

## INTRODUCTION TO PurgeX<sup>®</sup>

The patented PurgeX<sup>®</sup> pump is one of the most unique and successful products in industry today. Since 1988, thousands of satisfied customers have made PurgeX® their choice for reliable and precise lubrication. It is called PurgeX<sup>®</sup> because entrapped air and other impurities are automatically "purged" from the system. In lab tests, over 360,000,000 cycles have been achieved without appreciable wear. By dispensing very small amounts of liquid or grease, environmental contamination is greatly minimized. Precision output and excellent repeatability provide higher productivity rates. In addition, precise metering can be achieved over a wide range of adjustability. Some of the more popular applications for PurgeX<sup>®</sup> include:

- Lubricating liquids
- Food additives
- Greases
- Dyes
- Chemicals
- Solvents
- Inks

#### OIL-RITE 1-920-682-6173 www.oilrite.com

**USA** Designed and Manufactured

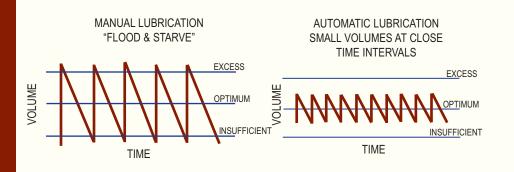
## **LUBRICATION TRENDS**

### Why Less Lubrication is Better

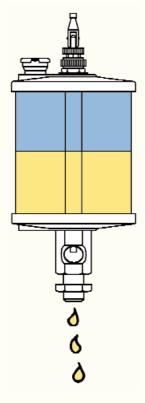
Traditionally, lubrication users have been under a mis-conception that if a small amount of liquid is good, then a larger amount of liquid is better. This tendency to over-lubricate has led to other problems in industry such as material contamination, clean up expenses and environmental contamination. In some cases, users have removed lubrication systems entirely in order to prevent these problems. With the PurgeX<sup>®</sup> system, extremely small amounts of lubricant can be applied either directly or by spray.

Advantages of Automatic Lubrication Systems — Many manufacturing companies continue to use manual lubrication methods as well as gravity feed lubrication systems. Both of these types of lubrication have inherent problems that PurgeX<sup>®</sup> can solve.

In manual systems, the costs to lubricate can be expensive over the long term. When the liquid or grease is applied at more lengthy intervals, the lubrication benefits are not maximized (see chart below). In addition, the amount of lubricant that is dispensed varies, leading to over-lubrication or under-lubrication.



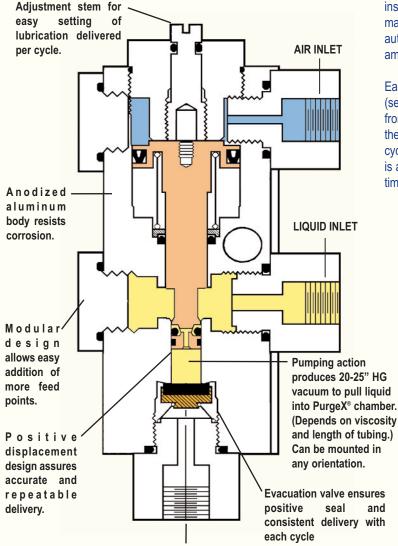
In gravity feed systems, the liquid is dispensed through a manually adjusted needle valve. As the liquid level in the reservoir changes, the drip rate changes due to the head pressure of the liquid. This leads to over or under-lubrication.



# THE PurgeX<sup>®</sup> THEORY

## **How It Works**

PurgeX<sup>®</sup> is a pump that dispenses a precise amount of lubricant with each cycle. It is available air operated or electric motor operated, and can deliver liquid or grease directly through a 1/8" NPT port or through a spray nozzle.



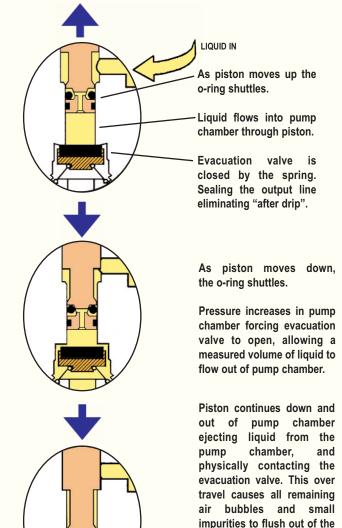
LIQUID OUTLET

CHART 1					
Drop Size		olume Per Turn of Adjusting Screw			
(Dia.)	in.	Drops	Cu. In.		
1/16	95.8	14.20			
3/32	28.4	4.20			
1/8	12.0	1.70	.0018		
5/32	6.2	.93			
3/16	3.5	.53			

# Delivering the Smallest Amounts of Lubrication

The ability to deliver very small amounts of lubricant with each cycle is what distinguishes PurgeX<sup>®</sup> from all other lubrication products. In fact the name PurgeX<sup>®</sup>, comes from its designed ability to purge air from the lubrication system. This eliminates the need to pre-fill lubrication lines during initial installation. If the liquid reservoir runs low, or air is introduced in some other manner into the system, the self-priming PurgeX<sup>®</sup> will fill lines with lubricant automatically. The net result is the ability to reliably deliver the smallest amount of lubricant with each cycle.

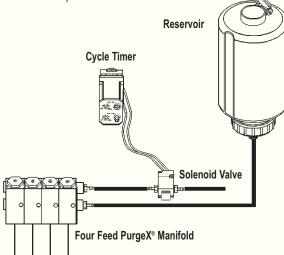
Each PurgeX<sup>®</sup> pump has an adjustable precise lubricant delivery per cycle (see chart 1 below). On air operated models, the liquid output is adjustable from 0 to .012 cubic inches (.20 cc's). On electric motor operated models the output is adjustable from 0 to .009 cubic inches (.15 cc's). By setting the cycle rate of the PurgeX<sup>®</sup> pump, a wide range of lubricant delivery over time is achieved. If needed, lubricant delivery can be completely shut off at any time by adjusting the piston to the fully closed position.



pump chamber. These air bubbles and small impurities are carried downstream during each cycle. Also, eliminates "After-Drip".

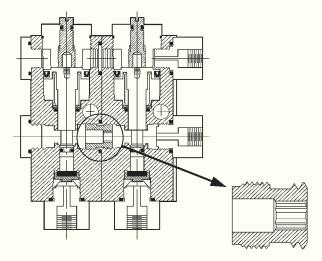
## Typical PurgeX<sup>®</sup> System Requirements

Simplicity of design, installation, and maintenance are the trademarks of PurgeX<sup>®</sup>. Each unit is an independent pump, the basic requirements include only a lubricant reservoir, 3-way solenoid valve, timer or sequence signal, tubing and fittings. The illustration in the figure below, shows a basic system with four lubricant feed points.



