension		<b>50</b> 40465	
Hose Clamb	ø 8 - 16 mm		72101051	
Hose Clamb	ø 12 - 22 mm		72101126	The same
Hose Clamb	ø 16 - 27 mm		72101081	Till I
Adapters in St	tainless Steel Threads male - male	Max. pressure		
0101-8/sy Nippel	G1/2" - G1/2"	64 MPa (640 bar)	78020808	The same
0101-12-8/sy Nippel	G3/4" - G1/2"	64 MPa (640 bar)	78020812	
0101-16-8/sy Nippel	G1" - G1/2"	64 MPa (640 bar)	78020816	Jan San San San San San San San San San S



## **INSTALLATION EQUIPMENT**

#### **Installation Components** Part.No **Shut-off Valves** Made in steel. Description Media Thread (f) Max. pressure BKH R 1/8 G1/8" Grease and oil 50 MPa (500 bar) 30201339 BKH R 1/4 G1/4" Grease and oil 50 MPa (500 bar) 30201330 BKH R 3/8 Grease and oil G3/8" 50 MPa (500 bar) 30201354 Grease and oil BKH R 1/2 G1/2" 50 MPa (500 bar) 30201315 BKH R 3/4 Grease and oil G3/4" 40 MPa (400 bar) 30201345 BKHR1 Grease and oil G 1" 35 MPa (350 bar) 30201300 BKH R 1 1/4 Grease and oil G 1 1/4" 35 MPa (350 bar) 30201309 **Shut-off Valves** Made in brass. Description Thread (f) Max. pressure 30101117 7640 3/8 Oil, air and water G3/8" 6,4 MPa (64 bar) 7640 1/2 Oil, air and water G1/2" 6,4 MPa (64 bar) 30101093 7640 3/4 30101111 Oil, air and water G3/4" 4 MPa (40 bar) 30101081 7640 1 Oil, air and water G1" 4 MPa (40 bar) 30101087 7640 1 1/4 Oil, air and water G 1 1/4" 2,5 MPa (25 bar) 30101084 7640 1 1/2 Oil, air and water G 1 1/2" 2,5 MPa (25 bar) 30101069 Oil, air and water L-3/4 G3/4" 4 MPa (40 bar) 28513 Needle 1/4" G1/4" 2,5 MPa (25 bar)



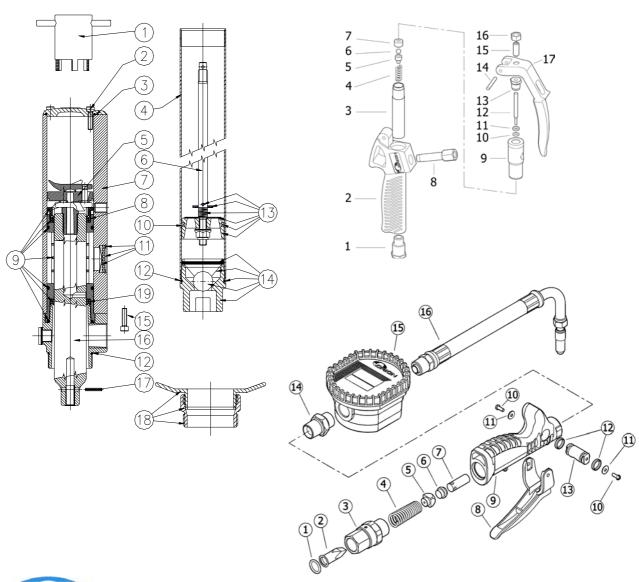
Notes:



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### 22700-22705





### Spare Parts - 12550-51-52 and 12555-56-57

### **Grease Pump** 55:I Spare part Kit nr 1, 4, 6, 7, 8, 9, 11 Packing kit air motor 1425222 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 3 17, 18, 19, 20, 22, 24, 25, 27 Service kit air motor 1425226 Mechanism 1425260 24 (incl. pos 17,18,19) Air inlet kit 1425225 17, 18, 19 Service kit mechanism 1425293 36 Packing kit pump tube 1425240 11, 12, 14, 29, 33, 34 Service kit pump tube 11, 12, 13, 14, 28, 29, 1425227 30, 31, 32, 33 Inlet feed kit 1425229 14, 34

1425230

1025145

1025274

1025278

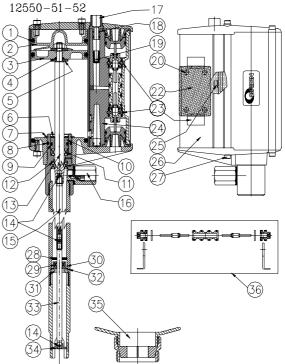
28591

16

35 2

22

26



### Grease Pump 75:1

Check valve

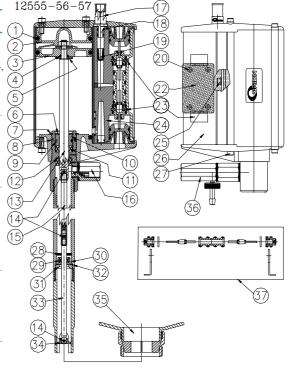
Drum adapter

Distance piston

Protection cover

Silencer

Spare part	Kit nr	Item
Packing kit air motor	1425222	1, 4, 6, 7, 8, 9, 11
Service kit air motor	1425226	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 17, 18, 19, 20, 22, 24, 25, 27
Mechanism	1425261	24 (incl. pos 17,18,19)
Air inlet kit	1425227	17, 18, 19
Service kit mechanism	1425293	37
Packing kit pump tube	1425241	11, 12, 14, 29, 33, 34
Service kit pump tube	1425228	11, 12, 13, 14, 28, 29, 30, 31, 32, 33
Inlet feed kit	1425229	14, 34
Check valve	1425230	16
Relief Valve	14533	36
Drum adapter	28591	35
Distance piston	1025145	2
Silencer	1025274	22
Protection cover	1025278	26

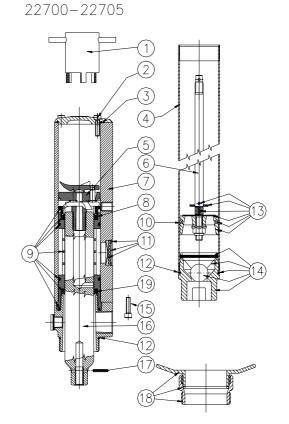




### Spare Parts - 22700-05 and 22710-15

### Oil Pump I:I

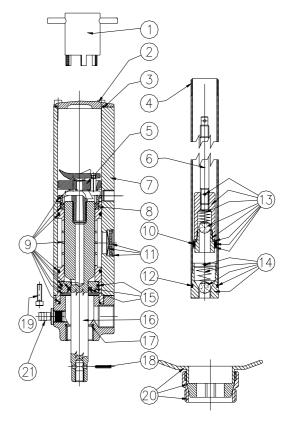
Spare Part	Pump 22700	Pump 22705	Item
Assembly tool	2025978	2025978	1
Packing kit	2426098	2426098	8, 10, 12, 17, 19
Service kit air motor	2426099	2426099	2, 3, 9, 15, 16, 17
Mechanism	2125952	2125952	5
Air cylinder	2026070	2026070	7
Silencer kit	2126079	2126079	11
Service kit pump tube	2426100	2426100	12, 13, 17
Drum adapter	28595	28595	18
Foot valve	2125332	2125617	14
Pump tube	2426086	2426088	4, 10, 12, 17
Piston rod	2426101	2426089	6, 17



### Oil Pump 3:1

Spare Part	Pump 22710	Pump 22715	Item
Assembly tool	2025978	2025978	1
Packing kit	2426102	2426102	8, 10, 12,15, 17, 18
Service kit air motor	2426103	2426103	2, 3, 9, 16, 18, 19
Mechanism	2125952	2125952	5
Air cylinder	2026070	2026070	7
Silencer kit	2126079	2126079	11
Service kit pump tube	2426104	2426104	13, 17, 18
Drum adapter	28585	28585	20
Foot valve	2125215	2125196	14
Pump tube	2426105	2426107	4, 17, 18
Piston rod	2426106	2426108	6, 18

### 22710-22715





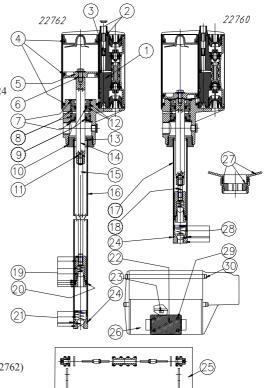
### **Spare Parts - 22750-52 and 22760-62**

### Oil Pump 5:1

Oil Pump 5:1				(3) $(2)$ $(5)$ $(4)$
Spare Part	Pump 22750	Pump 22752	Item	22752
Packing kit air motor	2426083	2426083	6, 9, 10, 11, 14, 17	
Service kit air motor	2426090	2426090	1, 6, 7, 8, 9, 10, 11, 12, 13,	
Mechanism	1425260	1425260	14, 17, 23, 32, 33, 34	8
Air inlet kit	1425225	1425225	2, 3	9 29
Service kit mechanism	1425293	1425293	35	
Central bar	2426092	2426092	8, 16, 17	
Packing kit pump tube	2426084	2426084	14, 17, 21	(4)
Service kit pump tube	2426091	2426091	8, 9, 10, 11, 12, 13, 16, 17, 2	20
Piston kit	2426085	2426085	17, 20, 21	(4)
Pump tube adapter	2026262	2026262	15	19 25
Protection cover	1025278	1025278	30	23 (34)
Drum adapter	28595	28595	26	33
Pump body (outlet)	2026015	2026015	29	(14)
Foot valve	2125332	2125617	25 (22750)	
Pump tube	2426286	2426287	14, 17, 21, 23 (22750)19 (227	752)
Piston rod	2426087	2426089	17, 24 (22750), 18 (22752)	<b>4 5</b> 35
Silencer	1025274	1025274	23	
Air cylinder	1025196	1025196	31	

### Oil Pump 15:1

Spare Part	Pump 22760	Pump 22762	Item
Packing kit	2426116	2426116	4, 8, 9, 10, 11, 12, 13, 20, 24
Service kit air motor	2426117	2426117	1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 22, 23, 29, 30
Mechanism	1425260	1425260	1
Air inlet kit	1425225	1425225	2, 3
Service kit mechanism	1425293	1425293	25
Central bar	2426118	2426118	6, 11, 14
Service kit pump tube	2426119	2426119	7, 8, 9, 10, 11, 13, 14, 19
Piston kit	2426124	2426124	11, 13, 19
Drum adapter	28585	28585	27
Protection cover	1025278	1025278	26
Foot valve	2125215	2125196	28 (22760), 21 (22762)
Pump tube	2426120	2426122	11, 13, 24,17 (22760), 16 (227
Piston rod	2426121	2426123	11, 18 (22760), 15 (22762)

