

Accessory Catalog



"The Pumps with Nine Lives"



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U.S. to Metric Conversion Chart

U.S. Units	Multiply By	Metric Units
Flow (GPM)	3.785	Liters (L/M)
Pressure (PSI)	0.06804	BAR
Weight (oz)	0.02834	Kilogram (kg)
Weight (lbs)	0.45359	Kilogram (kg)
Dimensions (in)	25.4	Dimensions (mm)
Dimensions (ft)	304.8	Dimensions (mm)
Temperature (°F)	$(tf - 32) \div 1.8$	Temperature (°C)

Material Codes used in this catalog:

BB=Brass

FPM=Fluorocarbon (Viton®)

NBR=Medium Nitrile (Buna-N)

PTFE=Polytetrafluoroethylene (Teflon®)

RTP=Reinforced Composite

S=304 Stainless Steel

SS=316 Stainless Steel

Pressure Regulators

7001 • 7002 • 7003



Pressure Regulators

The internal high velocity design assures consistent pressure for multiple pump or shut-off gun installations while the lightweight flow-thru design provides easy installation. Multiple parallel regulators can be installed to handle larger volumes in flow. Any pressure adjustments are easily calibrated with top adjusting nut. Stainless steel wear parts and FPM elastomer construction with no external moving parts or springs.

.100 optional 316 stainless steel.

Flow-Thru-Mount

Specifications	7001	7002	7003
Flow Range [GPM]	0.5-5.0	0.5-5.0	0.5-5.0
Pressure Range [PSI]	100-1000	500-2000	1500-3000
Inlet Port [NPTF]	3/8	3/8	3/8
Outlet Port [NPTF]	3/8	3/8	3/8
By-Pass Port [NPTF]	1/2	1/2	1/2
Weight [lbs.]	2.25	2.25	2.25
Dimensions [in.]	6.25 x 1.5	6.25 x 1.5	6.25 x 1.5

7011 • 7012 • 7013 • 7014



Pressure Regulators

The internal high velocity design assures consistent pressure for multiple pump or shut-off gun installations while the lightweight flow-thru design provides easy installation. Multiple parallel regulators can be installed to handle larger volumes in flow. Any pressure adjustments are easily calibrated with top adjusting nut. Stainless steel wear parts and FPM elastomer construction with no external moving parts or springs.

.100 optional 316 stainless steel.

Flow-Thru-Mount

Specifications	7011	7012	7013	7014
Flow [GPM]	1.0-10.0	1.0-10.0	1.0-10.0	1.0-10.0
Pressure Range [PSI]	100-1000	500-2000	1500-3000	2000-4000
Inlet Port [NPTF]	1/2	1/2	1/2	1/2
Outlet Port [NPTF]	1/2	1/2	1/2	1/2
By-Pass Port [NPTF]	3/4	3/4	3/4	3/4
Weight [lbs.]	3.75	3.75	3.75	3.75
Dimensions [in.]	7.5 x 1.88	7.5 x 1.88	7.5 x 1.88	7.5 x 1.88

7021 • 7022 • 7023



Pressure Regulators

The internal high velocity design assures consistent pressure for multiple pump or shut-off gun installations while the lightweight flow-thru design provides easy installation. Multiple parallel regulators can be installed to handle larger volumes in flow. Any pressure adjustments are easily calibrated with top adjusting nut. Stainless steel wear parts and FPM elastomer construction with no external moving parts or springs.

.100 optional 316 stainless steel.

Flow-Thru-Mount

Specifications	7021	7022	7023
Flow [GPM]	2.5-25.0	2.5-25.0	2.5-25.0
Pressure Range [PSI]	100-1000	500-2000	1500-3000
Inlet Port [NPTF]	3/4	3/4	3/4
Outlet Port [NPTF]	3/4	3/4	3/4
By-Pass Port [NPTF]	1	1	1
Weight [lbs.]	5.0	5.0	5.0
Dimensions [in.]	8.5 x 2.25	8.5 x 2.25	8.5 x 2.25

7028 • 7031 • 7032 • 7033



Pressure Regulators

The internal high velocity design assures consistent pressure for multiple pump or shut-off gun installations while the lightweight flow-thru design provides easy installation. Multiple parallel regulators can be installed to handle larger volumes in flow. Any pressure adjustments are easily calibrated with top adjusting nut. Stainless steel wear parts and FPM elastomer construction with no external moving parts or springs.

.100 optional 316 stainless steel.

Flow-Thru-Mount

Specifications	7028	7031	7032	7033
Flow [GPM]	3.5-35	3.5-35	3.5-35	3.5-35
Pressure Range [PSI]	250-800	700-1000	1000-2000	1500-3000
Max. Temperature [F]	180°	180°	180°	180°
Inlet Port [NPTF]	3/4	3/4	3/4	3/4
Outlet Port [NPTF]	3/4	3/4	3/4	3/4
By-Pass Port [NPTF]	1	1	1	1
Weight [lbs.]	5.5	5.5	5.5	5.5
Dimensions [in.]	8.5 x 2.25	8.5 x 2.25	8.5 x 2.25	8.5 x 2.25

Pressure Regulators

7061 • 7063 • 7073



Pressure Regulators

Offers pump protection against pressure fluctuations and system changes. Maintains full system pressure while running in by-pass. Minimum pressure fluctuations with the alternate use of multiple guns or nozzles. The top adjustment knob and locking nut secures system pressure. Stainless steel and FPM internal parts provide temperature and fluid compatibility. No external moving parts.

Stainless Steel Flow-Thru-Mount

Specifications	7061	7063	7073
Flow Range [GPM]	10-70	10-70	10-70
Pressure Range [PSI]	400-1000	600-1800	1200-2000
Max. Temperature [F]	180°	180°	180°
Inlet Port [NPTF]	1	1	1
By-Pass Port [NPTF]	1-1/4	1-1/4	1-1/4
Weight [lbs.]	6.2	6.2	7.3
Dimensions [in.]	9.1 x 3.43 x 2.38	9.1 x 3.43 x 2.38	9.1 x 3.43 x 2.38

7065 • 7068



Pressure Regulators

Offers pump protection against pressure fluctuations and system changes. Maintains full system pressure while running in by-pass. Minimum pressure fluctuations with the alternate use of multiple guns or nozzles. The top adjustment knob and locking nut secures system pressure. Stainless steel and FPM internal parts provide temperature and fluid compatibility. No external moving parts.

Stainless Steel Flow-Thru-Mount

Specifications	7065	7068
Flow Range [GPM]	10-35	10-35
Pressure Range [PSI]	400-1200	1200-2000
Max. Temperature [F]	180°	180°
Inlet Port [NPTF]	3/4	3/4
By-Pass Port [NPTF]	1	1
Weight [lbs.]	5.2	5.2
Dimensions [in.]	8.12 x 2.75 x 2.75	8.12 x 2.75 x 2.75

7066



Pressure Regulator

Offers pump protection against pressure fluctuations and system changes. Maintains full system pressure while running in by-pass. Minimum pressure fluctuations with the alternate use of multiple guns or nozzles. The top adjustment knob and locking nut secures system pressure. Stainless steel and FPM internal parts provide temperature and fluid compatibility. No external moving parts.

Stainless Steel Tee-Mount

Specifications	7066
Flow Range [GPM]	1-12
Pressure Range [PSI]	3000-5000
Max. Temperature [F]	180°
Inlet Port [NPTF]	1/2
By-Pass Port [NPTF]	3/4
Weight [lbs.]	3.8
Dimensions [in.]	6.7 x 2.5

7070 • 7076 • 7077



Pressure Regulators

Offers pump protection against pressure fluctuations and system changes. Maintains full system pressure while running in by-pass. Minimum pressure fluctuations with the alternate use of multiple guns or nozzles. The top adjustment knob and locking nut secures system pressure. Stainless steel and FPM internal parts provide temperature and fluid compatibility. No external moving parts.

Stainless Steel Tee-Mount

Specifications	7070	7076	7077
Flow Range [GPM]	1-12 *	1-12 *	0.5-5
Pressure Range [PSI]	600-1000	800-1500	100-500
Max. Temperature [F]	180°	180°	180°
Inlet Port [NPTF]	1/4	1/4	1/4
By-Pass Port [NPTF]	3/8	3/8	3/8
Weight [lbs.]	1.2	1.2	1.2
Dimensions [in.]	6.2 x 2.5	6.2 x 2.5	6.2 x 2.5

*As flow increases, low pressure setting increases [@ 4.0 GPM, 100 PSI minimum, @12.0 GPM, 600 PSI minimum].

Pressure Regulators

7080 • 7082



Pressure Regulators

Provides system pressure setting and protection for single or multiple gun, nozzle and pump systems. Immediately returns to system pressure when gun opens. Serves also as a secondary relief valve. Features color coded springs for easy valve identification and change from one pressure rating to another. Compact size and easy installation.

Tee-Mount

Specifications	7080	7082
Flow Range [GPM].....	2.5-7.8	2.5-7.8
Pressure Range [PSI]	150-1450	850-3575
Max. Temperature [F]	160°	160°
Inlet Port [NPTF]	3/8	3/8
Outlet Port [NPTF]	3/8	3/8
By-Pass Port [NPTF].....	3/8	3/8
Weight [lbs.]	1.0	1.0
Dimensions [in.]	3.1 x 2.0 x 6.4	3.1 x 2.0 x 6.4

7085



Pressure Regulator

Provides system pressure setting and protection for single or multiple gun, nozzle and pump systems. Immediately returns to system pressure when gun opens. Serves also as a secondary relief valve.

Tee-Mount

Specifications	7085
Flow Range [GPM].....	1.0-3.7
Pressure Range [PSI]	205-2000
Max. Temperature [F]	195
Inlet Port [BSPM]	1/4
By-Pass Port [BSPF].....	1/8
Hose Barb [in.]	1/2
Weight [lbs.] .....	.30
Dimensions [in.]	3.0 x 1.5 x 1.0

7095 • 7096



Pressure Regulators

Offers pump protection against pressure fluctuations and system changes. Maintains full system pressure while running in by-pass. Minimum pressure fluctuations with the alternate use of multiple guns or nozzles. The top adjustment knob and locking nut secures system pressure. Stainless steel and FPM internal parts provide temperature and fluid compatibility. No external moving parts.

Stainless Steel Flow-Thru-Mount

Specifications	7095	7096
Flow Range [GPM].....	10-75	10-75
Pressure Range [PSI]	400-1000	1000-2000
Max. Temperature [F]	180°	180°
Inlet Port [NPTF]	1	1
By-Pass Port [NPTF].....	1-1/4	1-1/4
Weight [lbs.]	6.2	6.2
Dimensions [in.]	9.1 x 3.43 x 2.38	9.1 x 3.43 x 2.38

Pressure Regulating Unloaders

7500S • 7600S



Pressure Regulating Unloaders

This ultra compact unloader maintains set system pressure yet unloads to near zero in by-pass. Pressure sensitive feature gives immediate pressure when gun opens, permits low pressure by-pass and reduces horsepower. Optional chemical injector threads directly into unloader.

7500XS [with barb for by-pass hose]
2SFX.

2SF and 4SF Pumps

Specifications

	7500S	7600S
Flow Range [GPM].....	0.5-6.0	2.0-5.0
Pressure Range [PSI]	100-2000	700-3500
Max. Temperature [F]	160°	160°
Inlet Port [NPTM]	3/8	3/8
Outlet Port [NPTM].....	3/8	3/8
By-Pass Port [NPTF].....	3/8	3/8
Weight [oz.].....	14	21.4
Dimensions [in.]	3.0 x 1.0 x 4.25	3.25 x 1.0 x 4.81

7531 • 7533 • 7536



Pressure Regulating Unloaders

Maintains full system pressure while running in by-pass with minimum load on pump. Offers pump protection against pressure fluctuations and system changes. Minimum pressure fluctuations with alternating use of multiple guns. Color coded spring for easy identification and simple change from one model to another. Multiple ports for convenient mounting. Optional FPM O-Ring kit.

.100 for Relief Valve version.

S.S. Multiple Gun - Pressure Sensitive

Specifications

	7531	7533	7536
Flow Range [GPM]	1-21	1-21	1-21
Pressure Range [PSI]	400-2200	800-4000	3000-5700
Max. Temperature [F]	180°	180°	180°
Inlet Port [NPTF].....	1/2	1/2	1/2
Outlet Port [NPTF]	1/2	1/2	1/2
By-Pass Port [NPTF]	1/2	1/2	1/2
Weight [lbs.].....	2.9	2.9	3.9
Dimensions [in.]	8.75 x 3.75 x 1.75	8.75 x 3.75 x 1.75	8.75 x 3.75 x 1.75

7534 • 7535



Pressure Regulating Unloaders

Maintains full system pressure while running in by-pass without full load on pump. Offers pump protection against pressure fluctuations and system changes. Minimum pressure fluctuations with alternating use of multiple guns. Color coded spring for easy identification and simple change from one model to another. Multiple ports for convenient mounting. Optional FPM O-Ring kit.

.100 for Relief Valve version.