## **Multiple Feed Points**

In order to simplify tubing, fittings and mounting requirements in multiple feed point applications, the patented Threadapter<sup>®</sup> system is used. Internal connections provide common air and lubricant lines for all PurgeX<sup>®</sup> pumps in the same manifold. It is also easy to connect additional PurgeX<sup>®</sup> pumps to the manifold at any time.



#### PurgeX<sup>®</sup> MODEL NO. SELECTION CHART

	Lubricant Type			Liquid I	Delivery				
	Power Source	-	Air Operated Ele						
Number	Delivery Method	- 1/8" NPT	1/8" NPT	Spray**	Spray**	1/8" NPT			
of Feeds	Reservoir Type	- Remote	Remote	Remote	Remote	Remote			
	Piston Size	- 1/4"	1/8"	1/4"	1/8"	1/4"			
	Catalog Page No.	- 6-7	8-9	10-11	10-11	12-13			
1		B3162-101	B3583-101	B3559-101	B3584-101	B3429-1			
2		B3162-102	B3583-102	B3559-102	B3584-102	B3429-2			
3		B3162-103	B3583-103	B3559-103	B3584-103	B3429-3			
4		B3162-104	B3583-104	B3559-104	B3584-104	B3429-4			
5		B3162-105	B3583-105	B3559-105	B3584-105				
6		B3162-106	B3583-106	B3559-106	B3584-106				
7		B3162-107	B3583-107						
8		B3162-108	B3583-108						
9		B3162-109	B3583-109						
10		B3162-110	B3583-110						
11		B3162-111	B3583-111						
12		B3162-112	B3583-112						

#### \*MOTOR VOLTAGE AND SPEED

120V/60hz standard, other voltages and DC motors available on request

1 cycle per minute standard (RPM), other speeds available on request.

## **Basic Configurations**

There are several styles of PurgeX<sup>®</sup> for use in a wide range of applications. Each style is shown below with the corresponding pages in this catalog where they are found.

Air operated, liquid and grease delivery (pages 6-7). Air operated, adjustable liquid or grease 1/8" (pages 8-9). Air operated, spray delivery, for liquid and grease (pages 10-11). Electric motor operated, liquid delivery (pages 12-13). Air operated, grease delivery with integral reservoir (pages 14-15). Electric motor operated, grease delivery with integral reservoir (pages 14-15).

## The Six Pack Pre-Packaged Systems

The PurgeX<sup>®</sup> is also available in a "ready-to-go" format. This includes an enclosure with all internal air, lubricant and electrical lines connected and ready to use. Installation time is minimized and simplified. Refer to page 16 for complete information.



	-						
				Grease Delivery			
Air Operated							Electric Motor*
1/8" NPT	1/8" NPT	1/8" NPT	Spray**	Spray**	Spray**	Spray**	1/8" NPT
Remote	Remote	Integral	Remote	Remote	Integral	Integral	Integral
1/4"	1/8"	1/4"	1/4"	1/8"	1/4"	1/8"	1/4"
6-7	8-9	14-15	10-11	10-11	14-15	14-15	14-15
B3162-401	B3583-101	B3325-401	B3559-401	B3584-101	B3560-401	B3586-101	B3477-1
B3162-402	B3583-102	B3325-402	B3559-402	B3584-102	B3560-402	B3560-102	B3477-2
B3162-403	B3583-103	B3325-403	B3559-403	B3584-103	B3560-403	B3586-103	B3477-3
B3162-404	B3583-104	B3325-404	B3559-404	B3584-104	B3560-404	B3586-104	B3477-4
B3162-405	B3583-105	B3325-405	B3559-405	B3584-105	B3560-405	B3586-105	
B3162-406	B3583-106	B3325-406	B3559-406	B3584-106	B3560-406	B3586-106	
B3162-407	B3583-107	B3325-407					
B3162-408	B3583-108	B3325-408					
B3162-409	B3583-109						
B3162-410	B3583-110						
B3162-411	B3583-111						
B3162-412	B3583-112						

#### \*\* NOZZLE LENGTH ON SPRAY MODELS

#### SEALS

8 inch length standard, other lengths available on request

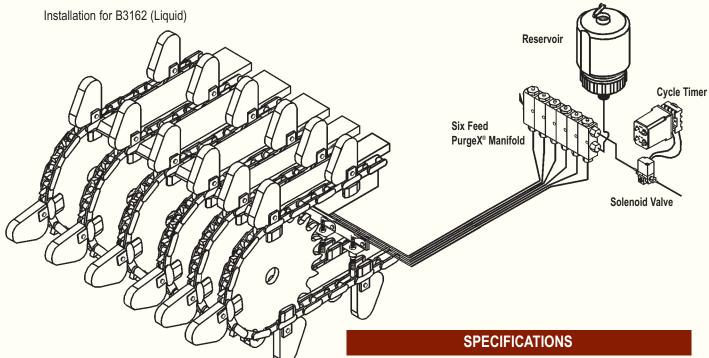
## AIR OPERATED, LIQUID OR GREASE DELIVERY

The B3162-100 & 300 series of PurgeX<sup>®</sup> is air operated and designed for use with a wide variety of liquids and lubricating oils. The B3162-400 series of PurgeX<sup>®</sup> is air operated and designed for grease delivery. A remote, pressurized grease reservoir is used to deliver grease to the PurgeX<sup>®</sup> pump. An internal ball check in the outlet port permits pressurized delivery of the grease to the PurgeX<sup>®</sup> pump. PurgeX<sup>®</sup> pumps are quality engineered, manufactured, provide simplicity of operation, and are reliable over long periods of time (over 360,000,000 cycles have been achieved). Precise volumetric delivery is achieved with a positive displacement design and adjustment capability.

- Air pressure from 3-way solenoid valve begins lubrication cycle.
- When the air pressure is removed, the internal piston and evacuation valve retract, drawing liquid into the pumping chamber with a vacuum of 20-25" HG, preventing any after-drip of liquid.
- A 9:1 ratio of the air side to the lube side of the piston provides reliable delivery in all typical applications.
- For applications with multiple feed points, the PurgeX<sup>®</sup> is supplied in a manifold with common air and liquid or grease inlet ports, using the Threadapter<sup>®</sup> connector. Each PurgeX<sup>®</sup> in the manifold operates as an individual pump with a separate adjustment for lubricant delivery per cycle.
- PurgeX<sup>®</sup> pump delivers small amounts of liquid/grease per cycle and can be rapid cycled for greater volumes or is excellent for high speed applications.



