

Pumps and Pump Packages for Finishing

COMPONENT



COMPLETE

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IR ARO ZONE

OVERVIEW

FINISHING PACKAGES

ACCESSORIES

FINISHING PUMPS



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Air Compressors**
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- **Club Car
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Finishing Pumps

Finishing pumps cover a broad range of applications. Finishing includes everything from applying the final coat of varnish on new furniture, to applying a protective film of oil on new steel.

Typical fluids used in finishing applications include paints, resins, lacquers, sealers, adhesives, varnishes, lubricants and stains. Many finishing applications require the fluid to be circulated through the plumbing system back to the original container. This prevents the fluid pigment from settling out.

Application Parameters

There are several methods of spraying a fluid in a finishing application. *Conventional* spray introduces air into the fluid to atomize the fluid. This produces a quality finish, but results in considerable overspray. *HVLP* (High Volume Low Pressure) is a process that uses high volumes of air and low fluid pressures to atomize a fluid. This process minimizes overspray and bounceback. *Airless Spray* forces the fluid through an orifice at high pressure to create atomization. This process is good for finishing steel structures, heavy equipment and buildings. Besides paint, airless is also good for spraying adhesives and lubricants.

Air Assisted Airless is similar to airless, but introduces air to the fluid to enhance atomization. This results in a better finish than standard airless, with less overspray than conventional spray.

Ratios used in finishing applications range from 1:1 to 28:1. Aro produces several finishing packages for a variety of applications. These packages include a 650754 HVLP unit and a NP328C02-1 cart-mounted airless system. Finishing applications often require equipment beyond the standard pump and control handle. Environmental concerns have resulted in the need for expensive equipment that reduces and contains overspray.

Accessories

Several accessories will improve the efficiency of a Finishing application. They include:

Agitator: These air driven devices are used to keep the material in suspension within the fluid container. Available for 5 or 55-gallon containers.

Drum Covers: These help protect the fluid from contamination. Available in carbon, or stainless steel. For 5-gallon pails or 55-gallon drums.

Wall Mounts: Used to mount siphon pumps away from the fluid container. A clean, efficient mounting system that provides easy change-over when the fluid container is empty.

Siphon Tubes/Hoses: A Siphon Tube or Hose is used to draw material from the original container to the pump inlet. Because only the hose is immersed, the pump stays clean.

Material Filters: These are used to strain particles from the fluid that would otherwise clog the spray gun.

Backpressure Regulators: Used on circulating systems to maintain pressures high enough to spray material. Placed near end of a recirculating system. The regulator allows fluid flow after the desired pressure is obtained. Without regulator, fluid would not properly atomize.

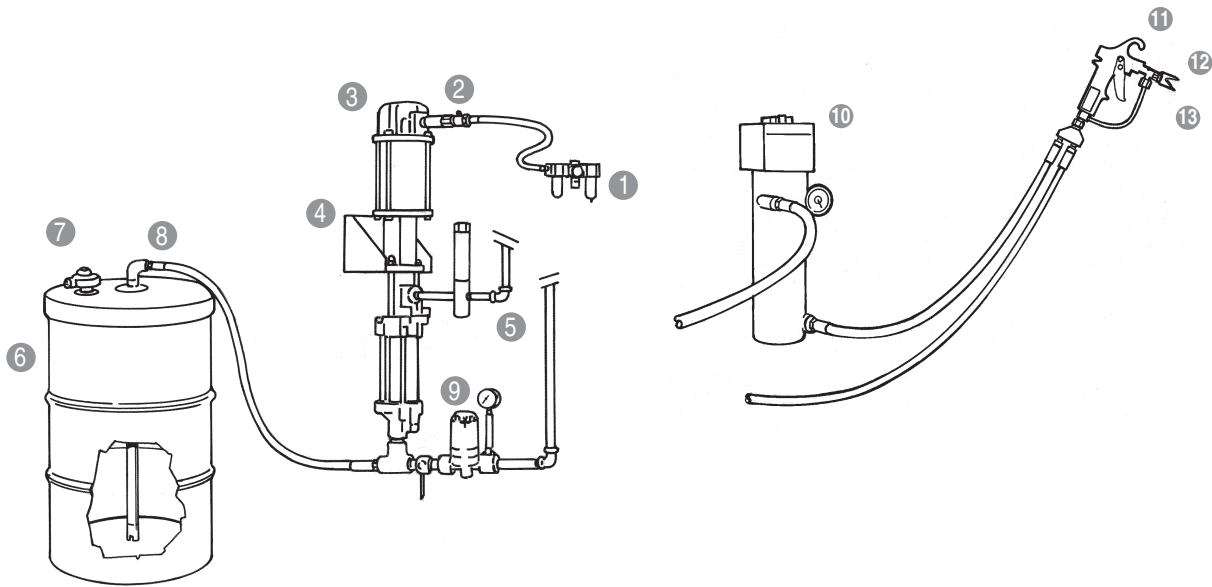
Fluid Heaters: Use of a heater can lower fluid viscosities and produce a better finish. Heaters feature a cast aluminum body with stainless fluid passages. Available with various voltages, they have flow capacities of 15-gpm (56.8-lpm) at 100°F (38°C) above ambient.

Recirculating Accessories: Recirculating Blocks and Inlet Adapters allow fluid to be circulated from the gun, back to the original fluid container.

Airless Spray Guns & Tips: Permit airless spray of fluids. Available in automatic or manual configurations. Tip selection will control spray pattern and flow rate.

Quick Clean Units: Reverses tip for cleaning. Used when spraying heavy viscosity materials.

Typical Application



Transfer Accessories

I.D.	DESCRIPTION:	See Page Number
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11	Manual Spray Gun	20
12	Spray Tip	21
13	Tip Guard	21

Model Reference Index

Ratio:	Max. Flow Rate:	Model Number:	Pump Material:	Pump Type
2:1	4-GPM (15.1 lpm)	650115-1C	Carbon Steel	2-Ball
2:1	4-GPM (15.1 lpm)	650110-X	Carbon Steel	2-Ball
2:1	4-GPM (15.1 lpm)	650133-X	Stainless Steel	2-Ball
2:1	4-GPM (15.1 lpm)	650132X	Carbon Steel	2-Ball
2:1	4-GPM (15.1 lpm)	650137-1	Carbon Steel	2-Ball
2:1	21.3-GPM (80.6 lpm)	650439-X4B	Stainless Steel	4-Ball
3:1	29.3-GPM (110.8 lpm)	650640-X4B	Stainless Steel	4-Ball
4:1	25-GPM (94.6 lpm)	650639-X4B	Stainless Steel	4-Ball
4:1	4.2-GPM (15.8 lpm)	NM2304A-X1-X11	Carbon Steel	2-Ball
4:1	4.2-GPM (15.8 lpm)	NM2304B-X1-X11	Stainless Steel	2-Ball
5:1	38-GPM (143.6 lpm)	650840-X4C	Stainless Steel	4-Ball
7:1	25-GPM (94.5 lpm)	650839-X4C	Stainless Steel	4-Ball
9:1	4-GPM (15.1 lpm)	650453-X	Carbon Steel	2-Ball
9:1	4-GPM (15.1 lpm)	50408-X	Stainless Steel	2-Ball
9:1	4-GPM (15.1 lpm)	650409-X	Stainless Steel	2-Ball
10:1	15-GPM (56.8 lpm)	613112-X66-B	Stainless Steel	2-Ball
10:1	15-GPM (56.8 lpm)	650866-X63	Stainless Steel	2-Ball
11:1	4.6-GPM (17.4 lpm)	650483-X4X	Stainless Steel	2-Ball
15:1	15-GPM (56.8 lpm)	613123-XX6-B	Stainless Steel	2-Ball
15:1	15-GPM (56.8 lpm)	650867-X63	Stainless Steel	2-Ball
22:1	4.6-GPM (17.4 lpm)	650484-X4X-B	Stainless Steel	2-Ball
23:1	4.6-GPM (17.4 lpm)	650683-X4X	Stainless Steel	2-Ball
23:1	15-GPM (56.8 lpm)	650967-X63	Stainless Steel	2-Ball
23:1	15-GPM (56.8 lpm)	613124-XX6-B	Stainless Steel	2-Ball
28:1	.75-GPM (2.8 lpm)	NM2328A-11-X11	Carbon Steel	2-Ball
30:1	1.5-GPM (5.7 lpm)	650485-X4X	Stainless Steel	2-Ball
40:1	4.6-GPM (17.4 lpm)	650883-X4X	Stainless Steel	2-Ball
45:1	5.4-GPM (20.4 lpm)	650863-X43	Carbon Steel	2-Ball
45:1	2.4-GPM (9 lpm)	650684-X4X	Stainless Steel	2-Ball
60:1	1.5-GPM (5.7 lpm)	650685-X4X	Stainless Steel	2-Ball
65:1	5.4-GPM (20.4 lpm)	650963-X43	Carbon Steel	2-Ball
1.7:1	3.1-GPM (11.7 lpm)	650943-X4X	Stainless Steel	2-Ball
2:1	22.4-GPM (84.7 lpm)	650950-X4B	Stainless Steel	4-Ball
3:1	17-GPM (64.2 lpm)	650949-X4B	Stainless Steel	4-Ball

Mount:	Motor:	Air Inlet:	Fluid Outlet:	Page #:
Stub	2'	1/4" NPT(F)	1/2" NPT(F)	25
55-Gallon	2'	1/4" NPT(F)	1/2" NPT(F)	24
55-Gallon	2'	1/4" NPT(F)	1/2" NPT(F)	27
Stub	2'	1/4" NPT(F)	1/2" NPT(F)	26
55-Gallon	2'	1/4" NPT(F)	1/2" NPT(F)	28
Stub	4 ¹ / ₄ "	1/2" NPT(F)	1" NPT(F)	29
Stub	6"	1/2" NPT(F)	1" NPT(F)	30
Stub	6"	1/2" NPT(F)	1" NPT(F)	33
Stub	3"	1/4" NPT(F)	3/4" NPT(F)	31
Stub	3"	1/4" NPT(F)	3/4" NPT(F)	32
Stub	8"	3/4" NPT(F)	1" NPT(F)	34
Stub	8"	3/4" NPT(F)	1" NPT(F)	35
Stub or 55-Gall.	4 ¹ / ₄ "	1/2" NPT(F)	3/4" NPT(F)	38
Stub	6 ¹ / ₄ "	1/2" NPT(F)	3/4" NPT(F)	36
55-Gallon	4 ¹ / ₄ "	1/2" NPT(F)	3/4" NPT(F)	37
Stub	8"	3/4" NPT(F)	1 ¹ / ₄ " NPT(F)	39
Stub	8"	3/4" NPT(F)	1 ¹ / ₄ " NPT(F)	40
Stub	4 ¹ / ₄ "	1/2" NPT(F)	1" NPT(F)	41
Stub	10"	3/4" NPT(F)	1 ¹ / ₄ " NPT(F)	??
Stub	10"	3/4" NPT(F)	1 ¹ / ₄ " NPT(F)	42
Stub	4 ¹ / ₄ "	1/2" NPT(F)	1" NPT(F)	43
Stub	6"	1/2" NPT(F)	1" NPT(F)	44
Stub	12"	3/4" NPT(F)	1 ¹ / ₄ " NPT(F)	45
Stub	12"	3/4" NPT(F)	1 ¹ / ₄ " NPT(F)	??
Stub	3"	1/4" NPT(F)	3/4" NPT(F)	46
Stub	4 ¹ / ₄ "	3/4" NPT(F)	1" NPT(F)	47
Stub	8"	3/4" NPT(F)	1" NPT(F)	48
Stub	10"	3/4" NPT(F)	1" NPT(F)	49
Stub	6"	1/2" NPT(F)	1" NPT(F)	50
Stub	6"	1/2" NPT(F)	1" NPT(F)	51
Stub	12"	3/4" NPT(F)	1" NPT(F)	52
Stub	2" Hydraulic	-	1" NPT(F)	55
Stub	2" Hydraulic	-	1" NPT(F)	53
Stub	2" Hydraulic	-	1" NPT(F)	54

Package Contents

NP328D01-X 28:1 Ratio, Carbon Steel Drum Mounted Airless Spray Package

NM2328A-11-X11	.....Carbon Steel Pump
651412-X	.....Material Filter Assembly
65706	.....Cover
628042-25	.....Hose Assembly
R27221-100	.....Air Regulator
65722	.....Bucket
651533	.....Airless Spray Gun
65030-5-B	.....Filter/Swivel Assembly
91296	.....Screen Inlet Cover
90273	.....Foot Screen



NM328D-X

Pump Performance

Air Inlet Pressure Range	..... 30-150 PSI (2-10.2 bar)
Fluid Pressure Range	..... 840-4200 PSI (57.4-285.7 bar)
Flow @ 60 Cycles/Minute:	..... 0.38 GPM (1.44 lpm)
Displacement In ³ Per Cycle	..... 1.47 (24 cm ³)
Lower Pump Material	..... Carbon Steel
Plunger Material	..... Carbon Steel
Packing Material	..... UHMW-PE/Leather Stagger
	..... UHMW-PE/Teflon
Air Motor	..... 66914
Air Motor Repair Kit	..... 637316
Lower Pump Series	..... 66066-2 for NP328D01-1
	..... 66066-3 for NP328D01-2
Lower Pump Repair Kit	..... 637006-2 for NP328D01-1
	..... 637006-3 for NP328D01-2



Package Contents

NP328D02-X 28:1 Ratio, Carbon Steel Drum Mounted Airless Spray Package

NM2328A-11-X11	.....Carbon Steel Pump
651412-6	.....Material Filter Assembly
65706	.....Cover
628042-25	.....Hose Assembly
R27221-100	.....Air Regulator
650252	.....Agitator
65722	.....Bucket
651533	.....Airless Spray Gun
65030-5-B	.....Filter/Swivel Assembly
91296	.....Screen Inlet Cover
90273	.....Foot Screen

Pump Performance

Air Inlet Pressure Range	..... 30-150 PSI (2-10.2 bar)
Fluid Pressure Range	..... 840-4200 PSI (57.4-285.7 bar)
Flow @ 60 Cycles/Minute:	..... 0.38 GPM (1.44 lpm)
Displacement In ³ Per Cycle	..... 1.47 (24 cm ³)
Lower Pump Material	..... Carbon Steel
Plunger Material	..... Carbon Steel
Packing Material	..... UHMW-PE/Leather Stagger
	..... UHMW-PE/Teflon
Air Motor	..... 66914
Air Motor Repair Kit	..... 637316
Lower Pump Series	..... 66066-2 for NP328D02-1
	..... 66066-3 for NP328D02-2
Lower Pump Repair Kit	..... 637006-2 for NP328D02-1
	..... 637006-3 for NP328D02-2

Package Contents

NP328C01-X
 28:1 Ratio, Carbon Steel Cart Mounted Airless Spray Package
 NM2328A-11-X11Carbon Steel Pump
 129121-400Mini Filter/Regulator
 651412Material Filter Assembly

Pump Performance

Air Inlet Pressure Range 30-150 PSI (2-10.2 bar)
 Fluid Pressure Range 840-4200 PSI (57.4-285.7 bar)
 Flow @ 60 Cycles/Minute:0.38 GPM (1.44 lpm)
 Displacement In³ Per Cycle . . . 1.47 (24 cm³)
 Lower Pump Material Carbon Steel
 Plunger Material Carbon Steel
 Packing Material UHMW-PE/Leather Stagger NP328C01-1
 UHMW-PE/Teflon NP328C01-2
 Air Motor 66914
 Air Motor Repair Kit 637316
 Lower Pump Series 66066-2 for NP328C01-1 66066-3 for NP328C01-2
 Lower Pump Repair Kit 637006-2 for NP328C01-1 637006-3 for NP328C01-2



NP328C0X-X

Package Contents

NP328C02-X
 28:1 Ratio, Carbon Steel Cart Mounted Airless Spray Package
 NM2328A-11-X11Carbon Steel Pump
 129121-400Mini Filter/Regulator
 651412Material Filter Assembly
 65030-5-BFilter and Swivel Assembly
 651533Airless Spray Gun
 628042-25Suction Hose Assembly
 TC1550Spray Nozzle

Pump Performance

Air Inlet Pressure Range 30-150 PSI (2-10.2 bar)
 Fluid Pressure Range 840-4200 PSI (57.4-285.7 bar)
 Flow @ 60 Cycles/Minute:0.38 GPM (1.44 lpm)
 Displacement In³ Per Cycle . . . 1.47 (24 cm³)
 Lower Pump Material Carbon Steel
 Plunger Material Carbon Steel
 Packing Material UHMW-PE/Leather Stagger NP328C02-1
 UHMW-PE/Teflon NP328C02-2
 Air Motor 66914
 Air Motor Repair Kit 637316
 Lower Pump Series 66066-2 for NP328C02-1 66066-3 for NP328C02-2
 Lower Pump Repair Kit 637006-2 for NP328C02-1 637006-3 for NP328C02-2

Package Contents

650554

30:1 Ratio, Cart Mounted Airless Spray Package

- 650485-P43..... Stainless Steel Pump
- R27241-100 Air Line Regulator
- 651422-70..... Material Filter/Dampener
- 91790 Muffler
- 622606-5..... Suction Hose
- 67138 Heavy-duty Cart

Pump Performance

- Air Inlet Pressure Range..... 30-150 PSI (2-10.2 bar)
- Fluid Pressure Range 900-4500 PSI (61.2-306.1 bar)
- Flow @ 60 Cycles/Minute:..... 1.3 GPM (4.9 lpm)
- Displacement In³ Per Cycle ... 41.9 (90.1 cm³)
- Lower Pump Material..... CF8M Stainless Steel
- Plunger Material 17-4 Stnls. Steel (chrome plated)
- Packing Material UHMW-PE/Teflon (Upper)
- UHMW-PE (Upper)
- Air Motor 65465-B
- Air Motor Repair Kit..... 61268
- Lower Pump End Series 66302-P43
- Lower Pump Repair Kit..... 637307-P43



650554

Package Contents

650556

45:1 Ratio, Cart Mounted Airless Spray Package

- 650684-P43.....Stainless Steel Pump
- R27241-100Air Line Regulator
- 651422-70Material Filter/Dampener
- 91790Muffler
- 622606-5Suction Hose Assembly
- 67138Heavy-Duty Cart

Pump Performance

- Air Inlet Pressure Range..... 30-150 PSI (2-10.2 bar)
- Fluid Pressure Range 1350-6750 PSI (91.8-459.1 bar)
- Flow @ 60 Cycles/Minute:..... 1.9 GPM (7.2 lpm)
- Displacement In³ Per Cycle ... 7.5 (122.9 cm³)
- Lower Pump Material..... CF8M Stainless Steel
- Plunger Material 17-4 Stnls. Steel (chrome plated)
- Packing Material UHMW-PE/Teflon (Upper)
- UHMW-PE (Upper)
- Air Motor 65665-B
- Air Motor Repair Kit..... 61355
- Lower Pump End Series 66301-P43
- Lower Pump Repair Kit..... 637306-P43



650556

Package Contents

- 650556-1
 60:1 Ratio, Cart Mounted Arless Spray Package
 650685-P43Pump
 R27241-100Air Line Regulator
 651422-70Material Filter/Dampener
 91790Muffler
 622606-5Suction Hose
 67138Heavy-Duty Cart



650556-1

Pump Performance

- Air Inlet Pressure Range..... 30-100 PSI (2-6.9 bar)
 Fluid Pressure Range 1800-6000 PSI (124-408 bar)
 Flow @ 60 Cycles/Minute:.....1.3 GPM (4.9 lpm)
 Lower Pump Material..... CF8M (316) Stainless Steel
 Plunger Material 17-4 Stnls. Steel (chrome plated)
 Packing Material UHMW-PE/Teflon (Upper)
 UHMW-PE (Upper)
 Air Motor 65665-B
 Air Motor Repair Kit..... 61355
 Lower Pump End Series 66302-P43
 Lower Pump Repair Kit..... 637307-P43

Package Contents

- 650502
 1:1 Ratio, Pail Mounted HVLP Spray Package
 650758-2A4Diaphragm Pump
 P29221-210Modular Piggyback
 R27221-100Mini Piggyback
 27520-400Fluid Regulator
 66971Cover Assy.
 650252Agitator (650502-1-B only)

Pump Performance

- Air Inlet Pressure Range..... 30-100 PSI (2-6.8 bar)
 Fluid Pressure Range 30-100 PSI (2-6.8 bar)
 Maximum Flow Rate:..... 6.5 GPM (24.5 lpm)
 Displacement Per Cycle02 GPM (.07 lpm)
 Pump Material Groundable Acetal
 Diaphragm Material Teflon
 Air Section Repair Kit 637141
 Fluid Section Repair Kit 637140-A4

Package Contents

650503

1:1 Ratio, Bracket Mounted HVLP Spray Package

- 650758-2A4Diaphragm Pump
- P29221-210Modular Piggyback
- R27221-100Modular Regulator
- 27520-400Fluid Regulator