Brass Multiple Gun - Pressure Sensitive

Specifications

	7534	7535
Flow Range [GPM].....	1-21	1-21
Pressure Range [PSI]	400-2200	800-4000
Max. Temperature [F]	180°	180°
Inlet Port [NPTF].....	1/2	1/2
Outlet Port [NPTF]	1/2	1/2
By-Pass Port [NPTF].....	1/2	1/2
Weight [lbs.]	2.9	2.9
Dimensions [in.]	8.75 x 3.75 x 1.75	8.75 x 3.75 x 1.75

7538 • 7539 • 7540 • 7541



Pressure Regulating Unloaders

Flow sensitive feature eliminates pressure in the line while in by-pass. Unique flow calibrated by-pass barb eliminates pressure spikes in the by-pass line. Provides system pressure setting and protection for single gun and pump [non-weep] installation. Unique balanced piston permits precise pressure adjustment. All stainless steel or brass internal parts and no external moving parts.

Single Gun - Flow Sensitive

Specifications

	7538	7539	7540	7541
Flow Range [GPM].....	2.0-3.0	3.0-4.0	4.0-5.5	5.5-7.0
Pressure Range [PSI]	400-1450	400-1450	400-1450	400-1450
Max. Temperature [F]	160°	160°	160°	160°
Inlet Port [NPTF]	3/8	3/8	3/8	3/8
Outlet Port [NPTM].....	1/2	1/2	1/2	1/2
By-Pass Port [NPTM].....	3/4	3/4	3/4	3/4
Weight [lbs.]	1.75	1.75	1.75	1.75
Dimensions [in.]	3.5 x 5.5	3.5 x 5.5	3.5 x 5.5	3.5 x 5.5

Pressure Regulating Unloaders

7544 • 7545 • 7546



Pressure Regulating Unloaders

Flow sensitive feature eliminates pressure in the line while in by-pass. Unique flow calibrated by-pass barb eliminates pressure spikes in the by-pass line. Provides system pressure setting and protection for single gun and pump [non-weep] installation. Unique balanced piston permits precise pressure adjustment. All stainless steel or brass internal parts and no external moving parts.

Single Gun - Flow Sensitive

Specifications	7544	7545	7546
Flow Range [GPM]	3.0-4.0	4.0-6.6	6.6-10.6
Pressure Range [PSI]	1000-3000	1000-3000	1000-3000
Max. Temperature [F]	160°	160°	160°
Inlet Port [NPTF]	3/8	3/8	3/8
Outlet Port [NPTM]	1/2	1/2	1/2
By-Pass Port [NPTM]	3/4	3/4	3/4
Weight [lbs.]	2.60	2.60	2.60
Dimensions [in.]	4.0x6.0	4.0x6.0	4.0x6.0

7557 • 7558 • 7559 • 7560



Pressure Regulating Unloaders

Flow sensitive feature eliminates pressure in the line while in by-pass. Unique flow calibrated by-pass barb eliminates pressure spikes in the by-pass line. Provides system pressure setting and protection for single gun and pump [non-weep] installation. Unique balanced piston permits precise pressure adjustment. All stainless steel or brass internal parts and no external moving parts.

Single Gun - Flow Sensitive

Specifications	7557	7558	7559	7560
Flow Range [GPM]	2.5-3.0	3.0-4.0	4.0-6.6	6.6-10.6
Pressure Range [PSI]	100-3000	100-3000	100-3000	100-3000
Max. Temperature [F]	160°	160°	160°	160°
Inlet Port [NPTF]	3/8	3/8	3/8	3/8
Outlet Port [NPTM]	1/2	1/2	1/2	1/2
By-Pass Port [NPTF]	3/8	3/8	3/8	3/8
Weight [lbs.]	4.8	4.8	4.8	4.8
Dimensions [in.]	3.5x7.5	3.5x7.5	3.5x7.5	3.5x7.5

7580 • 7581



Pressure Regulating Unloaders

Provides system pressure setting and protection for single gun and pump [non-weep] installation. Compact size with optional ports for easy installation. Handle permits easy adjustments of pressure. Pressure sensitive feature permits wide range of flows and immediate pressure when gun opens. Springs are color coded for easy valve identification and simple change from one pressure rating to another.

Single Gun - Pressure Sensitive

Specifications	7580	7581
Flow Range [GPM]	0.5-6.5	0.5-6.5
Pressure Range [PSI]	400-1000	800-2300
Max. Temperature [F]	160°	160°
Inlet Port [NPTM]	3/8	3/8
Outlet Port [NPTM]	3/8	3/8
By-Pass Port [NPTF]	3/8	3/8
Weight [oz.]	14	14
Dimensions [in.]	3.0 x 1.0 x 4.25	3.0 x 1.0 x 4.25

7590



Pressure Regulating Unloader

Maintains system pressure yet unloads to near zero when gun shuts off. Easy external pressure adjustment with locking nut to prevent over pressure. Lightweight flow through design for compact installation.

.100 for Relief Valve version.

High Flow - Multiple Gun - Pressure Sensitive

Specifications	7590
Flow Range [GPM]	10-52
Pressure Range [PSI]	400-2175
Max. Temperature [F]	194°
Inlet Port [NPTF] [Flush Back]	1
Outlet Port [NPTF] [Extended Front]	1
By-Pass Port [NPTF] [Flush Bottom]	1
Weight [lbs.]	7.69
Dimensions [in.]	8.5x5.15x1.77

Pressure Regulating Unloaders

7620



Pressure Regulating Unloader

This ultra-compact unloader provides system pressure setting and protection for single gun and pump [non-weep] installation and unloads to low pressure in by-pass mode.

Standard on 2SFX25GZ and 2SFX30GZ pumps.

Single Gun - Pressure Sensitive

Specifications

Flow Range [GPM].....	0.5-7.8
Pressure Range [PSI]	100-3145
Max. Temperature [F]	194°
Inlet Port [BSPM]	3/8
Outlet Port [BSPF]	3/8
By-Pass Port [BSPF].....	3/8
Auxiliary Port [BSPF]	1/4
Weight [lbs.]	1.22
Dimensions [in.]	3.2x1.5x4.7

7620

7640



Pressure Regulating Unloader

This ultra-compact unloader provides system pressure setting and protection for single gun and pump [non-weep] installation and unloads to low pressure in by-pass mode.

Single Gun - Pressure Sensitive

Specifications

Flow Range [GPM].....	2.0-6.5
Pressure Range [PSI]	400-5000
Max. Temperature [F]	160°
Inlet Port [NPTM]	3/8
Outlet Port [NPTF]	3/8
By-Pass Port [NPTF].....	3/8
Weight [oz.]	28.7
Dimensions [in.]	5.3x3.3x1.7

7640

7655



Pressure Regulating Unloader

This ultra-compact unloader with a built-in by-pass channel maintains set system pressure yet unloads to low pressure in by-pass. Special flow-thru screws permit compact, direct port mounting.

Optional model 7755 with black adjustment handle.

Modular Direct Mount - 5CP, 5DX Pumps

Specifications

Flow Range [GPM].....	2.0-5.0
Pressure Range [PSI]	700-3200
Max. Temperature [F]	160°
Inlet Port [NPTF]	1/2
Outlet Port [NPTF]	3/8
By-Pass Port	Built-in Channel
Weight [oz.]	21.4
Dimensions [in.]	3.25 x 1.5 x 6.37

7655

7659



Pressure Regulating Unloader

This ultra-compact unloader with a built-in by-pass channel maintains set system pressure yet unloads to low pressure in by-pass. Special flow-thru screws permit compact, direct port mounting. Direct mount Quick Start [7102] Valve and Thermo Valve [33920] offer additional system pressure.

Optional model 7759 with black adjustment handle.

Modular Direct Mount with Quick Start Valve and Thermo Valve

Specifications

Flow Range [GPM].....	2.0-5.0
Pressure Range [PSI]	700-3200
Max. Temperature [F]	160°
Inlet Port [NPTF] [Rear]	1/2
Outlet Port [NPTF] [Front].....	3/8
By-Pass Port [Bottom].....	Built-in Channel
Weight [oz.]	21.4
Dimensions [in.]	4.37 x 2.87 x 6.37

7659

Pressure Regulating Unloaders

7670 • 7672



Pressure Regulating Unloaders

Provides system pressure setting and protection for single gun and pump [non-weep] installation. Compact size with optional ports for easy installation. Ergonomic handle permits easy adjustments of pressure. Pressure sensitive feature permits wide range of flows and immediate pressure when gun opens. Springs are color coded for easy valve identification and simple change from one pressure rating to another.

.100 for Relief Valve version.

Single Gun - Pressure Sensitive

Specifications

	7670	7672
Flow Range [GPM].....	2.5-8.0	2.5-8.0
Pressure Range [PSI]	150-1450	850-3200
Max. Temperature [F]	195°	195°
Inlet Port [NPTF]	3/8	3/8
Outlet Port [NPTF]	3/8	3/8
By-Pass Port [NPTF].....	3/8	3/8
Weight [lbs.]	1.7	1.7
Dimensions [in.]	7.0 x 3.12 x 2.0	7.0 x 3.12 x 2.0

7690



Pressure Regulating Unloaders

Provides system pressure setting and protection for single gun and pump [non-weep] installation. Compact size with optional ports for easy installation. Ergonomic handle permits easy adjustments of pressure. Pressure sensitive feature permits wide range of flows and immediate pressure when gun opens.

.100 for Relief Valve version.

Single Gun - Pressure Sensitive

Specifications

	7690
Flow Range [GPM].....	2.5-8.0
Pressure Range [PSI]	1000-4050
Max. Temperature [F]	195°
Inlet Port [NPTF]	3/8
Outlet Port [NPTF]	3/8
By-Pass Port [NPTF].....	3/8
Weight [lbs.]	1.7
Dimensions [in.]	7.0 x 3.12 x 2.0

Pressure Relief Valves

7190



Relief Valve

Provides system pressure setting and acts as a secondary relief when set approximately 200 PSI above primary valve. Protects pump from overpressure.

Flow-Thru, High Pressure

Specifications

Maximum Flow [GPM].....	6.5
Maximum Pressure [PSI]	5000
Maximum Temperature [F].....	194°
Inlet Port [BSPF]	3/8
Outlet Port [BSPF]	3/8
By-Pass Port [BSPF].....	3/8
Weight [oz.].....	16.7
Dimensions [in.]	5.1 x 2.1 x 1.1

7190

7196



Relief Valve

Provides system pressure setting and acts as a secondary relief when set approximately 200 PSI above primary valve. Protects pump from overpressure. Conveniently tees into discharge line.

Tee-Mount, High Pressure

Specifications

Flow Range [GPM].....	1-21
Pressure Range [PSI]	100-7250
Maximum Temperature [F].....	194°
Inlet Port [BSPF]	1/2
Outlet Port [BSPF]	3/8
Weight [lbs.]	3.12
Dimensions [in.]	8.74 x 1.96 x 1.53

7196

30960 • 30961 • 33961 33960 • 33962



Pop-Off Valves

A Pop-Off Valve provides system back-up protection to assure complete pressure relief for maximum pump and system protection. This lightweight, compact valve quickly mounts directly into the discharge line. Features a special, hardened stainless steel seat and "Acetal" needle valve to eliminate weeping.

1/4" Brass

Specifications

	30960	30961	33961
Maximum Flow [GPM]	6.0	6.0	6.0
Pressure Range [PSI]	300-1500	1000-3000	1000-4000
Maximum Temperature [F]	180°	180°	180°
Inlet Port [NPTM]	1/4	1/4	1/4
Barb [in.]	3/4	3/4	3/4
Weight [oz.].....	3.4	3.4	3.4
Dimensions [in.]	0.75 x 2.375	0.75 x 2.375	0.75 x 2.375

3/8" Brass

Specifications

	33960	33962
Maximum Flow [GPM].....	6.0	6.0
Pressure Range [PSI]	300-1500	1000-4000
Maximum Temperature [F].....	180°	180°
Inlet Port [NPTM]	3/8	3/8
Barb [in.].....	3/4	3/4
Weight [oz.].....	3.4	3.4
Dimensions [in.]	0.75 x 2.375	0.75 x 2.375

Pulsation Dampeners

6010



Prrrrr-O-Lator [Pulsation Dampener]

Reinforced NBR bladder for durability. Nitrogen precharge eliminates moisture and bladder deterioration. Sealed valve for positive pressure lock. Convenient bottom port for easy mounting directly onto discharge manifold.

Adjustable precharge capability with optimum precharge at 50 to 60% of working [system] pressure.

Steel - Rechargeable

Specifications

Maximum Flow [GPM].....	40 **	6010
Standard Working Pressure [PSI].....	3000 *	
Precharge [PSI].....	450	
Temperature Range [F].....	+5° to 180° *	
Volume [cu. in.].....	45	
Safety Factor.....	4/1	
Bladder Construction.....	NBR	
Port Size [NPTM].....	1	
Weight [lbs.].....	7.28	
Diameter [in.].....	4.44	
Length [in.].....	7.79	

*Maximum 2500 PSI at 180°F. Do not exceed maximum pump rating.
**Authorized intermittent duty system performance (rated 25 GPM, 3000 PSI).
Add .800 for special precharge or no precharge.

6011 • 6017



Prrrrr-O-Lator [Pulsation Dampener]

Reinforced bladder for durability. Nitrogen precharge eliminates moisture and bladder deterioration. Sealed valve for positive pressure lock. Convenient bottom port for easy mounting directly onto discharge manifold.

Adjustable precharge capability with optimum precharge at 50 to 60% of working [system] pressure.