#### TYPICAL INSTALLATION

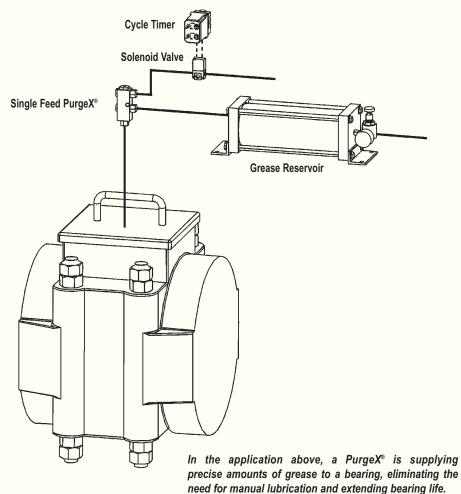


In the application shown above, the PurgeX® system is used to lubricate chains in a packaging operation. Small amounts of liquid are precisely delivered, eliminating package contamination in this process. The basic requirements include only a lubricant reservoir, 3-way solenoid valve, cycle timer or sequence signal, tubing and fittings.

SPECIFICATIONS					
Air pressure	40-120 psi				
Body	Anodized aluminum alloy (other materials available)				
Seals	Buna-N & Viton <sup>®</sup> (other materials available)				
Liquid/Grease delivery per cycle	0 to .012 cu. in., adjustable				
Temperature range	-15° F to 180° F				
Piston ratio	9:1				
Piston diameter & stroke	.250 dia. by .250 stroke (inches)				
Grease type	Grade 00, 0, 1, 2				

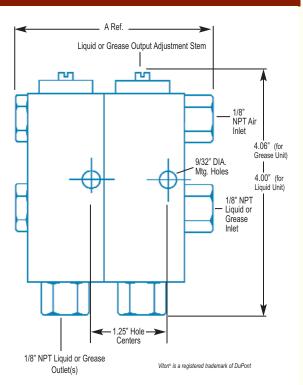
- Installation for B3162 (Grease)
- 1. Determine number of lubrication points and select corresponding PurgeX<sup>®</sup> model with the correct number of feeds.
- 2. Select liquid or grease reservoir with appropriate capacity.
- 3. Select a 3-way solenoid operated air valve to turn lubrication cycle on and off.
- 4. Select a timer or use machine controls to signal solenoid valve.
- 5. Select tubing and fittings.

See pages 19 and 20 for accessory model numbers



#### **SELECTION CHART**

Ca	Catalog Numbers				
Buna-N seals	Viton <sup>®</sup> seals	Grease	No. of Feeds	A Ref.	
B3162-101	B3162-301	B3162-401	1	2	
B3162-102	B3162-302	B3162-402	2	3-1/4	
B3162-103	B3162-303	B3162-403	3	4-1/2	
B3162-104	B3162-304	B3162-404	4	5-3/4	
B3162-105	B3162-305	B3162-405	5	7	
B3162-106	B3162-306	B3162-406	6	8-1/4	
B3162-107	B3162-307	B3162-407	7	9-1/2	
B3162-108	B3162-308	B3162-408	8	10-3/4	
B3162-109	B3162-309	B3162-409	9	12	
B3162-110	B3162-310	B3162-410	10	13-1/4	
B3162-111	B3162-311	B3162-411	11	14-1/2	
B3162-112	B3162-312	B3162-412	12	15-3/4	

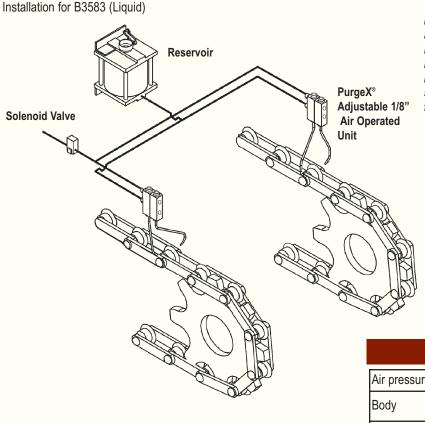


## ULTRA-MICRO OUTPUT PurgeX<sup>®</sup> ADJUSTABLE AIR OPERATED, with 1/8" PISTON

The B3583 series of PurgeX<sup>®</sup> is air operated and designed for liquid or grease delivery. With ultra-fine adjustability, the single piece 1/8" piston allows precise metering of very small volumes of liquid or grease. The patented 1/8" version will help preserve liquid supplies, dispense high cost synthetic lubricants more efficiently and aid in pollution prevention. Quality engineering and manufacturing provide simplicity of operation and reliability over long periods of time. Precise volumetric delivery is achieved with a positive displacement design and adjustment capability.

- Air pressure from 3-way solenoid valve begins lubrication cycle.
- High output pressures can be achieved due to a 25:1 ratio from air inlet to liquid outlet.
- Operation is simple. Liquid is pulled from a reservoir to the PurgeX<sup>®</sup> pump due to vacuum generated by pump. Reservoir location is not critical since each PurgeX<sup>®</sup> pump is a self-contained injector that can operate in any orientation.
- For applications with multiple feed points, the PurgeX<sup>®</sup> is supplied in a manifold with common air and liquid/grease inlet ports, using the Threadapter<sup>®</sup> connector. Each PurgeX<sup>®</sup> in the manifold operates as an individual pump with a separate adjustment for lubricant delivery per cycle.
- PurgeX<sup>®</sup> with ultra-micro output can be used with a wide range of liquids or chemicals that demand critical flow control.

#### TYPICAL INSTALLATION



In the application shown, PurgeX<sup>®</sup> with ultra-micro adjustment delivers precise amount of liquid to a chain lubrication system, eliminating the need for manual lubrication and extending chain life. The basic requirements include only a lubricant reservoir, 3-way solenoid valve, cycle timer or sequence signal, tubing and fittings.

AT. NO. 6,099,270 5,984,652

**B3583** 

4,784,578

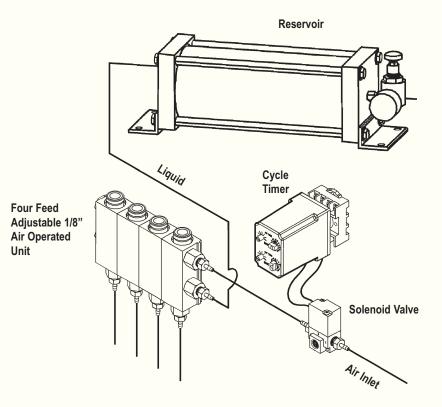
SPECIFICATIONS						
Air pressure	40-120 psi					
Body	Anodized aluminum alloy (other materials available)					
Seals	Buna-N & Viton <sup>®</sup> (other materials available)					
Liquid/Grease delivery per cycle	0 to .0012 cu. in., adjustable					
Temperature range	-15° F to 180° F					
Piston ratio	25:1					
Piston diameter & stroke	.125 dia. by .100 stroke (inches)					
Grease type	Grade 00, 0, 1, 2					

DEDICIOATIONO

Installation for B3583 (Grease)

- Determine number of lubrication points and select corresponding PurgeX<sup>®</sup> model with the correct number of feeds.
- 2. Select a reservoir with appropriate capacity.
- 3. Select a 3-way solenoid operated air valve to turn lubrication cycle on and off.
- 4. Select a timer or use machine controls to signal solenoid valve.
- 5. Select tubing and fittings.