Pump Performance

- Air Inlet Pressure Range 30-100 PSI (2-6.8 bar)
- Fluid Pressure Range..... 30-100 PSI (2-6.8 bar)
- Maximum Flow Rate: 6.5 GPM (24.5 lpm)
- Displacement Per Cycle02 GPM (.07 lpm)
- Pump Material Groundable Acetal
- Diaphragm Material..... Teflon
- Air Section Repair Kit..... 637141
- Fluid Section Repair Kit 637140-A4



Package Contents

650504

1:1 Ratio, Drum Mounted HVLP Spray Package

- 650758-2A4Diaphragm Pump
- P29221-210Modular Piggyback
- R27221-100Modular Regulator
- 27520-400Fluid Regulator

Pump Performance

- Air Inlet Pressure Range..... 30-100 PSI (2-6.8 bar)
- Fluid Pressure Range..... 30-100 PSI (2-6.8 bar)
- Maximum Flow Rate:..... 6.5 GPM (24.5 lpm)
- Displacement Per Cycle02 GPM (.07 lpm)
- Pump Material Groundable Acetal
- Diaphragm Material..... Teflon
- Air Section Repair Kit..... 637141
- Fluid Section Repair Kit 637140-A4



Package Contents

650506

1:1 Ratio, Drum Mounted Package

666100-244-CDiaphragm Pump

P29221-110Modular Piggyback

94414Drum Cover

Pump Performance

Air Inlet Pressure Range. 30-120 PSI (2-8.3 bar)

Fluid Pressure Range 30-120 PSI (2-8.3 bar)

Maximum Flow Rate:. 35 GPM (132.5 lpm)

Displacement Per Cycle0.16 GPM (.60 lpm)

Pump Material Aluminum

Diaphragm Material. Teflon

Air Section Repair Kit 637118-C

Fluid Section Repair Kit 637119-44-C



650506

Air Filter/Regulator/Lubricator

Model Number	Description	Pumps Used With	Port Size NPT	Reg. Pressure Range PSI (bar)	Max. Flow
MODULE/AIR 1000™ F/R/L					
C28121-600	Filter/Regulator/Lubricator Drop/fog-type lubrication, 20 micron filter, polycarbonate bowls.	2" & "N", air motor pumps	1/4 (F)	5-125 (.3-8.5)	13 SCFM (6 dm ³ /s)
P29121-600	Filter/Regulator Drop/fog-type lubrication, 20 micron filter, polycarbonate bowls.	2" & "N", air motors	1/4 (F)	5-125 (.3-8.5)	12 SCFM (6 dm ³ /s)
MODULE/AIR 2000™ F/R/L					
C28241-810	Filter/Regulator/Lubricator Drop/fog-type lubrication, 40 micron filter, metal bowls w/ sight glass.	4 1/4" & 6" air motors	1/2 (F)	5-125 (.3-8.5)	110 SCFM (52 dm ³ /s)
P29241-610	Filter/Regulator Drop/fog-type lubrication, 40 micron filter, metal bowls w/ sight glass.	4 1/4" & 6" air motors	1/2 (F)	6-125 (.3-8.5)	140 SCFM (66 dm ³ /s)
HEAVY DUTY F/R/L					
28353	Filter/Regulator/Lubricator Drop/fog-type lubrication, 40 micron filter, polycarbonate bowls.	8", 10" & 12" air motors	3/4 (F)	5-125 (.3-8.5)	75 SCFM (35 dm ³ /s)
F/R/L ASSEMBLIES					
651728	Kit Assembly Heavy-Duty FRL w/ hose & mounting bracket. <i>For installation to Portable Carts with Wall Mounts.</i>	8", 10" & 12" air motors	3/4 (M)	5-125 (.3-8.5)	75 SCFM (35 dm ³ /s)



C28121-600



P29121-600



C28241-810



P29241-610



28353



651728

Airline Lubricant

62274 One Quart Bottle
A high quality "EP" extreme pressure oil, non-detergent, rust or oxidation inhibited, with a viscosity of 700-1000 S.U.S. at 100°F.

Air line lubricator to air motor.

Over-Run Controls

Model Number	Description	Pumps Used With	Inlet Outlet NPT	Pressure Range PSI (bar)	Flow @ 90 PSI
635040	ARO-STOP® Valve Shuts off air to the pump when material container is empty or line is broken. Quick set and reset feature.	2" & "N", Series air motor pumps	1/4 (F); 1/4 (M)	20-175 (1.4-12)	10-23 cfm
23644-400	ARO-STOP® Valve Shuts off air to the pump when material container is empty or line is broken. Quick set and reset feature.	4 1/2" & 6" air motor pumps	1/2 (F); 1/2 (M)	20-175 (1.4-12)	25-200 cfm
635043	ARO-STOP® Valve Shuts off air to the pump when material container is empty or line is broken. Quick set and reset feature.	8", 10" & 12" air motor pumps	3/4 (F); 3/4 (M)	20-175 (1.4-12)	50-250 cfm



635040

Air Motor Muffler

Model Number	Description	Pump Used With	Air Inlet NPT	Size Inches X Inches PSI (bar)
61879	Air Motor Muffler Reduces air exhaust noise level to acceptable OSHA standards.	2" air motor, 2:1 ratio pumps	3/8 (M)	1-1/4 x 3-1/2 (32 x 92)
91790	Air Motor Muffler Reduces air exhaust noise level to acceptable OSHA standards.	4 1/2" & 6" air motor pumps	1-1/4 (M)	3-1/2 x 11-3/16 (89 x 284)
92460	Air Motor Muffler Reduces air exhaust noise level to acceptable OSHA standards.	8" air motor, pumps	1-1/4 (M)	5-5/8 x 15-3/8 (143 x 391)
66718	Air Motor Muffler Reduces air exhaust noise level to acceptable OSHA standards.	10" & 12" air motor, pumps	Bolted-on	9 x 20 (229 x 508)



61879



91790



92460



66718

Wet Sol "Plus"

66333-B Wet Sol - One Quart Container
Designed to prolong packing life by keeping the piston rod and packings wetted. Also reduces the possibility of material hardening on the piston rod.

All pumps with wet cups.

66334-B Wet Sol - One Gallon Container



66334-B

Drum Covers

Model Number	Description	Container Size Gallon	Pumps Used With
651851	Drum Cover Accepts 65986 Siphon Hose and 651100 Agitator	5	2" & 3" air motor wall-mounted stub pumps that use 65986 Siphon Hose.
651854	Drum Cover Stns. Steel, includes 651100 agitator. Accepts opening accepts optional Siphon Tube/Hose.	5	Wall-mounted stub or diaphragm pumps.
66971	Drum Cover Stainless Steel, accepts 651100 agitator	5	1/2" ports diaphragm pump
66197	Drum Cover Includes hinged access covers, 2" NPT (F) bung opening, and will accept 651104-1 Agitator.	55	2", 3" & 4 1/4" 55-gallon size bung type pumps.
651852	Drum Cover Includes hinged access covers, 2" NPT (F) bung opening, 2" (51 mm) x 34" (864 mm) pipe extension and 60307-1 Agitator.	55	Accepts 65986-1 Siphon Hose from any wall mounted pump. Any 55-gallon bung-type pump that can be used with 640067 Lift.
61729	Drum Cover Includes hinged access cover and carrying handles.	55	4 1/4" & 6" air motor 2-ball, 4-ball, or extrusion pumps.
651853	Drum Cover Stainless Steel with 651104-1 agitator, suction tube with 90° elbow, 1" return port, and hinged access door.	55	Accepts 67140-2 Siphon Hose and tube from wall-mounted pump.



651851



66197



651852

Agitators

Model Num.	Container Size	Mounts (Order Separately)
651100	5	651851 Drum Cover
651104-3	5	Drum Cover
60307-1	55	61729, 66197 Drum Cover
651103	55	Drum Side
651104-1	55	66197 Drum Cover

Agitator Model	Air Motor Model	H.P.	Motor R.P.M.	Diameter Mount in. (mm)	Length in. (mm)	Model	Material
651100	650252	1/3	500-1000	Hub 1/2 (12/7)	12 (305)	92094-4	416SS
651104-3	650250	3/4	300-3000	Flange 1/2 (12/7)	10.5 (267)	92094-3	316SS
60307-1	650250	3/4	300-3000	Flange 1/2 (12/7)	32 (813)	73120	CS
651103	650250	3/4	300-3000	Flange 1/2 (12/7)	32 (813)	92094-1	316SS
651104-1	650250	3/4	300-3000	Flange 1/2 (12/7)	32 (8130)	92094-1	316SS



651100



651103



651104-3



651104-1

Propeller Specifications

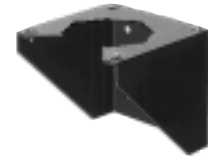
Agitator Model	# of Props	Diameter in. (mm)	Prop Model	Prop Material	Prop Direction
651100	1	4 (102)	94783-1	316SS	CCW
651104-3	1	5 (127)	94783-1	316SS	CCW
60307-1	2	5 (127)	73121, 73122	316SS	CCW
651103	2	5 (127)	94783-1	316SS	
651104-1	2	5 (127)	94783-1	316SS	

Wall Mounts

Model Number	Description	Pumps Used With
61113	Wall Mount Bracket Has 2" NPT(F) opening to accept bung type pumps. Bracket slips over rim of open head drum or can be wall mounted.	2", "N" Series" & 4 1/4" air motor stub pumps fitted with bung adapters or 55-gallon bung type pumps.
66100	Wall Mount Bracket With 91395 Removable Mounting plate.	4 1/4" air motor 4" stroke pumps.
66101	Wall Mount Bracket With 91396 Removable Mounting plate.	4 1/4" air motor and 6" air motor. 2- and 4-ball pumps. (Including Integrity/Stinger Pumps)
66542	Wall Mount Bracket With 92371 Removable Mounting plate.	8", 10" & 12" pumps, including "Stinger" pumps w/8" motors
76763	Wall Mount Open front permits easy installation of pump. Can be bolted to wall at back or side of bracket.	All "N" Series" & 1/2" diaphragm pumps.



66100



66101



76763

Siphon Hoses

Model Number	Description	Used With	Hose Length Ft. (m)	Fluid Outlet	Fluid Inlet
65986	Siphon Hose 5-gallon size. Neoprene cover and thiokol tube. Includes 91020-1 Pipe Extension.	651851 Drum Cover or 5-gallon container.	6 (1.8)	3/4 (M)	-
65986-1	Siphon Hose 55-gallon size. Neoprene cover and thiokol tube. Includes 91020-2 Pipe Extension.	651852 Drum Cover or closed drum with 2" bung opening.	6 (1.8)	3/4 (M)	-
622702-6	Siphon Hose 1" (25.4 mm) I.D. hose with stainless steel fittings.	Stainless Steel Stub Pumps	6 (1.8)	1 (M)	1 (M)
622702-10	Siphon Hose 1" (25.4 mm) I.D. hose with stainless steel fittings.	Stainless Steel Stub Pumps	10 (3)	1 (M)	1 (M)
622701-6	Siphon Hose 1" (25.4 mm) I.D. hose with carbon steel fittings.	Carbon Steel Stub Pumps	6 (1.8)	1 (M)	1 (M)
67140-1	Stainless Steel Siphon For 5-gallon containers. Includes 16" wand and 5' of 3/4" I.D. Hose.	Wall-mounted Integrity Pumps	5 (1.5)	3/4 (M)	-
67140-2	Stainless Steel Siphon For 5-gallon containers. Includes 36" wand and 5' of 3/4" I.D. Hose.	Wall-mounted Integrity Pumps	5 (1.5)	3/4 (M)	-



67140-1



65986

Tubes

Model Number	Description	Used With	Fluid Outlet Inches (NPT)
65109	Siphon Tube Assembly 55-gallon size carbon steel, with 2" bung adaptor. Hose not included. Suggest 622681-6 Hose for 3/4" inlet or 66701-6 Hose for 1" inlet.	Wall-mounted Stub Pumps when fluid viscosity requires a foot valve for priming or with drum cover that has a 2" NPT (F) bung adapter.	3/4 (F) or 1 (F)
66568	Siphon Tube Assembly with Filter and Check Valve Assembly 316 stainless steel with 2" NPT bung adapter and 66480 Filter and Check Valve assembly. Hose not included. Suggest 622702-6 Hose.	Wall-mounted Stub Pumps when fluid is corrosive and viscosity requires a foot valve for positive priming.	1 (F)
66717	Pipe Extension Constructed of P.V.C. for 650408 and NM2304B-X pumps.	55-gallon capacity.	
91020-1	Pipe Extension 1/2" I.D. galvanized suction tube	5-gallon containers.	
91020-2	Pipe Extension 1/2" I.D. galvanized suction tube.	55-gallon containers.	



Inlet Accessories/Adapters

651830	Screen Assembly Adapts to 91020-1 or -2 Pipe Extension keeps foreign matter from entering lower pump end.		
66480	Filter and Check Valve Assembly 316 stainless steel assembly has 1" NPT (F) connections and 40 mesh screen. 4-3/4" (121 mm) long x 2-1/8" (54 mm) in diameter. Used with suction tubes when fluid is corrosive and viscosity requires a foot valve for positive priming.		
94254	Inlet Adapter 90° 1" NPT(M) x 3/4(F) used to adapt suction hose to 67139 cart.	Integrity Pumps	
94256	Outlet Adapter For mounting material filter 1" NPT(M) x 1/2" NPT(M).	Integrity Pumps	



Floor Mounts/Portable Carts

67187-1	Mounting Post Floor stand mounting post with 4-1/4", 6" & 8" air motors.	4-1/4", 6" Air Motor Stinger Pumps	
67187-2	Mounting Post Floor stand mounting post with hydraulic motors.	2 sq. in Hydraulic Motors	
66554-1	Portable Cart 24" (610 mm) to 30" (762 mm) wheel spacing adjustment. Has 16" (406 mm) tires.	4 1/4" & 6" air motor 2-ball and 4-ball pumps.	
66554-2	Portable Cart 24" (610 mm) to 30" (762 mm) wheel spacing adjustment. Has 16" (406 mm) tires.	8", 10" & 12" air motor pumps. 8" Integrity	
67139	Portable Cart Will clear 28" (711 mm) openings. Unique "chair" design distributes pump weight and makes moving easy. 12" (305 mm) pneumatic tires also enhance smooth transport.	Integrity Pumps 4-1/4" and 6".	



Lifts

Model Number	Description	Pumps Used With	Covers Used With
640067	Single Post Lift Single-acting air cylinder for easy drum change-over. Requires drum cover. 92" (2.3 m) extended.	All 55 gallon bung-type pumps	651852, or 66197 Drum Cover



640067

Material Filters-Standard Models

Model Number	Maximum Fluid Pressure PSI (Bar)	Filter Mesh	Filter Microns	Filter Inlet(s) Size (Qty) NPT	Filter Outlet(s) Size (Qty) NPT
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1/4" FLUID INLET/CARBON STEEL CONSTRUCTION

651412	5,000 (345)	70	200	1/4-F (2)	1/4-F (3) Bottom swivel
651412-8	5,000 (345)	100	149	1/4-F (2)	1/4-F (3)

1/2" FLUID INLET/STAINLESS STEEL CONSTRUCTION (PASSIVATED)

651422-40	6,000 (414)	40	375	1/2-F (2)	1/2-F (1)
651422-70	6,000 (414)	70	200	1/2-F (2)	1/2-F (1)
651422-100	6,000 (414)	100	149	1/2-F (2)	1/2-F (1)

1/2" FLUID INLET/CARBON STEEL CONSTRUCTION (E-NICKEL PLATED)

651420-40	6,000 (414)	40	375	1/2-F (2)	1/2-F (1)
651420-70	6,000 (414)	70	200	1/2-F (2)	1/2-F (1)
651420-100	6,000 (414)	100	149	1/2-F (2)	1/2-F (1)

1" FLUID INLET/CARBON STEEL CONSTRUCTION (E-NICKEL PLATED)

651418-40-B	6,000 (414)	40	375	1-F (2)	3/8-F (3)
651418-70-B	6,000 (414)	70	200	1-F (2)	3/8-F (3)
651418-100-B	6,000 (414)	100	149	1-F (2)	3/8-F (3)



651412-X



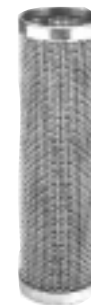
651418-XX-B



651420-XX-B

Material Filters Screens

Model Number	Screen Mesh	Filter Used With	Model Number	Screen Mesh	Filter Used With
91192-1	40	651412	93944-70	70	651420
91192-2	70	651412			651422
91192-3	100	651412	93944-100	100	651420
91192-4	200	651412			651422
93944-40	40	651420	93945-40	40	651418
		651422	93945-70	70	651418
			93945-100	100	651418



93944-70

Downstream Fluid Regulators

Model Number	Base Housing Seat (See code at bottom)	Regulated Pressure Range PSI (bar)	Working Pressure W/Gauge PSI(bar)	Maximum Inlet Pressure PSI (bar)	Gauge Pressure Range PSI (bar)
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3/8" PORTS, STANDARD FLOW TO 3 GPM (11.4 LITERS)

651790-A1B-B	Z/A T/C	5-30 (0-2)	120 (8.3)	750 (51.7)	0-60 (0-4)
651790-A1C-B	Z/A T/C	20-60 (1.3-4.1)	120 (8.3)	750 (51.7)	0-60 (0-4)
651790-A1D-B	Z/A T/C	50-200 (3.4-14)	600 (41.3)	750 (51.7)	0-300 (0-20)
651790-A3B-B	S/S T/C	5-30 (0-2)	120 (8.3)	750 (51.7)	0-60 (0-4)
651790-A3C-B	S/S T/C	20-60 (1.3-4.1)	120 (8.3)	750 (51.7)	0-60 (0-4)
651790-A3D-B	S/S T/C	50-200 (3.4-14)	600 (41.3)	750 (51.7)	0-300 (0-20)
651790-A4B-B	S/S 3/S	50-30 (0-2)	120 (8.3)	500 (34)	0-60 (0-4)
651790-A4C-B	S/S 3/S	20-60 (1.3-4.1)	120 (8.3)	500 (34)	0-60 (0-4)
651790-A4D-B	S/S 3/S	50-200 (3.4-14)	600 (41.3)	500 (34)	0-300 (0-20)
651780-A1A-B	C/S T/C	400-1,250 (28-86)	-	3,000 (207)	No Gauge
651780-A3A-B	S/S T/C	400-1,250 (28-86)	-	3,000 (207)	No Gauge



3/8" Ports Model

3/8" PORTS, HIGH-FLOW TO 6 GPM (22.7 LITERS)

651790-B1D-B	Z/A T/C	30-200 (2-14)	600 (41.4)	1250 (86)	0-300 (0-20)
651790-B1E-B	Z/A T/C	100-800 (7-55)	1,250 (86.2)	1250 (86)	0-1,000 (0-69)
651790-B3D-B	S/S T/C	30-200 (2-14)	600 (41.4)	1250 (86)	0-300 (0-20)
651790-B3E-B	S/S T/C	100-800 (7-55)	1,250 (86.2)	1250 (86)	0-1,000 (0-69)
651790-B4E-B	S/S S/S	100-800 (7-55)	1,250 (86.2)	1250 (86)	100-800 (6.8-54.4)
651790-B4D-B	S/S 3/S	30-200 (2-14)	600 (41.4)	500 (34)	0-300 (0-20)
651780-B1A-B	C/S T/C	400-1,250 (28-86)	-	3,000 (207)	No Gauge
651780-B3A-B	S/S T/C	400-1,250 (28-86)	-	3,000 (207)	No Gauge



Remote Model

3/8" PORTS, REMOTE MODELS, FLOW TO 3 GPM (11.4 LITERS)

651790-A1R-B	Z/A T/C	30-200 (2-14)	50 (34)	750 (511.7)	No Gauge
651790-A3R-B	S/S T/C	30-200 (2-14)	50 (34)	750 (511.7)	No Gauge
651790-A4R-B	S/S 3/S	30-200 (2-14)	50 (34)	500 (34)	No Gauge

Downstream Fluid Regulators, 1/4" Ports

Model Number	Inlet PSI (bar)	Regulated PSI (bar)	Materials of Construction (See code at bottom)				Inlet Inches NPT	Gauge (Order Separately)	
			Bonnet	Ball	Seat	Pin	Di.		
27520-000	750 (52)	125 (9)	Z	T/C	T/C	T/C	T	1/4 (F)	93504-1
27520-100	750 (52)	50 (3)	Z	T/C	T/C	T/C	T	1/4 (F)	65107
27520-200	750 (52)	250 (17)	Z	T/C	T/C	T/C	T	1/4 (F)	93504-1
27520-400	750 (52)	30 (2)	Z	T/C	T/C	T/C	T	1/4 (F)	93769



27520-200

Material Codes

Code	Description	Code	Description
3/S	300 Series Stainless Steel	T/C	Tungsten Carbide
S/S	Stainless Steel	Z/A	Zinc Aluminum
4/S	400 Series Stainless Steel	Z	Zinc
C/S	Carbon Steel		