Rechargeable

Specifications

	Steel 6011	S.S. 6017
Maximum Flow [GPM].....	25 **	15 **
Standard Working Pressure [PSI].....	7200 *	8700
Precharge [PSI].....	3000	3000
Temperature Range [F].....	+5° to 180° *	+5° to 180° *
Volume [cu. in.].....	15	15
Safety Factor.....	4/1	4/1
Bladder Construction.....	NBR	FPM
Port Size [NPTF].....	1/2	1/2
Weight [lbs.].....	6.4	6.4
Diameter [in.].....	4.5	4.5
Length [in.].....	5.59	5.59

*Maximum 6000 PSI at 180°F. Do not exceed maximum pump rating.
**Authorized intermittent duty system performance (rated 10 GPM, 7200 PSI / 10 GPM, 8700 PSI).
Add .800 for special precharge or no precharge.

6012



Prrrrr-O-Lator [Pulsation Dampener]

Reinforced NBR bladder for durability. Nitrogen precharge eliminates moisture and bladder deterioration. Sealed valve for positive pressure lock. Convenient bottom port for easy mounting directly onto discharge manifold.

Adjustable precharge capability with optimum precharge at 50 to 60% of working [system] pressure.

Steel - Rechargeable

Specifications

Maximum Flow [GPM].....	70	6012
Standard Working Pressure [PSI].....	1500 **	
Precharge [PSI].....	450	
Temperature Range [F].....	+5° to 180° *	
Volume [cu. in.].....	120	
Safety Factor.....	4/1	
Bladder Construction.....	NBR	
Port Size [NPTM].....	1-1/4	
Weight [lbs.].....	12.0	
Diameter [in.].....	6.7	
Length [in.].....	8.5	

*Do not exceed maximum pump rating.
**Authorized intermittent duty system performance (rated 40 GPM, 1500 PSI).
Add .800 for special precharge or no precharge.

6013 • 6014 • 6015



Prrrrr-O-Lator [Pulsation Dampener]

Reinforced NBR or FPM bladder for durability. Nitrogen precharge eliminates moisture and bladder deterioration. Sealed valve for positive pressure lock. 316 stainless steel housing for special compatibility. Convenient bottom port for easy mounting directly onto discharge manifold.

Adjustable precharge capability with optimum precharge at 50 to 60% of working [system] pressure.

Stainless Steel - Rechargeable

Specifications

	6013	6014	6015
Maximum Flow [GPM].....	40 **	25 **	70 **
Standard Working Pressure [PSI].....	2000	2400	1500
Precharge [PSI].....	450	450	450
Temperature Range [F].....	+5° to 300° *	+5° to 180° *	+5° to 180° *
Volume [cu. in.].....	45	20	120
Safety Factor.....	4/1	4/1	4/1
Bladder Construction.....	FPM	NBR	NBR
Port Size [NPTM].....	1	3/4	1-1/4
Weight [lbs.].....	7.28	2.9	9.3
Diameter [in.].....	4.44	3.66	6.30
Length [in.].....	7.79	3.70	9.0

*Do not exceed maximum pump rating.
**Authorized intermittent duty system performance (rated 25 GPM / 2000 PSI, 25 GPM / 2400 PSI, 40 GPM / 1500 PSI).
Add .800 for special precharge or no precharge.

Pulsation Dampeners

6028



Prrrrr-O-Lator [Pulsation Dampener]

Reinforced NBR bladder for durability. Nitrogen precharge eliminates moisture and bladder deterioration. Broader bladder design provides greater pulsation reduction for smoother performance and longer system component life. Sealed style operates over full range of system pressures without precharge adjustment.

Steel - Sealed - Precharge

Specifications

Maximum Flow [GPM].....	15
Pressure Range [PSI].....	600-3000
Sealed Precharge [PSI].....	450
Temperature Range [F].....	+5° to 180°*
Volume [cu. in.].....	10
Safety Factor.....	4/1
Body Construction.....	Poly-steel
Bladder Construction.....	NBR
Port Size [NPTM].....	1/2
Weight [lbs.].....	1.81
Diameter [in.].....	2.93
Length [in.].....	4.67

* Do not exceed maximum pump rating.

6029 • 6030 • 6031



Prrrrr-O-Lator [Pulsation Dampeners]

Reinforced NBR or FPM bladder for durability. Nitrogen precharge eliminates moisture and bladder deterioration. Broader bladder design provides greater pulsation reduction for smoother performance and longer system component life. Optional stainless steel and FPM construction for critical applications.

Adjustable precharge capability with optimum precharge at 50 to 60% of working [system] pressure.

Stainless Steel - Rechargeable

Specifications

	6029	6030	6031
Maximum Flow [GPM].....	15	15	15
Pressure Range [PSI].....	100-3000	100-3000	100-2400
Precharge [PSI].....	450	450	450
Temperature Range [F].....	+5° to 180°*	+5° to 180°*	+5° to 180°*
Volume [cu. in.].....	10	10	10
Safety Factor.....	4/1	4/1	4/1
Body Construction.....	316 S.S. Lower	316 S.S. Lower	All 316 S.S.
Bladder Construction.....	NBR	FPM	NBR
Port Size [NPTM].....	1/2	1/2	1/2
Weight [lbs.].....	2.18	2.18	2.18
Diameter [in.].....	2.93	2.93	2.93
Length [in.].....	5.51	5.51	5.51

* Do not exceed maximum pump rating.
Add .800 for special precharge or no precharge.

701501 thru 7701543



Prrrrr-O-Lator [Pulsation Dampeners]

Durable 316 stainless steel bodies. Nitrogen precharge eliminates moisture and bladder deterioration. Replaceable bladder offers greater flexibility and service.

Optional bladder construction:
FPM - 701541, 701542, 701543
EPDM - 701521, 701522, 701523

Adjustable precharge capability with optimum precharge at 70% of working [system] pressure.

Stainless Steel Rebuildable and Rechargeable

Specifications

Specifications	Model - Bladder	Model - Bladder
	701501 - NBR 701541 - FPM 701521 - EPDM	701502 - NBR 701542 - FPM 701522 - EPDM
Maximum Flow [GPM].....	15	25
Pressure Range [PSI].....	100-4300	100-3800
Precharge [PSI].....	per specification*	per specification*
Temperature Range [F].....	+5° to 160°	+5° to 160°
Volume [cu. in.].....	6	15
Safety Factor.....	4/1	4/1
Body Construction.....	316 S.S.	316 S.S.
Port Size [NPTM].....	1/2	1/2
Weight [lbs.].....	5.34	8.34
Diameter [in.].....	2.5	3.0
Length [in.].....	6.57	7.79

* Add .800 for special precharge or no precharge.

Specifications

Specifications	Model - Bladder	Model - Bladder
	701503 - NBR 701543 - FPM 701523 - EPDM	701506 - NBR
Maximum Flow [GPM].....	75	15
Pressure Range [PSI].....	100-3000	100-8500
Precharge [PSI].....	per specification*	per specification*
Temperature Range [F].....	+5° to 160°	+5° to 160°
Volume [cu. in.].....	30	6
Safety Factor.....	4/1	4/1
Body Construction.....	316 S.S.	316 S.S.
Port Size [NPTM].....	1	1/2
Weight [lbs.].....	12.56	10.56
Diameter [in.].....	3.51	3.0
Length [in.].....	9.69	6.92

* Add .800 for special precharge or no precharge.

31096



Shut-Off Gun

Flow-through design makes handling easier. Trim, horizontal design allows for easy trigger operation and comfort while cleaning. Heat resistant Zytel body for internal parts protection and operator comfort. Internal stainless steel ball and seat assembly extends service life. Special safety lock prevents unintentional operation. Notched seat rotates to weep for optional freeze protection.

Industrial - Horizontal

Specifications

Maximum Flow [GPM].....	10
Maximum Pressure [PSI].....	4000
Maximum Temperature [F].....	300°*
Inlet Port [NPTF].....	3/8
Outlet Port [NPTF].....	1/4
Weight [oz.].....	22
Dimensions [in.].....	7.75x4.0x1.13

*Check individual pump specifications. Do not exceed pump maximums.

31250 • 31251 • 31254



Shut-Off Gun

Unique valve design permits a gradual pull on the trigger for gradual build up of pressure. Contour design with fully adjustable front grip provides comfort and safety. Automatic "lock-off" safety mechanism responds if trigger is released unintentionally. Stainless steel internal parts and forged inlet housing for durability.

High Pressure w/Lance Extensions

Specifications

	31250	31251	31254
Maximum Flow [GPM].....	20	20	20
Maximum Pressure [PSI].....	7250	7250	7250
Maximum Temperature [F].....	176°	176°	176°
Inlet Port [NPTF].....	1/2	1/2	1/2
Outlet Port [NPTF].....	1/4	1/4	1/4
Weight [oz.].....	5.81	7.17	13.00
Lance Length [mm].....	400	800	1250
Dimensions [in.].....	8.5 x 24.0	8.5 x 40.0	8.5 x 64.0

31260 • 31265



Shut-Off Gun

New internal body design permits easy trigger pull. Stainless steel valve and seat assure thousands of continuous cycles. Automatic "lock-off" safety mechanism responds if trigger is released unintentionally.

Optional 24" or 36" SS lance [31219, 31220] with insulator and nozzle protector connects directly to gun.

High Pressure - Shutoff

Specifications

	31260	31265
Maximum Flow [GPM].....	8	13
Maximum Pressure [PSI].....	5100	3650
Maximum Temperature [F].....	160°	160°
Inlet Port [BSPF].....	3/8	1/4
Outlet Port [BSPF].....	1/4	1/4
Weight [oz.].....	23.3	23.3
Dimensions [in.].....	8.39x7.94x1.45	8.39x7.94x1.45

32300 • 32301



Dump Gun

A dump gun eliminates the need for regulator or unloader valves, keeping system costs down. It directs flow to outer lance when gun is shut off and eliminates pressure spikes to the the pump. Also acts as a "weep" gun to prevent freezing. Features heavy-duty, durable, stainless steel barrels and internal wear parts for long service life.

Dump Gun

Specifications

	32300	32301
Maximum Flow [GPM].....	10	10
Maximum Pressure [PSI].....	3000	3000
Maximum Temperature [F].....	140°	140°
Inlet Port [NPTF].....	3/8	3/8
Outlet Port [NPTF].....	1/8	1/8
Weight [lbs.].....	2.69	6.81
Dimensions [Lance Only] [in.].....	15	39
Dimensions [Gun and Lance] [in.].....	25	49

33425



Shut-Off Gun

Balanced front load design reduces operator fatigue. Lightweight high impact nylon body for durability. Secure grip and quick release safety lock for operator comfort and safety. Insulated lance extensions offer cleaning flexibility. Conveniently connects to 33200 and 33221 lances and a variety of accessories. Standard on 2X1000, 3X1000 TUFF CATS.

Front Load Shut-off

Specifications

Maximum Flow [GPM]	8.0
Maximum Pressure [PSI]	2900
Maximum Temperature [F]	210°
Inlet Port [BSPF]	3/8
Outlet Port [NPTF]	1/4
Weight [oz.]	9.6
Dimensions [in.]	7.5x6.0x1.2

33425

33600



Shut-Off Gun

Special 303 stainless steel model for additional compatibility. Durable Zytel body with heat resistant Arnite® trigger provides longer life and less breakage. Unique valve design with internal balanced pressure permits extended operation without operator fatigue. Quality construction stainless steel tapered seat and valve assures thousands of continuous cycles.

303SS Pressure Compensating

Specifications

Maximum Flow [GPM]	7.8
Maximum Pressure [PSI]	5800
Maximum Temperature [F]	300°
Inlet Port [NPTF]	3/8
Outlet Port [NPTF]	1/4
Weight [oz.]	29.6
Dimensions [in.]	8.25x5.38x1.25

33600

33700



Dump Gun

A dump gun eliminates the need for regulator or unloader valves, keeping system costs down. It directs flow to dump lance when gun is shut off, eliminating pressure spikes to the pump. Also acts as a "weep" gun to prevent freezing. Features a heavy-duty, durable, stainless steel lance and internal wear parts for long service life.

316SS Dump Gun - High Pressure

Specifications

Maximum Flow [GPM]	25
Maximum Pressure [PSI]	10,000
Maximum Temperature [F]	140°
Inlet Port [NPTF]	1/2
Outlet Port [NPTF]	1/2
Weight [Gun Only] [lbs.]	5.29
Weight [Gun and Lance] [lbs.]	9.75
Dimensions [Gun Only] [in.]	5.0
Dimensions [Lance Only] [in.]	42.5
Dimensions [Gun and Lance] [in.]	47.5

33700

35140 • 35141



Shut-Off Gun

Durable impact resistant housing and trigger means longer life, less breakage. Contour design and smooth trigger action reduces operators fatigue. Quality construction stainless steel ball and seat assures thousands of continuous cycles. Special safety lock prevents unintentional operation.

Standard and Weep

Specifications

	Standard 35140	Weep 35141
Maximum Flow [GPM]	10.0	10.0
Maximum Pressure [PSI]	4000	4000
Maximum Temperature [F]	320°	320°
Inlet Ports [NPTF]	3/8	3/8
Outlet Ports [NPTF]	1/4	1/4
Weight [oz.]	23.4	23.4
Dimensions [in.]	7.2x7.2x1.26	7.2x7.2x1.26

36126



Shut-Off Gun

Special 303 stainless steel model for additional compatibility. Durable high strength, heat resistant body and trigger means longer life, less breakage. Contour design and smooth trigger action reduces operators fatigue. Special safety lock prevents unintentional operation. Quality construction stainless steel ball and seat assures thousands of continuous cycles.