See pages 19 and 20 for accessory model numbers



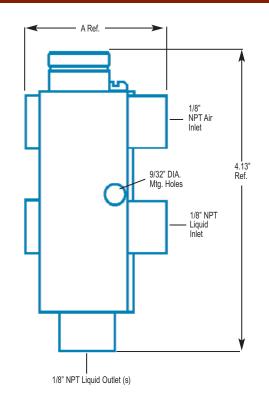
In the application shown, PurgeX<sup>®</sup> with

ultra-micro adjustment delivers precise amount of grease to a lubrication system, eliminating

the need for manual lubrication.

#### **SELECTION CHART**

Catalog N	Numbers	No. of	A
Buna-N Seals	Viton <sup>®</sup> Seals	Feeds	Ref.
B3583-101	B3583-301	1	2
B3583-102	B3583-302	2	3-1/4
B3583-103	B3583-303	3	4-1/2
B3583-104	B3583-304	4	5-3/4
B3583-105	B3583-305	5	7
B3583-106	B3583-306	6	8-1/4
B3583-107	B3583-307	7	9-1/2
B3583-108	B3583-308	8	10-3/4
B3583-109	B3583-309	9	12
B3583-110	B3583-310	10	13-1/4
B3583-111	B3583-311	11	14-1/2
B3583-112	B3583-312	12	15-3/4



Viton<sup>®</sup> is a registered trademark of DuPont

## 1/8" AND 1/4" AIR OPERATED, SPRAY DELIVERY, FOR LIQUID OR GREASE

PurgeX<sup>®</sup> is an excellent way to spray both liquid or grease at the desired point. Separate controls for both the air and lubricant delivery are provided. The lubricant and the air mix at the nozzle tip to maximize delivery efficiency. Quality engineering and manufacturing provide simplicity of operation and reliability over long periods of time. Precise volumetric delivery is achieved with a positive displacement design and adjustment capability.

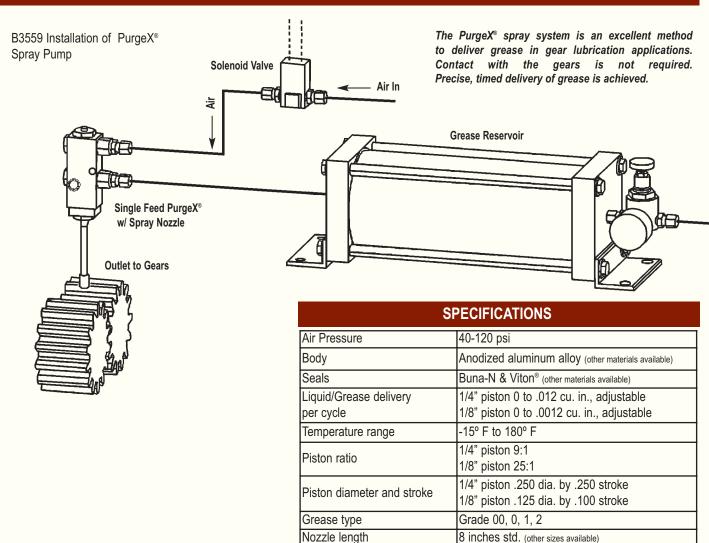
- Air pressure from 3-way solenoid valve begins lubrication cycle.
- When the air pressure is removed, the internal piston and evacuation valve retract, allowing liquid or grease to enter the pumping chamber.

**B3584** 

**B3559** 

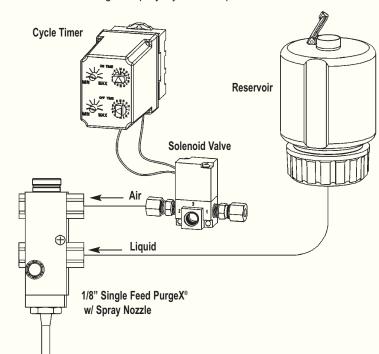
- For applications with multiple feed points, the PurgeX<sup>®</sup> is supplied in a manifold with common air and liquid/grease inlet ports, using the Threadapter<sup>®</sup> connector. Each PurgeX<sup>®</sup> in the manifold operates as an individual pump with a separate adjustment for lubricant delivery per cycle.
- In liquid delivery applications, the air operated design allows use in high cycle speed applications, delivering small amounts of liquid per cycle.
- Integral 8 inch coaxial spray nozzle is flexible yet rigid enough to allow for precise positioning of the nozzle to target. Other lengths are available upon request.

#### **TYPICAL INSTALLATION**



- Determine number of lubrication points and select corresponding PurgeX<sup>®</sup> model with the correct number of feeds.
- 2. Select liquid or grease reservoir with appropriate capacity.
- 3. Select a 3-way solenoid operated air valve to turn lubrication cycle on and off.
- 4. Select a timer or use machine controls to signal solenoid valve.
- 5. Select tubing and fittings.

See pages 19 and 20 for accessory model numbers



B3584 Installation of PurgeX® Spray Injector Pump

Simplicity of design, installation, and maintenance are the trademarks of PurgeX<sup>®</sup>. The basic requirements include only a lubricant reservoir, 3-way solenoid valve, cycle timer or sequence signal, tubing and fittings. The illustration shows a basic system with a single lubricant feed point.

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		<u> </u>	<b>•</b> •••••••••••••••••••••••••••••••••••	

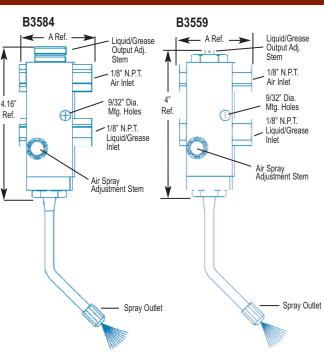
Liquid & Air

Spray Pattern

Flexible Nozzle

					_	
Liquid/Grease Spray 1/8"		Liquid Spray 1/4"		Grease Spray <b>1/4</b> "	No. of Feeds	A Ref.
Buna-N	Viton®	Buna-N	Viton®	Buna-N	1 6603	IXEI.
B3584-101	B3584-301	B3559-101	B3559-301	B3559-401	1	1-31/32
B3584-102	B3584-302	B3559-102	B3559-302	B3559-402	2	3-7/32
B3584-103	B3584-303	B3559-103	B3559-303	B3559-403	3	4-15/32
B3584-104	B3584-304	B3559-104	B3559-304	B3559-404	4	5-23/32
B3584-105	B3584-305	B3559-105	B3559-305	B3559-405	5	6-31/32
B3584-106	B3584-306	B3559-106	B3559-306	B3559-406	6	8-7/32