Back Pressure Fluid Regulators

Model Number	Base Housing (See code at bottom)	Regulated Pressure Range PSI (bar)	Working Pressure W/Gauge PSI(bar)	Maximum Inlet Pressure PSI (bar)	Gauge Pressure Range PSI (bar)
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3/8" PORTS, HIGH-FLOW TO 6 GPM (22.7 LITERS)

651791-B1D-B	Z/A T/C	0-200 (0-14)	200 (14)	200 (14)	0-300 (0-20)
651791-B1E-B	Z/A T/C	0-800 (0-55)	800 (55)	800 (55)	0-1,000 (0-69)
651791-B3D-B	S/S T/C	0-200 (0-14)	200 (14)	200 (14)	0-300 (0-20)
651791-B3E-B	S/S T/C	0-800 (0-14)	800 (55)	800 (55)	0-1,000 (0-69)
651791-B4D-B	S/S 3/S	0-200 (0-14)	200 (14)	200 (14)	0-300 (0-20)

1-1/4" PORTS, SYSTEM-FLOW ** TO 18.5 GPM (701 LITERS)

651791-C3D-B	S/S T/C	0-200 (0-14)	200 (14)	200 (14)	0-300 (0-20)
651791-C4D-B	S/S 3/S	0-200 (0-14)	200 (14)	200 (14)	0-300 (0-20)

** Flow rates tested in 55 CPS Material.



1-1/4" Ports Model

Fluid Heaters & Accessories

Model	Volts AC	Amps	Heater Watts	Heater Accuracy (°celcius)	Rise over ambient ° (°celcius)	Recovery Gall/Hr. (Liters)	Working Press (bar)	Inlet Outlet NPT
651747-1-B	120	16.6	2000	±3-1/2° ±(1.9°)	100°F (38°)	15 (56.8)	5,000 (345)	1/2(F)
651747-2-B	240	8.3	2000	±3-1/2° ±(1.9°)	100°F (38°)	15 (56.8)	5,000 (345)	1/2(F)
651747-3-B	440	4.5	2000	±3-1/2° ±(1.9°)	100°F (38°)	15 (56.8)	5,000 (345)	1/2(F)

Model	Descriptions	Use With
66258	Mounting Bracket Brackety assy. with appropriate mounting holes to affix heater to vertical substrate.	651747-X



651747-X-B

**CSA
Approved!**

ACCESSORIES

Automatic Airless Spray Guns

Model Number	Description	Max. Fluid PSI	Fluid Inlet	Fluid Outlet	Air NPT	Minimin Air PSI To Open
651511-1	Spray Gun - Requires 4-way air valve to open and close. Adjusting screw varies stroke length. Secures to 1/2" diameter rod by allen screw. Aluminum body with tungsten carbide seats. Includes 66504 Guard/Nut. Order TC-XXX Tip separately.	5000 (345)	3/8 NPT (F) (2)	.250 (6) & 11/16-16 (M)	(2) 1/8 F	50 (3.4) at 2000 PSI (138 bar) fluid pressure
651513-12-B	Spray Gun - Has air open spring return cylinder. Requires 3-way air valve to open. Adjusting screw varies stroke length. Secures to 1/2" diameter rod screw. 316SS body w/tungsten carbide seat. Includes 66504 Guard/Nut. Order TC-XXX Tip separately.	5000 (345)	1/4 NPS (M)	.093 (2.3) & 11/16-16 (M)	1/8 (F)	50 (3.4) at 2000 PSI (138 bar) fluid pressure
651513-22-B	Spray Gun - Same as 651513-12-B, except it has air open, air return cylinder. Requires a 4-way valve to open.	5000 (345)	1/4 NPS (M)	.093 (2.3) & 11/16-16 (M)	1/8 (F)	50 (3.4) at 2000 PSI (138 bar) fluid pressure



651511-1



651513-12-B

Manual Airless Spray Guns

Model Number	Description	Max. Fluid PSI	Fluid Inlet In.(mm)	Fluid Outlet I.D. & Thread
651533	Spray Gun - Wetted parts of 316SS with tungsten carbide seats. Used to airless spray paints, lacquers and other light fluids. Includes 66504 Guard/Nut. Order TC-XXX Tip separately.	5000 (345)	1/4 NPS(M)	.093 (2.3) & 11/16-16(M)
*651500-1	Spray Gun - Aluminum body with tungsten carbide seats. Used for airless spraying materials over 200,000 cPs. Includes 66504 Guard/Nut. Order TC-XXX Tip separately.	7500 (517)	3/8 NPT(F)	.250 (6) & 11/16-16(M)

***WARNING** Do not use with halogenated hydrocarbons. This model contains aluminum parts that come in contact with the material being dispensed. Aluminum is not compatible with halogenated hydrocarbon solvents..



651533



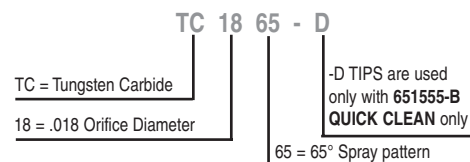
651500-1

Airless Spray Tips

Model Num.	-D Models	Equiv. Orifice	Pattern Width In. (mm)	Flow Rate GPM @ Fluid PSI			
				500	1000	1500	2000
TC715	-	.007	3 (76)	.03	.04	.05	.06
TC950	-	.009	8.5 (216)	.04	.06	.067	.08
TC1125	-D	.011	5.5 (140)	.06	.08	.10	.12
TC1325	-	.013	5.5 (140)	.09	.12	.15	.18
TC1540	-D	.015	8 (208)	.12	.16	.10	.23
TC1550	-D	.015	10 (254)	.12	.16	.10	.23
TC1565	-D	.015	12 (305)	.12	.16	.10	.23
TC1850	-D	.018	10 (254)	.18	.25	.30	.36
TC1865	-D	.018	13 (330)	.18	.25	.30	.36
TC1880	-D	.018	15 (381)	.18	.25	.30	.36
TC1895	-	.018	17 (432)	.18	.25	.30	.36
TC2140	-D	.021	8.5 (216)	.24	.33	.41	.47
TC2440	-D	.024	9 (229)	.30	.42	.52	.60
TC2495	-	.024	21 (533)	.30	.42	.52	.60
TC2650	-D	.026	12 (305)	.35	.50	.61	.71
TC2965	-D	.029	15 (381)	.45	.63	.80	.90
TC3195	-	.031	21.5 (546)	.53	.75	.92	1.1
TC3650	-	.036	12 (305)	.71	1.0	1.2	1.4
TC3680	-	.036	18.5 (470)	.71	1.0	1.2	1.4
TC4195	-	.041	21.5 (546)	.88	1.2	1.5	1.8
TC4340	-	.043	9 (229)	1.1	1.5	1.8	2.1
TC4365	-	.043	15 (381)	1.1	1.5	1.8	2.1
TC4895	-	.048	22 (559)	1.2	1.7	2.1	2.5
TC5265	-	.052	15 (381)	1.4	2.0	2.4	2.8
TC6265	-	.062	15 (381)	2.1	3.0	3.7	4.2

AIRLESS SPRAY TIPS

Model Number Significance



TC1865-D Tip

EQUIVALENT ORIFICE: Airless tip orifices are elliptical in shape. The term "equivalent orifice diameter" refers to circular orifice diameter which will provide the same flow rate as the elliptical orifice. The equivalent orifice diameter does not indicate actual orifice dimensions.

PATTERN WIDTH: This dimension is the nominal pattern width of each tip when tested on a coating material of 20 seconds – No. 4 Zahn cup viscosity at 1500 PSI at a 12" distance from the tip.

FLOW RATE IN GPM: The flow rates of ARO airless tips are given as GPM flow on water at pressures shown. Capacities will vary to some degree on other materials.

Airless Spray Tips

Model	Description	Used With
66504	Tip Guard and Nut -- Secure TC-XXX tip to gun. Guard required on airless applications. Order tips separately.	All Manual/Automatic Spray Guns
651555-B	Quick Clean -- Spray tip locked in operating position until reversed with lever for cleaning. For high viscosity fluids. Order tip separately.	All Manual/Automatic Spray Guns
651551	Quick Clean -- Spray tip locked in operating position until reversed with lever for cleaning. For heavy viscosity fluids. Order tip separately. NOTE: To adapt 651551 to fit 651533, order 76555 pilot, 92367 retaining nut, Y167-1 1/8(M) x 1/4(F) adapter.	651500-1 Guns
65030-1-B	Swivel -- 1/4 NPT(M) x 1/4 NPS(F). Swivels 360°. No filter included. For Swivel & Filter: 65030-5-B 120 mesh SS filter 65030-9-B 70 mesh SS filter	All Manual/Automatic Spray Guns.
67176-X	Filter 67176-5 100 mesh 6717X-9 60 mesh	



651555-B



651551



65030-1

2-Way Pilot Acting Solenoid Valves



- Normally Closed
- Brass Body
- Stainless Steel Stem
- Spring Return

Pump Size

Model Number	Port Size	Cv	Voltage	2"	3"	4-1/4"	6"	8"	10"	12"
TB03EB-024-D	3/8"	4.5	24 DC	•	•					
TB03EB-120-A	3/8"	4.5	120 AC	•	•					
TB04EB-024-D	1/2"	4.5	24 DC			•	•			
TB04EB-120-A	1/2"	4.5	120 AC			•	•			
TB06EB-024-D	3/4"	12.0	24 DC					•	•	•
TB06EB-120-A	3/4"	12.0	120 AC					•	•	•

2-Way Direct Acting Solenoid Valves



- Normally Closed
- Brass Body
- Stainless Steel Stem
- Spring Return

Model Number	Port Size	Cv	Voltage	2"	3"	4-1/4"	6"	8"	10"	12"
TB022B-024-D	1/4"	.18	24 DC	•						
TB022B-120-A	1/4"	.18	120 AC	•						
TB035B-024-D	3/8"	4.0	24 DC		•	•	•			
TB035B-120-A	3/8"	4.0	120 AC		•	•	•			
TB045B-024-D	1/2"	4.0	24 DC			•	•			
TB045B-120-A	1/2"	4.0	120 AC			•	•			
TB066B-024-D	3/4"	8.6	24 DC					•	•	•
TB066B-120-A	3/4"	8.6	120 AC					•	•	•

3-Way Solenoid Actuated Valves



CAT66P

- Normally Closed
- Aluminum Body
- Spring Return

Model Number	Port Size	Cv	Voltage	2"	3"	4-1/4"	6"	8"	10"	12"
CAT66P-024-D	1/4"	.2	24 DC	•						
CAT66P-120-A	1/4"	.2	120 AC	•						
MQ3728-024-D	1/4"	1.5	24 DC		•					
MQ3728-120-A	1/4"	1.5	120 AC		•					
H253SS-024-D	3/8"	2.2	24 DC			•	•			
H253SS-120-A	3/8"	2.2	120 AC			•	•			
H254SS-024-D	1/2"	2.4	24 DC			•	•			
H254SS-120-A	1/2"	2.4	120 AC			•	•			
MQ3729-024-D	3/4"	7.5	24 DC					•	•	•
MQ3729-120-A	3/4"	7.5	120 AC					•	•	•

Air Control Needle Valves



104104-N02

- Composite Body
- Can be Panel Mounted
- Infinite Control Settings
- Corrosion-Resistant Stainless Steel insert & stem

Model Number	Port Size	Cv	2"	3"	4-1/4"	6"	8"	10"	12"
104104-NS2	1/4"		•	•					
104104-N02	1/4"		•	•					
104104-N04	1/2"	4.5			•	•			
104104-N06	3/4"	4.5					•	•	•

Lock-Out Valves/Hasp



104174



100085

- Meets OSHA lock-out / tag-out regulations
- Instant upstream of air filters / regulator unit

Model Number	Port Size	2"	3"	4-1/4"	6"	8"	10"	12"
104253-2*	1/4"	•	•					
104174-2	1/4"	•	•					
104174-4	1/2"			•	•			
100085 (Hasp)	1/2"	•	•	•	•	•	•	•

* Safety lock-out for Module-Air 1000

Accessories

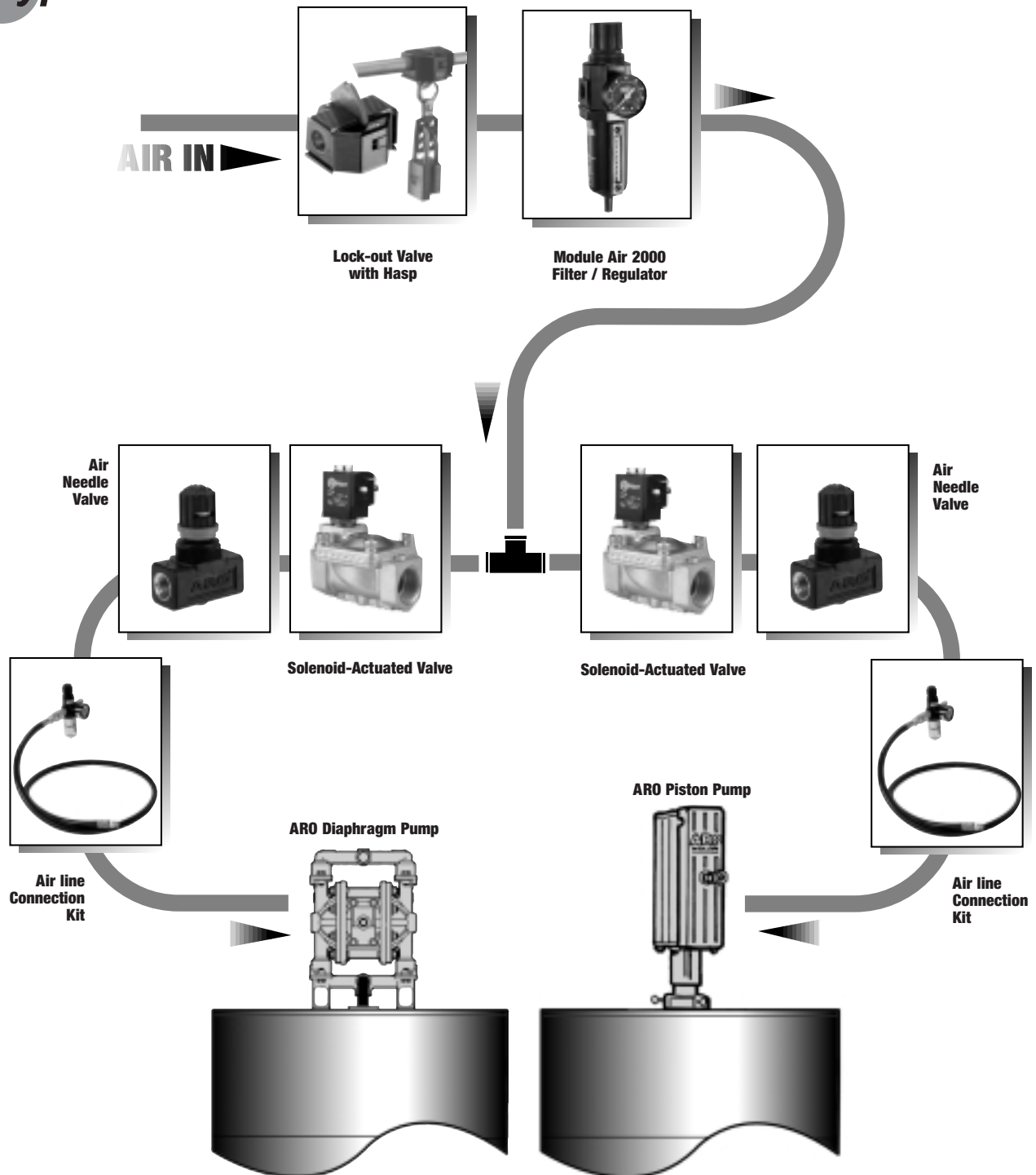
Connectors

Model	Description
CSN	Strain relief connector for 3-way valves
CSN-30	Strain relief connector for 2-way valves and CAT66P-XXX-X Valves
CHW	Molded cable connector for 3-way valves, 36" molded leads
CHW-30	Molded cable connector for 2-way valves and CAT66P-XXX-X, 36" molded leads

Coils

Model	Description
116218-39	22 mm, 24 VDC Coil
116218-33	22 mm, 120 VAC Coil
119378-39	30 mm, 24 VDC Coil
119378-33	30 mm, 120 VAC Coil

Typical Installation



Pump Performance

Here you can locate information on the performance of each pump model. This includes air inlet and fluid pressure ranges, maximum recommended cycles and displacement per cycle. Also, use this area to locate data on flow and noise levels. A photo of each model provides dimensional data.

Pump Motor/Lower Specifications

Important specifications for each pump are conveniently located in one area. Service kits for the air motor and lower end are listed. This section also contains data needed to spec a pump into a specific system, if necessary.

Pump Packings - Ordering

ARO offers several types of lower end packings in an effort to meet the performance demands of different applications. Not all packing types are available on each pump. Use this section to select the appropriate packing set-up for your application. The ordering menu easily identifies which packings can be chosen.

Accessories

ARO offers many accessories that can improve the performance of the pump you've selected. Several of these accessories are listed along with each pump. There is also a complete listing of accessories at the end of each section. That way the accessories most often needed in a transfer application (or extrusion & spray) are easily accessible.

Performance

Air Inlet Pressure Range
 Fluid Pressure Range.....
 Max. Rec'd Cycles Per Minute .
 Displacement In³ Per Cycle ...
 Cycles Per Gallon.....
 Flow @ Cycles / Minute ..
 Noise Level @ Psi



Specifications

Lower Pump Material
 Plunger Material
 Cylinder Material.....
 Air Motor.....
 Motor Repair Kit.....
 Motor Diameter.....
 Stroke
 Air Inlet.....
 Lower Pump End Series.....
 Lower Pump Repair Kit
 Material Inlet.....
 Material Outlet
 Weight.....

Ordering

N M 2 3 0 4 A -X 1 -X 1 1
 | |
 Type Packings

Accessories

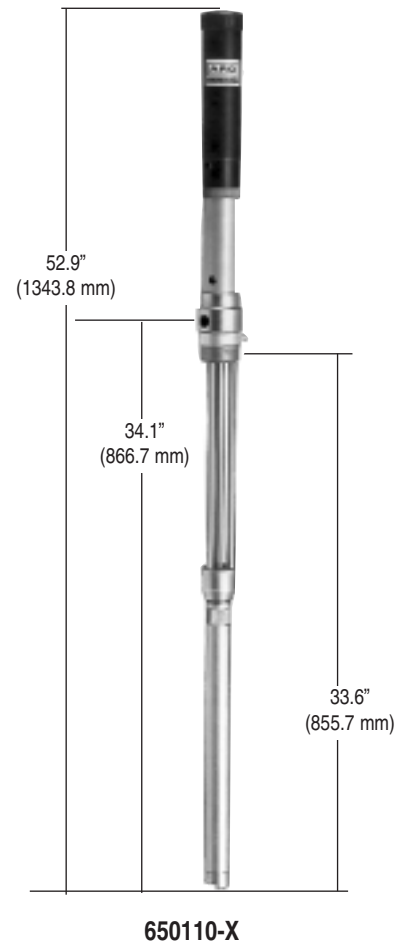
Air F/R/L: #
 Wall Mount: #
 Muffler: #

Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range. 60 - 300 PSI (4 - 20.4 bar)
- Max. Rec'd Cycles Per Minute . 120
- Displacement In³ Per Cycle . . . 7.2 (117.9 cm³)
- Cycles Per Gallon (Liter) 32 (8.4)
- Flow @ 120 Cycles / Minute . . 4 GPM (15.1 lpm)
- Noise Level @ 60 Psi 77.8 db(A)

Specifications

- Lower Pump Material Carbon Steel
- Plunger Material Carbon Steel (Chrome Plated)
- Cylinder Material. Carbon Steel
- Air Motor 60702
- Motor Repair Kit 66098
- Motor Diameter 2" (5.2 cm)
- Stroke 6" (15.2 cm)
- Air Inlet 1/4" NPT(F)
- Lower Pump Series 66198 for 650110-C
 66198-1 for 650110-1C
- Lower Pump Repair Kit 637028 for 650110-C
 637029 for 650110-1C
- Material Inlet Immersed
- Material Outlet 1/2" NPT(F)
- Weight 12 lbs. (5.4 kgs.)