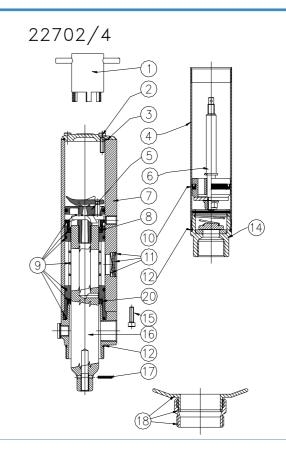




### Spare Parts - 22702/4 and 22575/4

### Suction and Waste Oil Pump 22702/4

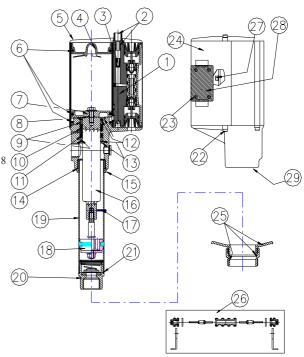
Spare Part	Part No	Item
Assembly tool	2025978	1
Packing kit	2426306	8, 10, 12, 17, 20
Service kit air motor	2426099	2, 3, 9, 15, 16, 17
Mechanism	2126248	5
Air cylinder	2026070	7
Silencer kit	2126079	11
Drum adapter	28595	18
Foot valve	2126183	14
Pump tube	2026024	4
Piston compl	2226354	6, 17



### Suction and Waste Oil Pump 5:1 22575/4

		•
Spare Part	Part No	Item
Packing kit air motor	2426083	6, 9, 10, 11, 14, 17
Service kit air motor	2426090	1, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 23, 32, 33, 34
Mechanism	1425260	1
Air inlet kit	1425225	2, 3
Service kit mechanism	1425293	26
Central bar	2426092	8, 16, 17
Service kit pump tube	2426091	8, 9, 10, 11, 12, 13, 16, 17, 1
Piston kit	2426085	17, 18
Pump tube adapter	2026262	15
Protection cover	1025278	24
Drum adapter	28595	25
Pump body (outlet)	2026015	29
Foot valve	2125332	20
Pump tube	2426286	14, 17, 19

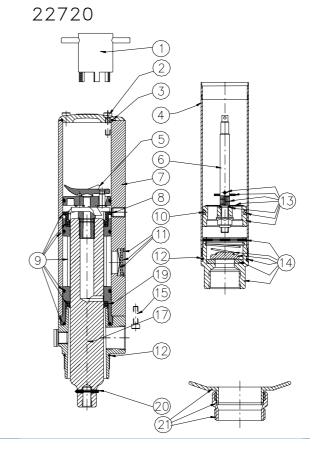






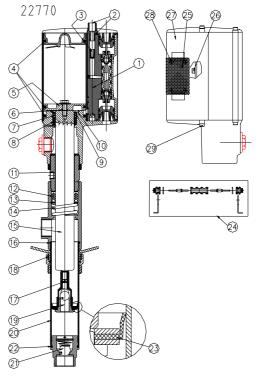
### **Spare Parts - 22720 and 22770**

Spare Part	Part No	Item
Assembly tool	2025978	1
Packing kit	2426282	8, 10, 12, 19, 20
Service kit air motor	2426305	2, 3, 9, 12, 15, 17
Mechanism	2126241	5
Air cylinder	2026280	7
Silencer kit	2126079	11
Service kit pump tube	2426284	12, 13, 20
Drum adapter	28595	21
Foot valve	2126183	14
Pump tube	2426201	4, 10, 12, 20
Piston rod	2426202	6, 20
Central Bar	202 60 17	17
Suction tube	2226214	Not illustrated



### Stainless Steel Pump 4:1

Spare Part	Part No	Item
Packing kit air motor	2426176	4, 7, 8
Service kit air motor	2426177	1, 4, 5, 6, 7, 8, 9, 10, 25, 26, 28, 29
Mechanism	1425260	1
Air inlet kit	1425225	2, 3
Service kit mechanism	1425293	24
Central bar	2426178	6, 15, 17
Packing kit pump tube	2425872	12, 16, 17, 22, 23
Box packing kit pump tul	be 2426179	11, 12, 13, 14, 16
Piston Kit	2425875	17, 19, 23
Pump tube kit	2425876	16, 20, 22
Protection cover	1025278	30
Drum adapter	2125753	18
Foot valve	2125820	21, 22

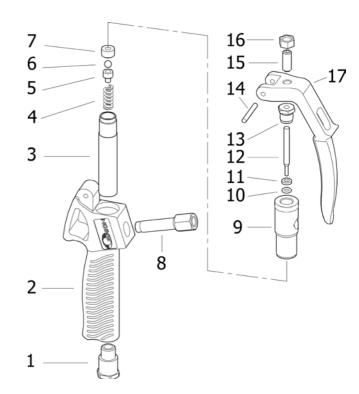




### **Spare Parts - 14612 - 24680**

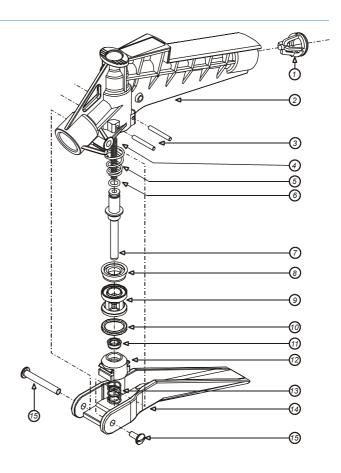
### **Grease Control Valve 14612**

Item	Description	Part No
1	Inlet adapter	104 51 70
2	Handle body	-
3	Lower valve body	-
4	Spring	*)
5	Ball guide	*)
6	Ball	*)
7	Valve seat	*)
8	Outlet adapter	104 51 69
9	Upper valve body	-
10	O-ring	*)
11	Guide ring	*)
12	Opening shaft	*)
13	Packing screw	-
14	Pin	-
15	Adjustment screw	-
16	Nut	-
17	Trigger	104 51 71
18	Valve kit,	*)144 51 68
	pos 4-7 and 10-12	
**)	Outlet tube	14715 Not in picture
**)	Hydraulic nozzle	14512 Not in picture



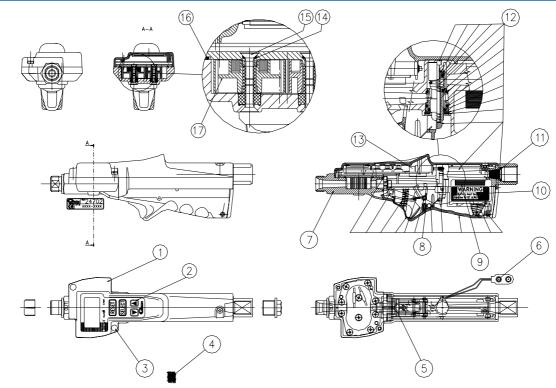
### Oil Control Valve 24680

em	Description	Part No
	Inlet strainer	224 58 17
	Body	-
	Pin	-
	Return spring 1	1)
	Return spring 2	1)
	O-ring	1)
	Valve poppet	1)
	Valve seat	1)
	Valve sleeve	204 59 18
	O-ring	1)
	Seal	1)
	Plug	204 59 20
	Trigger spring	2)
	Trigger	2)
	Trigger shaft	2)
	Valve kit	1)244 60 22
	Trigger kit	<sup>2)</sup> 244 60 23





### **Spare Parts - Hose End and Line Meters**



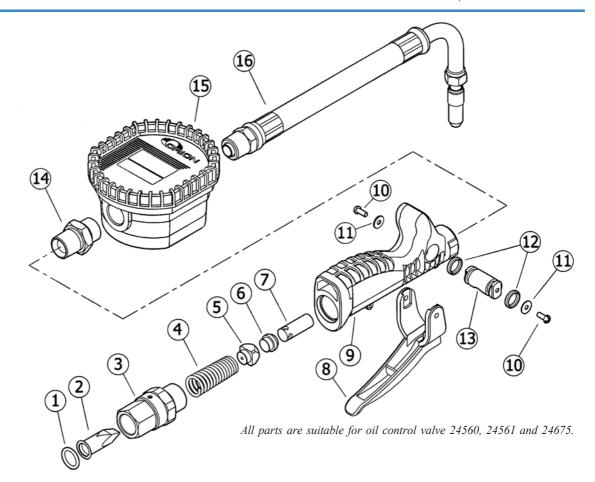
### Hose End Meter, Preset Meter and Line Meter

Item	Description	Part No	Meter I	Model					
	•		24700	24702	24720	24721	24722	24728	24738
1	Cover with	224 56 12	X						
	electronics	224 56 90		X					
		224 56 36			X				
		224 56 91				X			
		224 56 93					X		
		224 58 46						X	
		224 60 44							X
2	Overlay, 2 button	n 204 58 90	X						
	Overlay, 4 button			X					
3	Security plug	204 57 14	X	X	X	X	X	X	X
			Λ	Λ	Λ	Λ	Λ	Λ	Λ
4	Screw kit for elec								
	circuit board use								
	when changing b		v	v	v	X	v		
	battery, (50 pcs)	234 30 20	X	X	X	Λ	X		
5	Support	204 55 94	X	X	X	X	X	X	X
6	Battery cable	234 60 21	X	X	X				
7	Meter chamber								
	compl. *	2445819	X	X					
	Meter chamber								
	compl. *	24729			X	X	X	X	X
8	Trigger, compl.	244 57 07	X						
		244 57 06		X					
9	Battery support	204 57 49	X	X					
10	Battery 9V	224 56 34	X	X	X	NOTE	Rattory r	aust ha m	odel 6LR61
	,				Λ	NOIE:	Dattery II	iust be III	ouci <i>ULNUI</i>
11	Strainer	224 58 17	X	X					
12	Valve kit incl. security plug	244 59 09	X	X					
13	Backup battery	224 58 26	X	X	X	X	X		

<sup>\*)</sup> Compl. with assembled measuring oval gear,(17) lid, 2 screws, (14 and 15) and sealing o-ring,(16)



### Spare Parts - Hose End Meter 24680 and Oil Control Valve 24560,24561 and 24675



Pos	Part No	Description	Pos	Part No	Description
1	O-ring	*) incl. in pos 3	10	Screw	-
2	Strainer	*) incl. in pos 3	11	Washer	-
3	Swivel and strainer	224 59 99	12	O-ring	1)
4	Spring	-	13	Cam	1)
5	Valve holder	-	14	Adapter	234 60 15
6	Valve	1)	15	Meter	24 790
7	Sleeve	1)	16	Outlet hose,	224 (0.16
8	Trigger	204 60 13		complete	224 60 16
9	Body	-	1)	Repair kit incl. pos 6,7,12,13	1) 244 60 17