Stainless Steel - Shutoff

Specifications

	36126
Maximum Flow [GPM]	10.5
Maximum Pressure [PSI]	4000
Maximum Temperature [F]	300°
Inlet Ports [NPTF]	3/8
Outlet Ports [NPTF]	1/4
Weight [oz.]	23.4
Dimensions [in.]	8.25x5.38x1.25

36130 • 36131



Shut-Off Guns

Choice of standard or freeze protection "weep" version. Durable Zytel body with new heat resistant Arnite® trigger means longer life, less breakage. Contour design and smooth trigger action reduces operators fatigue. Special safety lock prevents unintentional operation. Quality construction stainless steel ball and seat assures thousands of continuous cycles.

Standard and Weep - Shutoff

Specifications

	Standard 36130	Weep 36131
Maximum Flow [GPM]	10.5	10.5
Maximum Pressure [PSI]	4000	4000
Maximum Temperature [F]	300°	300°
Inlet Ports [NPTF]	3/8	3/8
Outlet Ports [NPTF]	1/4	1/4
Weight [oz.]	23.4	23.4
Dimensions [in.]	8.25x5.39x1.25	8.25x5.39x1.25

Lances

32264 thru 32269



Lances

Lightweight molded lance for sure grip and optimum control. New molded insulator eliminates assembly and adjustment. Optional lengths for flexibility and specialized cleaning.

Zinc Plated Molded - Single

Specifications	32264	32266	32267	32268	32269
Maximum Flow [GPM]	10.5	10.5	10.5	10.5	10.5
Maximum Pressure [PSI]	3650	3650	3650	3650	3650
Maximum Temperature [F]	320°	320°	320°	320°	320°
Inlet Port [BSPM]	1/4	1/4	1/4	1/4	1/4
Outlet Thread [BSPM]	1/4	1/4	1/4	1/4	1/4
Weight [oz.]	14.9	18.0	21.0	29.8	36.0
Overall Length [in.]	24	27	36	48	60

33200 • 33201



Lances

Ventilated square nylon insulator for operator comfort and safety. Front insulated adjustment handle for low to high pressure nozzle selection. Optional length for use with adjustable chemical injector.

Dual Lance

Specifications	S.S. 33200	Z.P. 33201
Maximum Flow [GPM]	10.0	10.0
Maximum Pressure [PSI]	2900	2900
Maximum Temperature [F]	300°	300°
Inlet Port [NPTM]	1/4	1/4
Outlet Port [Dual Nozzle] [NPTF]	1/4	1/4
Weight [oz.]	33	42
Overall Length [in.]	43	33

36290



Lance Extension

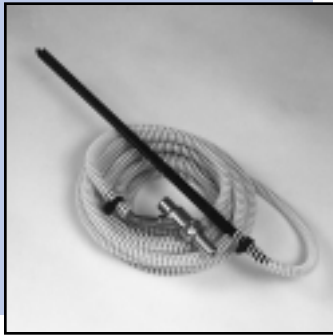
Lightweight and easy to install flexible lance extension. Durable stainless steel linked outer cover with single wire braid interior hose. Cleaning flexibility with full 90 degree bend using either hot or cold fluids.

Flexible Lance Extension

Specifications	36290
Maximum Flow [GPM]	10
Maximum Pressure [PSI]	3000
Maximum Temperature [F]	190°
Inlet Port [NPTM]	1/4
Outlet Port [NPTF]	1/4
Weight [oz.]	16
Dimensions [in.]	13

Sandblasters

30417 thru 30422



Wet Sandblasters

Ultra-lightweight, compact design for easy dust-free blasting. Stainless steel spray nozzle for long life. Durable tungsten carbide lined mixing nozzle and body for maximum service. Standard sand induction hose assembly permits visual inspection of sand draw.

Select optional gun 35140, 36130 or 31260.

Tungsten Carbide Light-Duty

Specifications	30417	30418	30419
Maximum Flow [GPM].....	3.8	5.1	6.0
Maximum Pressure [PSI]	3500	3500	3500
Maximum Temperature [F].....	160°	160°	160°
Nozzle Orifice [in.].....	0.047	0.055	0.059
Sand Flow [lbs/min].....	6.0-9.0	6.5-10.0	7.0-11.0
Inlet Port [NPTF]	1/4	1/4	1/4
Hose & Tube Probe Size [NPT]	1/4	1/4	1/4
Sand Inlet Hose ID [NPT]	1/2	1/2	1/2
Weight - Housing [lbs.].....	1.75	1.75	1.75
- Housing, Probe, Hose [lbs.].....	3.15	3.15	3.15
Length - Housing with Barb [in.]	5.12	5.12	5.12
- Probe [in.].....	19.13	19.13	19.13

Specifications	30420	30421	30422
Maximum Flow [GPM].....	6.5	7.6	9.1
Maximum Pressure [PSI]	3500	3500	3500
Maximum Temperature [F].....	160°	160°	160°
Nozzle Orifice [in.].....	0.063	0.070	0.078
Sand Flow [lbs/min].....	7.5-13.0	8.5-13.0	8.5-13.0
Inlet Port [NPTF]	1/4	1/4	1/4
Hose & Tube Probe Size [NPT]	1/4	1/4	1/4
Sand Inlet Hose ID [NPT]	1/2	1/2	1/2
Weight - Housing [lbs.].....	1.75	1.75	1.75
- Housing, Probe, Hose [lbs.].....	3.15	3.15	3.15
Length - Housing with Barb [in.]	5.12	5.12	5.12
- Probe [in.].....	19.13	19.13	19.13

30667 • 30677



Wet Sandblasters

Lightweight aluminum housing for ease in handling. High efficiency venturi design for wide range of operating pressures and flows. Tungsten carbide mixing nozzle for maximum service life. Quality construction for ultimate performance. Draws up to 1000 pounds of sand per hour and features a sand induction hose for restriction free sand flow.

Tungsten Carbide Industrial

Specifications	30667	30677
	Use w/35140 Gun	Use w/31250 Gun
Maximum Flow [GPM]	10.0	20.0
Maximum Pressure [PSI].....	3000	5500
Maximum Temperature [F]	160°	160°
Weight [lbs.]	4.75	7.87
Wand Length [in.]	30	(part of 31250 Gun)
Overall Length [in.]	41	31.5

Transfer Vac • Pipe Cleaner

7260



**Evacuator
Wet-n-Dry Transfer Vac**

Quickly picks up a wide range of viscous or granular residue for transfer from drum, collection container, pit or other settling location. Quickly attaches to any high pressure lance with a 1/4" quick couple fitting.

**34641 • 34642
34643 • 34644**



**Jetter Hose
with Tri-Jet Nozzle**

Extremely flexible 30' or 50', 1/8" hose with wear resistant smooth finish. Tight 1/2" bend radius for maximum flexibility. One-third the weight of wire braid hose. Powerful Tri-Jet Nozzle blasts dirt free and propels hose through pipes.

Wet-n-Dry Transfer Vac

Specifications

Flow Range [GPM]	2.0-7.0	7260
Pressure Range [PSI]	275-3250	
Fluid Transfer Range [GPM]	35-95	
Maximum Temperature [F]	160°	
Nozzle Size	4.0	
Nozzle Angle	0°	
Weight [lbs.]	12.0	
Dimensions - Head [in.]	4.5 x 4.0	
Dimensions - Hose - Length [ft.]	15.0	
- Hose - Diameter [in.]	1.5	

Jetter Pipe Cleaner

Specifications

	34641	34642
Maximum Flow [GPM]	3.0	3.0
Maximum Pressure [PSI]	2000	2000
Maximum Temperature [F]	180°	180°
Inlet Fitting [NPTM]	1/4	1/4
Nozzle Fitting [NPTM]	1/8	1/8
Hose Rating [PSI]	2500	2500
Weight [oz.]	16.0	26.5
Hose Length [ft.]	30	50

Gauges

6086 • 6088 • 6089



Pressure Gauges

Glycerine filled for consistent, accurate reading and shock and pulsation protection. Safety blow-out disk for automatic pump protection at pressure limits. Built-in snubber reduces pressure fluctuations. Install on pump discharge manifold for accurate monitoring of pump performance and to enhance system safety.

304 S.S. - Bottom Mount

Specifications	6086	6088	6089
Pressure Range [PSI]	0-1500	0-3000	0-6000
Temperature Range [F]	68-160°	68-160°	68-160°
Fitting [NPTM] [Bottom]	1/4	1/4	1/4
Weight [oz.]	11.0	11.0	11.0
Dimensions Diameter [in.]	2.63	2.5	2.5
Depth [in.]	1.1	1.1	1.1
Full Height [in.]	3.5	3.5	3.5

6094



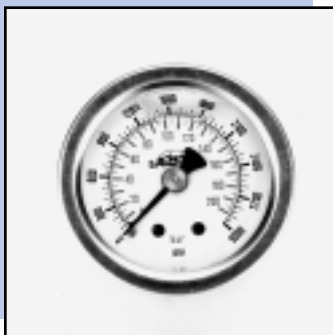
Pressure Gauge

Glycerine filled for consistent, accurate reading and shock and pulsation protection. Safety blow-out disk for automatic pump protection at pressure limits. Built-in snubber reduces pressure fluctuations. Install on pump discharge manifold for accurate monitoring of pump performance and to enhance system safety.

Poly-Case - Flat Mount

Specifications	6094
Pressure Range [PSI]	0-1500
Temperature [F]	220°
Fitting [NPTM] [Back]	1/8
Weight [oz.]	5.3
Dimensions Diameter [in.]	1.87
Depth [in.]	1.87

6096



Pressure Gauge

Glycerine filled for consistent, accurate reading and shock and pulsation protection. Safety blow-out disk for automatic pump protection at pressure limits. Built-in snubber reduces pressure fluctuations. Install on pump discharge manifold for accurate monitoring of pump performance and to enhance system safety.

304 S.S. Case - Flat Mount

Specifications	6096
Pressure Range [PSI]	0-3000
Temperature [F]	220°
Fitting [NPTM] [Back]	1/8
Weight [oz.]	3.4
Dimensions Diameter [in.]	1.72
Depth [in.]	1.79

6085 • 6087 • 6097 • 6098



Pressure Gauges

Glycerine filled for consistent, accurate reading and shock and pulsation protection. Safety blow-out disk for automatic pump protection at pressure limits. Built-in snubber reduces pressure fluctuations. Install on pump discharge manifold for accurate monitoring of pump performance and to enhance system safety.

All 316 S.S. Internal, 304 S.S. Case - Bottom Mount

Specifications	6085	6087	6097	6098
Pressure Range [PSI]	1-1500	0-6000	0-3000	0-15,000
Temperature Range [F]	68-160°	68-160°	68-160°	68-160°
Fitting [NPTM] [Bottom]	1/4	1/4	1/4	1/2
Weight [oz.]	7.6	7.6	7.6	30.8
Dimensions Diameter [in.]	2.63	2.63	2.63	4.0
Depth [in.]	1.1	1.1	1.1	1.8
Full Height [in.]	3.5	3.5	3.5	5.25

Lubricants

6100 • 6105 • 6107 • 6109



Crankcase Oil

A special blend, multi-viscosity petroleum based hydraulic lubricant for high pressure hydraulic systems. Non-detergent for greater wear and protection at high RPM and high pressure. Anti-wear, high pressure and oxidizer inhibitor additives for maximum crankcase protection and wear. Runs significantly cooler than typical lubricants, enhancing the longevity of components.

Special Blend Crankcase Oil

Specifications	6100	6105	6107	6109
Grade.....	Special Hydraulic	Special Hydraulic	Special Hydraulic	Special Hydraulic
ISO	68	68	68	68
Capacity.....	Case [12] 21 oz.	Twin-Pack [2] 2.5 gal.	Bottle 21 oz.	Drum 30 gal.
Weight	17.0 lbs.	41.0 lbs.	21.0 oz.	255 lbs.
Dimensions [in.].....	10 x 10 x 6.75	15 x 15 x 9.5	6 x 3 x 2	18 x 29

6104



Liquid Gasket

Extends pump life. A special flexible sealant applied to all o-ring and seal crevices and mating surfaces at each servicing. Fills gaps up to .010" extending service life in harsh fluid applications. Resistant to shock, heat, fuels, oils, coolants, fluorocarbons and salt water.

Recommended in all reverse osmosis, leachate and harsh liquid applications.

Flexible Sealant

Specifications	6104
Type.....	Polymer Gel
Temperature Range [F]	-60° to 600°
Capacity [Tube] [oz.].....	.25
Weight [oz.].....	.15
Dimensions [in.].....	2.5 x .75

6106



Antiseize

A non-hardening lubricant provided in all BD direct mount packages, gearbox and gearbox pumps and direct drive bolt kits. Recommended for driveshaft and keyway application to help minimize excessive bonding.

Specifications

Grade.....	Nickel
Mil Spec.....	A-907E
Temperature [F].....	440°
Capacity.....	2 ml
Weight [oz.].....	.011

6110 • 6111



Gearbox Lube

Reduces friction and wear and lowers operating temperature, thus lowering maintenance costs. Provides excellent oxidation and thermal stability to prolong fluid life. Features demulsibility and filterability, allowing water and contaminants to be easily removed. Anti-wear, anti-rust and anti-corrosion protection extends gearbox life.

Used in 8051-8078 gearboxes.