Ordering

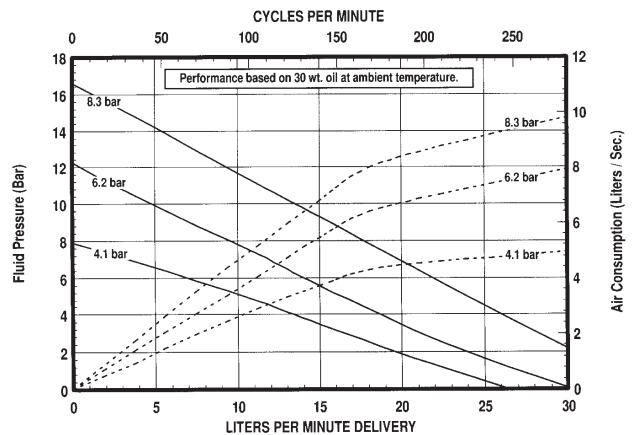
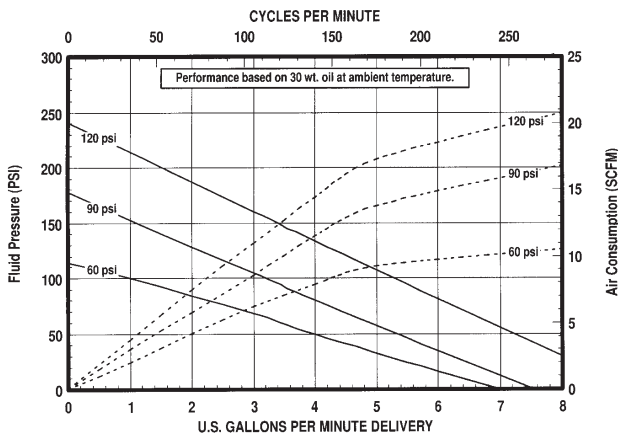
6 5 0 1 1 0 - X

Packings

- C : UHMW-PE
- 1C : Teflon

Accessories

- Air F/R/L: 128121-800
- Muffler: 61879
- Wall Mount: 61113
- Airline Oil: 62274

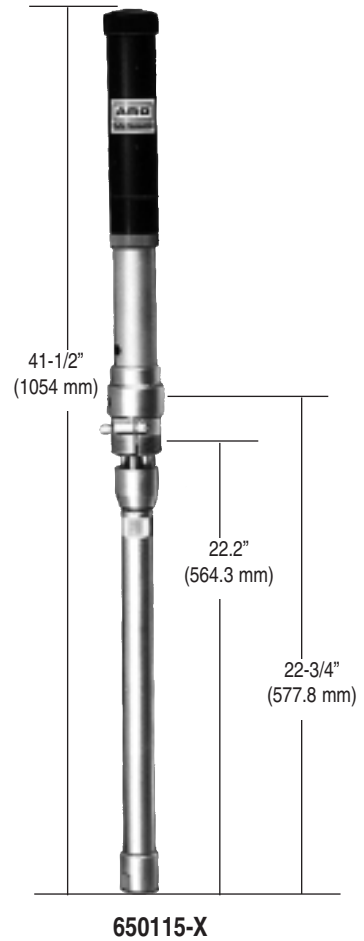


Performance

Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 Bar)
 Fluid Pressure Range. 60 - 300 PSI (4 - 20.4 Bar)
 Max. Rec'd Cycles Per Minute . 120
 Displacement In³ Per Cycle . . . 7.2 (117.9)
 Cycles Per Gallon (Liter) 32 (8.4)
 Flow @ 120 Cycles / Minute. . . 4 G.P.M. (15.1 lpm)
 Noise Level @ 60 Psi. 77.8 db(A)

Specifications

Lower Pump Material Carbon Steel
 Plunger Material Carbon Steel
 Cylinder Material. Carbon Steel
 Air Motor 60702
 Motor Repair Kit 66098
 Motor Diameter. 2" (5.2 cm)
 Stroke 6" (15.2 cm)
 Air Inlet 1/4" NPT (F)
 Lower Pump Series 66200-1 for 650115-1C
 Lower Pump Repair Kit 637029 for 650115-1C
 Material Inlet 1" NPT (F)
 Material Outlet 1/2" NPT (F)
 Weight 12 lbs. (5.4 kgs.)

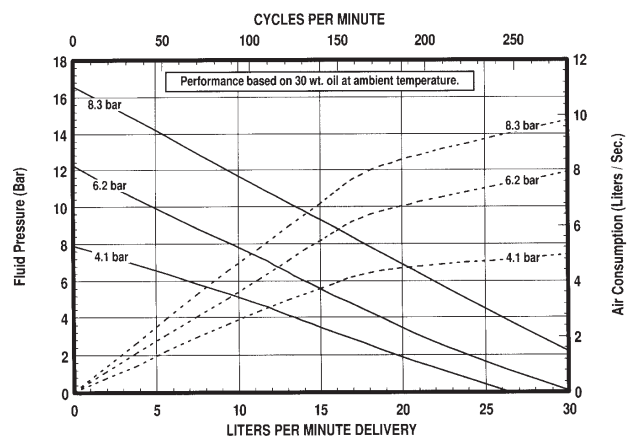
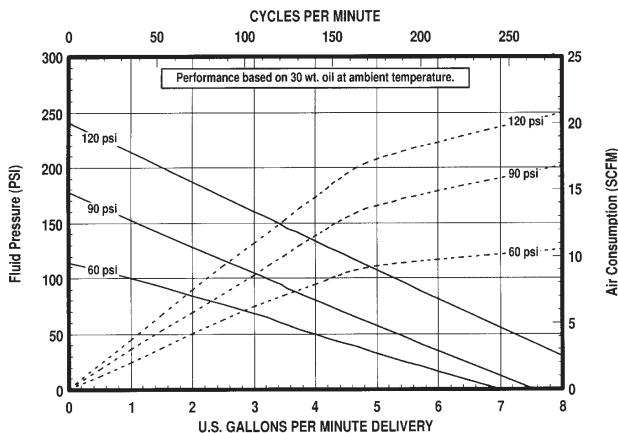


Ordering

6 5 0 1 1 5 - X
 Packings
 1C: Teflon

Accessories

Air F/R/L: 128121-800
 Wall Mount: 61113
 Muffler: 61879
 Airline Oil: 62274
 Siphon Hose: 65986 (5 Gal.)
 65986-1 (55 Gal.)

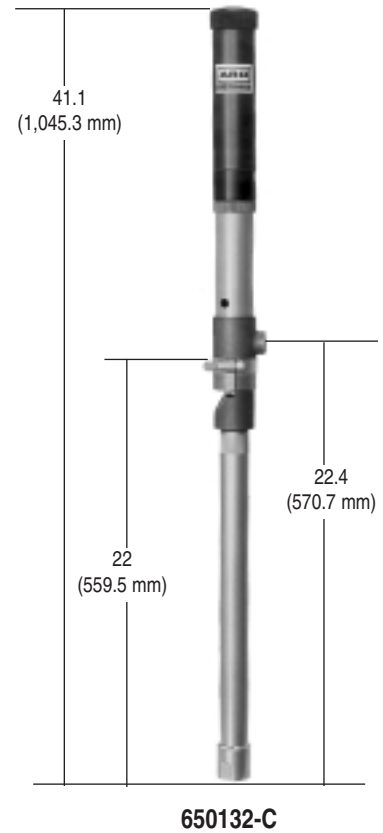


Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 60 - 300 PSI (4 - 20.4 bar)
- Max. Rec'd Cycles Per Minute . 120
- Displacement In³ Per Cycle . . . 7.2 (117.9 cm³)
- Cycles Per Gallon (Liters) 32 (8.4)
- Flow @ 120 Cycles / Minute . . . 4 GPM (15.1 lpm)
- Noise Level @ 60 Psi 77.8 db(A)

Specifications

- Lower Pump Material 316 Stnls. Steel
- Plunger Material 316 Stnls. Steel
- Cylinder Material Stainless Steel
- Air Motor 60702
- Motor Repair Kit 66098
- Motor Diameter 2"
- Stroke 6"
- Air Inlet 1/4" NPT(F)
- Lower Pump End Series 66283
- Lower Pump Repair Kit 637044
- Material Inlet 1" NPT(F)
- Material Outlet 1/2" NPT(F)
- Weight 16 lbs. (7.2kgs.)



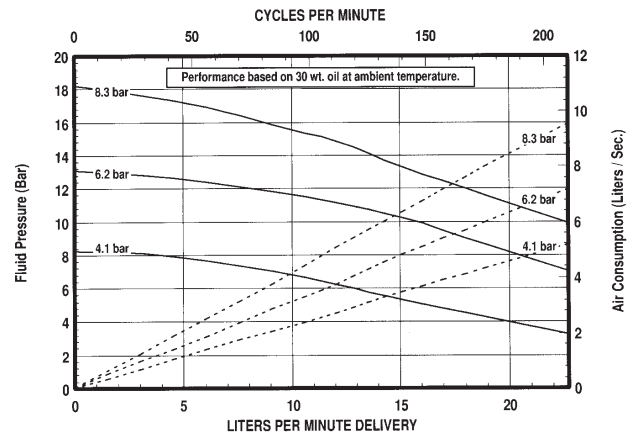
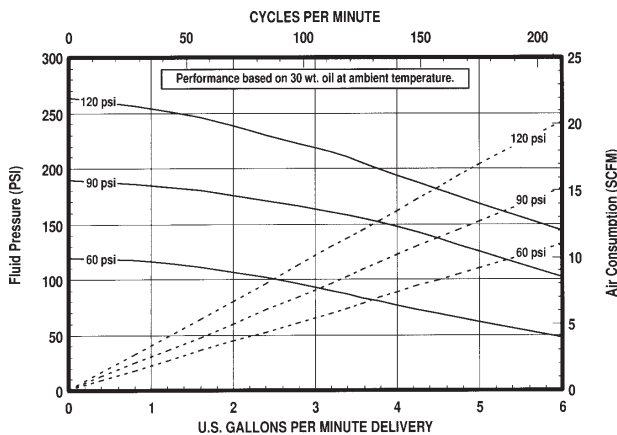
Ordering

6 5 0 1 3 2 - C

Packings
C : Teflon

Accessories

- Air F/R/L: 128121-800
- Wall Mount: 61113
- Muffler: 61879
- Airline Oil: 62274
- Siphon Hose: 67140-1 (5 Gal.)
67140-2 (55 Gal.)



Performance

Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
 Fluid Pressure Range 60 - 300 PSI (4 - 20.4 bar)
 Max. Rec'd Cycles Per Minute . 120
 Displacement In³ Per Cycle . . . 7.2 (117.9 cm³)
 Cycles Per Gallon (Liters) 32 (8.4)
 Flow @ 120 Cycles / Minute . . . 4 GPM (15.1 lpm)
 Noise Level @ 60 Psi 77.8 db(A)

Specifications

Lower Pump Material 316 Stnls. Steel
 Plunger Material 316 Stnls. Steel
 Cylinder Material Stainless Steel
 Air Motor 60702
 Motor Repair Kit 66098
 Motor Diameter 2"
 Stroke 6"
 Air Inlet 1/4" NPT(F)
 Lower Pump End Series 66281-1
 Lower Pump Repair Kit 637045
 Material Inlet Immersed
 Material Outlet 1/2" NPT(F)
 Weight 19 lbs. (8.6 kgs.)

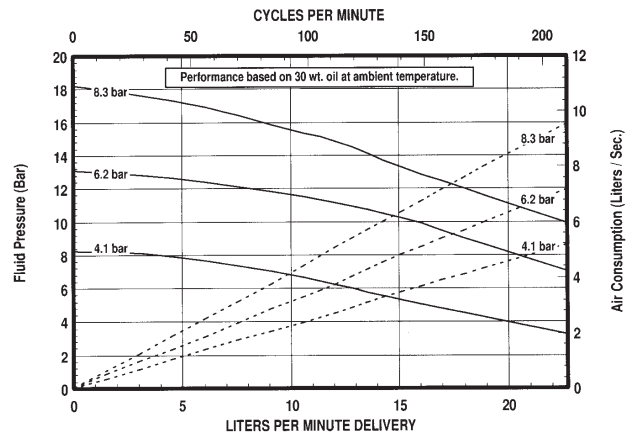
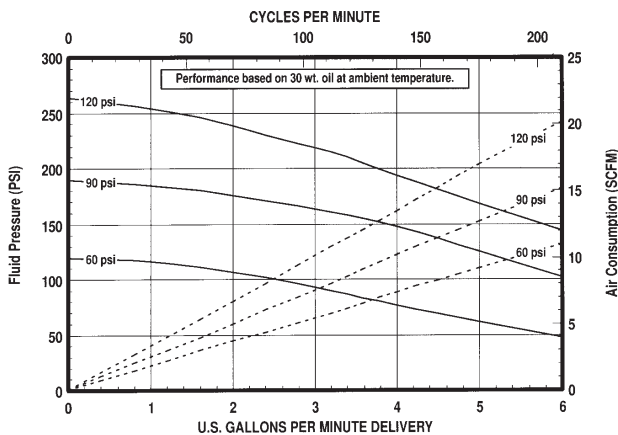


Ordering

6 5 0 1 3 3 -1
 Packings
 1C : UHMW-PE

Accessories

Air F/R/L: 128121-800
 Muffler: 61879
 Wall Mount: 61113
 Airline Oil: 62274

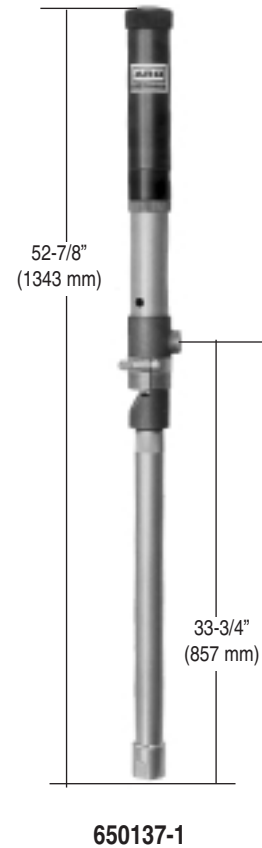


Performance

Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
 Fluid Pressure Range 60 - 300 PSI (4 - 20.4 bar)
 Max. Rec'd Cycles Per Minute . 120
 Displacement In³ Per Cycle . . . 7.2 (117.9 cm³)
 Cycles Per Gallon (Liter) 32 (8.4)
 Flow @ 120 Cycles / Minute . . . 4 GPM (15.1 lpm)
 Noise Level @ 60 Psi 77.8 db(A)

Specifications

Lower Pump Material 440 Stnls. Steel
 Plunger Material 440 Stnls. Steel
 Cylinder Material Stainless Steel
 Air Motor 60702
 Motor Repair Kit 66098
 Motor Diameter 2"
 Stroke 6"
 Air Inlet 1/4" NPT(F)
 Lower Pump End Series 66601-10
 Lower Pump Repair Kit 637044
 Material Inlet Immersed
 Material Outlet 1/2" NPT(F)
 Weight 19 lbs. (8.6 kgs.)

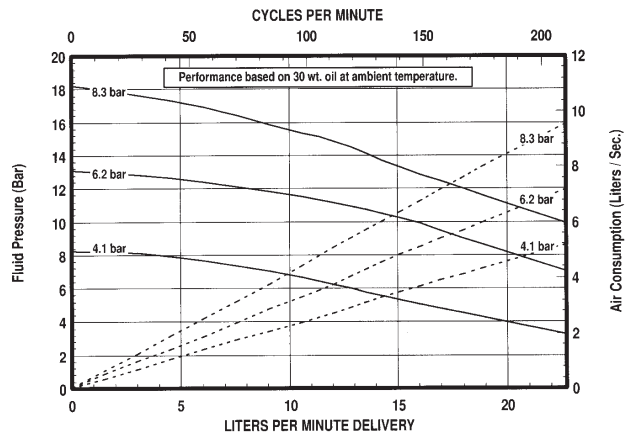
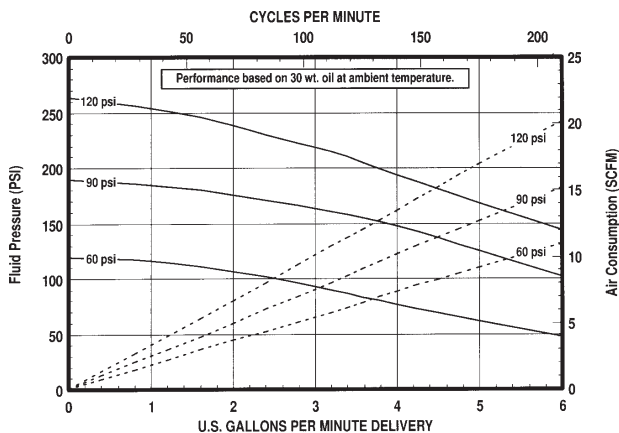


Ordering

6 5 0 1 3 7 -1
 Packings
 1 : Teflon

Accessories

Air F/R/L: 128121-800
 Muffler: 61879
 Wall Mount: 61113
 Lube Oil: 62274



Performance

- Air Inlet Pressure Range 30-150 PSI (2 - 10.2 bar)
- Fluid Pressure Range. 60-300 PSI (4 - 20.4 bar)
- Max. Rec'd Cycles Per Minute . 60 Max.
- Displacement In³ Per Cycle . . . 82.1 (1345 cm³)
- Cycles Per Gallon (Liter) 2.8 (.74)
- Flow @ 60 Cycles / Minute 21.3 GPM (80.6 lpm)
- Noise Level @ 60 Psi. 81.1 db(A)

Specifications

- Lower Pump Material CF8M (316) Stnls. Steel
- Plunger Material 17-4 Stnls. Stl. "Ultra" Coated
- Cylinder Material. 304 Stnls. Stl. "Ultra" Coated
- Air Motor. 65465-B
- Motor Repair Kit. 61268
- Motor Diameter. 4-1/4" (10.8 cm)
- Stroke 6" (15.2 cm)
- Air Inlet 1/2" NPT(F)
- Lower Pump End Series. 67200-X4B
- Lower Pump Repair Kit 637317-X4B
- Material Inlet. 2" NPTF(M) / 1-1/2" NPTF(F)
- Material Outlet 1" NPTF(F)
- Weight. 68 lbs. (30.8 kgs.)

STINGER
with **ULTRA**



Ordering

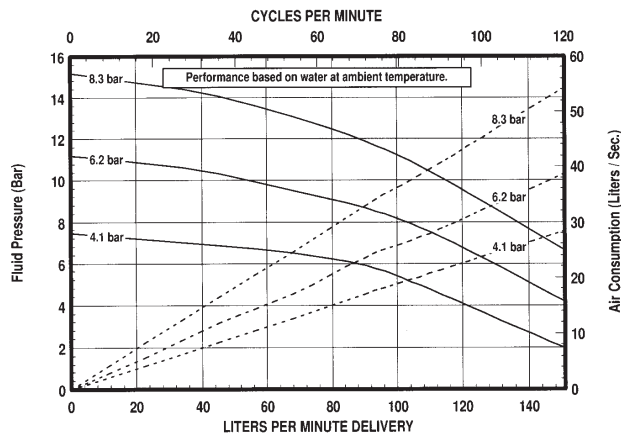
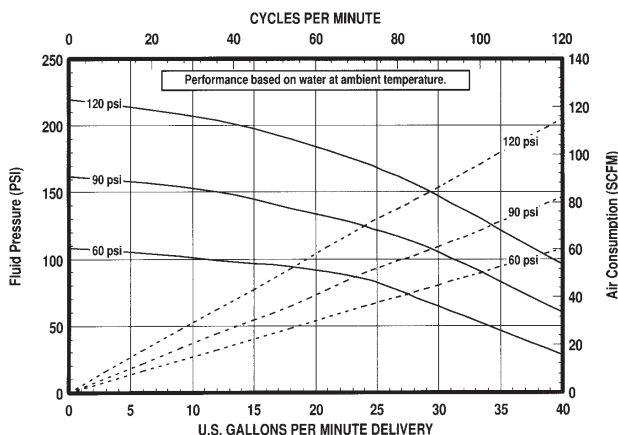
6 5 0 4 3 9 - X 4 B

Packings

- 7 : Teflon
- C : UHMW-PE
- F : UHMW-PE/Leather (Upper), UHMW-PE (Lower)
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

Accessories

- Air F/R/L: C28241-810
- Wall Mount: 66101
- Muffler: 91790
- Airline Oil: 62274
- Wet Sol: 66333-B
- Mounting Post: 67187-1



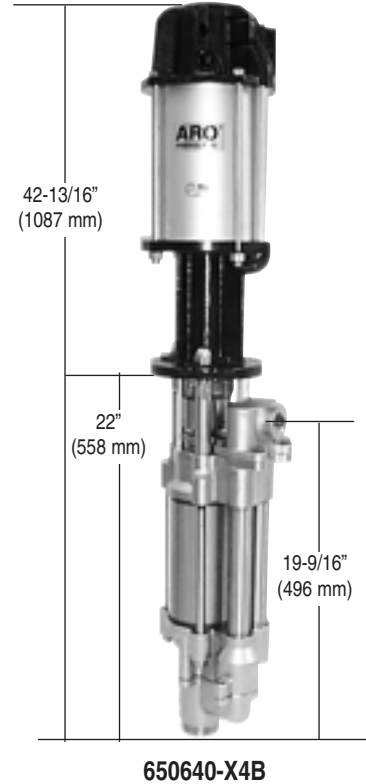


Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 90 - 450 PSI (6.1 - 30.6 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 112.7 (1846.8 cm³)
- Cycles Per Gallon (Liter) 2.05 (.54)
- Flow @ 60 Cycles / Minute 29.3 GPM (110.8 lpm)
- Noise Level @ 60 Psi 84.8 db(A)

Specifications

- Lower Pump Material CF8M (316) Stnls. Steel
- Plunger Material 17-4 Stnls. Steel, "Ultra" Coated
- Cylinder Material 304 Stnls. Stl. "Ultra" Coated
- Air Motor 65665-B
- Motor Repair Kit 61355
- Motor Diameter 6" (15.2 cm)
- Stroke 6" (15.2 cm)
- Air Inlet 1/2"
- Lower Pump End Series 67201-X4B
- Lower Pump Repair Kit 637318-X4B
- Material Inlet 2" NPT(M) / 1-1/2" NPT(F)
- Material Outlet 1" NPTF
- Weight 73.25 lbs. (33.2 kgs.)