### **SPARE PARTS**

### Spare Parts - Hose Reels

Model	Art No	S	wiv	/el																				Lat	tch	Ki	t		S	pri	ng	Ca	sse	tte									
		8110055	1345160	2345949	2345950	2345951	345952	2345980	2345981	110037	8110038	8110039	8110040	8110041	8110056	8180172	8180173	8180174	8180175	8180176	30346528	30374065	2345594	2446017	2446018	8010083	8410044	8180177	2345993	2345995	2446019	2446020	2346045	8180168	8180169	8180170	8180171	8410033	8410034	8410035	8410063	8410079	30372415
R	14205	~		. 4	. 4	. 4		. 4	. 4	X	~	~	~	~	~	~	~	~	~	•	(.)	(.,	. 4		. 4		X	~	. 4				. 4	~	~	~	~	X	~	~	~	~	(.,
RK	14206	Г	x																				X						X														Т
R	14210									X																	X											X					
R	14215	X																									x											X					H
R	14216																										X														X		Т
RM	14218	-	X																				X						X												<u> </u>		T
OR	14225			x																				X									x										
ORK	24470	H		А				X															X	Α.					X												H		H
)RK	24471	H						X															X						X									$\vdash$			-	-	$\vdash$
)RK	24472	H						-															-															$\vdash$			-		$\vdash$
	24472	L						X															X						X									<u> </u>			_		H
R		L										X															X											X			L	_	L
R	24481	L										X															X											X					⊢
/IR	24490	L																X																				_			_	<u> </u>	X
/IR	24491																	X																							_	L	X
/IR	24492																	X																									X
CR	24905										X																X											L	X		L	L	L
CR	24910											X															X											X			L	L	L
ORM	24911							X															X						X														L
)R	24920											X															X														X		L
ORM	24922							X															X							X													
ORL	24931																																										
)RL	24932																																										Г
ORM	24935								X														X							X													Т
LOR	24941					X																		x									x										Г
OR	24943	Г				X																		х									x										Т
OR	24945	Н				X																		X									X										H
CR	24950	Г											x														X											X					Т
CR	24951	Н											X														X											X					H
CR	24953	Н											-		X												X											X					$\vdash$
)R	24955													X	Α.												X											-			X	-	$\vdash$
OR-SS	24957													X													X														X		
LOR	24960				X									А										v			Α						v								A	-	$\vdash$
LOR	24961	H			A																			X									X					-					$\vdash$
		H					X																	X									X					⊢			H		⊢
OR	24963	H					X																	X									X					$\vdash$			-		⊢
	24965						X	-																	X								X					$\vdash$			_	L	⊢
CRS	44205	L									X															X												_			L	X	L
CRS	44210										X															X															L	X	L
CR	44220	L									X																X											_		X	L	L	L
CR	44230											X															X												X				L
DRM	44231							X															X						X														L
)R	44240											X															X														X		L
ORM	44241							X															X							x													
⁄IR	814205															X																											X
⁄IR	814210															X																											X
⁄IR	814215	Г																			х																						Т
1R	824440																					X																					X
1R	824445																					X	Н																				X
IR IR	824905																		X		$\vdash$	Ė	$\vdash$															+			$\vdash$	$\vdash$	X
1R	824910	-																X	A.				Н																				X
IR IR	824951	$\vdash$															X	А					Н				-									$\vdash$		$\vdash$					X
IR IR	844220	$\vdash$															A			v			H				_											$\vdash$				$\vdash$	-
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⁄IR	844230	L																		X			Ц															_			L	$\vdash$	X
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### **Spare Parts - Hose Reels**

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		1/4	1/2	3/.	4 1	3/8	*																																				
CR	14205	X							X												L														X							L	
ORK	14206	X				_			L	X											L	X																				L	$\sqcup$
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Notes:			

### UK Pump & Hose Reel Kit Specifications





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Item	Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	101-3/4	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	010112	Adapter 3/2" (M)	2
12	GBR-3/4	Dowty Washer	2
13	22704	1:1 Oil Suction Pump	1
14	62087	Oil Hose	1
15	28524	Wall Bracket	1
16	GBR-1	Dowty Washer	1
17	62087	Suction Hose	1
18	010116	Adapter 1"	1
19	VCH3/4	Non Return Valve	1

The illustrated product may differ slightly from that supplied

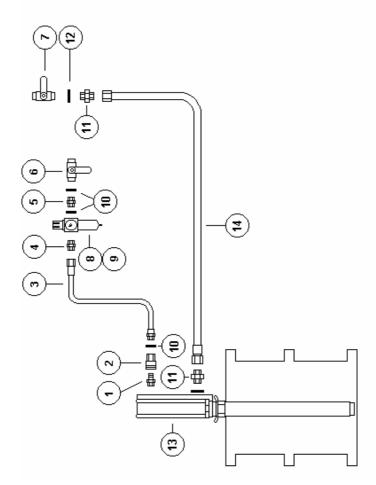
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Item	Part No.	Description	Qty
1	48501	Nipple 1/2" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	101-3/4	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	010112	Adapter 3/4" (M)	2
12	GBR-3/4	Dowty Washer	2
13	22705	1:1 Transfer Pump	1
14	28079	Oil Hose	1

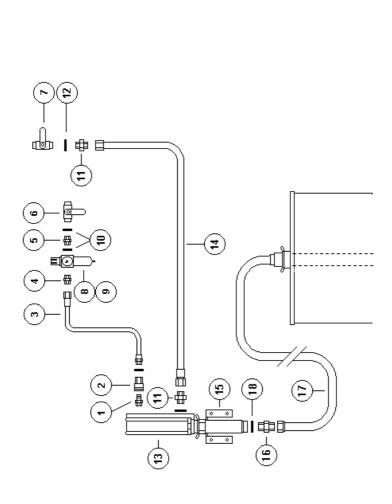


The illustrated product may differ slightly from that supplied



# 202 GB Pump kit with wall mounted 1:1 pump and drum suction attachment

1       48501       Nipple ¼" BSP       1         2       44516       Female Coupler       1         3       48001       Air Line Hose       1         4       3096-4R4       Adapter       1         5       01014       Adapter ¼" BSP       1         6       101-1/4       Shut Off Valve       1         7       101-3/4       Shut Off Valve       1         8       42007       Filter Regulator       1         9       274Z160       Pressure Gauge       1         10       GBR-1/4       Dowty Washer       3         11       010112       Adapter ¾" (M)       2         12       GBR-1       Dowty Washer       2         13       22700       1:1 Oil Pump       1         14       28079       Oil Hose       1         15       28524       Wall Bracket       1         16       010116       Adapter 1"       1         17       28201       Drum Attachment       1	Item	Part No.	Description	Qty
44516       Female Coupler         48001       Air Line Hose         3096-4R4       Adapter         01014       Adapter 1/4" BSP         101-1/4       Shut Off Valve         101-3/4       Shut Off Valve         274Z160       Pressure Gauge         0       GBR-1/4       Dowty Washer         2       GBR-1/4       Dowty Washer         3       22700       1:1 Oil Pump         4       28079       Oil Hose         5       28524       Wall Bracket         6       010116       Adapter 1"         7       28201       Drum Attachment	1	48501	Nipple 1/4" BSP	1
48001       Air Line Hose         3096-4R4       Adapter         01014       Adapter 1/4" BSP         101-1/4       Shut Off Valve         101-3/4       Shut Off Valve         42007       Filter Regulator         1       Pressure Gauge         0       GBR-1/4       Dowty Washer         1       O10112       Adapter 3/4" (M)         2       GBR-1       Dowty Washer         3       22700       1:1 Oil Pump         4       28079       Oil Hose         5       28524       Wall Bracket         6       010116       Adapter 1"         6       010116       Drum Attachment	2	44516	Female Coupler	1
3096-4R4       Adapter         01014       Adapter ½" BSP         101-1/4       Shut Off Valve         101-3/4       Shut Off Valve         42007       Filter Regulator         774Z160       Pressure Gauge         0       GBR-1/4       Dowty Washer         1       010112       Adapter ¾" (M)         2       GBR-1       Dowty Washer         3       22700       1:1 Oil Pump         4       28079       Oil Hose         5       28524       Wall Bracket         6       010116       Adapter 1"         7       28201       Drum Attachment	3	48001	Air Line Hose	1
01014       Adapter ¼" BSP         101-1/4       Shut Off Valve         101-3/4       Shut Off Valve         42007       Filter Regulator         274Z160       Pressure Gauge         GBR-1/4       Dowty Washer         010112       Adapter ¾" (M)         GBR-1       Dowty Washer         22700       1:1 Oil Pump         28079       Oil Hose         28524       Wall Bracket         010116       Adapter 1"         28201       Drum Attachment	4	3096-4R4	Adapter	1
101-1/4       Shut Off Valve         101-3/4       Shut Off Valve         42007       Filter Regulator         274Z160       Pressure Gauge         GBR-1/4       Dowty Washer         010112       Adapter ¾ (M)         GBR-1       Dowty Washer         22700       1:1 Oil Pump         28079       Oil Hose         28524       Wall Bracket         010116       Adapter 1"         28201       Drum Attachment	5	01014	Adapter 1/4" BSP	1
101-3/4       Shut Off Valve         42007       Filter Regulator         274Z160       Pressure Gauge         GBR-1/4       Dowty Washer         010112       Adapter ¾" (M)         GBR-1       Dowty Washer         22700       1:1 Oil Pump         28079       Oil Hose         28524       Wall Bracket         010116       Adapter 1"         28201       Drum Attachment	9	101-1/4	Shut Off Valve	1
42007       Filter Regulator         274Z160       Pressure Gauge         GBR-1/4       Dowty Washer         010112       Adapter ¾" (M)         GBR-1       Dowty Washer         22700       1:1 Oil Pump         28079       Oil Hose         28524       Wall Bracket         010116       Adapter 1"         28201       Drum Attachment	7	101-3/4	Shut Off Valve	1
274Z160       Pressure Gauge         GBR-1/4       Dowty Washer         010112       Adapter ¾" (M)         GBR-1       Dowty Washer         22700       1:1 Oil Pump         28079       Oil Hose         28524       Wall Bracket         010116       Adapter 1"         28201       Drum Attachment	$\infty$	42007	Filter Regulator	1
GBR-1/4 Dowty Washer  010112 Adapter ¾" (M)  GBR-1 Dowty Washer  22700 1:1 Oil Pump  28079 Oil Hose  28524 Wall Bracket  010116 Adapter 1"  28201 Drum Attachment	6	274Z160	Pressure Gauge	1
GBR-1 CBR-1 22700 28079 28524 010116	10	GBR-1/4	Dowty Washer	3
GBR-1 22700 28079 28524 010116 28201	11	010112	Adapter 3/4" (M)	2
22700 28079 28524 010116 28201	12	GBR-1	Dowty Washer	2
28079 28524 010116 28201	13	22700	1:1 Oil Pump	1
28524 010116 28201	14	28079	Oil Hose	1
010116	15	28524	Wall Bracket	1
28201	16	010116	Adapter 1"	1
	17	28201	Drum Attachment	1