Gearbox Lubricant

Specifications	6110	6111
Grade.....	80-90W	80-90W
ISO.....	220	220
Temperature Range [F]	-20 to 200°	-20 to 200°
Capacity.....	Bottle 16 oz.	Case [12] 16 oz.
Weight [oz.] [lbs.]	16	12.45
Dimensions [in.].....	3.75 x 3.25 x 2.25	10 x 8.5 x 8.25

Filters

7104 thru 7108



Inline Inlet Filter

Durable nylon body and 304SS mesh screen for corrosion resistance and reinforced stainless steel ports for added pipe connection support. Inline strainers are easily cleaned without removing the strainer or inlet plumbing. Inside out flow direction so sediment collects inside the screen. Optional mesh sizes and clear body construction available.

Nylon Body

Specifications	7104	7105	7106	7107	7108
Max. Suction Flow [GPM]	6.0	15.0	20.0	35.0	60.0
Max. Pressurized Flow [GPM]	10.0	20.0	25.0	50.0	75.0
Inlet Pressure Range [PSI]	100-150	100-150	100-150	100-150	100-150
Max. Temperature [F] ...	150°	150°	150°	150°	150°
Inlet/Discharge Ports [NPTF]	1/2	3/4	1.0	1-1/4	1-1/2
Mesh Size	80	80	80	80	80
Weight [oz.].....	6.0	7.0	16.0	18.0	19.0
Dimensions [in.]	3.6x2.95x5.35	3.6x2.95x5.35	5.0x4.1x6.35	5.0x4.1x7.0	5.13x4.1x8.13

7109



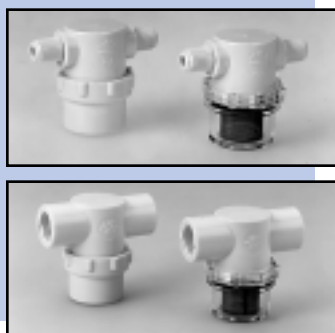
Y-Inline Inlet Filter

Durable fiberglass reinforced polypropylene body and 304 stainless steel mesh screens for corrosion resistance. Convenient inline installation and bottom flushing port for easy periodic cleaning.

Polypropylene Body

Specifications	7109
Maximum Suction Flow [GPM]	100
Maximum Pressurized Flow [GPM]	150
Maximum Inlet Pressure @ 70°F [PSI].....	150
Maximum Inlet Pressure @ 125°F [PSI].....	100
Maximum Temperature [F]	125°
Inlet / Discharge Ports [NPTF].....	2
Bottom Drain Port [in.]	1-1/4
Mesh Size	80
Weight [oz.].....	36.0
Dimensions [in.].....	8.56 x 4.62 x 7.89

7203 • 7204



Inline Inlet Filter

Durable nylon body and 304SS mesh screen for corrosion resistance. Inline strainers are easily cleaned without removing the strainer or inlet plumbing. Inside out flow direction so sediment collects inside the screen. Optional mesh sizes and clear body construction available.

Nylon Body Micro

Specifications	7203	7204
Maximum Flow [GPM]	10.0	10.0
Inlet Pressure [PSI] @ 70°F.....	10 to 150	10 to 150
@ 125°F.....	10 to 100	10 to 100
Maximum Temperature [F]	125°	125°
Inlet / Discharge Ports [NPTM].....	1/2	—
Inlet / Discharge Ports [NPTF].....	—	1/2
Mesh Size	80	80
Weight [oz.].....	3.0	3.0
Dimensions [in.].....	3.0x1.75x2.67	3.0x1.75x2.67

32137



Inline Inlet Filter

Durable anodized aluminum body for long service life. A low profile makes efficient use of limited space and the removable lower half is easy to clean without removing the inlet plumbing or the inlet filter. Inside out flow direction causes sediment to collect inside the screen. Convenient top auxiliary port for gauge or by-pass return line.

Aluminum Ultra-Compact

Specifications	32137
Maximum Flow [GPM].....	7.0
Maximum Inlet Pressure [PSI]	170
Maximum Temperature [F].....	194°
Inlet Port [NPTF]	1/2
Auxiliary Port [NPTF].....	1/4
Outlet Port [NPTM].....	1/2
Mesh Size	38
Weight [oz.].....	7.8
Dimensions [in.]	3.5x2.5x1.75

Filters

32738 • 32748



Inline Inlet Filter

Features a RTP body with brass threads for durability. A low profile makes efficient use of limited space and the removable lower half is easy to clean without removing the inlet plumbing or the inlet filter. Inside out flow direction causes sediment to collect inside the screen. Convenient top auxiliary port for gauge or by-pass return line.

RTP Ultra-Compact

Specifications

	32738	32748
Maximum Flow [GPM].....	8.0	8.0
Maximum Inlet Pressure [PSI]	150	150
Maximum Temperature [F]	100°	100°
Inlet Port [NPTF]	1/2	1/2
Outlet Port [NPTM/F]	1/2	1/2
Auxiliary Port [NPTF]	1/4	1/4
Mesh Size	50	50
Weight [oz.].....	6.0	6.0
Dimensions [in.]	3.66x3.03x2.2	3.66x3.03 x2.2

32631



Chemical Filter

Brass weighted chemical filter attaches to any 1/4" chemical hose. Filters out abrasives found in chemicals and cleaning agents prior to application.

Nylon

Specifications

	32631
Maximum Flow [oz / min]	60
Maximum Temperature [F].....	100°
Barb Size [in.].....	1/4
Mesh Size	100
Weight [oz.].....	7
Dimensions [in.]	5.0x1.25

32673



Chemical Filter

Brass weighted chemical filter attaches to any 1/4" chemical hose. Filters out abrasives found in chemicals and cleaning agents prior to application. Check valve prevents backward flow of chemical/water into chemical supply.

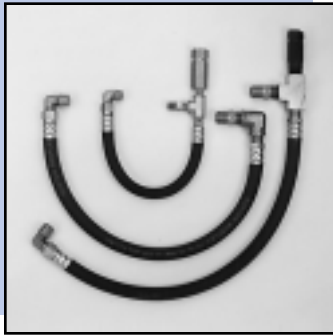
Nylon With Check Valve

Specifications

	32673
Maximum Flow [oz / min]	60
Maximum Temperature [F].....	100°
Barb Size [in.].....	1/4
Mesh Size	100
Weight [oz.].....	7.7
Dimensions [in.]	5.0x1.25

Hoses • Fittings

7090 • 7091 • 7093



By-Pass Hose with Thermo Valve

Designed for easy, compact installation. Reduces pulsation in the by-pass line and helps prolong the life of the pump seals and fluid end. Absorbs pressure spikes caused by the regulating device while in by-pass. Optional assembly with "Thermo Valve" for added protection.

2SF, 4SF and 3FR-5FR Pumps

Specifications	7090	7091	7093
Maximum Flow [GPM]	3.5	5.0	8.0
Maximum Pressure [PSI]	200	200	200
Maximum Temperature [F]	160°	160°	160°
Hose Connection [NPTM]	1/4	3/8	1/2
Hose Connection - Swivel	3/8" SAEF 45°	1/2" SAEM 45°	1/2" SAEM 45°
Elbow Fittings - Manifold [NPTM/F]	1/4 x 1/4	3/8 x 3/8	1/2 x 1/2
Unloader	3/8"NPTM x 3/8" SAEM 45°	3/8"NPTM x 1/2" SAEM 45°	1/2"NPTM x 1/2" SAEM 45°
Weight [oz.]	8.8	20.3	16.78
Length [in.]	15	24	24

Use Part No. 7090.40, 7091.41 or 7093.42 for By-Pass Hose with Brass Thermo Valve
Use Part No. 7090.35, 7091.36 or 7093.37 for By-Pass Hose with RTP Thermo Valve

34325 • 34350 • 34354

34355 • 34356 • 34358



High Pressure Hoses

This heat, cleaning chemical, and wear resistant hose offers greater life and safety at high pressure. A tighter bend radius than standard R hoses creates a smaller packaged unit.

Reinforced Wire Braid

Specifications	34325	34350	34354	34355	34356	34358
Maximum Flow [GPM]	10	10	50	10	25	70
Maximum Pressure [PSI]	4000	3000	3000	3000	3000	3000
Maximum Temperature [F]*	250°	250°	250°	250°	250°	250°
Bend Radius [in.]	2.5	2.0	4.75	2.0	3.5	6.0
Safety Factor	4 to 1	4 to 1	4 to 1	4 to 1	4 to 1	4 to 1
Hose Connections [NPTM]	3/8	3/8	3/4	3/8	1/2	1
Swivel Connections [NPTM]	3/8	3/8	3/4	3/8	1/2	1
Connection Type	B	B	B	B	B	A
Weight [lbs.]	14.2	6.1	35.5	9.8	14.5	55.0
Length [ft.]	50	30	50	50	50	50

*Do not exceed maximum pump rating.

34357



High Pressure Hoses

This heat, cleaning chemical, and wear resistant hose offers greater life and safety at high pressure. A tighter bend radius than standard R hoses creates a smaller packaged unit.

Four Steel Spiral - 10,000 PSI

Specifications	34357
Maximum Flow [GPM]	25
Maximum Pressure [PSI]	10,000
Maximum Temperature [F]	100°
Bend Radius [in.]	6.0
Safety Factor	3.2 to 1
Hose Connections [NPTM]	1/2
Swivel Connections [NPTM]	1/2
Connection Type	F
Weight [lbs.]	43.9
Length [ft.]	50

Hoses • Fittings

990620 thru 991669



Fittings

Wide variety of low and high pressure fittings to match the system accessories to the pump inlet and discharge. Steel, brass or 316SS with various pressure ratings to match the system requirements.



High Pressure Fittings

Specifications

	Low Pressure	High Pressure
Maximum Pressure [PSI]	200	10,000
Maximum Temperature [F]	160°	160°
Fitting [NPTM/F]	1/4 to 1-1/2	1/4 to 1-1/4
Fitting Types	Nipple	Nipple
.....	Elbow	Elbow
.....	Tee	Tee
.....	Cross	Cross
.....	Reducer Bushing	Reducer Bushing

990801 thru 990860



Industrial Hoses

Wide variety of inlet and discharge hoses to match the pump inlet and discharge fitting to assure proper flow through the system. Quality flexible structure to prevent collapsing and yet absorb pulsations. Steel or 316SS fittings.

Flexible Inlet and Discharge

Specifications

	Low Pressure	High Pressure
Maximum Pressure [PSI]	80 to 200	3000/6000/10,000
Maximum Temperature [F]	180° to 212°	250°/250°/100°
Fitting [NPTM]	1/2 to 2-1/2	3/8 to 2-1/4
Weight [lbs.]	1.5 to 8	1 to 9
Hose Length [ft.]	6	3

Nozzles

7265 • 7270



Rotating Nozzles

Converts 0° blasting power to a 25° spinning action to agitate dirt loose. Covers a wide path with intense cleaning results. Quickly mounts to any 1/4" high pressure lance. See data sheet for flow/pressure selection.

Turbo Nozzle

Specifications

	7265	7270
Flow Range [GPM].....	1.0-5.7	1.0-10.0
Maximum Pressure [PSI].....	3000	5000
Maximum Temperature [F].....	194°	194°
Inlet Port [BSPF].....	1/4	1/4
Weight [oz.].....	11.8	25.5
Overall Length [in.].....	3.7	4.5

7314 • 7315 • 7316

7324 • 7325 • 7326



Power-Chem Nozzles

Unique chemical-siphoning system for introducing chemicals into the high pressure spray at high pressure. Stainless steel construction provides high strength and chemical resistance. Propels a concentrated spray pattern up to 25-35 feet with significant impact.

Brass and Stainless

Specifications

	7314, 7315, 7316 BB 7324, 7325, 7326 S
Flow Range [GPM].....	2.0-6.7
Maximum Pressure [PSI].....	5000
Maximum Temperature [F].....	210°
Maximum Chemical Draw [GPM].....	1/2
Maximum Horizontal Spray Distance [ft.].....	35
Inlet Ports (QD Nipple) [NPTF].....	1/4
Chemical Tube Length [ft.].....	30
Weight [lbs.].....	1.54
Dimensions (Body Only) [in.].....	2.5 x .75
(w/QD) [in.].....	3.75 x .75

7930 thru 7980



Vari-Nozzle

An easy push forward on the Vari-Nozzle permits low pressure flow for chemical application; pull back for return to high pressure rinse. Smooth, easy, right or left rotation adjusts the spray angle for 0° to 60° for cleaning flexibility. Features a molded, insulated grip for comfortable operation and adjustment.

Standard on Hi-Temp TUFF CAT units.

Adjustable Nozzles

Specifications

	7930	7935	7940	7945	7950
Maximum Flow [GPM].....	2.85	3.32	3.8	4.3	4.7
Maximum Pressure [PSI].....	3500	3500	3500	3500	3500
Maximum Temperature [F].....	195°	195°	195°	195°	195°
Nozzle Orifice [mm].....	3.0	3.5	4.0	4.5	5.0
Inlet [BSPF].....	1/4	1/4	1/4	1/4	1/4
Weight [oz.].....	5.1	5.1	5.1	5.1	5.1
Dimensions [in.].....	4.72 x 1.36	4.72 x 1.36	4.72 x 1.36	4.72 x 1.36	4.72 x 1.36

Specifications

	7955	7960	7965	7970	7980
Maximum Flow [GPM].....	5.2	5.6	6.0	6.6	7.5
Maximum Pressure [PSI].....	3500	3500	3500	3500	3500
Maximum Temperature [F].....	195°	195°	195°	195°	195°
Nozzle Orifice [mm].....	5.5	6.0	6.5	7.0	8.0
Inlet [BSPF].....	1/4	1/4	1/4	1/4	1/4
Weight [oz.].....	5.1	5.1	5.1	5.1	5.1
Dimensions [in.].....	4.72 x 1.36	4.72 x 1.36	4.72 x 1.36	4.72 x 1.36	4.72 x 1.36

Nozzles

32149



Dual Nozzle Holder

An ultra compact and lightweight nozzle holder for flexibility. Simple right to left turn rotates ball to switch the flow from high to low pressure nozzle. Stainless steel ball for long life. Convenient low pressure nozzle selection permits chemical injection.