## **ELECTRIC MOTOR OPERATED, LIQUID DELIVERY**

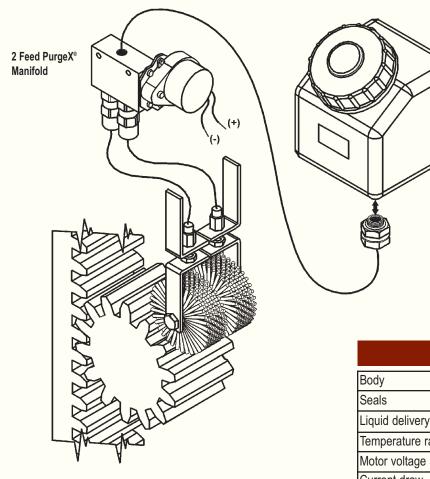
Ultimate in liquid adjustability and output accuracy, the Electric motor operated versions of PurgeX<sup>®</sup> are used in applications where compressed air is not available or where direct interface to machine controls is desired. Lubrication cycles are easily synchronized to machine operation. Quality engineering and manufacturing provide simplicity of operation and reliability over long periods of time. Precise volumetric delivery is achieved with a positive displacement design and adjustment capability.

- With each complete revolution of the motor (RPM), one lubrication cycle occurs, dispensing a maximum of .009 cubic inches (.15 cc's), per feed point.
- Standard motor speed is one revolution per minute. Other motor speeds are available on request.
- Standard voltage is 120V/60Hz and different voltages can also be supplied.
- Single piece piston pump provides the ultimate in liquid adjustability and output accuracy. The pump is electrically driven and requires no other external energy source.



#### **TYPICAL INSTALLATION**





In this lubrication application, using only a reservoir, a PurgeX<sup>®</sup> pump and nylon brushes, liquid is delivered to a pinion gear. The brushes disperse the liquid over the entire surface area of the gears.

Reservoir

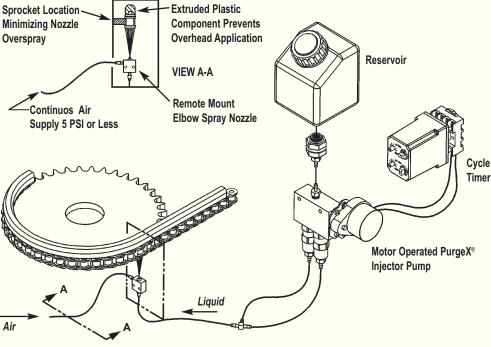
SPECIFICATIONS				
Body	Anodized aluminum alloy (other materials available)			
Seals	Buna-N & Viton <sup>®</sup> (other materials available)			
Liquid delivery per cycle	0 to .009 cu. in., adjustable			
Temperature range	-15° F to 120° F			
Motor voltage	120V/60Hz (other voltages available)			
Current draw	.025 amps at 120 volts			
Motor speed	1 RPM (other speeds available)			

Installation for B3429 (Liquid)

- 1. Determine number of lubrication points and select corresponding PurgeX<sup>®</sup> model with the correct number of feeds.
- 2. Select liquid reservoir with appropriate capacity.
- 3. Use machine controls or other remote signal to provide power to electric motor. (Cycle rate is continuous as long as power is supplied to the motor.)
- 4. Standard, 1 RPM motor. Other speeds available upon request.
- 5. Select tubing and fittings.

See pages 19 and 20 for accessory model numbers

#### **SELECTION CHART**

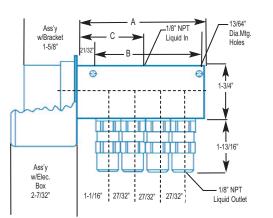


In this lubrication application, using only a reservoir, a PurgeX<sup>®</sup> motor pump and a cycle timer, the liquid is being delivered to a horizontal chain drive.

#### Motor Driven

Catalog Number (AC)		(DC)		No. of	A	В	С
W/Bracket	W/Elec. Box	W/Bracket	W/Elec. Box	Feeds			
B3429-1	B3429-11	B3473-1	B3473-11	1	1-5/8	25/32	1-1/16
B3429-2	B3429-12	B3473-2	B3473-12	2	2-15/32	1-9/16	1-1/2
B3429-3	B3429-13	B3473-3	B3473-13	3	3-5/16	2-3/8	1-15/16
B3429-4	B3429-14	B3473-4	B3473-14	4	4-5/32	3-3/16	2-5/16

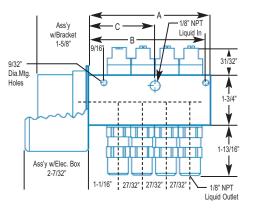
Air



#### **External Adjustment Motor**

	Catalog Number (AC External Adjustment)		Catalog Number (DC External Adjustment)		A	В	С
W/Bracket	W/Elec. Box	W/Bracket	W/Elec. Box	Feeds			
B3474-1	B3474-11	B3475-1	B3475-11	1	2-19/32	1-7/8	1-1/2
B3474-2	B3474-12	B3475-2	B3475-12	2	2-19/32	1-7/8	1-1/2
B3474-3	B3474-13	B3475-3	B3475-13	3	3-15/32	2-3/4	2-11/32
B3474-4	B3474-14	B3475-4	B3475-14	4	4-9/32	3-9/16	2-11/32

Viton<sup>®</sup> is a registered trademark of DuPont



## AIR AND ELECTRIC MOTOR OPERATED WITH INTEGRAL GREASE RESERVOIR

Entirely engineered and precision manufactured in the USA, these grease pump systems employ the patented PurgeX<sup>®</sup> technology and will dispense an accurate volume each cycle. The metering systems can be used with a wide range of greases that demand critical flow control. Grease is supplied from a rugged fiberglass reservoir to the pump. An air signal pulses the single piece piston causing a pre-determined amount of grease to be ejected. Location of the meter is not critical as the meter can be mounted in any orientation. For safety purposes, a relief valve is incorporated into the injector Each PurgeX<sup>®</sup> operates as an block. individual pump and is available in single feed or multiple feed manifolds.





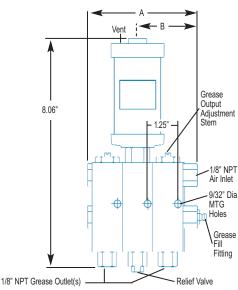
 For applications with multiple feed points, the Threadapter<sup>®</sup> is a fastener for securing the two pumps together, which allows fluid communication in the manifold. This exclusive and unique feature allows the option of changing the units in the field by merely adding additional pumps.