The illustrated product may differ slightly from that supplied





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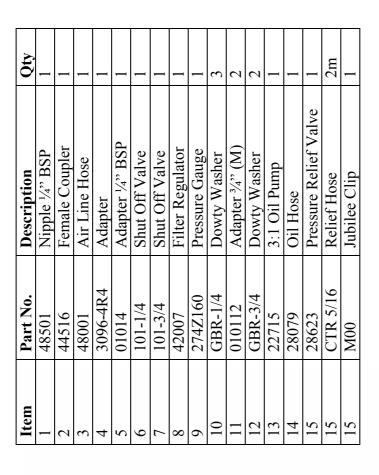
Item	Part No.	<b>Description</b> Q	Qty
1	48501	Nipple 1/4" BSP	
2	44516	Female Coupler 1	
3	48001	Air Line Hose	
4	3096-4R4	Adapter 1	
5	01014	Adapter 1/4" BSP 1	
9	101-1/4	Shut Off Valve 1	
7	101-3/4	Shut Off Valve 1	
8	42007	Filter Regulator 1	
6	274Z160	Pressure Gauge 1	
10	GBR-1/4	Dowty Washer 3	
11	010112	Adapter $\frac{3}{4}$ " (M)	
12	GBR-3/4	Dowty Washer 2	
13	22700	1:1 Oil Pump	
14	28079	Oil Hose 1	
15	28524	Wall Bracket 1	
91	010116	Adapter 1" 2	
17	28079	Suction Hose 1	
18	101-1	Shut off Valve 1	
61	GBR-1	Dowty Washer 3	

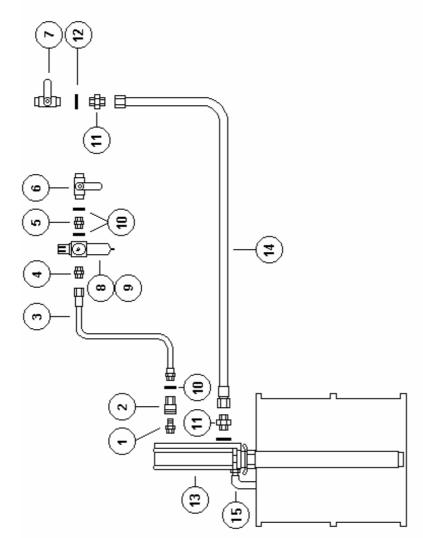
NOTE: Adapter 'A' to be supplied by installer to suit tank outlet

The illustrated product may differ slightly from that supplied



## 204 GB Pump kit with drum mounted 3:1 pump





The illustrated product may differ slightly from that supplied



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7 6 4 9		78501	Ninnle 1/" BCD	
7 6 4 9 9		46201	INIPPIE /4 DOI	ı
8 4 8		44516	Female Coupler	1
4 2 9		48001	Air Line Hose	1
9		3096-4R4	Adapter	1
9		01014	Adapter 1/4" BSP	1
		101-1/4	Shut Off Valve	1
		101-3/4	Shut Off Valve	1
8		42007	Filter Regulator	1
6		274Z160	Pressure Gauge	1
10	(	GBR-1/4	Dowty Washer	3
11		010112	Adapter 34" (M)	2
12	6	GBR-3/4	Dowty Washer	2
13	~	22710	3:1 Oil Pump	1
14	_	28079	Oil Hose	1
15		22012	Riser tube with air eliminator (2051 drum)	1
16	)	28623	Pressure Relief Valve	1
16	)	CTR 5/16	Relief Hose	2m
16	)	M00	Jubilee Clip	1

The illustrated product may differ slightly from that supplied

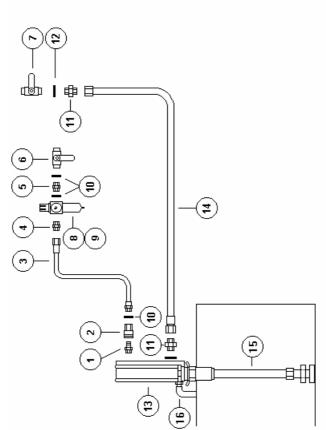
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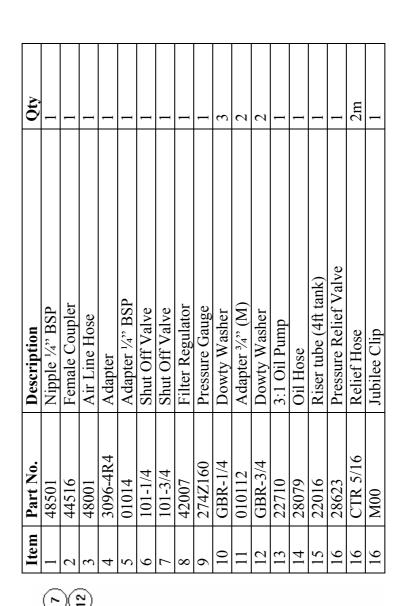
Item	Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	101-3/4	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	010112	Adapter 3/4" (M)	2
12	GBR-3/4	Dowty Washer	2
13	22710	3:1 Oil Pump	1
14	28079	Oil Hose	1
15	22014	Riser tube with air eliminator (4ft tank)	1
16	28623	Pressure Relief Valve	1
16	CTR 5/16	Relief Hose	2m
16	M00	Jubilee Clip	1



The illustrated product may differ slightly from that supplied



## 204 GBB4 Pump kit with tank mounted 3:1 pump



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The illustrated product may differ slightly from that supplied

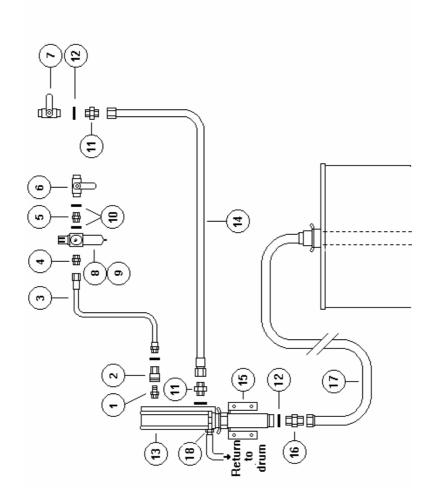
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# 205 GB Pump kit with wall mounted 3:1 pump and drum suction attachment

Item	Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	101-3/4	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	010112	Adapter 3/2" (M)	2
12	GBR-3/4	Dowty Washer	2
13	22710	3:1 Oil Pump	1
14	62087	Oil Hose	1
15	28524	Wall Bracket	1
16	01011612	Adapter 1" x $\frac{3}{4}$ " (M)	1
17	28201	Drum Attachment	1
18	28623	Pressure Relief Valve	1
18	CTR 5/16	Relief Hose	2m
18	M00	Jubilee Clip	1



The illustrated product may differ slightly from that supplied

## 206 GB Pump kit with wall mounted 3:1 pump for bottom tank outlet



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Item	I Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	101-3/4	Shut Off Valve	1
$\infty$	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	010112	Adapter 3/4" (M)	2
12	GBR-3/4	Dowty Washer	3
13	22710	3:1 Oil Pump	1
14	28079	Oil Hose	1
15	28524	Wall Bracket	1
16	01011612	Adapter 1" x 3/4" (M)	1
17	28078	Suction Hose	1
18	010116	Adapter 1" (M)	1
19	101-1	Shut off Valve	1
20	GBR-1	Dowty Washer	2
21	28623	Pressure Relief Valve	1
21	CTR 5/16	Relief Hose	2m
21	M00	Jubilee Clip	1

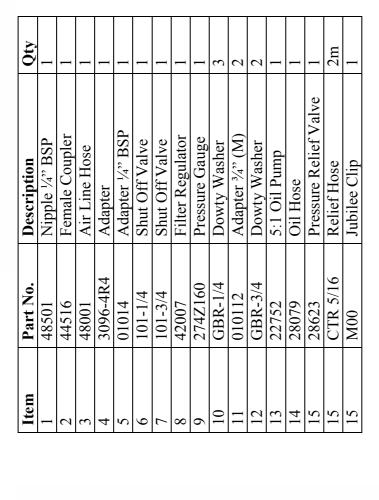
NOTE: Adapter 'A' to be supplied by installer to suit tank outlet

The illustrated product may differ slightly from that supplied



## 275 GB Pump kit with drum mounted 5:1 pump

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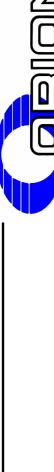
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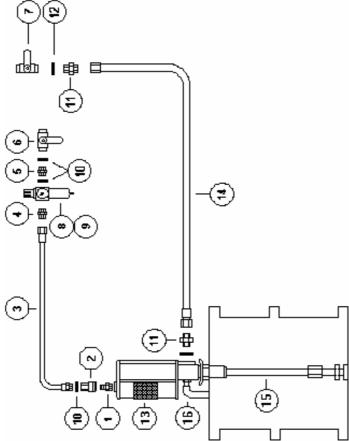
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275 GBA Pump kit with drum mounted 5:1 pump



48501 44516 48001 3096-4R4 01014 101-1/4 101-3/4 42007 274Z160 GBR-1/4 010112 GBR-3/4 22750 22750 28079 28079 28079 28623 CTR 5/16	_ [	Item	Part No.	Description	Qty
2 44516 3 48001 4 3096-4R4 5 01014 6 101-1/4 7 101-3/4 8 42007 9 274Z160 10 GBR-1/4 11 010112 12 GBR-3/4 13 22750 14 28079 15 22012 16 28623 16 CTR 5/16	<u> </u>	1	48501	Nipple 1/4" BSP	1
48001 3096-4R4 01014 101-1/4 101-3/4 42007 274Z160 0 GBR-1/4 1 010112 2 GBR-3/4 3 22750 4 28079 5 22012 6 28623 6 CTR 5/16	)	2	44516	Female Coupler	1
3096-4R4 01014 101-1/4 101-1/4 101-3/4 42007 274Z160 0 GBR-1/4 1 010112 2 GBR-3/4 3 22750 4 28079 5 22012 6 28623 6 CTR 5/16		3	48001	Air Line Hose	1
01014 101-1/4 101-3/4 101-3/4 42007 274Z160 0 GBR-1/4 1 010112 2 GBR-3/4 3 22750 4 28079 5 22012 6 28623 6 CTR 5/16		4	3096-4R4	Adapter	1
101-1/4 101-3/4 42007 274Z160 0 GBR-1/4 1 010112 2 GBR-3/4 3 22750 4 28079 5 22012 6 28623 6 CTR 5/16 6 M00		5	01014	Adapter 1/4" BSP	1
101-3/4 42007 274Z160 0 GBR-1/4 1 010112 2 GBR-3/4 3 22750 4 28079 5 22012 6 28623 6 CTR 5/16 6 M00		9	101-1/4	Shut Off Valve	1
42007 274Z160 0 GBR-1/4 1 010112 2 GBR-3/4 3 22750 4 28079 5 22012 6 28623 6 CTR 5/16 6 M00		7	101-3/4	Shut Off Valve	1
274Z160 GBR-1/4 010112 GBR-3/4 22750 28079 22012 28623 CTR 5/16 M00		8	42007	Filter Regulator	1
GBR-1/4 010112 GBR-3/4 22750 28079 22012 22012 28623 CTR 5/16 M00		6	274Z160	Pressure Gauge	1
GBR-3/4 GBR-3/4 22750 28079 22012 28623 CTR 5/16 M00		10	GBR-1/4	Dowty Washer	3
GBR-3/4 22750 28079 22012 28623 CTR 5/16 M00		11	010112	Adapter 3/4" (M)	2
22750 28079 22012 28623 CTR 5/16 M00		12	GBR-3/4	Dowty Washer	2
28079 22012 28623 CTR 5/16 M00		13	22750	5:1 Oil Pump	1
22012 28623 CTR 5/16 M00		14	28079	Oil Hose	1
28623 CTR 5/16 M00		15	22012	Riser tube with air eliminator (2051 drum)	1
CTR 5/16 M00		91	28623	Pressure Relief Valve	1
M00		16	CTR 5/16	Relief Hose	2m
0011		91	M00	Jubilee Clip	1