Dual - Fixed

Specifications

Maximum Flow [GPM]	7.0
Maximum Pressure [PSI]	2845
Maximum Temperature [F]	140°
Inlet Port [NPTF]	1/4
Nozzle Port [NPTF]	1/4
Weight [oz.]	5.7
Dimensions [in.]	1.88 x 1.5

32149

32151



Adjustable Nozzle Holder

Gradually adjusts from outer low pressure, circular fan spray to center, high pressure spray. Will accept any standard 1/4" NPTM high pressure nozzle. Convenient, sure-grip nylon adjustment knob permits convenient adjustment from high to low pressure. Low pressure selection permits chemical injection.

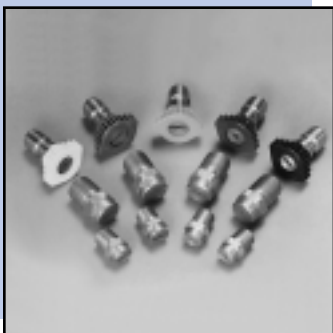
Dual - Adjustable

Specifications

Maximum Flow [GPM]	7.0
Maximum Pressure [PSI]	3650
Maximum Temperature [F]	140°
Inlet Port [NPTF]	1/4
Nozzle Port [NPTF]	1/4
Weight [oz.]	4.3
Dimensions [in.]	1.88 x 1.5

32151

712000 thru 718040



Jet-Eye Nozzles

Thru-hardened, 400 series stainless steel nozzles out perform standard brass and stainless steel insert nozzles by six times. Choice of 1/4" or Quick Couple style with color coded spray angle eye-cap for easy change at the cleaning site.

Stainless Steel - 1/4" and Q.C.

Specifications

Flow Range [GPM]	0.5 to 8.9
Pressure Range [PSI]	250 to 5000
Spray Angle	0°/15°/25°/40°
Chemical Spray Angel	65°
Nozzle Size	2.0 to 8.0
Weight Standard [oz.]	0.77
Quick Couple [oz.]	0.80

Add .4 for 1/4" or .Q for Quick Couple to individual nozzle part number.

Chemical Injectors • Brushes • Foamer

6300 • 6305



Pulse Pump Injectors

Mounts directly onto various piston pump discharge manifolds, drawing chemical with each stroke of the pump. Chemical resistant 316 stainless steel upper body with chrome plated brass lower body. NBR/PTFE laminated diaphragm offers resilience and chemical compatibility. A patented single port purge valve purges air from head and case simultaneously. Chemical application at system pressures up to 1000 PSI.

Piston Pump Hi-Pressure Injector

Specifications

	6300	6305
Maximum Flow *	1 qt/min	1 gal/min
Maximum Pressure [PSI]	1000	1000
Inlet Ports [NPTM]	1/4	3/8
Outlet Ports [NPTM]	1/4	3/8
Manifold Mounting Port [NPTM]	1/2	3/4
Weight [lbs.]	2.7	6.0
Dimensions [in.]	4.3x2.6x5.9	7.0x6.3x6.0

* Flow will vary according to flow and pressure of the drive pump. For optimum performance inlet pressure to the pump should be zero or negative but not to exceed pump specifications.

Use 6300 with Pulse Pump Manifold models 6400, 6410 and 6425.

Use 6305 with Pulse Pump Manifold models 6410 and 6425.

7181 • 7182 • 7183 • 7184



Chemical Injectors

Features a convenient adjustment collar for adjusting chemical draw. Lightweight and compact for optimum space utilization. Simple pump discharge line installation or can be mounted directly to the unloader discharge port. Durable stainless steel orifice and o-ring.

Brass Adjustable - Discharge Line

Specifications

	7181	7182	7183	7184
Flow Range [GPM]	2.0-3.0	3.0-4.0	4.0-5.0	5.0-6.0
Max. Pressure [PSI]	3145	3145	3145	3145
Max. Temperature [F]	180°	180°	180°	180°
Nozzle Orifice [mm]	1.5	1.8	2.1	2.3
Barb Hose [in.]	1/4	1/4	1/4	1/4
Inlet Port [NPTM]	3/8	3/8	3/8	3/8
Outlet Port [NPTM]	3/8	3/8	3/8	3/8
Weight [oz.]	6.3	6.3	6.3	6.3
Dimensions [in.]	2.0x1.0x3.0	2.0x1.0x3.0	2.0x1.0x3.0	2.0x1.0x3.0

7192 • 7193 • 7194



Chemical Injectors

Features a convenient adjustment collar for adjusting chemical draw. Lightweight and compact for optimum space utilization. Mounts directly to the unloader discharge port. Durable stainless steel orifice and o-ring construction.

Brass Adjustable - Unloader Mount

Specifications

	7192	7193*	7194**
Flow Range [GPM]	3.0-4.0	4.0-5.0	5.0-6.0
Max. Pressure [PSI]	3145	3145	3145
Max. Temperature [F]	180°	180°	180°
Nozzle Orifice [mm]	1.8	2.1	2.3
Barb Hose [in.]	1/4	1/4	1/4
Inlet Port [mm]	M18x1.0	M18x1.0	M18x1.0
Outlet Port [NPTM]	3/8	3/8	3/8
Weight [oz.]	6.3	6.3	6.3
Dimensions [in.]	2.0 x 1.0 x 3.0	2.0 x 1.0 x 3.0	2.0 x 1.0 x 3.0

*7193 standard selection for all 2SF and 2SFX Pumps.

**7194 standard selection for all 4SF Pumps.

Use with Unloader models 7500S, 7500XS, 7600S, 7580 and 7581.

7197 • 7198 • 7199



Chemical Injectors

Features a convenient adjustment collar for adjusting chemical draw. Lightweight and compact for optimum space utilization. Mounts directly to the unloader discharge port. Durable stainless steel orifice and o-ring.

Brass Adjustable - Unloader Mount

Specifications

	7197	7198	7199
Flow Range [GPM]	3.0-4.0	4.0-5.0	5.0-6.0
Maximum Pressure [PSI]	3145	3145	3145
Maximum Temperature [F]	180°	180°	180°
Nozzle Orifice [mm]	1.8	2.1	2.3
Barb Hose [in.]	1/4	1/4	1/4
Inlet Port [mm]	M20x1.5	M20x1.5	M20x1.5
Outlet Port [NPTM]	3/8	3/8	3/8
Weight [oz.]	6.3	6.3	6.3
Dimensions [in.]	2.0x1.0x3.0	2.0x1.0x3.0	2.0x1.0x3.0

Use with Unloader models 7670 and 7672.

Chemical Injectors • Brushes • Foamer

7231 • 7232 • 7233 • 7234



Chemical Injectors

A lightweight, compact, direct mount unit for optimum space utilization. Longer lasting stainless steel orifice and FPM o-ring construction. Optional metering orifices [Kit 33490] conveniently thread directly onto barb permitting finite adjustment of chemical draw.

Brass Fixed - DX Unloader Mount

Specifications	7231*	7232*	7233*	7234*
Flow Range [GPM].....	2.0-3.0	3.0-4.0	3.0-4.0	4.0-5.0
Max. Pressure [PSI].....	3145	3145	3000	3000
Max. Temperature [F]	180°	180°	160°	160°
Nozzle Orifice Size [mm]	1.8	2.1	2.1	2.3
Barb Size, External [in.]	1/4	1/4	1/4	1/4
Inlet Port [mm].....	M18x1.0	M18x1.0	M22x1.5	M22x1.5
Outlet Port [NPTM].....	3/8	3/8	3/8	3/8
Weight [oz.].....	5.3	5.3	6.3	6.3
Dimensions [in.]	2.0x1.0x1.75	2.0x1.0x1.75	2.25x1.0x2.63	2.25x1.0x2.63

•Use with 2DX Pumps

*Use with Unloader model 7655 [5DX Pumps]

7712 • 7713 • 7714



Chemical Injectors

Features a convenient adjustment collar for adjusting chemical draw. Lightweight and compact for optimum space utilization. Pump discharge line installation. Durable stainless steel body and orifice.

Stainless Steel Adjustable

Specifications	7712	7713	7714
Flow Range [GPM]	2.0 to 4.0	4.0 to 5.0	5.0 to 6.0
Max. Pressure [PSI].....	3145	3145	3145
Max. Temperature [F]	180°	180°	180°
Nozzle Orifice [mm]	1.8	2.1	2.3
Barb Hose [in.].....	1/4	1/4	1/4
Inlet Port [NPTM]	3/8	3/8	3/8
Outlet Port [NPTM]	3/8	3/8	3/8
Weight [oz.].....	6.3	6.3	6.3
Dimensions [in.]	2.0x1.0x3.0	2.0x1.0x3.0	2.0x1.0x3.0

32155 • 32156 • 32157 • 34456



Rotating Brush

The Rotating Brush is designed to provide a LOW PRESSURE agitation for hard to remove dirt on sensitive services such as glass, tile and plastic. Its smooth gear action requires only minimal flow to activate. Durable stainless steel cam and gear shifts.

Low Pressure

Specifications	32155 White	32156 Black	32157 Horsehair	34456 Black
Flow Range [GPM]	3.0 to 5.5	3.0 to 5.5	3.0 to 5.5	1.5 to 3.0
Pressure Range [PSI]..	125 to 285	125 to 285	125 to 285	125 to 285
Maximum Temperature [F]	140°	140°	140°	140°
Inlet Port [NPTM].....	1/4	1/4	1/4	1/4
Weight [oz.].....	27	27	27	27
Dimensions [in.]	9.5x6.0x3.25	9.5x6.0x3.25	9.5x6.0x3.25	9.5x6.0x3.25

34595



Foamer

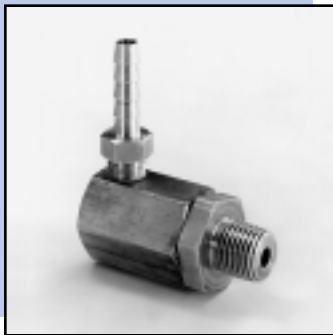
High pressure water creates a venturi action drawing liquid cleansing agents from the bottle and converts them to a surface adhering emulsified foam that enhances cleaning results. Standard with 1/4" nipple or optional 34595.521 with 20" lance [33221] for easy attachment to any 1/4" gun.

Specifications

Specifications	34595
Flow Range [GPM]	1.4 to 7.0
Pressure Range [PSI].....	700 to 4000
Maximum Temperature [F]	175°
Inlet Port [Metric Thread]	M22x1.5
Inlet Port [NPT] [with Nipple]	1/4
Nozzle Size.....	8.0
Weight [oz.].....	10.0
Weight [with Lance] [oz.]	18.0
Dimensions [in.]	11.0x2.5 x9.0
Dimensions [with Lance] [in.].....	31.0 x2.5 x9.0

Quick Start • Thermo Valves

7100 • 7101



Quick Start Valve

Relieves pump discharge line pressure during start-up phase requiring less engine or motor start-up power. Its special, blended teflon seat provides thousands of low pressure start-ups. By-pass barb routes bleed fluid either to the pump inlet or to drain.

Start-up Pressure Reducer

Specifications

	7100	7101
Maximum Flow [GPM].....	10	10
Maximum Pressure [PSI]	4000	4000
Opening Pressure [PSI]	105	105
Maximum Temperature [F].....	160°	160°
Inlet Port [NPTM]	1/4	3/8
Barb Size [in.].....	1/4	1/4
Weight [oz.].....	5.0	5.0
Dimensions [in.]	2.1 x .87 x 2.1	2.1 x .87 x 2.1
Dimensions with Adapter [in.].....	2.85 x .87 x 2.1	2.85 x .87 x 2.1

7115 • 7116 • 7117



Micro Thermo Valve

Protects pump from premature failure of the seal, packings and cups by eliminating heat build-up in closed loop by-pass systems. Easily mounts in the by-pass line and provides high temperature protection without interruption in flow. Choice of three port sizes to allow convenient and easy installation in the by-pass loop. Compatible with systems using either unloader or regulator valves.

Ultra Compact

Specifications

	7115	7116	7117
Maximum Inlet Pressure [PSI]	145	145	145
Maximum Temperature [F]	135°	135°	135°
Inlet Fitting [BSPF].....	1/4	3/8	1/2
Barb Size [in.]	1/4	1/4	1/4
Weight [oz.].....	1.20	1.80	1.83
Dimensions [in.]	1.42 x .94 x 1.31	1.42 x .94 x 1.31	1.42 x .94 x 1.31

7128 • 7129 • 7130



Thermo Valves

Unique "RTP" composite offers high strength, heat resistance and chemical compatibility. Protects pump from premature failure of seals, packings and cups by eliminating heat build-up in closed loop by-pass systems. Automatically seats during unloader/regulator pressure spikes to prevent fluid bleed. Compatible with systems using either unloader or regulator valves. Multiple Thermo Valves may be necessary for larger flows or higher temperature pumped liquids.