650640-X4B

Ordering

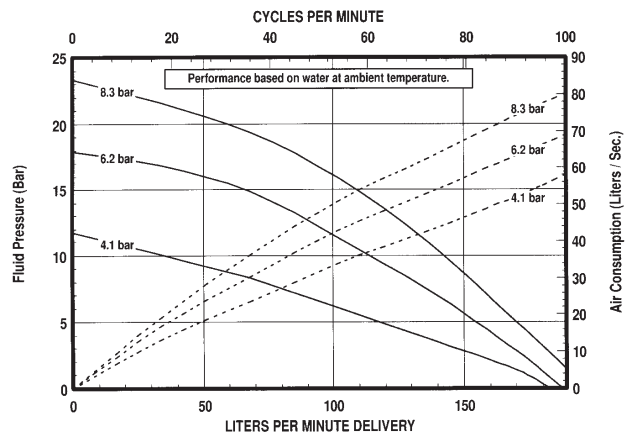
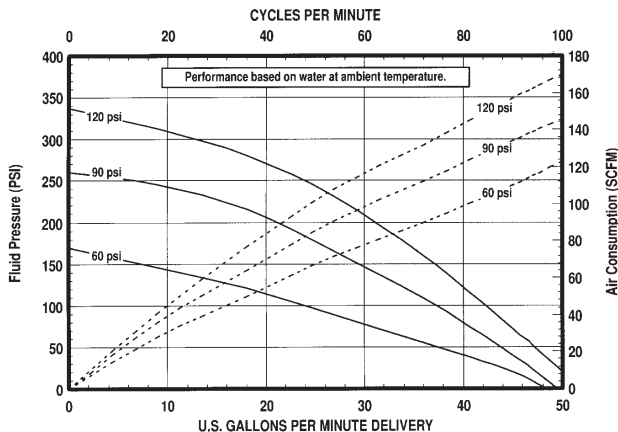
6 5 0 6 4 0 - X 4 B

Packings

- 7 : Teflon
- C : UHMW-PE
- F : UHMW-PE/Leather (Upper), UHMW-PE (Lower)
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

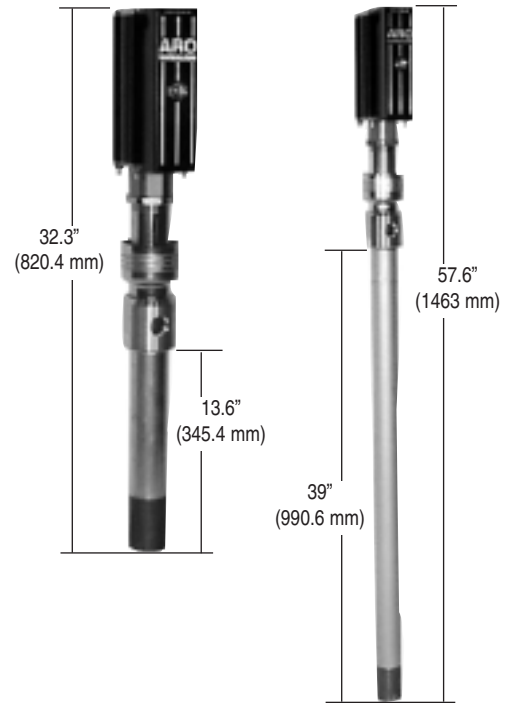
Accessories

- Air F/R/L: C28241-810
- Wall Mount: 66101
- Muffler: 91790
- Airline Oil: 62274
- Wet Sol: 66333-B
- Mounting Post: 67187-1



Performance

Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
 Fluid Pressure Range 120 - 600 PSI (8.1 - 40.8 bar)
 Displacement Per Cycle @ 100 PSI . 8.2 in³ (134.3 cm³)
 Cycles Per Gallon (Liter) 28 (7.4)
 Maximum Flow 4.2 GPM (15.8 lpm)
 Noise Level @ 100 Psi 85 db(A)



NM2304A-X1-X11

Specifications

Lower Pump Material Carbon Steel
 Plunger Material Carbon Steel
 Air Motor 66913
 Motor Repair Kit 637316
 Motor Diameter 3" (7.6 cm)
 Stroke 3" (7.6 cm)
 Air Inlet 1/4" - 18 N.P.T.F.-1(f)
 Lower Pump End Series 67151-X-X11
 Lower Pump Repair Kits 637176 for NM2304A-X1-311
 637228 for NM2304A-X1-C11
 637176 for NM2304A-X1-511
 Material Inlet 1-1/2" NPT(F)
 Material Outlet 3/4" NPT(F)
 Weight NM2304A-11-X11 = 32 lbs. (14.5 kgs.)
 NM2304A-41-X11 = 46 lbs. (20.9 kgs.)

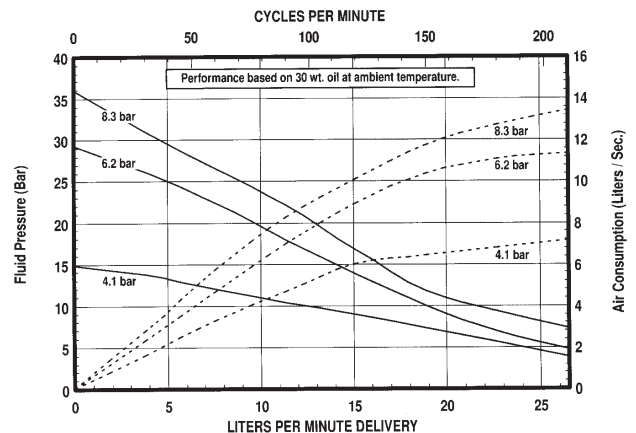
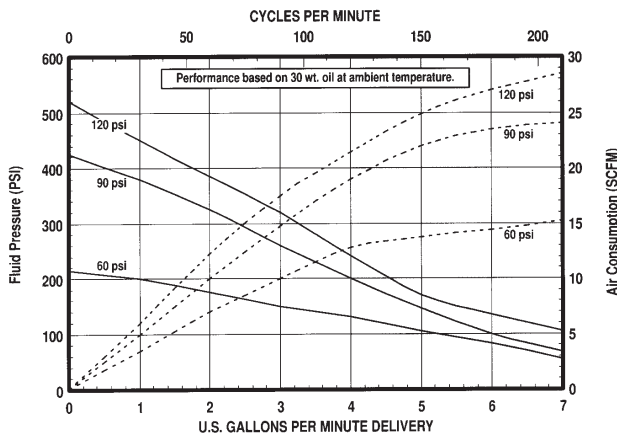
Ordering

N M 2 3 0 4 A - X 1 - X 1 1

Type 1 : Stub (Wall-Mount) 4 : 55 Gallon (205 Liters)	Packings C : UHMW-PE (Upper/Lower) 5 : Glass-Filled Teflon, Leather (Upper), Teflon (Lower) 3 : Glass-Filled Teflon, (Upper/Lower)
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Accessories

Air F/R/L: 129121-400
 Wall Mount: 61113
 Wet Sol: 66333-B

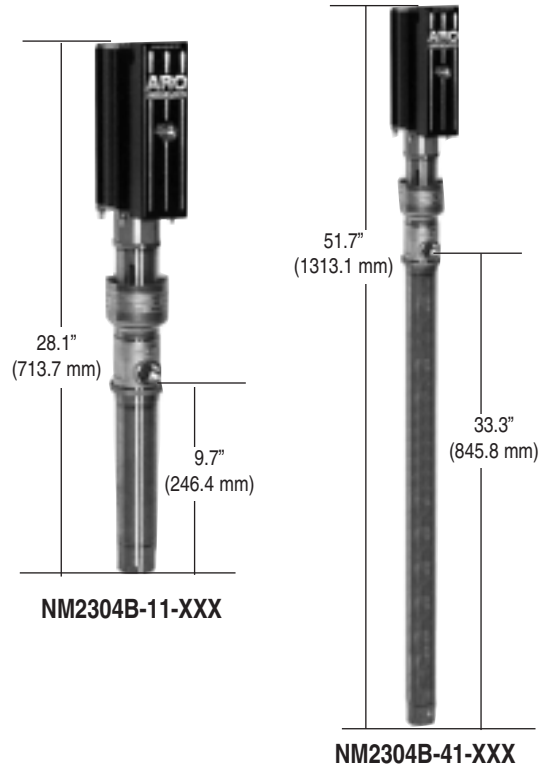


Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 120 - 600 PSI (8.1 - 40.8 bar)
- Displacement Per Cycle 8.2 in³ (134.3 cm³)
- Cycles Per Gallon (Liter) 28 (7.4)
- Maximum Flow @ 120 Cycles/Min . 4.2 GPM (15.8 lpm)
- Noise Level @ 100 Psi 85 db(A)

Specifications

- Lower Pump Material 316 Stnls. Steel
- Plunger Material 316 Stnls. Steel w/Ceramic Coating
- Cylinder Material Stainless Steel w/Ceramic Coating
- Air Motor 66913
- Motor Repair Kit 637316
- Motor Diameter 3" (7.6 cm)
- Stroke 3" (7.6 cm)
- Air Inlet 1/4" - 18 NPT(F)
- Lower Pump End Series 6510X-X
- Lower Pump Repair Kit 637010 for NM2304B-11-XXX
 637010-4 for NM2304B-41-XXX
- Material Inlet 1-1/4" NPT(F)
- Material Outlet 3/4" NPT(F)
- Weight NM2304B-11 = 32 lbs. (14.5 kgs.)
 NM2304B-41 = 46 lbs. (20.9 kgs.)

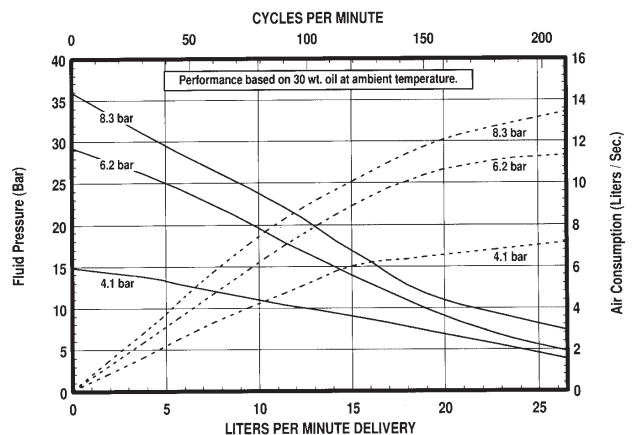
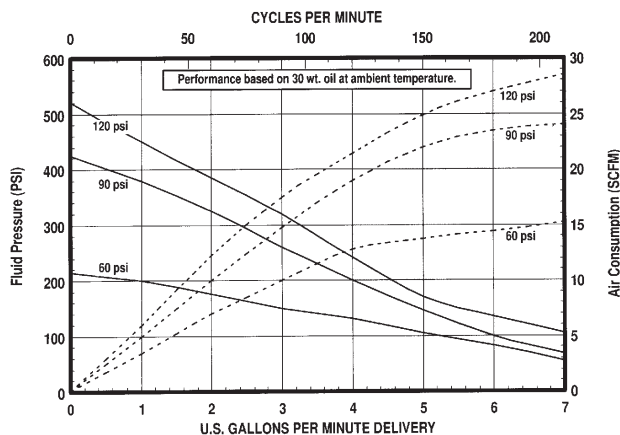


Ordering

- N M 2 3 0 4 B - X 1 - X 1 B
- | | |
|---|---|
| <p>Type</p> <p>1 : Stub (Wall-Mount)</p> <p>4 : 55 Gallon (205 Liters)</p> | <p>Packings</p> <p>3 : Glass-Filled Teflon, (Upper/Lower)</p> <p>C : Teflon/UHMW-PE, (Upper/Lower)</p> |
|---|---|

Accessories

- Air F/R/L: 129121-400
- Wall Mount: 61113
- Wet Sol: 66333-B



Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 120 - 600 PSI (8.1 - 40.8 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 82.1 (1345 cm³)
- Cycles Per Gallon (Liter) 2.8 (.74)
- Flow @ 60 Cycles / Minute 21.3 GPM (80.6 lpm)
- Noise Level @ 60 Psi 84.8 db (A)



650639-X4B

Specifications

- Lower Pump Material CF8M (316) Stns. Steel
- Plunger Material 17 - 4 Stns. Steel, "Ultra" Coated
- Cylinder Material 304 Stns. Stl. "Ultra" Coated
- Air Motor 65665-B
- Motor Repair Kit 61355
- Motor Diameter 6" (15.2 cm)
- Stroke 6" (15.2 cm)
- Air Inlet 1/2" NPT(F)
- Lower Pump End Series 67200-X4B
- Lower Pump Repair Kit 637317-X4B
- Material Inlet 2" NPT(M) / 1-1/2" NPT(F)
- Material Outlet 1" NPT(F)
- Weight 71.25 lbs. (32.3 kgs.)

Ordering

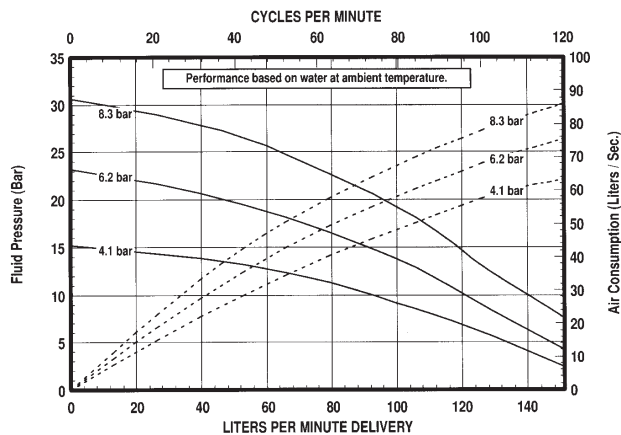
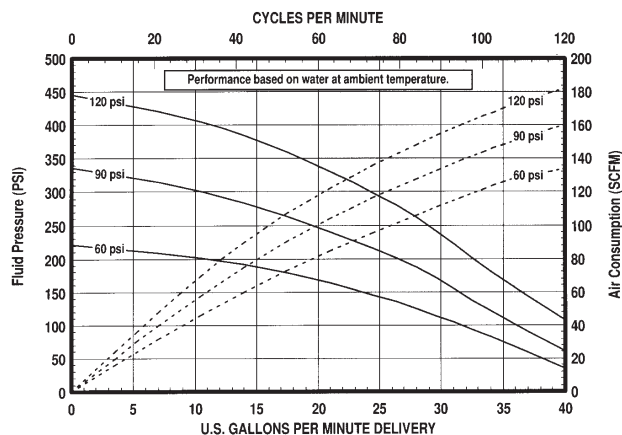
6 5 0 6 3 9 - X 4 B

Packings

- 7 : Teflon
- C : UHMW-PE
- F : UHMW-PE/Leather (Upper), UHMW-PE (Lower)
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

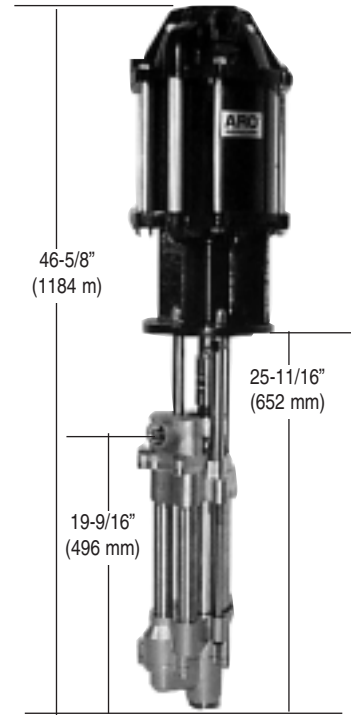
Accessories

- Air F/R/L: C28241-810
- Wall Mount: 66101
- Mounting Post: 67187-1
- Airline Oil: 62274
- Muffler: 91790
- Wet Sol: 66333-B



Performance

Air Inlet Pressure Range 30 - 120 PSI (2 - 8.1 bar)
 Fluid Pressure Range 150 - 600 PSI (10.2 - 40.8 bar)
 Max. Rec'd Cycles Per Minute . 60
 Displacement In³ Per Cycle . . . 108.1 (1771.4 cm³)
 Cycles Per Gallon (Liter) 2.1 (.56)
 Flow @ 60 Cycles / Minute 28 GPM (105.8 lpm)
 Noise Level @ 60 Psi 89.8 db(A)



650840-X4G-B

Specifications

Lower Pump Material CF8M (316) Stns. Steel
 Plunger Material 17 - 4 Stns. Steel, "Ultra" Coated
 Cylinder Material. 304 Stns. Stl. "Ultra" Coated
 Air Motor 66523-B
 Motor Repair Kit 66614
 Motor Diameter 8" (20.3 cm)
 Stroke 6" (15.2 cm)
 Air Inlet 3/4" NPT(F)
 Lower Pump End Series 67201-X4G
 Lower Pump Repair Kit 637318-X4C
 Material Inlet 2" NPT(M) / 1-1/2" NPT(F)
 Material Outlet 1" NPT(F)
 Weight 96 lbs. (43.5 kgs.)

Ordering

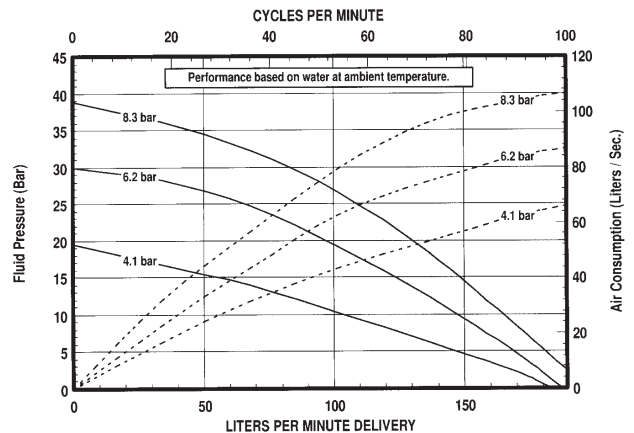
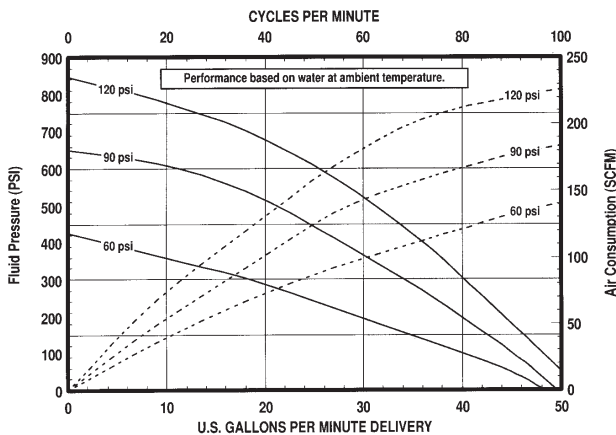
6 5 0 8 4 0 - X 4 G - B

Packings

- 7 : Teflon
- C : UHMW-PE
- F : UHMW-PE/Leather (Upper), UHMW-PE (Lower)
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

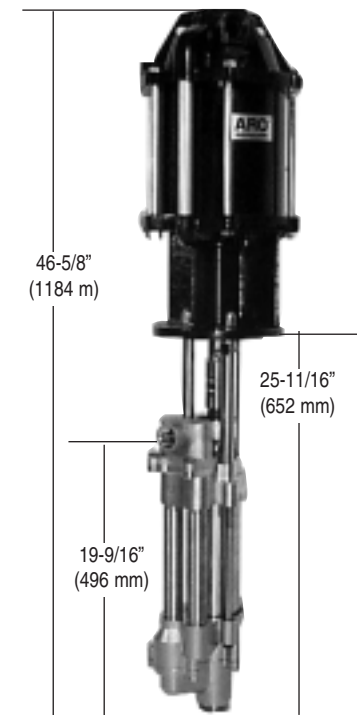
Accessories

- Air F/R/L: 28353
- Wall Mount: 66542
- Mounting Post: 67187-1
- Airline Oil: 62274
- Muffler: 92460
- Wet Sol: 66333-B



Performance

Air Inlet Pressure Range 30 - 120 PSI (2 - 8.1 bar)
 Fluid Pressure Range 210 - 840 PSI (14.2 - 57.1 bar)
 Max. Rec'd Cycles Per Minute . 60
 Displacement In³ Per Cycle . . . 77.5 (1269.9 cm³)
 Cycles Per Gallon (Liter) 2.98 (.78)
 Flow @ 60 Cycles / Minute 25 GPM (94.5 lpm)
 Noise Level @ 60 Psi 89.8 db(A)



650839-X4G-B

Specifications

Lower Pump Material CF-8M Stns. Steel
 Plunger Material 17 - 4 Stns. Steel, "Ultra" Coated
 Cylinder Material 304 Stns. Stl. "Ultra" Coated
 Air Motor 66523-B
 Motor Repair Kit 66614
 Motor Diameter 8" (20.3 cm)
 Stroke 6" (15.2 cm)
 Air Inlet 3/4" - 14 n.p.t.f.-1 (f)
 Lower Pump End Series 67200-X4G
 Lower Pump Repair Kit 637317-X4C
 Material Inlet 2" NPT(M) / 1-1/2" NPT(F)
 Material Outlet 1" NPT(F)
 Weight 94 lbs. (42.6 kgs.)