The illustrated product may differ slightly from that supplied





, ,			Item	rait No.	Describing	<.
		)( p	-	48501	Nipple 1/4" BSP	
C C	0 >	(15)	2	44516	Female Coupler	1
	×(•	) <b>申</b> ( <b>三</b> )	3	48001	Air Line Hose	1
6	<u> </u>	E )	4	3096-4R4	Adapter	П
)		<b>=</b>	5	01014	Adapter 1/4" BSP	1
			9	101-1/4	Shut Off Valve	1
			7	101-3/4	Shut Off Valve	
			~	42007	Filter Regulator	-
			6	274Z160	Pressure Gauge	
			10	GBR-1/4	Dowty Washer	3
	_		11	010112	Adapter 3/4" (M)	2
`	(		12	GBR-3/4	Dowty Washer	2
ت	<b>4</b>		13	22750	5:1 Oil Pump	1
,	)		14	28079	Oil Hose	1
			15	22012	Riser tube with air	
					eliminator (4ft tank)	
			16	28623	Pressure Relief Valve	-
			16	CTR 5/16	Relief Hose	2m
			16	M00	Jubilee Clip	1

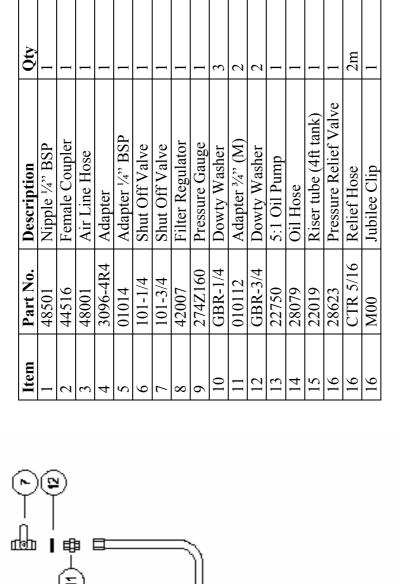
The illustrated product may differ slightly from that supplied



## 275 GBB4 Pump kit with tank mounted 5:1 pump

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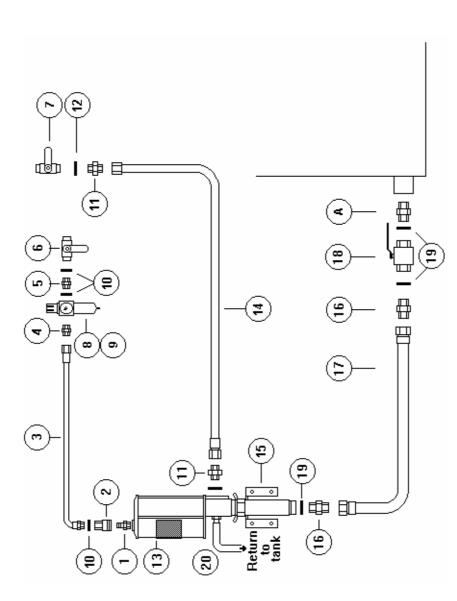
# 276 GB Pump kit with wall mounted 5:1 pump and drum suction attachment

Item	Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	101-3/4	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	010112	Adapter $\frac{3}{4}$ " (M)	2
12	GBR-3/4	Dowty Washer	2
13	22750	5:1 Oil Pump	1
14	62087	Oil Hose	1
15	28524	Wall Bracket	1
16	010116	Adapter 1"	1
17	28201	Drum Attachment	1
18	GBR-1	Dowty Washer	1
19	28623	Pressure Relief Valve	1
19	CTR 5/16	ReliefHose	2m
19	M00	Jubilee Clip	1

The illustrated product may differ slightly from that supplied



## 277 GB Pump kit with wall mounted 5:1 pump for bottom tank outlet



Item	Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	101-3/4	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	010112	Adapter 3/4" (M)	2
12	GBR-3/4	Dowty Washer	2
13	22750	5:1 Oil Pump	1
14	62087	Oil Hose	1
15	28524	Wall Bracket	1
16	911010	Adapter 1"	2
17	28078	Suction Hose	1
18	1-101	Shut-off Valve	1
19	GBR-1	Dowty Washer	3
20	28623	Pressure Relief Valve	1
20	CTR 5/16	Relief Hose	2m
20	00M	Jubilee Clip	1

NOTE: Adapter 'A' to be supplied by installer to suit tank outlet

The illustrated product may differ slightly from that supplied

Alentec Orion Life

261-CRM Distribution kit with oil gun (24572M)
262-CRM with EEC-approved hose end meter (24101/D)
263-CRM with commercial hose end meter (24700)
264-CRM with preset hose end meter (24702)
265-CRM with commercial hose end meter (24780)

Item	Description	261-CRM	262-CRM	263-CRM	264-CRM	265-CRM
1	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	0101-8	0101-8
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2
4	Oil Filter	28022	28022	28022	28022	28022
5	Hose Reel (1/2" x 10m)	924910	924910	924910	924910	924910
9	Oil gun	24672M	ı	ı	ı	ı
7	Hose end meter (approved)	1	24101/D	ı	ı	ı
8	Hose end meter	ı	-	24700	ı	ı
8	Hose end meter (preset)	ı	-	ı	24702	ı
6	Meter outlet hose	1	-	28676	92987	ı
10	Hose end meter	ı	-	ı	ı	24780
11	Drip Pocket	29020	29020	29020	29020	29020

### All kits with 10m x 1/2" bore cased hose reel

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The illustrated product may differ slightly from that supplied

262-CRM 3/8 with EEC-approved hose end meter (24101/D) 265-CRM 3/8 with commercial hose end meter (24780) 263-CRM 3/8 with commercial hose end meter (24700) 261-CRM 3/8 Distribution kit with oil gun (24572M) 264-CRM 3/8 with preset hose end meter (24702)



Item	Description	261-CRM 3/8	262-CRM 3/8	261-CRM 3/8   262-CRM 3/8   263-CRM 3/8   264-CRM 3/8   265-CRM 3/8	264-CRM 3/8	265-CRM 3/8
1	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	0101-8	0101-8
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2
4	Oil Filter	28022	28022	28022	28022	28022
5	Hose Reel (3/8" x 15m)	924905	924905	924905	924905	924905
9	Oil gun	24672M	-	1	1	1
7	Hose end meter (approved)	-	24101/D	ı	-	ı
8	Hose end meter	-	-	24700	-	ı
8	Hose end meter (preset)	-	-	ı	24702	ı
6	Meter outlet hose	ı	-	28676	28676	1
10	Hose end meter	-	-	ı	-	24780
11	Drip Pocket	29020	29020	29020	29020	29020
12	Adapter 1/2" x 3/8" BSP	9-8-1010	0101-8-6	0101-8-6	0101-8-6	0101-8-6

### All kits with 15m x 3/8" bore cased hose reel

The illustrated product may differ slightly from that supplied

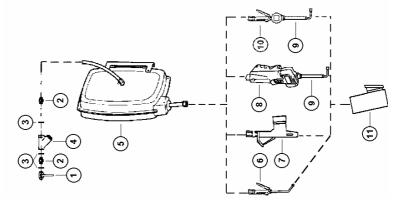


261-MR Distribution kit with oil gun (24572M)
262-MR with EEC-approved hose end meter (24101/D)
263-MR with commercial hose end meter (24700)
264-MR with preset hose end meter (24702)
265-MR with commercial hose end meter (24780)

Item	Description	261-MR	262-MR	263-MR	264-MR	265-MR	
1	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2	
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	0101-8	0101-8	
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	
4	Oil Filter	28022	28022	28022	28022	28022	
5	Hose Reel (1/2" x 10m)	824910	824910	824910	824910	824910	
9	Oil gun	24672M	1	1	ı	1	
7	Hose end meter (approved)	ı	24101/D	-	1	1	
8	Hose end meter	ı	-	24700	1	1	
8	Hose end meter (preset)	ı	1	1	24702	1	
6	Meter outlet hose	١	-	92987	92987	1	
10	Hose end meter	ı	-	-	-	24780	
11	Drip Pocket	29020	02067	29020	29020	29020	

### All kits with 10m x ½" bore cased hose reel

The illustrated product may differ slightly from that supplied





261-MR 3/8 Distribution kit with oil gun (24572M)
262-MR 3/8 with EEC-approved hose end meter (24101/D)
263-MR 3/8 with commercial hose end meter (24700)
264-MR 3/8 with preset hose end meter (24702)
265-MR 3/8 with commercial hose end meter (24780)

tem	Description	261-MR 3/8	262-MR 3/8	263-MR 3/8	264-MR 3/8	265-MR 3/8	
1	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2	
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	0101-8	0101-8	
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	
4	Oil Filter	28022	28022	28022	28022	28022	
5	Hose Reel (3/8" x 15m)	824905	824905	824905	824905	824905	
9	Oil gun	24672M	1	1	1	1	
7	Hose end meter (approved)	ı	24101/D	1	1	ı	
$\infty$	Hose end meter	ı	1	24700	1	ı	
∞	Hose end meter (preset)	ı	1	1	24702	ı	
6	Meter outlet hose	ı	1	28676	28676	ı	
10	Hose end meter	ı	1	1	1	24780	
11	Drip Pocket	29020	29020	29020	29020		
12	Adapter 1/2" x 3/8" BSP	0101-8-6	0101-8-6	0101-8-6	0101-8-6	0101-8-6	

## All kits with $15m \times 3/8$ " bore cased hose reel



261-OR Distribution kit with oil gun (24572M)
262-OR with EEC-approved hose end meter (24101/D)
263-OR with commercial hose end meter (24700)
264-OR with preset hose end meter (24702)
265-OR with commercial hose end meter (24780)