RTP 165°F

Specifications

	7128	7129	7130
Maximum Inlet Pressure [PSI]	125	125	125
Inlet Port [NPTM]	1/4	3/8	1/2
Bleed Port [NPTF].....	1/8	1/8	1/8
Weight [oz.].....	1.97	1.97	1.97
Dimensions [in.] .....	.87 x 3.0	.87 x 3.0	.87 x 3.0

The Thermo Valve must be installed with a pressurized pump inlet.

7135 • 7136 • 7137



Thermo Valves

Unique "RTP" composite offers high strength, heat resistance and chemical compatibility. Protects pump from premature failure of seals, packings and cups by eliminating heat build-up in closed loop by-pass systems. Automatically seats during unloader/regulator pressure spikes to prevent fluid bleed. Compatible with systems using either unloader or regulator valves. Multiple Thermo Valves may be necessary for larger flows or higher temperature pumped liquids.

RTP 145°F

Specifications

	7135	7136	7137
Maximum Inlet Pressure [PSI]	125	125	125
Inlet Port [NPTM]	1/4	3/8	1/2
Bleed Port [NPTF].....	1/8	1/8	1/8
Weight [oz.].....	1.97	1.97	1.97
Dimensions [in.] .....	.87 x 3.0	.87 x 3.0	.87 x 3.0

The Thermo Valve must be installed with a pressurized pump inlet.

Quick Start • Thermo Valves

7138 • 7146



Thermo Valves

Unique "RTP" composite offers high strength, heat resistance and chemical compatibility or brass. Protects pump from premature failure of seals, packings and cups by eliminating heat build-up in closed loop by-pass systems. Automatically seats during unloader/regulator pressure spikes to prevent fluid bleed. Compatible with systems using either unloader or regulator valves. Multiple Thermo Valves may be necessary for larger flows or higher temperature pumped liquids.

RTP or Brass 130°F

Specifications

	RTP 7138	BB 7146
Maximum Inlet Pressure [PSI]	125	125
Inlet Port [NPTM]	1/4	1/4
Bleed Port [NPTF]	1/8	1/8
Weight [oz.]	1.97	5.6
Dimensions [in.] .....	.87 x 3.0	.87 x 3.0

The Thermo Valve must be installed with a pressurized pump inlet.

7140 • 7141 • 7142



Thermo Valves

Protects pump from premature failure of the seal, packings and cups by eliminating heat build-up in closed loop by-pass systems. Easily mounts in the by-pass line and provides high temperature protection without interruption in flow. Compatible with systems using either unloader or regulator valves. Multiple Thermo Valves may be necessary for larger flows or higher temperature pumped liquids.

Brass 145°F

Specifications

	7140	7141	7142
Maximum Inlet Pressure [PSI]	125	125	125
Inlet Port [NPTM]	1/4	3/8	1/2
Bleed Port [NPTF]	1/8	1/8	1/8
Weight [oz.]	5.6	5.6	5.6
Dimensions [in.] .....	.87 x 3.0	.87 x 3.0	.87 x 3.0

The Thermo Valve must be installed with a pressurized pump inlet.

7143 • 7144 • 7145



Thermo Valves

Protects pump from premature failure of the seal, packings and cups by eliminating heat build-up in closed loop by-pass systems. Easily mounts in the by-pass line and provides high temperature protection without interruption in flow. Compatible with systems using either unloader or regulator valves. Multiple Thermo Valves may be necessary for larger flows or higher temperature pumped liquids.

Brass 165°F

Specifications

	7143	7144	7145
Maximum Inlet Pressure [PSI]	125	125	125
Inlet Port [NPTM]	1/4	3/8	1/2
Bleed Port [NPTF]	1/8	1/8	1/8
Weight [oz.]	5.6	5.6	5.6
Dimensions [in.] .....	.87 x 3.0	.87 x 3.0	.87 x 3.0

The Thermo Valve must be installed with a pressurized pump inlet.

7170 • 7171 • 7172



Thermo Valves

Protects pump from premature failure of the seal, packings and cups by eliminating heat build-up in closed loop by-pass systems. Easily mounts in the by-pass line and provides high temperature protection without interruption in flow. Compatible with systems using either unloader or regulator valves. Multiple Thermo Valves may be necessary for larger flows or higher temperature pumped liquids.

Brass 180°F

Specifications

	7170	7171	7172
Maximum Inlet Pressure [PSI]	125	125	125
Inlet Port [NPTM]	1/4	3/8	1/2
Bleed Port [NPTF]	1/8	1/8	1/8
Weight [oz.]	5.6	5.6	5.6
Dimensions [in.] .....	.87 x 3.0	.87 x 3.0	.87 x 3.0

The Thermo Valve must be installed with a pressurized pump inlet.

Quick Start • Thermo Valves

7175 • 7176 • 7177

Brass 190°F



Thermo Valves

Protects pump from premature failure of the seal, packings and cups by eliminating heat build-up in closed loop by-pass systems. Easily mounts in the by-pass line and provides high temperature protection without interruption in flow. Compatible with systems using either unloader or regulator valves. Multiple Thermo Valves may be necessary for larger flows or higher temperature pumped liquids.

Specifications

	7175	7176	7177
Maximum Inlet Pressure [PSI]	125	125	125
Inlet Port [NPTM]	1/4	3/8	1/2
Bleed Port [NPTF].....	1/8	1/8	1/8
Weight [oz.].....	5.6	5.6	5.6
Dimensions [in.] .....	.87 x 3.0	.87 x 3.0	.87 x 3.0

The Thermo Valve must be installed with a pressurized pump inlet.

Control Valves

8100



Throttle Controller

Lowers engine RPM when pump is in by-pass resulting in reduced engine wear and fuel consumption. Prolongs pump life by reducing potential fluid heat build-up while pump is in by-pass. Instant on/off response eliminates pressure delays when pump resumes operation.

4000 PSI Throttle Controller

Specifications

Maximum System Pressure [PSI]	4000	8100
Actuation Pressure [PSI]	250	
Maximum Temperature [F].....	160°	
Inlet Port [NPTM]	3/8	
Cable Length [in.].....	48	
Weight [oz.]	22.0	
Dimensions [in.]	5.25 x 1.75	

8150



Throttle Controller

Lowers engine RPM when pump is in by-pass resulting in reduced engine wear and fuel consumption. Prolongs pump life by reducing potential fluid heat build-up while pump is in by-pass. Instant on/off response eliminates pressure delays when pump resumes operation.

3000 PSI Throttle Controller

Specifications

Maximum System Pressure [PSI].....	3000	8150
Actuation Pressure [PSI]	900-1000	
Maximum Temperature [F].....	140°	
Inlet Port [NPTM].....	3/8	
Cable Length [in.]	42	
Weight [oz.]	16	
Dimensions [in.]	2.72x2.12x1.44	

Control Valves

34870 • 34871

Auto Shut-off Assembly

To prevent overheating of the pump, this assembly combines dual pressure switches and a mechanical relay to automatically shut off the system's pressure when the gun trigger is released. See components below.

32659 • 32660



Pressure Switch

This pressure activated control device shuts off burner or other low amp system components. Its non-adjustable, preset pressure setting is ideal for consistent system protection. Three-wire construction allows either normally open or normally closed operation. A stainless steel contact pin extends service life.

34542 • 34543



Relay Switch

This relay switch combined with the dual pressure switch will automatically shut off the system's pressure when the gun trigger is released or there is no flow to the inlet of the unit.

Auto System Shut-off

Specifications

	34870	34871
Maximum Horsepower [HP].....	2	3
Volts.....	115	220
Activation Switches [Model].....	33659	33659
.....	32660	32660
Mechanical Relay [Model].....	34542	34543
Weight [lbs.].....	3.37	3.37

Pressure Switch

Specifications

	32659	32660
Maximum System Pressure [PSI].....	3550	3550
Switch Engaging Pressure [PSI].....	170	350
Voltage [Volts].....	12-250	12-250
Maximum Amperage [Amps].....	6	6
Color Code.....	Black	Red
Maximum Temperature [F].....	194°	194°
Inlet Port [NPTM].....	1/4	1/4
Weight [oz.].....	10	10
Dimensions [in.].....	3.5x3.5x1.38	3.5x3.5x1.38

Relay Switch

Specifications

	34542	34543
Input Control Voltage [VAC].....	90-280	90-280
Output Contact Terminal Voltage [VAC].....	24-330	24-330
Output One Cycle Surge (non repetitive) [Amps].....	625	625
One Second Surge [Amps].....	130	130
Constant Amperage [Amps].....	30	30
Operating Temperature Range [F].....	- 40 to 212°	- 40 to 212°
Maximum Horsepower for Relay.....	120 V = 2 HP	220 V = 5 HP
Wire to Relay and Motor.....	14 GA, 120V, 15 Amp, 1.5 HP	12 GA, 120V, 17.5 Amp, 2.0 HP
.....	14 GA, 220V, 15 Amp, 4.0 HP	.....
.....	12 GA, 220V, 20 Amp, 4.0 HP	.....
Weight [oz.].....	.202	.202
Dimensions [in.].....	2.25x1.75x1.0	2.25x1.75x1.0

Control Valves

31013



Float Valve

A low maintenance, economical pump protector. Maintains reservoir fluid level to protect pump from starvation and assure constant flow to pump inlet. Compact, easy installation features adjustable float reaction time.

Adjustable

Specifications

Maximum Flow [GPM]	10.0
Maximum Pressure [PSI]	142
Maximum Temperature [F]	140°
Inlet Port [BSPM]	3/8
Weight [oz.]	12
Dimensions [in.]	10.5 x 5.0 x 2.75

31013

32010



Float Valve

A low maintenance, economical pump protector. Maintains reservoir fluid level to protect pump from starvation and assure constant flow to pump inlet. Compact, easy installation features a preset float.

Preset

Specifications

Maximum Flow [GPM]	10.0
Maximum Pressure [PSI]	142
Maximum Temperature [F]	140°
Inlet Port [G.H.]	3/4
Weight [oz.]	2.8
Dimensions [in.]	6.5 x 2.5 x 3.0

32010

Inlet Pressure Regulators

7069 • 7071 • 7074



Inlet Pressure Regulators

A regulator that prevents over pressure or pressure spikes at the pump inlet. Features convenient, compact inline installation and its preset, tamper-proof design protects the pump from neglect or improper system conditions.

Low Flow - Preset

Specifications	7069	7071	7074
Flow Range [GPM].....	3-10	3-10	3-10
Inlet Pressure Range [to Regulator] [PSI]	* 40-200	40-200	40-200
Inlet Pressure Range [to Pump] [PSI]	* 30-45	30-45	40-60
Maximum Temperature [F].....	190°	190°	190°
Inlet Port.....	3/4" FGH	3/4" FGH	3/4" FGH
Outlet Port.....	3/4" MGH	1/2" NPTF	1/2" NPTF
Weight [oz.].....	14	14	14
Dimensions [in.]	1.5x3.19	1.5x3.27 with adapter	1.5x3.27 with adapter

* See Data Sheet Inlet Pressure chart.

7075



Inlet Pressure Regulator

Convenient inline style, mounts either horizontally or vertically. Heavy-duty cast iron upper body with adjustable bronze lower body. Adjust inlet pressure to the pump from 300 PSI down to 20-75 PSI.

High Flow - Adjustable

Specifications	7075
Flow Range [GPM].....	15-70
Inlet Pressure Range [to Regulator] [PSI]	* 40-300
Inlet Pressure Range [to Pump] [PSI]	* 20-100
Maximum Temperature [F].....	160°
Inlet Port [NPTF]	1-1/4
Outlet Port [NPTF].....	1-1/4
Cleanout Port [in.]	1-1/4
Weight [lbs.]	8.85
Dimensions [in.]	8.75 x 5.0 x 4.75

* See Data Sheet Inlet Pressure chart.

Captive Acceleration Tubes • Flushing Assy

711500 • 714500 • 717500



Captive Acceleration Tube

Captive Acceleration Tube (C.A.T.) absorbs energy from a positive head to increase fluid acceleration which stabilizes inlet pressure. Minimizes potential damage from pressure surges or hydraulic spikes. Eliminates wear producing shocks to the system components especially when high temperature, booster pump feed, long inlet lines or quick coupling valves exist. Multiple fitting selection to match pump inlet dimensions.

711502-711511 714505-714511 717508-717511



701818-701833



Stainless Steel Inlet Pressure Stabilizer

Specifications	711500	714500	717500
Flow Range [GPM]	up to 15	up to 45	up to 75
Inlet Pressure Range [PSI]	2 to 50	2 to 50	2 to 50
Temperature [F]	208°*	208°*	208°*
Active Tube Fitting [in.]	1-1/2	2-1/2	3
Active Tube Length [in.]	9.64	15.94	19.09
Weight (Base Model) [lbs.]	1.3	4.0	4.8

*Do not exceed rated pump temperature. See individual pump specification sheets for maximum temperature of each model.

C.A.T. Adapter Fittings

Two straight adapter fitting assemblies are required per C.A.T. plus bent as desired. Match C.A.T. fittings to pump inlet port size and inlet plumbing size. Each adapter fitting assembly includes o-ring and snap ring. Optional straight and bent fittings for convenience in mounting.

To Fit	Fitting Size	Weight (lbs.)
711502	1/2" NPT	.46
711503	3/4" NPT	.46
711504	1" NPT	.46
711505	1-1/4" NPT	.75
711506	1-1/2" NPT	.93
711511	1-1/2" BSP	.97
701818	Bent 1-1/2"	.97
To Fit	Fitting Size	Weight (lbs.)
714505	1-1/4" NPT	1.10
714506	1-1/2" NPT	.99
714508	2" NPT	1.37
714511	2" BSP	1.32
701828	Bent 2-1/2"	2.14
To Fit	Fitting Size	Weight (lbs.)
717508	2" NPT	1.50
717510	2-1/2" NPT	2.29
717511	2-1/2" BSP	2.49
701833	Bent 3"	2.83

990663



"K" Models

Motorized reservoir for delivery of fluid to the special flushing ports on the "K" block-style pump models.