Ordering

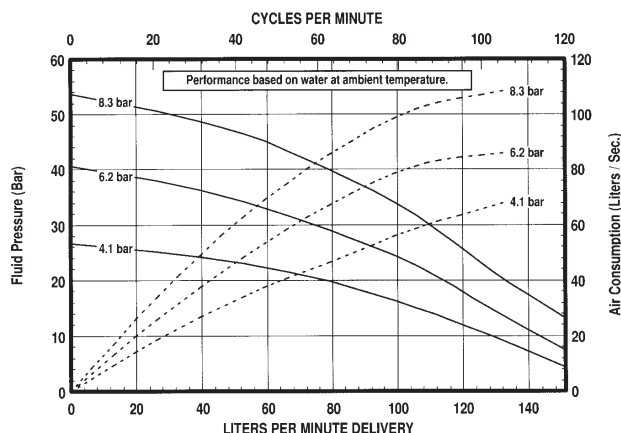
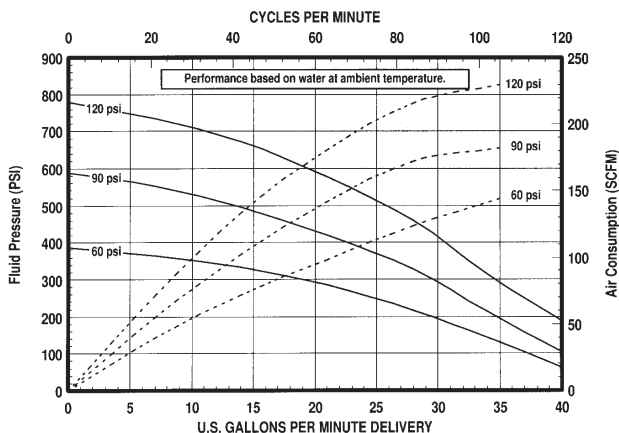
6 5 0 8 3 9 - X 4 G - B

Packings

- 7 : Teflon
- C : UHMW-PE
- F : UHMW-PE/Leather (Upper), UHMW-PE (Lower)
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

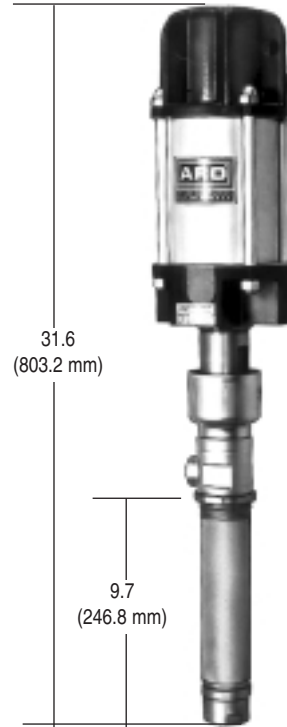
Accessories

- Air F/R/L: 28353
- Wall Mount: 66542
- Mounting Post: 67187-1
- Airline Oil: 62274
- Muffler: 92460
- Wet Sol: 66333-B



Pump Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range. 270 - 1350 PSI (18.3 - 91.8 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 11 (180.2 cm³)
- Cycles Per Gallon (Liter) 21 (5.5)
- Flow @ 60 Cycles / Minute 2.8 GPM (10.5 lpm)
- Noise Level @ 60 Psi 80 db(A)



650408-B
650408-X-B

Pump Specifications

- Lower Pump Material 316 Stnls. Steel
- Plunger Material 316 Stnls. Steel
- Cylinder Material. Stainless Steel
- Air Motor. 65444-B
- Motor Repair Kit 61268
- Motor Diameter. 4-1/4"
- Stroke 4"
- Air Inlet 1/2" NPT(F)
- Lower Pump End Series. 65108/65108-X
- Lower Pump Repair Kit 637010 for 650408-B/650408-5-B
. 637010-4 for 650408-4-B/650408-6-B
- Material Inlet. 1-1/4" NPT(F)
- Material Outlet 3/4" NPT(F)
- Weight. 35 lbs. (15.8 kgs.)

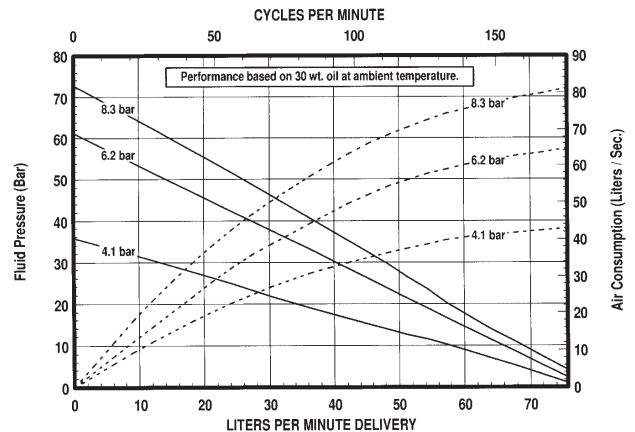
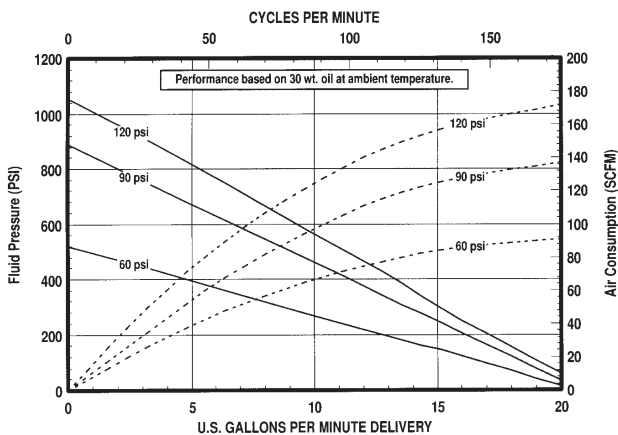
Ordering

6 5 0 4 0 8 - B Packings: Teflon (Upper/Lower)
6 5 0 4 0 8 - X - B

- Packings**
 4 : UHMW-PE
 5 : Teflon, w/Ultra Coated Tube and Rod
 6 : UHMW-PE, w/Ultra Coated Tube and Rod

Accessories

- Air F/R/L: C28241-810
- Wall Mount: 66100
- Airline Oil: 62274
- Muffler: 91790
- Wet Sol: 66333-B

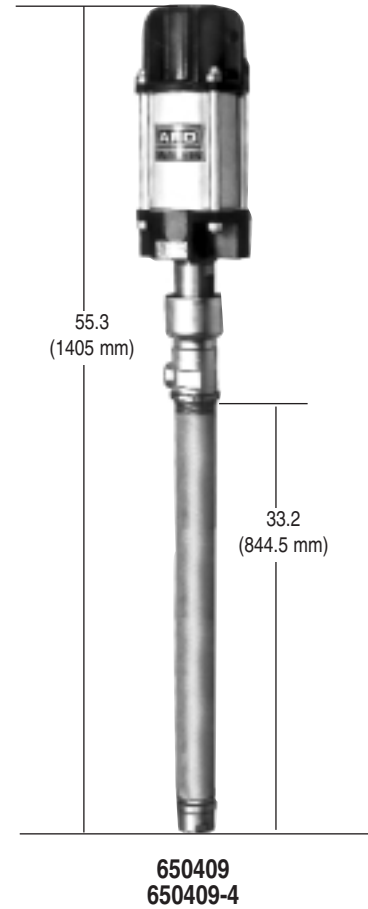


Pump Performance

Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
 Fluid Pressure Range 270 - 1350 PSI (18.3 - 91.8 bar)
 Max. Rec'd Cycles Per Minute . 75
 Displacement In³ Per Cycle . . . 11 (180.2 cm³)
 Cycles Per Gallon (Liter) 21 (5.5)
 Flow @ 60 Cycles / Minute 2.8 GPM (10.5 lpm)
 Noise Level @ 60 Psi 80 db(A)

Pump Specifications

Lower Pump Material 316 Stnls. Steel
 Plunger Material 316 Stnls. Steel
 Cylinder Material Stainless Steel
 Air Motor 65444-B
 Motor Repair Kit 61268
 Motor Diameter 4-1/4"
 Stroke 4"
 Air Inlet 1/2" NPT(F)
 Lower Pump Series 65106 for 650409
 65106-4 for 650409-4
 Lower Pump Repair Kit 637010 for 650409
 637010-4 for 650409-4
 Material Inlet 1-1/4" NPSM(F)
 Material Outlet 3/4" NPT(F)
 Weight 45 lbs. (203 kgs.)

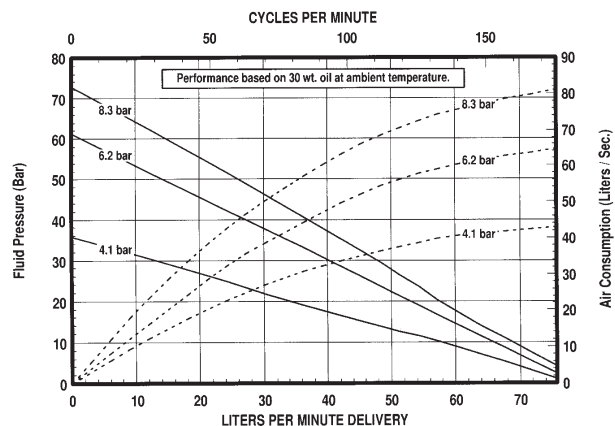
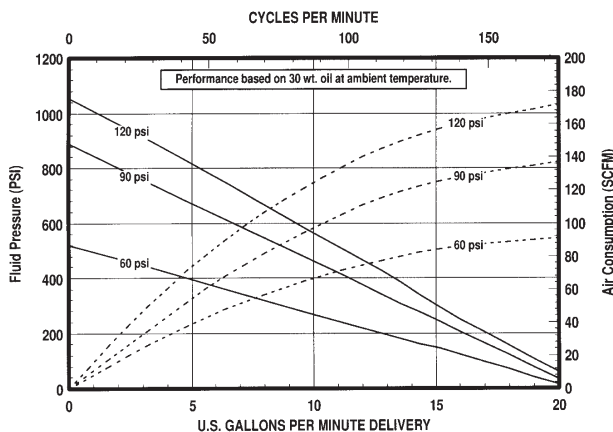


Ordering

6 5 0 4 0 9 Packings: Teflon (Upper/Lower)
 6 5 0 4 0 9 - X
 Packings
 4 : UHMW-PE (Upper/Lower)

Accessories

Air F/R/L: C28241-810
 Wall Mount: 66100
 Airline Oil: 62274
 Muffler: 91790
 Wet Sol: 66333-B

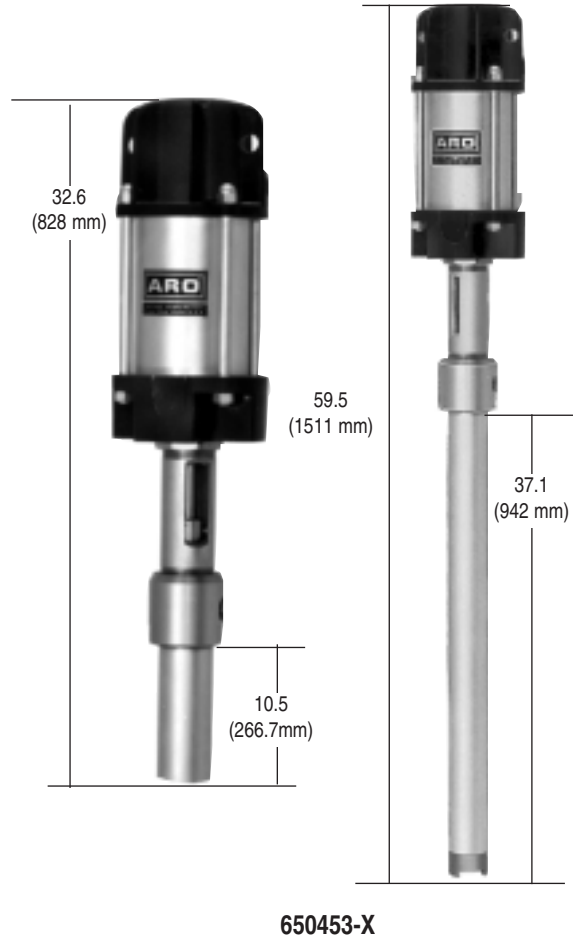


Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range. 270 - 1350 PSI (18.3 - 91.8 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 11 (180.2 cm³)
- Cycles Per Gallon (Liter) 21 (5.5)
- Flow @ 60 Cycles / Minute 2.8 GPM (10.5 lpm)
- Noise Level @ 60 Psi 80 db(A)

Specifications

- Lower Pump Material Carbon Steel
- Plunger Material Carbon Steel
- Cylinder Material. Carbon Steel
- Air Motor 65445-B
- Motor Repair Kit 61268
- Motor Diameter 4-1/4"
- Stroke 4"
- Air Inlet 1/2" NPT(F)
- Lower Pump End Series. 650453-X
- Lower Pump Repair Kit 637177 for 650453-5
- Order parts separately for 650453-7, -8, -9
- Material Inlet 1-1/2" NPT for 650453-7/650453-9
- Immersed for 650453-5/650453-8
- Material Outlet 3/4" NPT(F)
- Weight 35 lbs. (15.8 kgs.) for 650453-7/650453-9
- 49 lbs. (22.2 kgs.) for 650453-5/650453-8



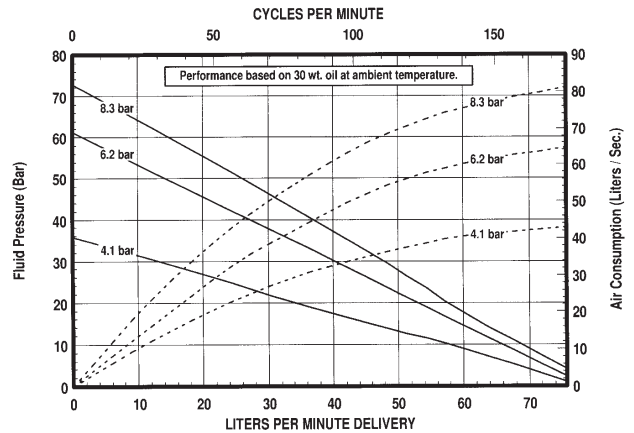
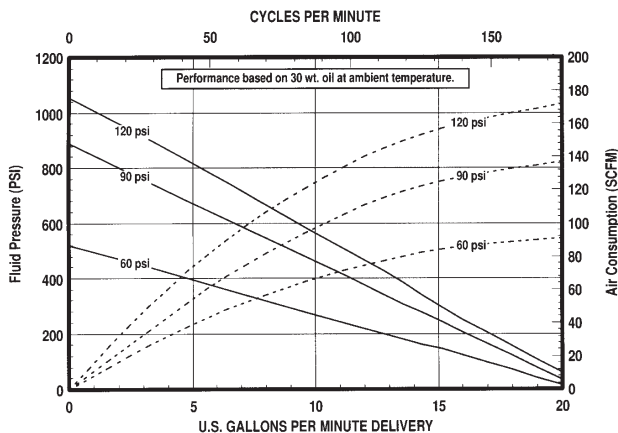
Ordering

6 5 0 4 5 3 - X

Type	Packings
7 : Stub (Wall Mount)	Leather/Teflon
5 : 55-Gallon (205 Liters)	Leather/Teflon
9 : Stub (Wall Mount)	UHMW-PE
8 : 55-Gallon (205 Liters)	UHMW-PE

Accessories

- Air F/R/L: C28241-810
- Wall Mount: 66100
- Airline Oil: 62274
- Muffler: 91790
- Wet Sol: 66333-B



Pump Performance

- Air Inlet Pressure Range 30 - 120 PSI (2 - 8.1 bar)
- Fluid Pressure Range 300 - 1200 PSI (20.4 - 81.6 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 59.9 (981.5 cm³)
- Cycles Per Gallon (Liter) 3.8 (1.01)
- Flow @ 60 Cycles / Minute 15 GPM (56.7 lpm)
- Noise Level @ 60 Psi 88 db(A) w/muffler

Pump Specifications

- Lower Pump Material 316 Stnls. Steel
- Plunger Material 304 Stnls. Steel (Chrome Plated)
- Cylinder Material 304 Stnls. Steel (Chrome Plated)
- Air Motor 66523-B
- Motor Repair Kit 66614
- Motor Diameter 8"
- Stroke 6"
- Air Inlet 3/4" NPT(F)
- Lower Pump End Series 66942-XXF
- Lower Pump Repair Kit 637211-XXX
- Material Inlet 2" NPTF-1
- Material Outlet 1-1/4" NPTF-(f)
- Weight 102 lbs. (46.3 kgs.)



613112-XXF-C

Ordering

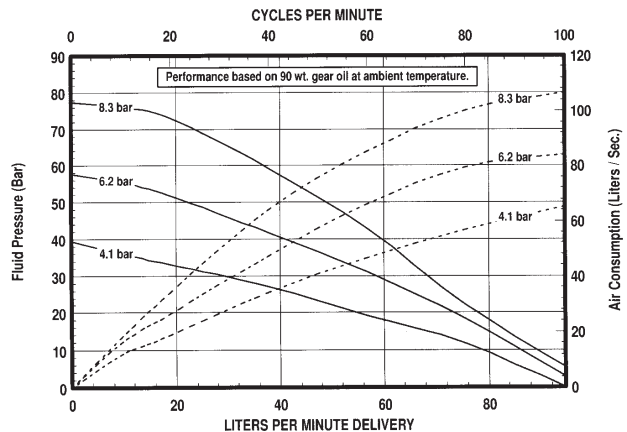
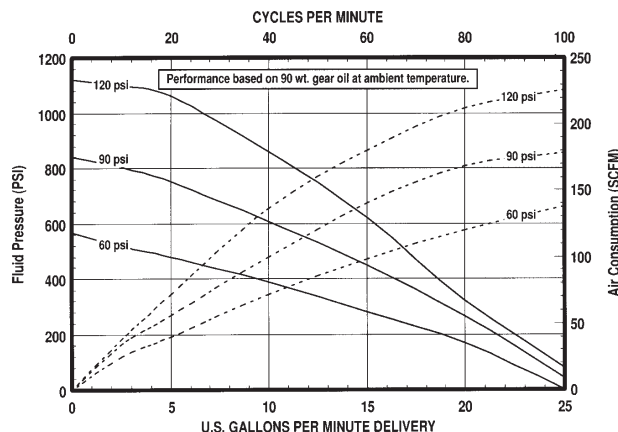
6 1 3 1 1 2 -X X F -C

Packings

- C6 : UHMW-PE
- K3 : CG-Filled Teflon with, Buna N Energizer
- L6 : Mineral-Filled Teflon
- P6 : UHMW-PE/Teflon Staggered
- R6 : Teflon/UHMW-PE Staggered

Accessories

- Air F/R/L: 28353
- Wall Mount: 66542
- Mounting Post: 67187-1
- Airline Oil: 62274
- Muffler: 92460
- Wet Sol: 66333-B

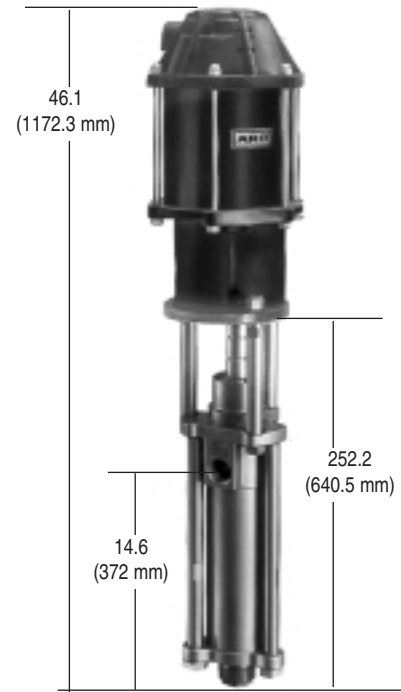


Pump Performance

- Air Inlet Pressure Range 30 - 120 PSI (2 - 8.1 bar)
- Fluid Pressure Range. 300 - 1200 PSI (20.4 - 81.6 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 59.9 (981.5 cm³)
- Cycles Per Gallon (Liter) 3.8 (1.01)
- Flow @ 60 Cycles / Minute 15 GPM (56.7 lpm)
- Noise Level @ 60 Psi 88 db(A) w/muffler

Pump Specifications

- Lower Pump Material 316 Stnls. Steel
- Plunger Material 15-5 Stnls. Steel (Chrome Plated)
- Cylinder Material. 15-5 Stnls. Steel (Chrome Plated)
- Air Motor 66523-B
- Motor Repair Kit 66614
- Motor Diameter 8"
- Stroke 6"
- Air Inlet 3/4" NPT(F)
- Lower Pump End Series. 66941-X6D
- Lower Pump Repair Kit 637211-XXX
- Material Inlet 2" NPT(M)
- Material Outlet 1-1/4" NPT(F)
- Weight 102 lbs. (46.3 kgs.)