,												
265-OR	101-1/2	0101-8	GBR-1/2	28022	24920	ı	ı	ı	ı	ı	24780	29020
264-OR	101-1/2	0101-8	GBR-1/2	28022	24920	ı	ı	ı	24702	28676	ı	29020
263-OR	101-1/2	0101-8	GBR-1/2	28022	24920	ı	ı	24700	ı	28676	ı	29020
262-OR	101-1/2	0101-8	GBR-1/2	28022	24920	ı	24101/D	ı	ı	ı	ı	29020
261-OR	101-1/2	8-1010	GBR-1/2	28022	24920	24672M	-	-	-	-	-	29020
Description	Shut-off valve	Adapter 1/2" BSP	Dowty Washer	Oil Filter	Hose Reel (1/2" x 20m)	Oil gun	Hose end meter (approved)	Hose end meter	Hose end meter (preset)	Meter outlet hose	Hose end meter	Drip Pocket
Item	1	2	3	4	5	9	7	8	8	6	10	11

#### All kits with $20m \times \frac{1}{2}$ " bore open hose reel

The illustrated product may differ slightly from that supplied

(b)



261-ORM Distribution kit with oil gun (24572M)
262-ORM with EEC-approved hose end meter (24101/D)
263-ORM with commercial hose end meter (24700)
264-ORM with preset hose end meter (24702)
265-ORM with commercial hose end meter (24780)

Item	Description	261-ORM	262-ORM	263-ORM	264-ORM	265-ORM
1	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	0101-8	0101-8
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2
4	Oil Filter	28022	28022	28022	28022	28022
5	Hose Reel (1/2" x 15m)	24922	24922	24922	24922	24922
9	Oil gun	24672M	ı	ı	ı	ı
7	Hose end meter (approved)	ı	24101/D	ı	-	ı
8	Hose end meter	ı	ı	24700	ı	ı
8	Hose end meter (preset)	ı	ı	ı	24702	ı
6	Meter outlet hose	-	1	28676	92987	ı
10	Hose end meter	ı	ı	ı	-	24780
11	Drip Pocket	29020	29020	29020	02067	29020

#### All kits with 15m x ½" bore open hose reel

The illustrated product may differ slightly from that supplied

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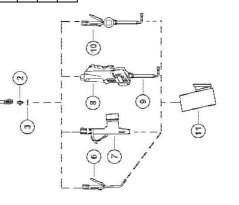


261-ORK Distribution kit with oil gun (24572M)
262-ORK with EEC-approved hose end meter (24101/D)
263-ORK with commercial hose end meter (24700)
264-ORK with preset hose end meter (24702)
265-ORK with commercial hose end meter (24780)

tem	Description	261-ORK	262-ORK	263-ORK	264-ORK	265-ORK	
	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2	
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	0101-8	0101-8	
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	
4	Oil Filter	28022	28022	28022	28022	28022	
5	Hose Reel (1/2" x 10m)	24911	24911	24911	24911	24911	
9	Oil gun	24672M	ı	ı	ı	ı	
7	Hose end meter (approved)	ı	24101/D	ı	-	-	
8	Hose end meter	ı	ı	24700	-	-	
8	Hose end meter (preset)	ı	ı	ı	24702	ı	
6	Meter outlet hose	ı	ı	28676	28676	-	
10	Hose end meter	ı	ı	ı	-	24780	
11	Drip Pocket	29020	29020	29020	29020	29020	

#### All kits with $10m \times \frac{1}{2}$ " bore open hose reel

The illustrated product may differ slightly from that supplied



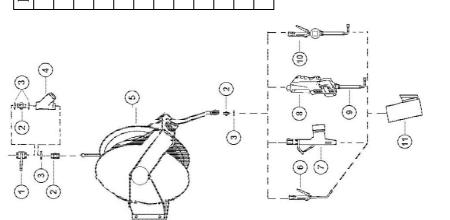
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261-ORL 1/2 Distribution kit with oil gun (24572M)
262-ORL 1/2 with EEC-approved hose end meter (24101/D)
263-ORL 1/2 with commercial hose end meter (24700)
264-ORL 1/2 with preset hose end meter (24702)
265-ORL 1/2 with commercial hose end meter (24780)

tem	Description	261-ORL 1/2	262-ORL 1/2	263-ORL 1/2	261-ORL 1/2   262-ORL 1/2   263-ORL 1/2   264-ORL 1/2   265-ORL 1/2	265-ORL 1/2
	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	0101-8	0101-8
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2
4	Oil Filter	28022	28022	28022	28022	28022
5	Hose Reel (1/2" x 20m)	24931	24931	24931	24931	24931
9	Oil gun	24672M	1	-	1	1
7	Hose end meter (approved)	1	24101/D	-	1	1
8	Hose end meter	1	1	24700	1	1
8	Hose end meter (preset)	1	1	1	24702	1
6	Meter outlet hose	1	1	28676	28676	1
10	Hose end meter	1	1	1	1	24780
11	Drip Pocket	29020	29020	29020	02067	29020

#### All kits with $20m \times \frac{1}{2}$ " bore open hose reel

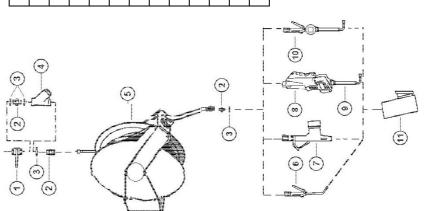




262-ORL 3/4 with EEC-approved hose end meter (24101/D) 263-ORL 3/4 with commercial hose end meter (24700) 265-ORL 3/4 with commercial hose end meter (24780) 261-ORL 3/4 Distribution kit with oil gun (24563) 264-ORL 3/4 with preset hose end meter (24702)

tem	Description	261-ORL 3/4	261-ORL 3/4   262-ORL 3/4	263-ORL 3/4	263-ORL 3/4   264-ORL 3/4	265-ORL 3/4	
1	Shut-off valve	101-3/4	101-3/4	101-3/4	101-3/4	101-3/4	
2	Adapter 3/4" BSP	0101-12	0101-12	0101-12	0101-12	0101-12	
3	Dowty Washer	GBR-3/4	GBR-3/4	GBR-3/4	GBR-3/4	GBR-3/4	
4	Oil Filter	28059	28059	28059	28059	28059	
5	Hose Reel (3/4" x 15m)	24932	24932	24932	24932	24932	
9	Oil gun	24563	ı	ı	ı	ı	
7	Hose end meter (approved)	ı	24101/D	ı	ı	ı	
~	Hose end meter	ı	ı	24700	ı	ı	
8	Hose end meter (preset)	ı	ı	ı	24702	ı	
6	Meter outlet hose	ı	ı	28676	28676	ı	
10	Hose end meter	ı	ı	ı	ı	24780	
11	Drip Pocket	29020	29020	29020	29020	29020	

### All kits with 15m x 3/4" bore open hose reel

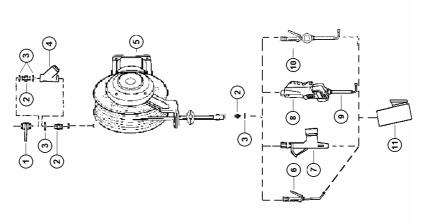


Alentec Orion Lid

261-LOR 1/2 Distribution kit with oil gun (24572M)
262-LOR 1/2 with EEC-approved hose end meter (24101/D)
263-LOR 1/2 with commercial hose end meter (24700)
264-LOR 1/2 with preset hose end meter (24702)
265-LOR 1/2 with commercial hose end meter (24780)

Item	Description	261-LOR 1/2	262-LOR 1/2	263-LOR 1/2	261-LOR 1/2   262-LOR 1/2   263-LOR 1/2   264-LOR 1/2   265-LOR 1/2	265-LOR 1/2
1	Shut-off valve	101-1/2	101-1/2	101-1/2	101-1/2	101-1/2
2	Adapter 1/2" BSP	0101-8	0101-8	0101-8	8-1010	0101-8
3	Dowty Washer	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2	GBR-1/2
4	Oil Filter	28022	28022	28022	28022	28022
5	Hose Reel (1/2" x 25m)	24941	24941	24941	24941	24941
9	Oil gun	24672M	1	1	1	1
<i>L</i>	Hose end meter (approved)	ı	24101/D	-	-	ı
∞	Hose end meter	ı	1	24700	1	1
8	Hose end meter (preset)	ı	-	-	24702	ı
6	Meter outlet hose	ı	-	28676	92987	ı
10	Hose end meter	ı	-	-	-	24780
11	Drip Pocket	29020	29020	29020	29020	29020

#### All kits with 25m x 1/2" bore open hose reel

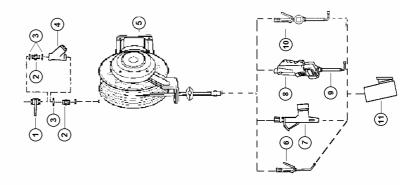


Alembec Orion Life

262-LOR 3/4 with EEC-approved hose end meter (24101/D) 265-LOR 3/4 with commercial hose end meter (24780) 263-LOR 3/4 with commercial hose end meter (24700) 264-LOR 3/4 with preset hose end meter (24702) 261-LOR 3/4 Distribution kit with oil gun (24563)

Item	Item   Description	261-LOR 3/4	262-LOR 3/4	263-LOR 3/4	261-LOR 3/4   262-LOR 3/4   263-LOR 3/4   264-LOR 3/4   265-LOR 3/4	265-LOR 3/4
1	Shut-off valve	101-3/4	101-3/4	101-3/4	101-3/4	101-3/4
2	Adapter 3/4" BSP	0101-12	0101-12	0101-12	0101-12	0101-12
3	Dowty Washer	GBR-3/4	GBR-3/4	GBR-3/4	GBR-3/4	GBR-3/4
4	Oil Filter	28059	28059	28059	28059	28059
5	Hose Reel (3/4" x 20m)	24943	24943	24943	24943	24943
9	Oil gun	24563	-	1	ı	ı
7	Hose end meter (approved)	-	24101/D	1	ı	ı
∞	Hose end meter	-	-	24700	ı	ı
∞	Hose end meter (preset)	-	-	1	24702	ı
6	Meter outlet hose	-	-	28676	28676	ı
10	Hose end meter	-	-	1	ı	24780
111	Drip Pocket	29020	29020	29020	29020	29020

## All kits with $20m \times 3/4$ " bore open hose reel

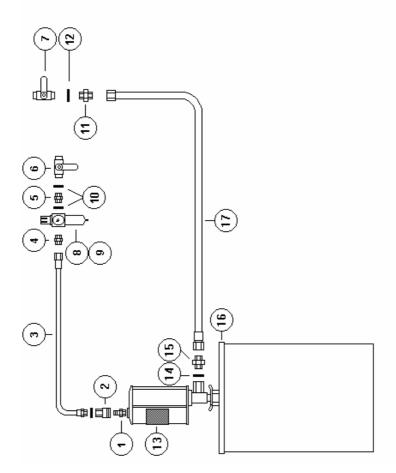






Item	Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	BKH-R1/2	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	0101-8-6	Adapter	1
12	GBR-1/2	Dowty Washer	1
13	12557	75:1 Grease Pump	1
14	GBR-3/8	Dowty Washer	1
15	0101-6	Adapter 3/8" BSP	1
16	18525	Drum Cover	1
17	18107	Grease Hose	1