SPECIFICATIONS			
Air Pressure	40-120 psi		
Body	Anodized aluminum alloy (other materials available)		
Seals	Buna-N & Viton <sup>®</sup> (other materials available)		
Grease delivery per cycle (air operated models)	1/4" piston 0 to .012 cu. in., adjustable 1/8" piston 0 to .0012 cu. in., adjustable		
Grease delivery per cycle (electric motor operated models)	1/4" piston 0 to .009 cu. in., adjustable		
Temperature range	-15° F to 180° F (air operated models) -15° F to 120° F (elec. mtr. operated)		
Piston ratio (air operated models)	1/4" piston 9:1 1/8" piston 25:1		
Motor voltage	120V/60Hz (other voltages available)		
Current draw	.025 amps at 120 volts		
Motor speed	1 RPM (other RPM's available)		
Nozzle length	8 inches (other sizes available)		
Grease type	Grade 00, 0, 1, 2		

#### SELECTION CHART

#### AIR OPERATED, 1/4" PISTON

Catalog No.	No. of Feeds	А	В
B3325-401	1	3-1/4	2-3/8
B3325-402	2	4-1/2	2-3/8
B3325-403	3	5-3/4	3-5/8
B3325-404	4	7	3-5/8
B3325-405	5	8-1/4	4-7/8
B3325-406	6	9-1/2	4-7/8
B3325-407	7	10-3/4	6-1/8
B3325-408	8	12	6-1/8



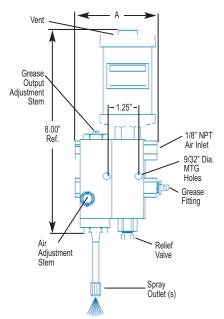
- 1. Determine number of lubrication points and select corresponding PurgeX<sup>®</sup> model with the correct number of feeds.
- 2. If air operated, select a 3-way solenoid operated air valve to turn lubrication cycle on and off. Select a timer or use machine controls to signal solenoid valve.
- 3. If electric motor operated, use machine controls or other remote signal to provide power to electric motor. (Cycle rate is continuous as long as power is supplied to the motor.) Standard, 1 RPM motor. Other speeds available.
- 4. Select tubing and fittings.

See pages 19 and 20 for accessory model numbers

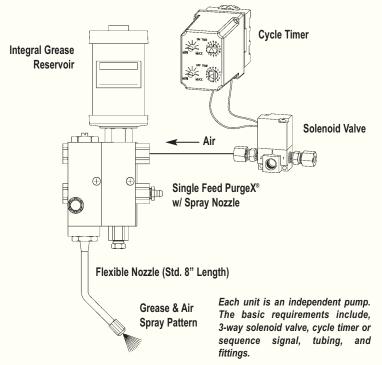
#### SELECTION CHART

#### AIR OPERATED SPRAY, 1/4" OR 1/8" PISTON

Catalog No. 1/4" Spray Grease	Catalog No. 1/8" Spray Grease Buna-N seals (not shown)	Catalog No. 1/8" Spray Grease Viton <sup>®</sup> seals (not shown)	No. of Feeds	A
B3560-401	B3586-101	B3586-301	1	3-7/32
B3560-402	B3586-102	B3586-302	2	4-15/32
B3560-403	B3586-103	B3586-303	3	5-23/32
B3560-404	B3586-104	B3586-304	4	6-31/32
B3560-405	B3586-105	B3586-305	5	8-7/32
B3560-406	B3586-106	B3586-306	6	9-15/32



Installation for B3560 (Grease Spray)



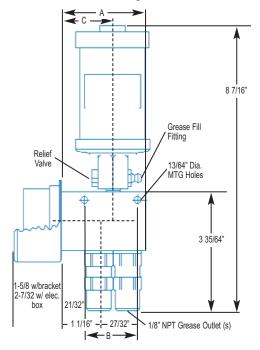
#### SELECTION CHART

#### **ELECTRIC MOTOR OPERATED**

Catalog No.	No. of Feeds	А	В	С
B3477-1	1	1-5/8	25/32	1-1/16
B3477-2	2	2-15/32	1-9/16	1-1/2
B3477-3	3	3-5/16	2-3/8	1-15/16
B3477-4	4	4-5/32	3-3/16	2-5/16

**Consult factory:** 

1. Other AC and DC motor voltages and RPM'S available.



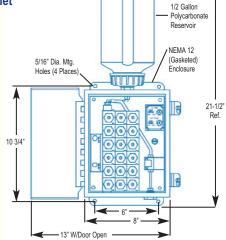
## THE SIX PACK "READY TO GO" LUBRICATION SYSTEM

The Six Pack system from Oil-Rite<sup>®</sup> provides simplicity and convenience in one easy to use package. Each system is equipped with a bank of air operated PurgeX<sup>®</sup> pumps. A solid state timer controls the "on" and "off" times of the delivery cycle through a 3-way solenoid valve. All components are wired and plumbed to a back plate that is enclosed in a hinged door NEMA 12 enclosure, protecting components from the environment. A rugged 1/2 gallon crystal clear polycarbonate reservoir with a hinged lid mounted on top, feeds the system and allows for visual confirmation of the fluid level. This system proves a valuable solution for many applications. Each pump operates independently, allowing for individual adjustment of flow to each lube point. This precise delivery allows for efficient use of expensive fluids as well as virtually eliminating any excess fluid entering the environment.

- No Priming Necessary-Positive Inlet Suction
- · Purges entrained air-will not vapor lock
- Suck-Back feature (no after drip) from outlet
- Vacuum of 20"-25" Hg generated on fluid inlet

Catalog No.	Description		
B3471-106	6 point lubrication system		
B3471-112	12 point lubrication system		
B3471-118	18 point lubrication system		

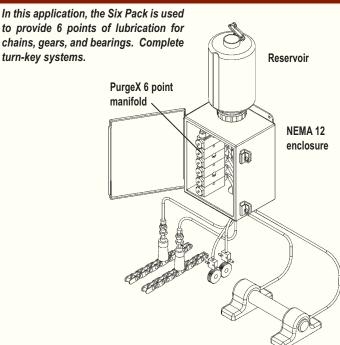
SELECTION CHART





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B3471
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#### **TYPICAL INSTALLATION**

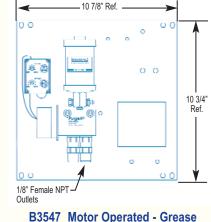


SPECIFICATIONS			
Air pressure	40-120 psi		
Seals	Buna-N & Viton <sup>®</sup> (other seals available)		
Liquid delivery per cycle 0 to .012 cu. in., adjustable			
Temperature range	-15º F 180º F		
Piston ratio	9:1		
Piston diameter and stroke .250 dia by .250 stroke (inches)			
Reservoir capacity 1/2 gallon (other capacities available)			
Voltage requirement 120V/60Hz (other voltages available)			
Enclosure	NEMA 12		

## **QUICK PACK®** CENTRALIZED LUBRICATION SYSTEMS

The Quick Packs<sup>®</sup> are economically priced and easy to install. Supplied with an easy to fill reservoir, fully adjustable cycle timer and rugged mounting plate, these units are suitable wherever accuracy, simplicity and economy are required. The Quick Pack<sup>®</sup> units are available in both air and motor operated systems for liquid or grease in banks of 2 to 36 connected pumps. Controlled by a repeat cycle timer, PurgeX<sup>®</sup> pumps immediately deliver the liquid or grease from a central reservoir to the point of application. Complete turn-key systems.