650866-X6D-B

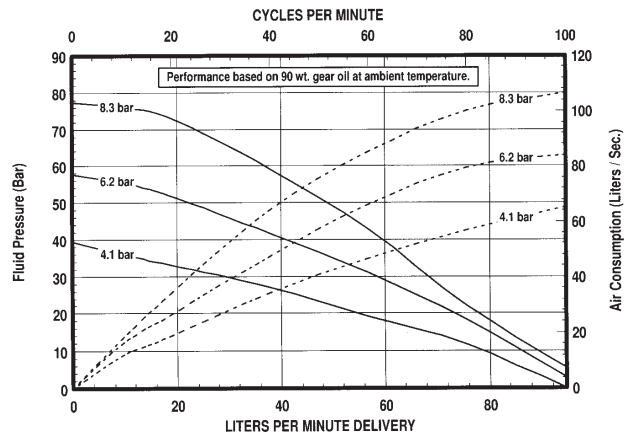
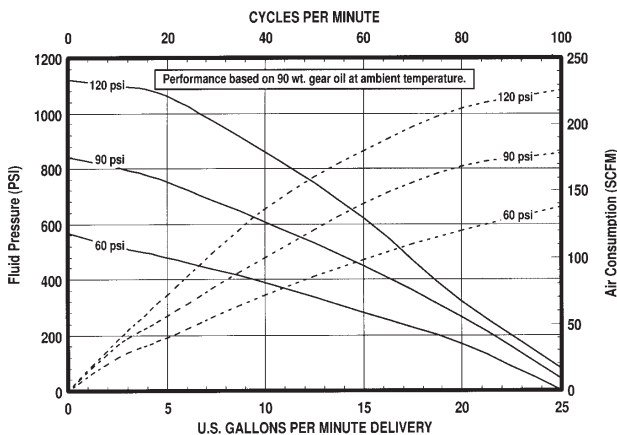
Ordering

6 5 0 8 6 6 - X 6 D - B

- Packings**
- C : UHMW-PE
 - P : UHMW-PE/Teflon / Staggered
 - L : Mineral-Filled Teflon
 - R : Teflon/UHMW-PE Staggered

Accessories

- Air F/R/L: 28353
- Wall Mount: 66542
- Mounting Post: 67187-1
- Airline Oil: 62274
- Muffler: 92460
- Wet Sol: 66333-B

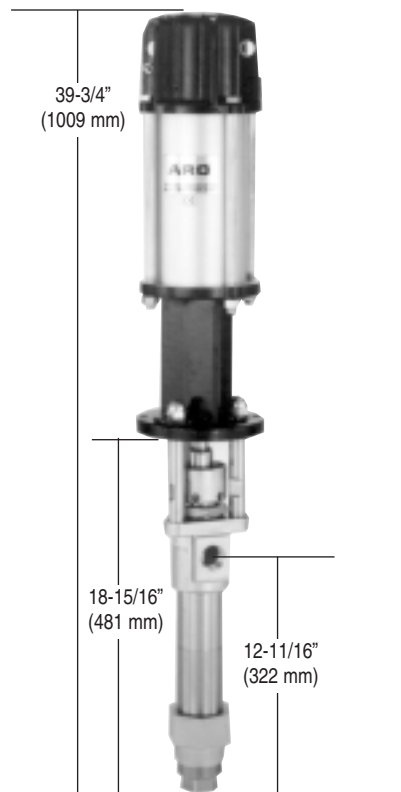


Pump Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 330 - 1650 PSI (22.4 - 112.2 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 14.5 (237.6 cm³)
- Cycles Per Gallon (Liter) 16 (4.2)
- Flow @ 60 Cycles / Minute 3.7 GPM (13.9 lpm)
- Noise Level @ 60 Psi 81.8 db(A)

Pump Specifications

- Lower Pump Material CF-8M Stnls. Steel
- Plunger Material See "Plunger Options" Below
- Cylinder Material See "Plunger Options" Below
- Air Motor 65465-B
- Motor Repair Kit 61268
- Motor Diameter 4-1/4" (10.8 cm)
- Stroke 6"
- Air Inlet 1/2" NPT(F)
- Lower Pump End Series 66300-X4X
- Lower Pump Repair Kit 637305-X4X
- Material Inlet 1" NPT(F) / 2" NPT(M)
- Material Outlet 1" NPT(F)
- Weight 42.9 lbs. (19.5 kgs.)



650483-X4X

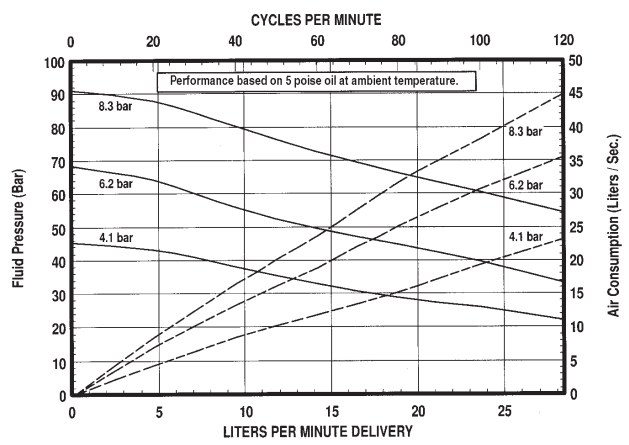
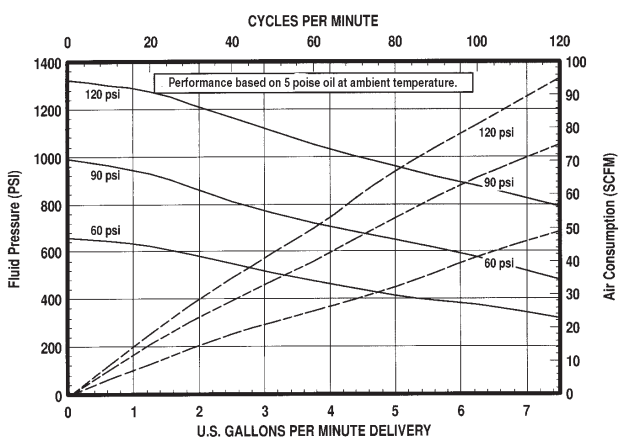
Ordering

6 5 0 4 8 3 - X 4 X

- | | |
|--|---|
| Packings | Plungers |
| 3 : Teflon | 3 : 17-4 Stnls. Steel, Hard Chrome Plated |
| C : UHMW-PE | B : 17-4 Stnls. Steel, "Ultra" Coated |
| G : UHMW-PE/Leather | |
| P : UHMW-PE/Leather (Upper), UHMW-PE (Lower) | |
| R : Teflon/UHMW-PE (Upper), Teflon (Lower) | |

Accessories

- Air F/R/L: C28241-810
- Airline Oil: 62274
- Air Motor Muffler: 91790
- Wet Sol: 66333-B
- Wall Mount: 66100
- Floor/Follower Adapter: 67136
- Floor Mount: 65138

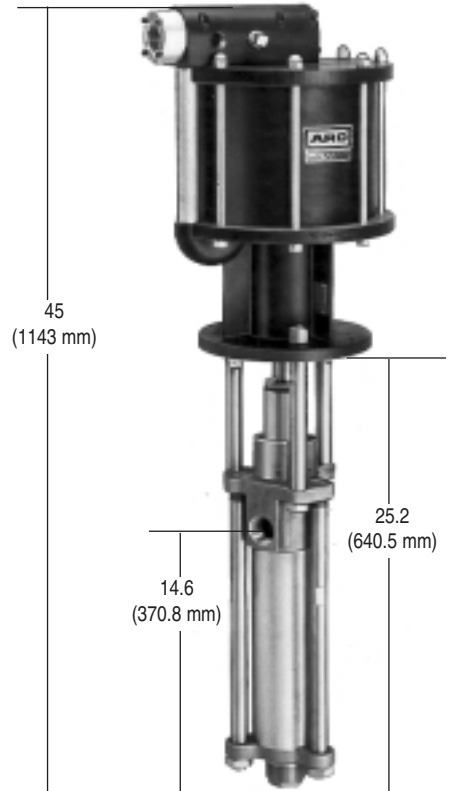


Pump Performance

Air Inlet Pressure Range 90 PSI (6.1 bar) Max.
 Fluid Pressure Range. 1,350 PSI (91.8 bar) Max.
 Max. Rec'd Cycles Per Minute . 60
 Displacement In³ Per Cycle . . . 59.9 (981.5 cm³)
 Cycles Per Gallon (Liter) 3.8 (1.01)
 Flow @ 60 Cycles / Minute 15 GPM (56.7 lpm)
 Noise Level @ 60 Psi 82 db(A) w/muffler

Pump Specifications

Lower Pump Material 316 Stnls. Steel
 Plunger Material 15-5 Stnls. Steel (Chrome Plated)
 Cylinder Material. 15-5 Stnls. Steel (Chrome Plated)
 Air Motor 66651-B
 Motor Repair Kit 637110
 Motor Diameter 10"
 Stroke 6"
 Air Inlet 3/4" NPT(F)
 Lower Pump End Series. 66941-X6D
 Lower Pump Repair Kit 637211-XXX
 Material Inlet 2" NPT(M)
 Material Outlet 1-1/4" NPT(F)
 Weight 125 lbs. (56.8 kgs.)



650867-X6D-B

Ordering

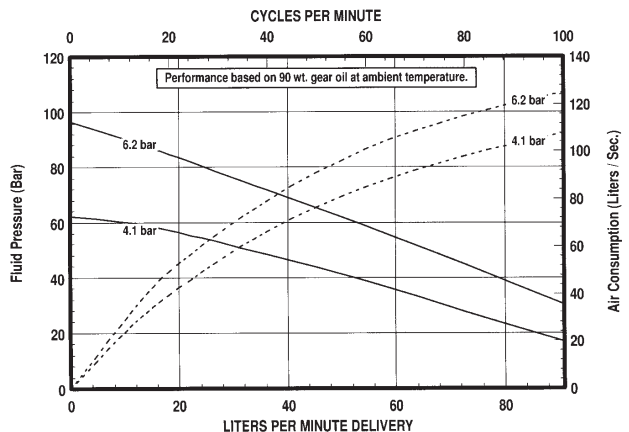
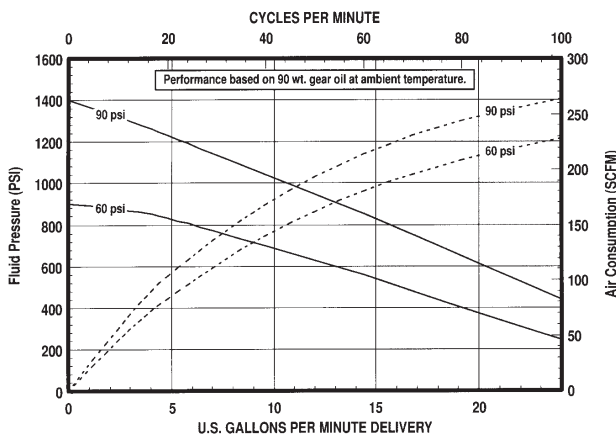
6 5 0 8 6 7 - X 6 D -B

Packings

- C : UHMW-PE
- L : Mineral-Filled Teflon
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

Accessories

- Air F/R/L: 28353
- Wall Mount: 66542
- Airline Oil: 62274
- Muffler: 66718
- Wet Sol: 66333-B

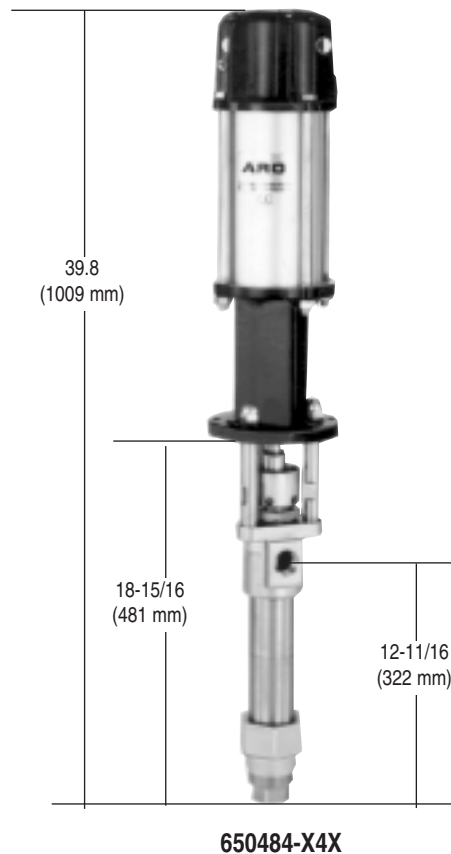


Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 660 - 3300 PSI (44.8 - 224.4 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 7.5 (122.9 cm³)
- Cycles Per Gallon (Liter) 30.8 (8.1)
- Flow @ 60 Cycles / Minute . . 1.9 GPM (7.2 lpm)
- Noise Level @ 60 Psi 81.8 db(A)

Specifications

- Lower Pump Material CF8M (316) Stainless Steel
- Plunger Material See "Plunger Options" Below
- Cylinder Material. See "Plunger Options" Below
- Air Motor 65465-B
- Motor Repair Kit 61268
- Motor Diameter 4-1/4"
- Stroke 6"
- Air Inlet 1/2" NPT(F)
- Exhaust Port 1-1/4" NPT(F)
- Two-Ball Pump Model 66301-X4X
- Lower Pump Repair Kit 637306-X43
- Material Inlet 1" NPT(F) 2" NPT(M)
- Material Outlet 1" NPT(F)
- Weight 42.9 lbs. (19.5 kgs.)



Ordering

6 5 0 4 8 4 - X 4 X

Packings

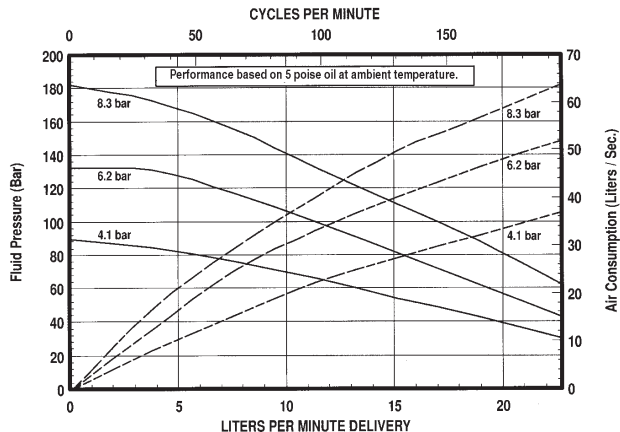
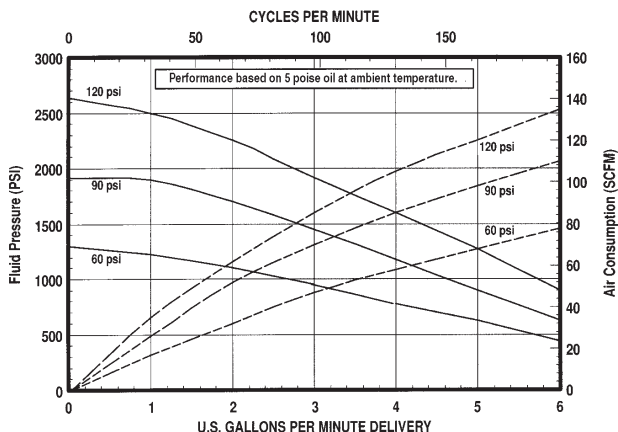
- 3 : Teflon
- C : UHMW-PE
- G : UHMW-PE/Leather Staggered
- P : UHMW-PE/Teflon Staggered (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE Staggered (Upper), Teflon (Lower)

Plungers

- 3 : 17-4 S. S. Hard Chrome Plated
- B : 17-4 S.S. "Ultra" Coated

Accessories

- Air F/R/L: C28241-810
- Airline Oil: 62274
- Air Motor Muffler: 91790
- Wet Sol: 66333-B
- Wall Mount: 66100
- Floor/Follower Adapter: 67136
- Floor Mount: 65138



Performance

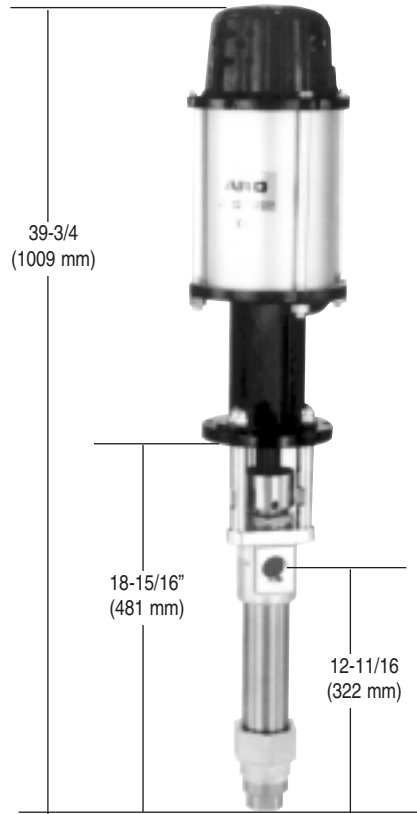
- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 690 - 3450 PSI (46.9 - 234.6 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 14.5 (237.6 cm³)
- Cycles Per Gallon (Liter) 15.9 (4.2)
- Flow @ 60 Cycles / Minute . . 3.7 GPM (13.9 lpm)
- Noise Level @ 60 Psi 84.8 db(A)

Specifications

- Lower Pump Material CF8M (316) Stns. Steel
- Plunger Material See "Plunger Option" Below
- Cylinder Material See "Plunger Option" Below
- Air Motor 65665-B
- Motor Repair Kit 61355
- Motor Diameter 6"
- Stroke 6"
- Air Inlet 1/2" NPTF
- Exhaust Port 1-1/4" NPTF
- Two-Ball Pump Model 66300-X4X
- Lower Pump Repair Kit 637305-X43
- Material Inlet 1" NPT(F) 2" NPT(M)
- Material Outlet 1" NPTF
- Weight 46.2 lbs. (21 kgs.)