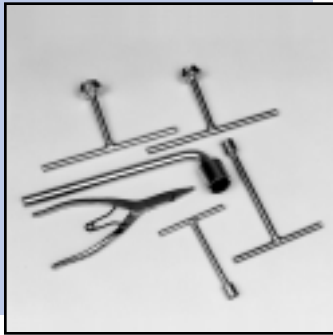
Flushing fluid provides adequate lubrication and cooling for the Lo-Pressure Seals in special high temperature and high vapor fluids.

Cooling and Flushing Assembly

Specifications	990663
Tank Capacity [gal.]	5
Maximum Flow [GPM]	1
Maximum Pressure [PSI]	3
Power Supply [Volts/Amps]	115/1.1
Port Size [NPT]	1/2

Service Tools • Drain Kit

25053 thru 45103



Service Tools

L-Wrench and T-Wrench for convenience in removing rear cover. Valve Seat removal tool for quick valve assembly removal. Seal case removal tool to simplify seal replacement. Oil gauge tool for replacement of bubble oil gauge.



Seal Case Tool

Convenient and compact 1/2" drive, socket tool, seal case remover.

"T" and "L" Wrenches

Specifications

T-Wrenches

Models.....	25053	25082	25083	25324	34030	34113	44044
Size	M14	M10	M17	M13	5/32"	7/64"	M11

L-Wrenches

Models.....	44045	44046
Size	M27	M24

Allen Wrenches

Models.....	33046	33047	33048
Size	M8	M10	M12

Valve Seat Removal Tool

Model	30696
Size	—

Oil Gauge Removal Tool

Model	44050
Size	—

Seal Case Removal Tool

Models.....	43257	43523	45103
Size	M34	M38	—

Seal Case Tool - 1/2" Drive

Model	33004	33005	33006
Size	5FR	7FR	15FR

30940 • 34570



Filling and Gauging Assembly

Large "T" valve opens to allow precharge reading. Gas regulator valve opens to allow increase in precharge [to 50% of system pressure for 6000 series] [70% for 70000 series]. Small "T" valve bleeds off pressure in the gauging assembly before removing from accumulator.

30940 includes Pressure Gauge 6099.
34570 includes Pressure Gauge 6084.



Specifications

	30940	34570
Maximum Pressure [PSI]	3500	3000
Gauge to Accumulator Connection [NPT].....	1/8	1/4
Hose Length [in.].....	96	72
Weight [lbs.].....	3.43	2.93

30940 used with Prrrrr-O-Lators 6010-6017, 6029-6031.
34570 used with Prrrrr-O-Lators 701501-701543.

34334



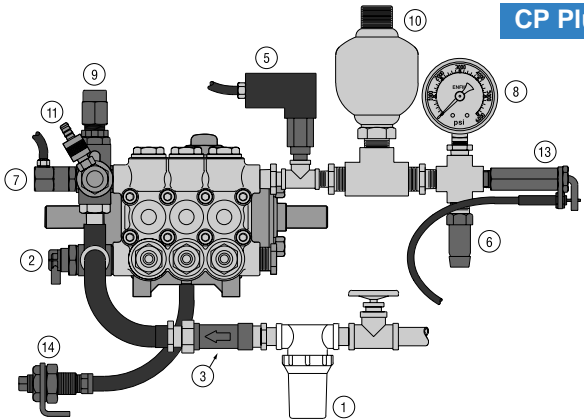
Oil Drain Kit

Replaces oil drain plug and mounts directly to pump. 24" hose allows easy access to drain oil from crankcaes without disturbing plumbing or enclosure.

[All models except 2SF, 2SFx, and 4SF pumps]

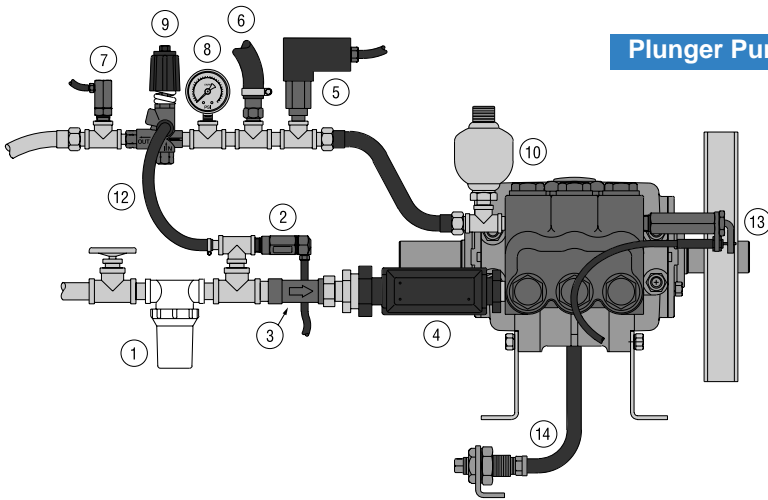
Typical Installation

CP Plunger Pump

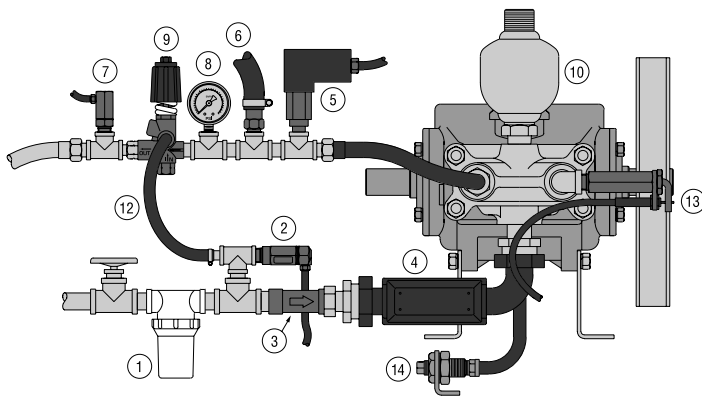


- 1 Inlet Filter
- 2 Thermo Valve
- 3 Inlet Pressure Regulator
- 4 C.A.T. Tube (Captive Acceleration Tube)
- 5 Pressure Switch
- 6 Pop-Off Valve
- 7 Quick Start Valve
- 8 Pressure Gauge
- 9 Pressure Regulator/Unloader
- 10 Pulsation Dampener ★
- 11 Chemical Injector
- 12 By-Pass Hose
- 13 Throttle Controller
- 14 Oil Drain Kit

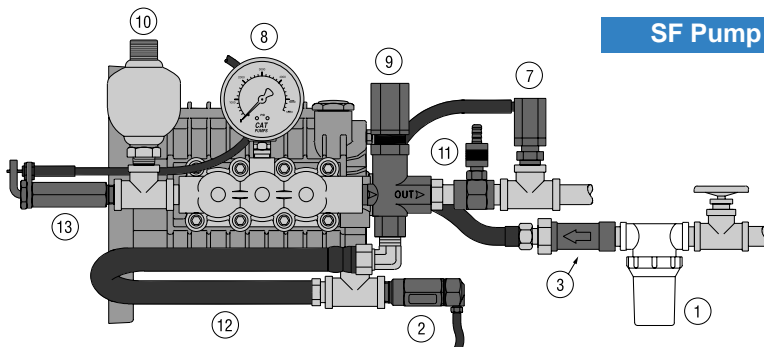
Plunger Pump



Piston Pump



SF Pump



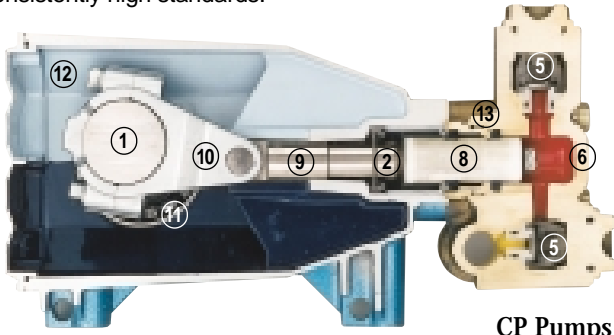
These illustrations show the basic elements for a typical installation of a high pressure piston or plunger pump. **Not all components shown are required for all applications or systems.** Each component presents potential problems that too often are ascribed to a perfectly functioning pump, such as: a clogged strainer, a partially closed shut-off valve, a faulty gauge, or a malfunctioning regulator/unloader.

Proper system installation, routine lubrication and monitoring of components are your basic guarantees of optimum pump performance. CAT PUMPS does not assume any liability or responsibility for the design or operation of a customer's high pressure system.

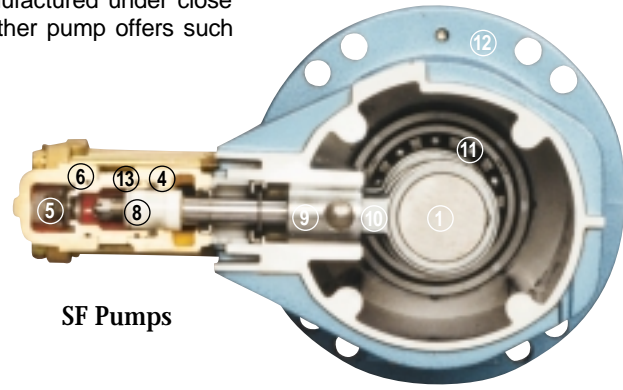
★ Preferred mounting of Pulsation Dampener [Prrrrr-O-Lator] is directly on the discharge manifold of the pump. The preferred mounting of the by-pass hose [when returning to the inlet] is before the Pressure Reducing Valve. If this is not possible, then mount the Prrrrr-O-Lator after the Pressure Unloading Valve to prevent pressure spikes to the pump inlet.

Proven Design and Quality Components Assure Long-Term Performance

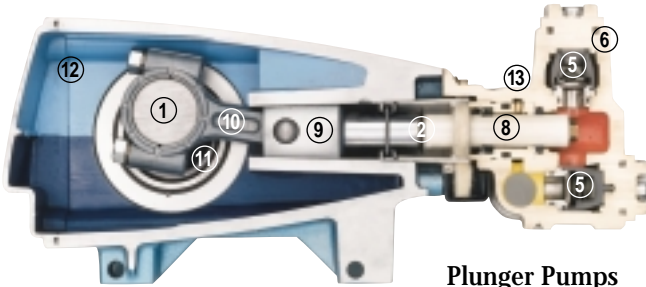
CAT PUMPS are constructed of the highest quality materials manufactured under close tolerance control and fully tested before leaving the factory. No other pump offers such consistently high standards.



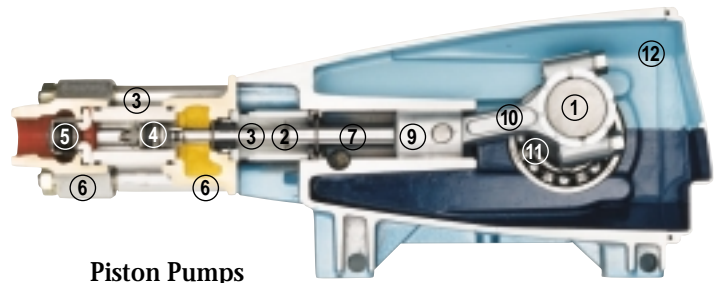
CP Pumps



SF Pumps



Plunger Pumps



Piston Pumps

- ① Chrome-moly crankshaft provides unmatched strength and surface hardness for long life.
- ② The stainless steel slinger provides back-up protection for the piston rod seal, keeping pumped fluids out of the crankcase.
- ③ The cylinder and sleeve wear surfaces are hard chrome-plated stainless steel for longer service life.
- ④ 100% wet cup/seal design adds to service life by allowing pumped fluids to cool and lubricate the elastomers on both sides.
- ⑤ Stainless steel valves, seats, and springs provide corrosion-resistance, positive seating, and long life.
- ⑥ High strength forged brass manifolds are also available in 316 stainless steel or nickel aluminum bronze for special corrosion resistance or Block-Style 316SS for flushing and high inlet pressures.
- ⑦ The patented stepped piston rod with hard chrome-plated sleeve provides a durable wear surface and easy wet end servicing.
- ⑧ Special concentric, high density, polished, graphite impregnated, solid ceramic plungers are abrasion resistant and result in extended seal life.
- ⑨ The high strength stainless steel plunger rods have a 360° supported crosshead providing uncompromising plunger rod alignment.
- ⑩ Matched oversized connecting rods are made of high strength material with exceptional bearing quality.
- ⑪ Oversized ball bearings or tapered roller bearings provide extended bearing life.
- ⑫ Die cast aluminum crankcase means high strength, lightweight, and excellent tolerance control.
- ⑬ Specially formulated, CAT PUMP exclusive Hi-Pressure Seal offers unmatched performance and seal life.

Worldwide Availability of Pumps and Parts

When you need a part for your CAT PUMP, you can count on our extensive worldwide network of sales and service representatives. Each location is equipped with pumps, complementary accessories and parts. Each location is trained to assist you in the selection, installation and maintenance of your CAT PUMPS. We're there when you need us; down the block...around the clock. No matter where you are, you're in CAT PUMP country.

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	Brazil	Greece	Malaysia		Turkey	

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

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