SELECTION CHARTS:					
Lubricant Liquid Delivery Grease Delivery					
Power Source	Air Operated			Motor Operated	
Reservoir Cap.	Quart or Pint	Quart or Pint	1.5 oz. Integral	1.5 oz. Integral	
Number of Feeds					
2	B3544-102	B3545-102	B3546-102	B3547-102	
4	B3544-104	B3545-104	B3546-104	B3547-104	





B3544 Air Operated - Liquid



**B3545 Motor Operated - Liquid** 

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B3546 Spring Operated Reservoir - Grease

# 2 B3544-102 B3545-102 B3546-102 B3547-102 J/8" Female NPT Outlets 4 B3544-104 B3545-104 B3546-104 B3547-104 B3547 Moto SPECIFICATIONS: Air pressure (air operated) 40-120 psi Body Aluminum Alloy (other materials available) Seals Buna-N & Viton® (other materials available) Temperature range -15° F to 180° F (air operated)

 Temperature range
 -15° F to 180° F (air operated) -15° F to 120° F (motor operated)

 Piston ratio
 9:1

 Motor voltage
 120V/60Hz (other voltages available)

 Motor speed
 1 RPM (other speeds available)

 Grease type
 Grade 00, 0, 1, 2

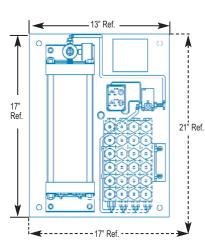
 Reservoir capacity
 1 quart, 1 pint, Integral 1.5 oz., 1/2 gallon

 Components
 Brass, Stainless Steel, Aluminum, Delrin, Plated Steel

#### ADJUSTABLE AIR OPERATED RESERVOIR - GREASE



B3538 Adj. Air Operated Reservoir - Grease



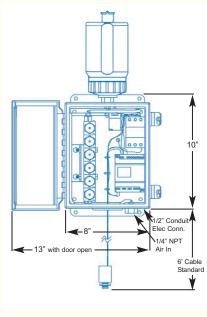
Lubricant Type	Grease Delivery
Power Source	Air Operated
Delivery Method	1/8" NPT
Reservoir Cap.	1/2 GAL.
Number of Feeds	
6	B3538-106
12	B3538-112
18	B3538-118
24	B3538-124
30	B3538-130
36	B3538-136

Dotted Lines - Showing Reference Measurements for 30 thru 36 Feed Mounting Plate

#### 17

## **INFRARED LUBRICATION SYSTEM**

New PurgeX<sup>®</sup> Infrared Lubrication System reduces lubricant expenses up to 60%. This unit provides an infrared photo sensor which handles high speed applications and has a quick easy access to sensitivity adjustment. These unique features along with Oil-Rite PurgeX<sup>®</sup> injector pumps will reduce fluid usage, help minimize potential accidents and contamination due to over lubrication. Convenient air, liquid, and electrical connections provide quick installation and ease of maintenance. Electrical source requirement: 100-240 VAC 50/60Hz.



NOTE: Reservoir capacities available: Pint, Quart, 1/2 Gallon, 1 Gallon.

\* Consult Oil-Rite for custom assemblies and special seal materials, NEMA enclosures, or photo sensor cable lengths.

Viton<sup>®</sup> is a registered trademark of DuPont



#### SPECIFICATIONS

B3651

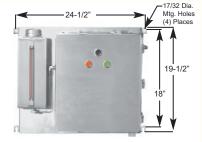
SECIFICATIONS			
Air Pressure 40 to 120 psi			
Seals	Buna-N or Viton <sup>®</sup> (other seals available)		
Liquid delivery per cycle	0 to .012 in <sup>3</sup> , adjustable		
Infrared Photo Sensor Sp	pecifications		
Sealed Housing	IP - 67 Standard		
Pressure	1200 psi Max. Wash-Down		
Speed	300µs Response time handles high		
opeed	speed applications		
Cover	Allows quick access to Sensitivity		
0000	Adjustment		

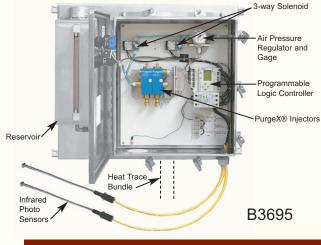
## **COLD WEATHER SYSTEM**

New PurgeX<sup>®</sup> Sub Zero<sup>™</sup> Lubricator can deliver very small amounts of lubricant with each cycle of the pump at storage temperatures ranging from -40 to 158°F. These unique features along with Oil-Rite PurgeX<sup>®</sup> injector pumps will reduce fluid usage, help minimize potential accidents and contamination due to over lubrication. The Sub Zero<sup>™</sup> Lubricator helps reduce lubrication expenses up to 60%. Electrical source requirement: 100-240 VAC 50/60Hz.



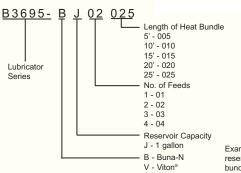
Patent Pending





SPECIFICATIONS			
Air Pressure	40 to 120 psi		
Seals	Buna-N or Viton <sup>®</sup> (other seals available)		
Liquid delivery per cycle	0 to .012 in <sup>3</sup> , adjustable		
Temperature range	-40° - 158° F Storage Temp		
	23° - 131° F Operating Temp		
Power Supply	100 to 240 VAC 50/60 Hz		
	24 VDC 15 Watt		
Battery	10 - year battery data backup		
Enclosure & Reservoir	304 Stainless Steel		

#### ORDERING EXAMPLE:



Example is showing Buna-N seals, 1 gallon reservoir, 2 feeds and 25 feet of trace bundle  $% \left( {\left[ {{{\rm{B}}_{\rm{B}}} \right]_{\rm{B}}} \right)$ 

\* Consult Oil-Rite for custom lengths and special seal materials, NEMA enclosures, or photo sensor cable lengths. Vitor\* is a registered trademark of DuPont

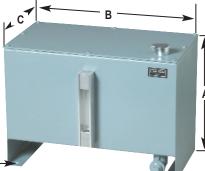
## ACCESSORIES

#### STEEL RESERVOIR

#### Specifications:

- Tank Steel, Painted
- Cover Steel, Painted
- Level Gage Aluminum
- Filler Cap Steel, Plated