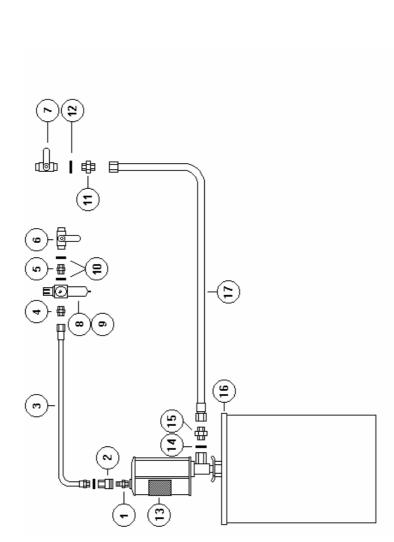
The illustrated product may differ slightly from that supplied







	Item	Part No.	Description	Qty
	1	48501	Nipple 1/4" BSP	1
<u> </u>	2	44516	Female Coupler	1
	3	48001	Air Line Hose	1
7	4	3096-4R4	Adapter	1
	5	01014	Adapter 1/4" BSP	1
	9	101-1/4	Shut Off Valve	1
`	7	BKH-R1/2	Shut Off Valve	1
	8	42007	Filter Regulator	1
,	9	274Z160	Pressure Gauge	1
	10	GBR-1/4	Dowty Washer	3
	11	0101-8-6	Adapter	1
	12	GBR-1/2	Dowty Washer	1
	13	12556	75:1 Grease Pump	1
	14	GBR-3/8	Dowty Washer	1
	15	0101-6	Adapter 3/8" BSP	1
	16	18526	Drum Cover	1
	17	18107	Grease Hose	1



The illustrated product may differ slightly from that supplied

# 175 GB 55:1 Grease pump kit for 180kg keg



Itom	Dart No	Description	74,0
IICIII	I alt IVO.	Description	χι.
	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
Э	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	BKH-R1/2	Shut Off Valve	
∞	42007	Filter Regulator	
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	0101-8-6	Adapter	1
12	GBR-1/2	Dowty Washer	1
13	12552	55:1 Grease Pump	1
14	GBR-3/8	Dowty Washer	
15	0101-6	Adapter 3/8" BSP	1
16	18525	Drum Cover	1
17	18107	Grease Hose	1

**1** ⊕ **1** 

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The illustrated product may differ slightly from that supplied

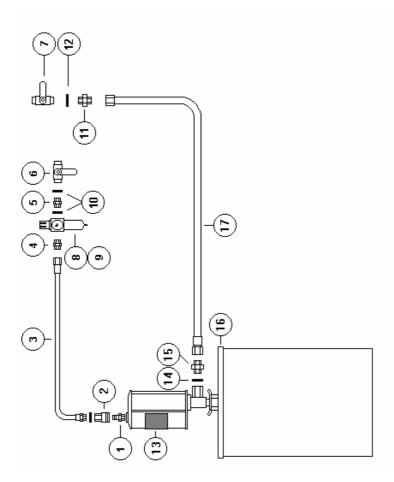
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Item	Part No.	Description	Qty
1	48501	Nipple 1/4" BSP	1
2	44516	Female Coupler	1
3	48001	Air Line Hose	1
4	3096-4R4	Adapter	1
5	01014	Adapter 1/4" BSP	1
9	101-1/4	Shut Off Valve	1
7	BKH-R1/2	Shut Off Valve	1
8	42007	Filter Regulator	1
6	274Z160	Pressure Gauge	1
10	GBR-1/4	Dowty Washer	3
11	0101-8-6	Adapter	1
12	GBR-1/2	Dowty Washer	1
13	12551	55:1 Grease Pump	1
14	GBR-3/8	Dowty Washer	1
15	0101-6	Adapter 3/8" BSP	1
16	18526	Drum Cover	1
17	18107	Grease Hose	1

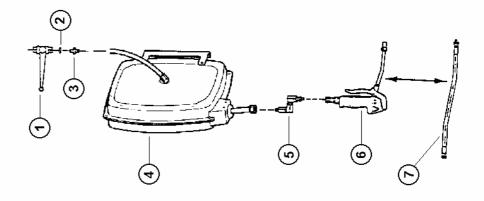


The illustrated product may differ slightly from that supplied



#### 118-CRM-3/8 Distribution kit for grease (10m x 3/8" bore cased reel) 118-CRM Distribution kit for grease (10m x 1/4" bore cased reel) 119-CRM Distribution kit for grease (15m x 1/4" bore cased reel)

Item	Description	118-CRM	118-CRM-3/8   119-CRM	119-CRM
1	Shut-off valve	BKHR 1/4	<b>BKHR</b> 1/2	BKHR 1/4
2	Dowty washer	GBR-1/4	GBR-1/2	GBR-1/4
3	Adapter	01014	01086	01014
4	Hose reel	914205	914215	914210
2	Z' swivel	18071	18071	18071
9	Grease gun	14610	14610	14610
<i>L</i>	Flexible hose (450mm)	14044	14044	14044



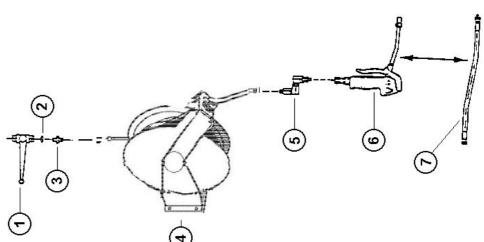
The illustrated product may differ slightly from that supplied



#### 119-ORM Distribution kit for grease (15m x 1/2" bore cased reel) 118-ORK Distribution kit for grease (10m x 1/4" bore cased reel)

Item	Item Description	118-ORK	119-ORM
1	Shut-off valve	BKHR 1/4	BKHR 1/4
2	Dowty washer	GBR-1/4	GBR-1/4
3	Adapter	01014	01014
4	Hose reel	14206	14218
5	Z, swivel	18071	18071
9	Grease gun	14610	14610
7	Flexible hose (450mm)	14044	14044

The illustrated product may differ slightly from that supplied



#### TERMS AND CONDITIONS

- 1. GENERAL. In these Conditions "equipment" means all equipment, machinery, plant, goods or any other thing supplied by us. All equipment supplied by us is sold only upon the following conditions. The placing of an order for any equipment or the acceptance of our quotation or tender includes the acceptance of the following conditions. Unless expressly agreed by us in writing, any other terms or conditions (including any which may be contained in your order) are excluded. Our quotation or tender includes only such equipment as is specified in it. Unless expressly incorporated into our quotation or tender, all descriptions, illustrations, drawings, dimensions, weights, measures, specifications, standards of performance or other descriptive matter or pre-contractual statements are approximate only and shall not form part of the contract. Our record of any order placed by you orally shall be conclusive as to the type and quantity of product and the point and date of delivery.
- 2. VALIDITY. Unless previously withdrawn, our quotation is open for acceptance within the period stated therein or, when no period is so stated, within 30 days after its date, and is subject to written confirmation by us at the time of acceptance. All equipment ex stock is offered subject to being unsold upon receipt of order. All equipment is sold subject to prices and Conditions of Sale ruling at the time of delivery. All prices quoted are based on the rates of salaries, wages, and taxation and the cost of materials, transport and overheads current at the date of quotation, and any increase in such rates or costs before final completion of the contract will be charged to you. Our prices and Conditions of Sale may be altered at any time without notice. In the event of variation or suspension of work by your instructions or lack of instructions any price quoted by us may be adjusted accordingly. In the event of an order being cancelled after work has commenced you will indemnify us against all expenses and loss incurred by us.
- 3. DELIVERY. Delivery is ex our premises unless otherwise agreed and, notwithstanding Clause 5, the risk in all equipment passes to you when it first leaves our premises or is placed in store under Clause 4. Nevertheless, we will, if specifically requested by you and as a separate arrangement, procure freight and insurance to some other place in the U.K. on your behalf and at your expense. You are responsible for unloading the equipment properly and promptly, and for stacking, storing and protecting it. You will be responsible for any demurrage. Goods sold overseas will be delivered F.O.B. at the U.K. port agreed, and freight and other costs of delivery from our premises will be charged extra. Any times quoted for delivery are to date from receipt by us of your written order to proceed and of all necessary information and drawings to enable us to put the work in hand. All such times are to be treated as estimates only and, while we shall use our best endeavours to adhere to them, shall not involve any contractual liability on our part. If we are prevented by circumstances beyond our control from delivering on the date quoted we will effect delivery as soon as possible afterwards or, at our option, we may cancel the contract or the part which we are prevented from fulfilling by written notice to you before (but not after) the date quoted for delivery.
- 4. STORAGE. If we do not receive sufficient forwarding instructions within 14 days after notification that the equipment is ready for despatch, you will either take delivery or arrange for storage. Otherwise we shall be entitled to arrange storage on your behalf and at your risk, either on our own premises (making a charge of 2% of the invoice value of the equipment per month) or elsewhere. All charge for storage, Insurance or demurrage will be payable vou.
- 5. PASSING OF PROPERTY. (a) Notwithstanding delivery and the passing of risk in the goods or any other provisions of these conditions, all equipment supplied by us will remain our absolute property until you pay in full for it and
- all other goods or services previously supplied by us. You will store the equipment in such a way that it is readily identifiable as our property.

  (b) Any other object, whether finished or not, made from the equipment or with which the equipment is mixed, or of which the equipment in any way whatsoever becomes a constituent shall become the joint property of ourselves yourselves and any third party whose goods may also be comprised in those objects, from the moment when the equipment is onverted into such objects, or is mixed with or becomes a constituent of such objects, until the mome
- of full payment of what you owe us.

  (c) You may as trustees for us sell the equipment and such objects to a third party in the normal course of business. Upon any sale by you of the equipment or any such objects (either alone or with other items) all rights which you have against the buyer shall, to the extent of your indebtedness to us, automatically vest in us.

  (d) We shall be entitled, immediately after giving notice of our intention to repossess, to enter upon your premises with such transport as may be necessary and repossess any equipment or objects to which we have title under this
- (e) Nothing in this Clause shall confer on you any right to return the goods or to refuse or delay payment
- 6. PAYMENT. Unless otherwise agreed, payment in full without retention or set-off shall be due on delivery or, if we are unable by reason of your instructions, or lack of instructions, to despatch equipment when ready, upon notification that the equipment is ready for despatch. For equipment sold overseas payment shall, unless otherwise agreed, be by confirmed irrevocable Letters of Credit on a Banking House acceptable to us. If we do not receive payment in full on the due date we shall be entitled to interest on any amount overdue at the rate of 2% of the invoice value of the equipment per month, and we reserve the right without notice to suspend further deliveries until all arrears (including interest) have been paid, and at our orption, to rescind any subsisting contract with you as to all or any parts of future deliveries but without prejudice to any rights already accrued to us under such contracts. Any outstanding credit balances outstanding after 12 months will be written off.
- 7. DESCRIPTION. Whilst all descriptions and illustrations of the goods in all catalogues, brochures and price lists provided by us have been carefully prepared, they are intended nevertheless for general guidance only and do not form part of any contract for sale of goods and no responsibility is accepted for any errors or omissions therein or for any loss or damage resulting from reliance on such descriptions and illustrations.
- 8. DESIGN. All equipment will generally be to the specification and description furnished or adopted by us. Except where the equipment is manufactured solely to your designs, drawings and specifications, we reserve the right to make alterations in any design or specification without notice and to deliver equipment conforming to the altered design or specification in fulfilment of any order. Where the equipment is supplied to your design or specification no warranty or guarantee is given or implied as to its suitability for any purpose and we shall be under no liability for any failure or error in your design or specification. Any design work done by us is carried out on your behalf and shall not form part of the contract unless checked and adopted by your Engineer
- 9. PERFORMANCE. Notwithstanding any advice or assistance given by us, it is your responsibility to determine that the equipment is sufficient and suitable for the purpose to which it is to be put, and we cannot accept any responsibility either in respect of the installation of the equipment or as to the ultimate performance of any product or works in which it may be installed. We will accept no liability for failure to attain any performance figures quoted tespoisability entire in respect to the installation to the equipment of as of an element of a significant entire in the entire by the equipment being used in any manner, or for any purpose or under any conditions (including strain or loading) which are unsuitable
- 10. HEALTH AND SAFETY. You will take all steps sufficient to ensure, so far as is reasonably practicable, that the equipment will be safe and without risk to health by properly installing, using and handling it in accordance with our endations. With regard to any equipment sold by us for use at work we undertake to carry out our statutory duties but shall not be liable for the consequences of any failure by you to discharge your statutory duties
- 11. DAMAGE, LOSS, SHORT DELIVERY. On delivery, the Buver shall examine the goods for defects and completeness. Thereafter no claim for damage in transit, for shortage in delivery or for loss of goods will be entertained unless, in the case of damage, a separate notice in writing is given to durselves within three days of the receipt of the goods, followed within 14 days of the date of advice of despatch by a complete claim in writing; or, in the case of loss of goods, a separate notice in writing and a claim is given to ourselves and the Carriers within 14 days of the date of our advice of despatch to the Buyer. In all cases a signature "unexamined" shall be deemed to be an unconditional acceptance of the goods. We shall not in any circumstances be liable, whether in contract or tort, to the Buyer for any indirect or consequential loss or damage (including, without limitation, loss of profits, loss of contracts or damage to property) or for any claim against the Buyer by any third party and the guarantee given by us hereunder shall not be transferable to any person.

  Our liability for damage or non delivery of goods duly notified in accordance with the above shall in any event be limited to replacement of the goods within a reasonable time (or, at our option, refunding the price thereof) whether

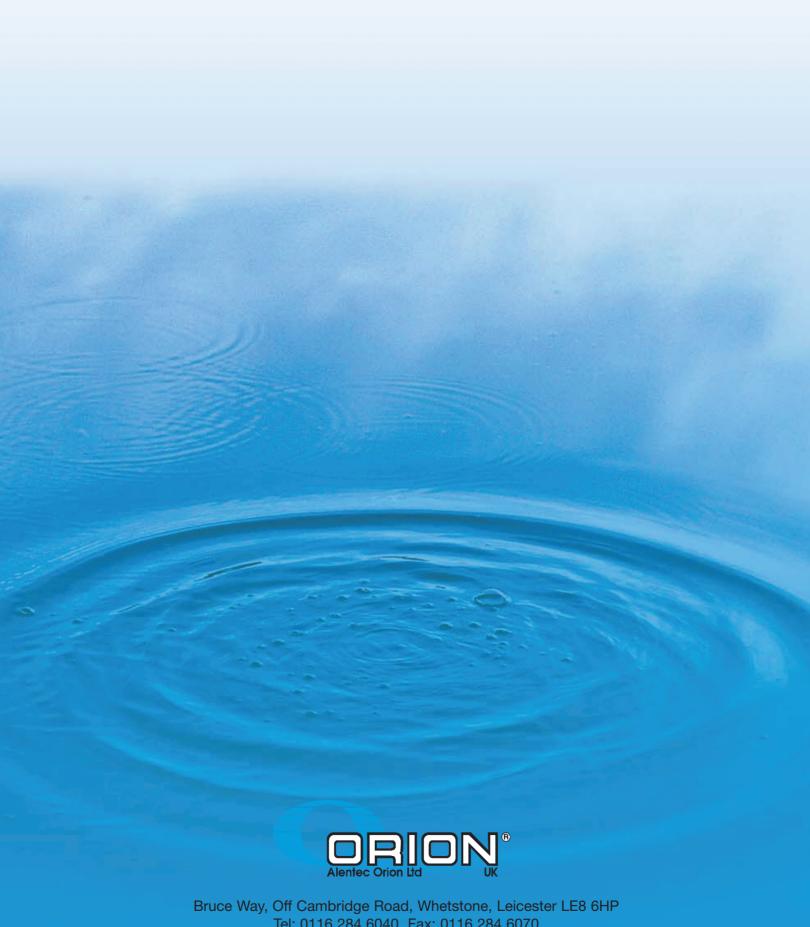
the damage or non delivery is due to our negligence or otherwise

- 12. DEFECTS AFTER DELIVERY. We will make good by repair or, at our option, by the supply of a replacement any fault which under proper use appears in the equipment within a period of 12 months after the equipment is delivered and is found on examination by us to be solely due to defective material and workmanship, provided that the defective part is promptly returned to us, carriage paid, with all identification numbers and marks intact. The replacement supplied by us. We shall be under no liability for defects in any equipment which:
- (i) has not been properly stored or
- (ii) has not been installed in accordance with our current recommendations of
- (iii) has been repaired or altered by any person except ourselves or our authorised agents, nor in any second-hand equipment, propriety articles or equipment not of our manufacture, although supplied by us, such equipment being covered by the warranty (if any) given by the separate manufacturers.
- Any claim under this Cause must contain full particulars of the alleged defect, the description of the equipment, the date of purchase, the name and address of the vendor, and the Serial Number (as shown on the manufacturers identification plate).
- Our liability under this Clause shall be in lieu of any warranty or conditions implied by law as to the quality of fitness for any particular purpose of the equipment, and save as expressly provided in this Clause or in respect of the negligence of ourselves, our servants or agents, in so far as the same results in death or personal injury, we shall not be under any liability, whether in contract, tort or otherwise, in respect of defects in equipment or for damage, injury or loss resulting from such defects or from any work done in connection therewith. All conditions, warranties, terms and obligations, whether expressed or implied by statute, common law, custom or otherwise (including, without prejudice to the generality of the foregoing, any warranty or condition as to the merchantable quality or fitness for any particular purpose of the goods) are excluded to the fullest effect permitted by law.
- 13. INSPECTION AND TESTS. Our equipment is carefully inspected and where practicable, submitted to our standard tests at our works before despatch. If tests other than those specified in our tender or tests in the presence of you or your representatives are required, these will be charged for. In the event of any delay on your part in attending such tests after seven days notice that we are ready, the tests will proceed in your absence and shall be deemed to have been made in your presence.
- 14. CUSTOMER CANCELLATION OF ORDERS. Contracts and orders and parts thereof may be cancelled only by our written acceptance of such cancellation. Where we accept such cancellation, we reserve the right to charge the Buyer with the amount of any losses or expenses directly or indirectly resulting from such cancellation. Where we do not accept such cancellation, we reserve the right to recover the invoice price from the Buyer with additional losses both direct and indirect resulting from such cancellation. In any case where we were required to place a deposit with a manufacturer or supplier in respect of an order, we may require the Buyer to reimburse such sum in the event of cancellation.
- 15. VARIATIONS. If any alteration, amendment, omission or addition is required by you or by any competent authority we will inform you of any variation in the price and extension of delivery or completion time which will result. No variation will be put in hand until you have agreed these in writing. Unless otherwise agreed, we shall not be liable for any effect which such variation may have on the equipment. You will be liable for the full price of all equipment made to your order in reliance on your design, specification or measurement even though it is no longer equired following any alteration in that design, specification or measurement, and also for the full cost of any alterations made necessary and/or materials wasted through the inaccuracy or variation of any such design, specification or measurement.
- 16. PATENTS. You will indemnify us against all claims, damages, penalties, costs and expenses to which we may become liable as a result of work done in accordance with your specification which involves the infringement of any
- 17. SAMPLES. You will pay us for samples submitted to you and not returned to us within one month of despatch
- 18. FUTURE ORDERS. If you buy any further equipment from us (whether or not of the same description as equipment previously bought) you will be deemed to do so with express notice of these Conditions and, unless any future contract between us expressly incorporates different conditions of ours, these Conditions together with any additions and/or amendments for the time being notified to you shall be deemed to be incorporated in all such contracts whether or not expressly referred to or included therein.

- 19. TERMINATION. We may, without prejudice to our other rights and remedies, determine the contract or any unfulfilled part of it or withhold further deliveries or make partial deliveries if:
  (a) you fail to make payment on the due date under this or any other contract between us,
  (b) you purport to cancel or suspend, or commit any breach of, this or any other contract between us,
  (c) you fail to issue any instructions necessary for the execution of this contract, or
  (d) you become insolvent or make any composition with your creditors or have a receiver appointed of all or any part of your undertaking or assets or go into liquidation (save for the voluntary purpose of amalgamation reconstruction) and we shall be entitled to recover from you all our loss including any loss of profit or loss on resale.
- 20. FORCE MAJEURE. We shall not be liable to the Buyer or be deemed to be in breach of the contract by reason of any delay in performance, or any failure to perform, any of our obligations in relation to the goods, if the delay or failure was due to any cause beyond our reasonable control. Without prejudice to the generality of the foregoing, the following shall be regarded as causes beyond our control:
  (a) act of God, explosion, flood, tempest, fire or accident,
  (b) war or threat of war, sabotage, insurrection, civil disturbance or requisition,
  (c) acts, restrictions, regulations, by-laws, prohibitions or measures of any kind on the part of any governmental, parliamentary or local authority,
  (d) import or export regulations or embargoes,
  (e) strikes, lock-outs or other industrial actions or trade disputes (whether involving employees of the Sellers or of a third party),
  (f) difficulties in obtaining raw materials, labour, fuel, parts or machinery,
  (g) power failure or breakdown in machinery.

- 21. WAIVER. Any failure by us to enforce any or all of these Conditions shall not be construed as a waiver of any of our rig

- 22. INTERPRETATION.
  (a) These Conditions shall in all respects be interpreted in accordance with and governed by the law of England.
  (b) If any part of these Conditions shall for any reason be declared or become invalid, unenforceable, or illegal the other provisions of these conditions shall nevertheless remain in full force and effect.



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