(4) 17/32" Dia. Mtg. Holes —



#### SELECTION CHART

Catalog No.	Cap.	А	В	С
B770-1	1 gal.	10	6	7-1/2
B770-2	2 gal.	10	10	7-1/2
B770-3	3 gal.	10	14	7-1/2
B774-2	5 gal.	11-1/2	16	10
B773-4	10 gal.	15	20	12



#### ACRYLIC RESERVOIR

#### Specifications:

- Reservoir Clear Acrylic
- Covers Aluminum Alloy
- Mtg. Brackets Aluminum Alloy
- Seals Buna-N
- (Other seal materials available)
- Filter Optional
- 1/8" NPT Female Outlet

#### **SELECTION CHART**

Catalog No.	Cap.	A	В
B2886-1	1 Qt.	6-27/32	5-27/32
B2886-2	1/2 Gal.	10-11/32	9-11/32
B2886-3	1 Gal.	15-11/32	14-11/32
B2886-4	2 Gal.	28-11/32	27-11/32

#### POLYCARBONATE RESERVOIR

#### Specifications:

Polypropylene Cap
Polycarbonate Reservoir
Shank — Steel, Plated
Barran
Barran
Barran

#### SELECTION CHART

Catalog No.	Cap.	A	В
B1748-17	2-1/2 oz.	2	4-1/4
B1748-18	5 oz.	2-7/8	4-1/4
B1748-19	9 oz.	2-7/8	5-1/2
B1748-20	1 pt.	3-5/8	6-13/16
B1748-21	1 qt.	3-5/8	10-3/16
B1748-22	1/2 gal.	5	11-1/16
B2747-6	1 pt.	3-1/4	5-9/16
B2747-16	1qt.	4-3/8	6-13/16

#### 1/2 GALLON PRESSURIZED GREASE RESERVOIR



This reservoir uses pressurized air, acting on a piston, to pressurize the grease. The unit is supplied with a built in air regulator and pressure gauge for easy adjustment. The reservoir is designed for 100 PSIG operating pressure. A safety relief valve, on the grease side, is set at 120 PSIG to prevent over-pressurization. Filling the unit through the built in grease fitting is quick and easy. The unit has (3) 1/4" NPT outlets.

#### Specifications:

- Temperature 120° F. Maximum
- Pressure 100 PSI Maximum

SELECTION CHART					
Catalog No.	Capacity	Thread Size	А	В	С
B3109-1	1/2 Gal.		4-13/16	14-1/2	3-5/8
B3109-2	1 Qt.	1/4 Female NPT	4-13/16	10-1/2	3-5/8
B3109-3	1 Gal.		4-13/16	24-1/2	3-5/8

#### **CYCLE TIMER** .6 SECONDS TO 24 HOURS Catalog No. B2685-4



Dual adjustments along with dip switches permit accurate settings for most applications. A chart for switch positioning is printed on timer for ease in selecting time ranges. 120 Volts. 60 Hz standard.

**AIR REGULATOR** Catalog No. B1308-11

(1/8" female NPT)

(1/4" female NPT)

Adjustable 3-30 PSI.

Adjustable 0-130 PSI.

Catalog No. B1308-10

#### AIR GAUGE

Catalog No. B1307-13 0 to 160 PSI

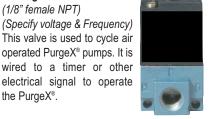
Catalog No. B1307-8 0 to 60 PSI



#### **3-WAY AIR SOLENOID VALVE**

Catalog No. B2684 (1/8" female NPT) (Specify voltage & Frequency) This valve is used to cycle air operated PurgeX<sup>®</sup> pumps. It is

the PurgeX<sup>®</sup>.



#### **3-WAY MECHANICAL AIR VALVE**

Catalog No. B2876-1 (1/8" female NPT) (Normally closed) This valve is used to cvcle air operated PurgeX® pumps. It is operated by cam or another



Brass Elbow

Brass 1/8" NPT

B2720-4

B2720-2

#### SPRAY NOZZLES

mechanical device.

Miniature spray nozzles for remote mounting. Features separate connections for air and liquid. External mix nozzle permits exact control of spray.



Brass Thru B2720-1



Stainless Steel 1/8" NPT B2720-3



Spray Valve Flat Pattern Hex Body 1/8" NPT

Spray Valve Round Pattern Hex Body 1/8" NPT

A2748-1

#### **TUBING AND FITTINGS**

#### **SELECTION CHART** Tubing Catalog No. Description PSI Illus. A4891-8 1/4" OD Polyurethane 125 2 1/4" OD Nylon 250 A4891-9 2 \*A4891-10 1/4" OD Nylon-HP 625@73º F 2 A4207-4 1/4" OD Copper 1000 1 Fittings for PolyurethaneTubing Catalog No. Description Illus.

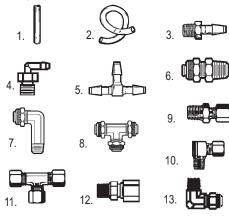
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A4177-45	Straight 1/8" NPT x 1/4" Tubing	3
A4177-55	Elbow 1/8" NPT x 1/4" Tubing	4
A4177-43	Tee 1/4" Tubing	5
		-

#### Fittings for Nylon Tubing

Catalog No.	Description	Illus.
A4173-14	Straight 1/8" NPT x 1/4" Tubing	6
A4173-38	Elbow 1/8" NPT x 1/4" Tubing	7
A4177-5	Tee 1/4" Tubing	8
*A4173-27	Straight 1/8" NPT x 1/4" Tubing-HP	12
*A4173-39	Elbow 1/8" NPT x 1/4" Tubing-HP	13

Fittings for Copper Tubing

Catalog No.	Description	Illus.
A4173-3	Straight 1/8" NPT x 1/4" Tubing	9
A4173-31	Elbow 1/8" NPT x 1/4" Tubing	10
A4177-1 Tee 1/4" Tubing		11
* HP - High Pressure		



#### NYLON BRUSHES

#### SELECTION CHART

CATALOG NO. DESCRIPTION		SIZE
A2048-1	Flat Brush w/mtg. Bracket	2-1/4 x 3/8
A2256-5	Flat Brush w/o Bracket	2-1/4 x 3/8
A2256-1	Round Brush	1/4 Dia.
A2256-2	Round Brush	5/8 Dia.
A2256-3	Round Brush	1 Dia.
A2256-4	Round Brush	1-1/2 Dia.





A2256-5

A2048-1





#### FLOW SIGHT Catalog No. A715

(1/8" female NPT) Sights provide a visual confirmation of flow.



#### SIGHT-RITE™ Catalog No. B3550-1

Highly recommended for applications where visual inspection is critical and liquid output is required. Permits checking of fluid flow at a glance via a green LED light.

Actual Size Shown Patent No. 6.635.836