Ordering

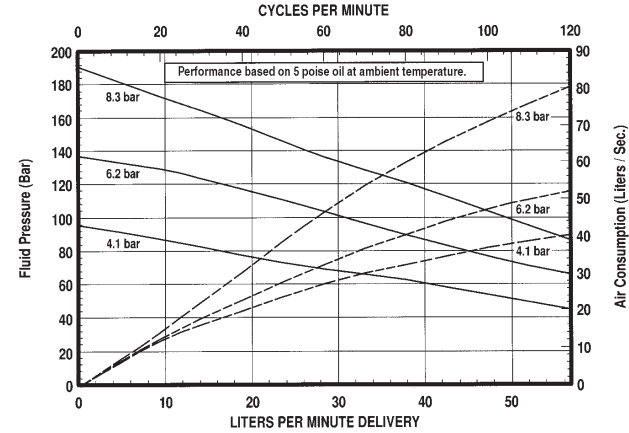
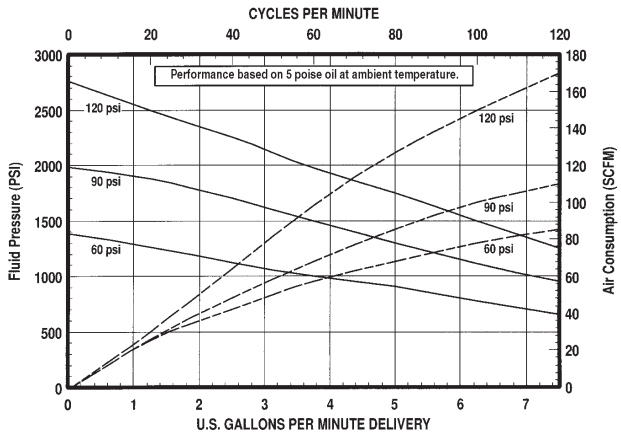
- 6 5 0 6 8 3 -X 4 X
- | | |
|--|--|
| Packings
3 : Teflon
C : UHMW-PE
G : UHMW-PE/Leather Staggered
P : UHMW-PE/Teflon Staggered (Upper),
UHMW-PE (Lower)
R : Teflon/UHMW-PE Staggered (Upper),
Teflon (Lower) | Plungers
3 : 17-4 S. S. Hard
Chrome Plated
B : 17-4 S.S. "Ultra"
Coated |
|--|--|



650683-X4X

Accessories

- Air F/R/L: C28241-810
- Airline Oil: 62274
- Air Motor Muffler: 91790
- Wet Sol: 66333-B
- Wall Mount: 66100
- Floor/Follower Adapter: 67136

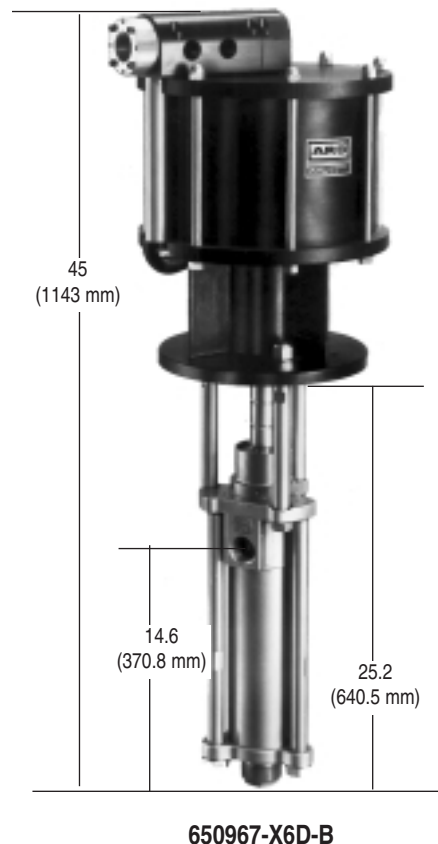


Performance

- Air Inlet Pressure Range 90 PSI (6.1 bar) Max.
- Fluid Pressure Range 2070 PSI (140.8 bar) Max.
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 59.9 (981.5 cm³)
- Cycles Per Gallon (Liter) 3.8 (1.01)
- Flow @ 60 Cycles / Minute 15 GPM (56.7 lpm)
- Noise Level @ 60 Psi 88 db(A) w/muffler

Specifications

- Lower Pump Material 316 Stnls. Steel
- Plunger Material 15-5 Stnls. Steel (Chrome Plated)
- Cylinder Material. 15-5 Stnls. Steel (Chrome Plated)
- Air Motor 66506-B
- Motor Repair Kit 637112
- Motor Diameter 12"
- Stroke 6"
- Air Inlet 3/4" NPT(F)
- Lower Pump End Series 66941-X63
- Lower Pump Repair Kit 637211-X63
- Material Inlet 2" NPT(M)
- Material Outlet 1-1/4" NPT(F)
- Weight 140 lbs. (63.6 kgs.)



Ordering

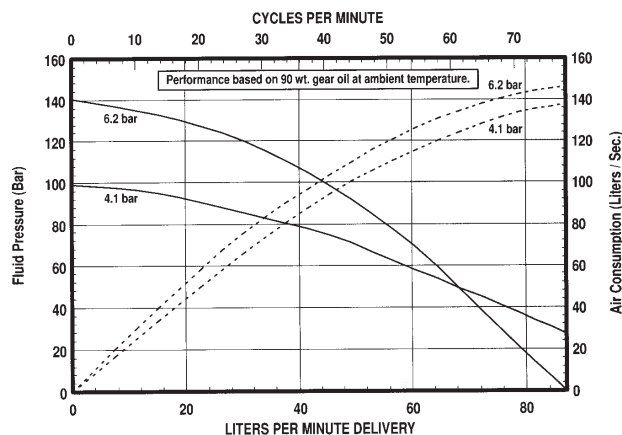
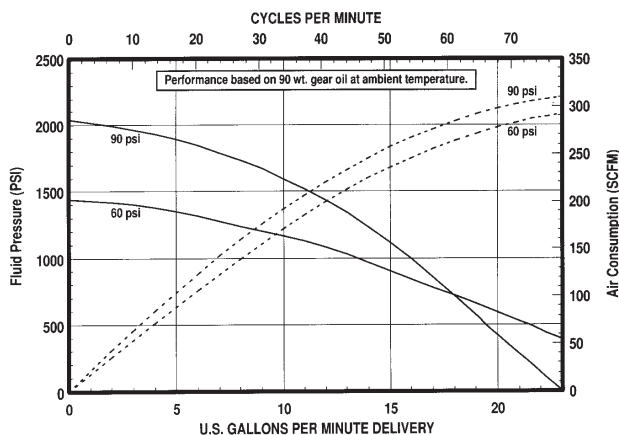
6 5 0 9 6 7 - X 6 D - B

Packings

- C : UHMW-PE
- L : Mineral-Filled Teflon
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

Accessories

- Air F/R/L: 28353
- Wall Mount: 66542
- Airline Oil: 62274
- Muffler: 66718
- Wet Sol: 66333-B

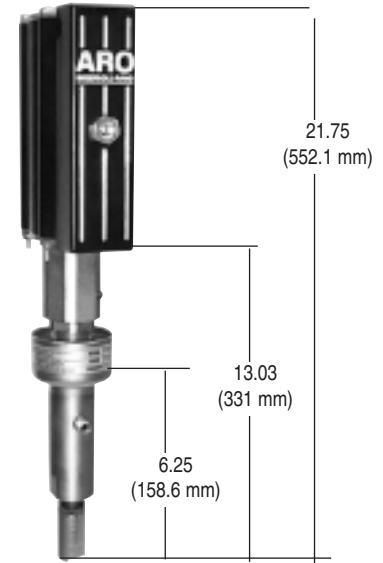


Performance

Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
 Fluid Pressure Range 840 - 4200 PSI (57.1 - 285.7 bar)
 Max. Rec'd Cycles Per Minute . 120
 Displacement In³ Per Cycle . . . 1.47 (24 cm³)
 Cycles Per Gallon (Liter) 157.5 (41.6)
 Flow @ 60 Cycles / Minute . . .38 GPM (1.41 lpm)
 Noise Level @ 100 Psi 85 db(A)

Specifications

Lower Pump Material 316 Stnls. Steel
 Plunger Material Stainless Steel
 Cylinder Material Stainless Steel
 Air Motor 66914
 Motor Repair Kit 637316
 Motor Diameter 3"
 Stroke 3"
 Air Inlet 1/4" NPT(F)
 Lower Pump End Series 66066-1 for NM2328A-11-311
 66066-2 for NM2328A-11-G11
 66066-3 for NM2328A-11-S11
 Lower Pump Repair Kit 637006-3 for NM2328A-11-311
 637006-2 for NM2328A-11-G11
 637006-3 for NM2328A-11-S11
 Material Inlet 1/2" NPT(F)
 Material Outlet 1/4" NPT(M)
 Weight 13 lbs. (5.9 kgs.)



NM2328A-11-X11

Ordering

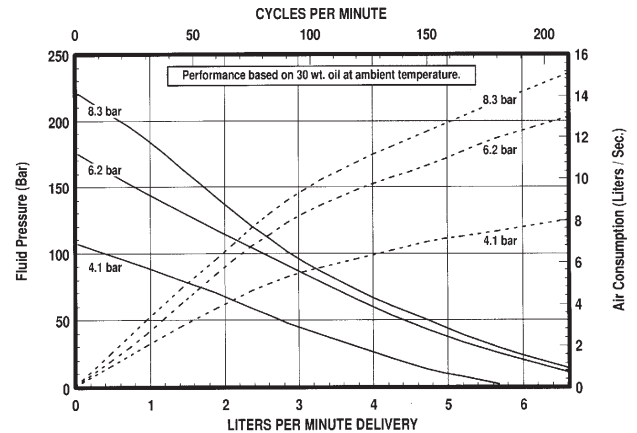
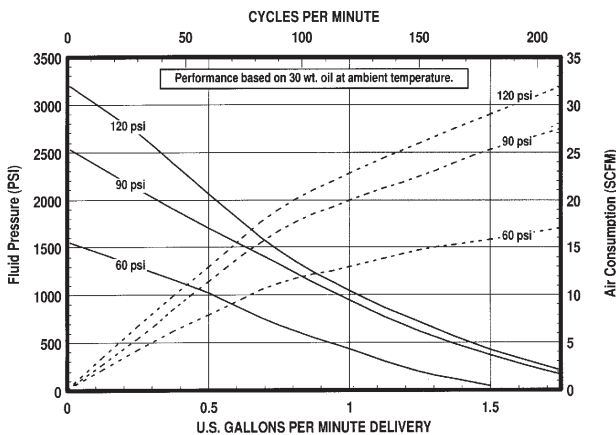
N M 2 3 2 8 A - 1 1 - X 1 1

Packings

- 3 : Teflon
- G : UHMW-PE/Leather Staggered
- S : UHMW-PE/Teflon Staggered

Accessories

Air F/R/L: 129121-400
 Wet Sol: 66333-B

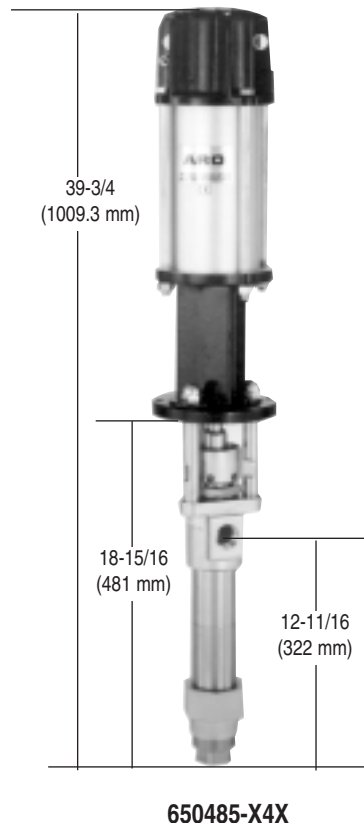


Performance

- Air Inlet Pressure Range 30 - 150 PSI (2 - 10.2 bar)
- Fluid Pressure Range 900 - 4500 PSI (61.2 - 306.1 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 5.5 (90.1 cm³)
- Cycles Per Gallon (Liter) 41.9 (11)
- Flow @ 60 Cycles / Minute . . . 1.3 GPM (4.9 lpm)
- Noise Level @ 60 Psi 81.8 db(A)

Specifications

- Lower Pump Material CF8M Stnls. Steel
- Plunger Material See "Plunger Options" Below
- Cylinder Material See "Plunger Options" Below
- Air Motor 65465-B
- Motor Repair Kit 61268
- Motor Diameter 4-1/4"
- Stroke 6"
- Air Inlet 1/2" NPT(F)
- Exhaust Port 1-1/4" NPT(F)
- Two-Ball Pump Model 66302-X4X
- Lower Pump Repair Kit 637307-X43
- Material Inlet 1" NPT(F) 2" NPT(M)
- Material Outlet 1" NPT(F)
- Weight 42.9 lbs. (19.5 kgs.)



Ordering

6 5 0 4 8 5 - X 4 X

Packings

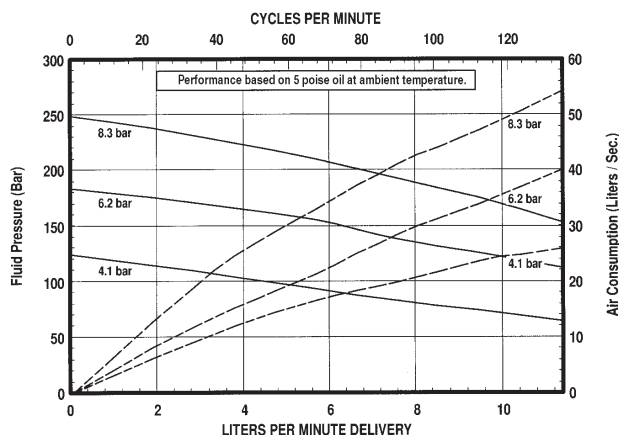
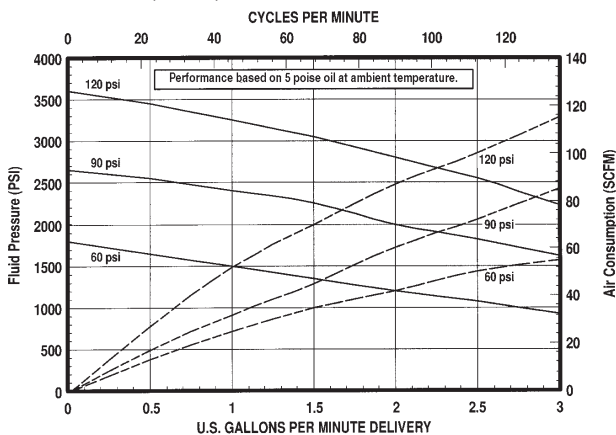
- 3 : Teflon
- C : UHMW-PE
- G : UHMW-PE/Leather Staggered
- P : UHMW-PE/Teflon Staggered (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE Staggered (Upper), Teflon (Lower)

Plungers

- 3 : 17-4 S. S. Hard Chrome Plated
- B : 17-4 S.S. "Ultra" Coated

Accessories

- Air F/R/L: C28241-810
- Airline Oil: 62274
- Air Motor Muffler: 91790
- Wet Sol: 66333-B
- Floor/Follower Adapter: 67136
- Floor Mount: 65138

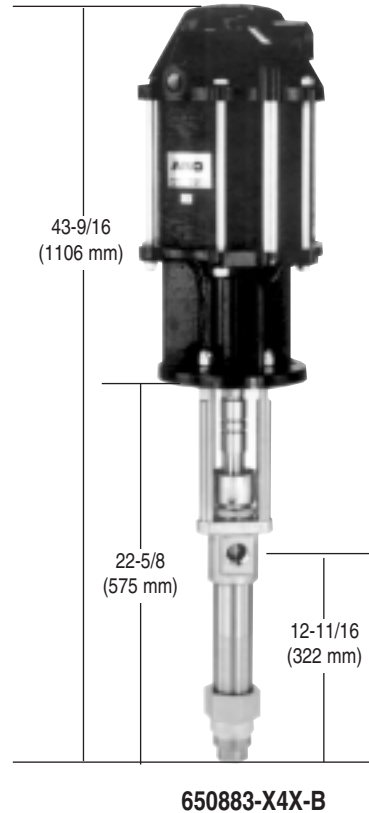


Pump Performance

- Air Inlet Pressure Range 30 - 120 PSI (2 - 8.1 bar)
- Fluid Pressure Range 1200 - 4800 PSI (81.6 - 326.5 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 14.5 (237.6 cm³)
- Cycles Per Gallon (Liter) 16 (4.2)
- Flow @ 60 Cycles / Minute . . 3.7 GPM (13.9 lpm)
- Noise Level @ 60 Psi 89.8 db(A)

Pump Specifications

- Lower Pump Material CF8M Stnls. Steel
- Plunger Material See "Plunger Options" Below
- Cylinder Material See "Plunger Options" Below
- Air Motor 66523-B
- Motor Repair Kit 66614
- Motor Diameter 8"
- Stroke 6"
- Air Inlet 3/4" NPT(F)
- Exhaust Port 1-1/4" NPT(F)
- Two-Ball Pump Model 66300-X4X
- Lower Pump Repair Kit 637305-X43
- Material Inlet 1" NPT(F) 2" NPT(M)
- Material Outlet 1" NPT(F)
- Weight 68.1 lbs. (30.9 kgs.)

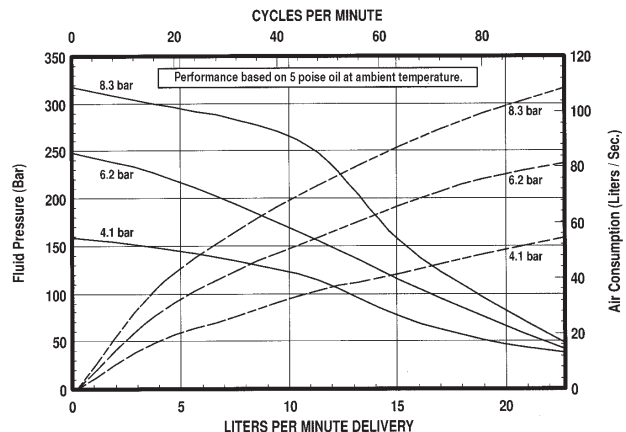
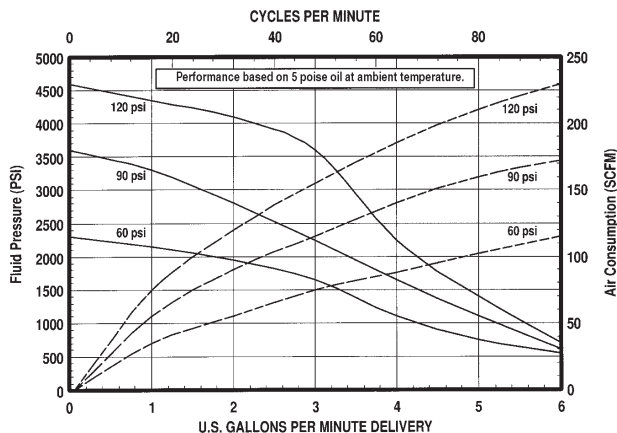


Ordering

- 6 5 0 8 8 3 - X 4 X - B
- Packings** _____ **Plungers** _____
- 3 : Teflon
 - C : UHMW-PE
 - G : UHMW-PE/Leather Staggered
 - P : UHMW-PE/Teflon Staggered (Upper), UHMW-PE (Lower)
 - R : Teflon/UHMW-PE Staggered (Upper), Teflon (Lower)
 - D : 17-4 S. S. Hard Chrome Plated
 - G : 17-4 S.S. "Ultra" Coated

Accessories

- Air F/R/L: 28353
- Airline Oil: 62274
- Air Motor Muffler: 92460
- Wet Sol: 66333-B
- Floor/Follower Adapter: 67136
- Floor Mounts: 65138



Pump Performance

- Air Inlet Pressure Range 30 - 100 PSI (2 - 6.8 bar)
- Fluid Pressure Range 1350 - 4500 PSI (91.8 - 306.1 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 20.7 (339.2 cm³)
- Cycles Per Gallon (Liter) 11.2 (3.0)
- Flow @ 60 Cycles / Minute 5.4 GPM (1.42 lpm)
- Noise Level @ 60 Psi 82 db(A) w/66718 muffler

Pump Specifications

- Lower Pump Material Carbon Steel
- Plunger Material 17-4 Stnls. Steel
- Cylinder Material 400 Stnls. Steel
- Air Motor 66651-B
 - Motor Repair Kit 637110
 - Motor Diameter 10"
 - Stroke 6"
 - Air Inlet 3/4" NPT(F)
- Lower Pump End Series 66475-X4D
 - Lower Pump Repair Kit 637098-XXX
- Material Inlet 2" NPT(F)
- Material Outlet 1" NPT(F)
- Weight 132 lbs. (60 kgs.)



650863-X4D-B

Ordering

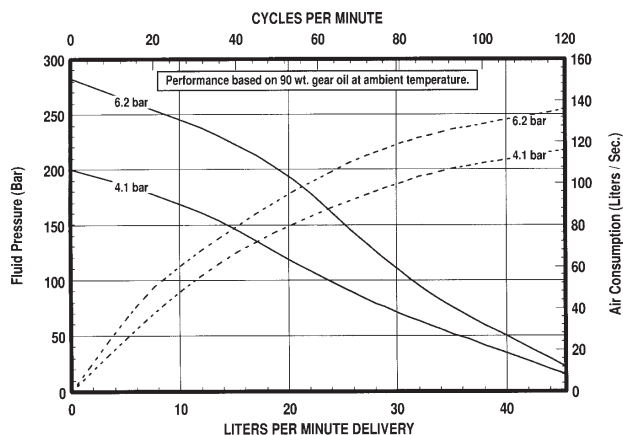
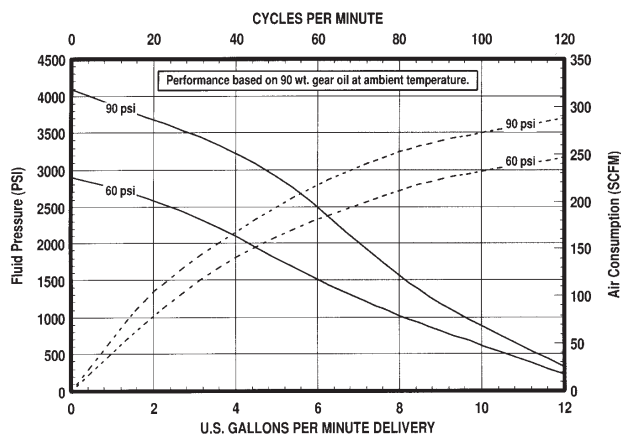
6 5 0 8 6 3 - X 4 D - B

Packings _____

- 3 : Teflon
- C : UHMW-PE
- G : UHMW-PE/Leather Staggered
- P : UHMW-PE/Teflon Staggered
- R : Teflon/UHMW-PE Staggered

Accessories

- Air F/R/L: 28353
- Airline Oil: 62274
- Air Motor Muffler: 66718
- Wet Sol: 66333-B
- Wall Mount: 66542



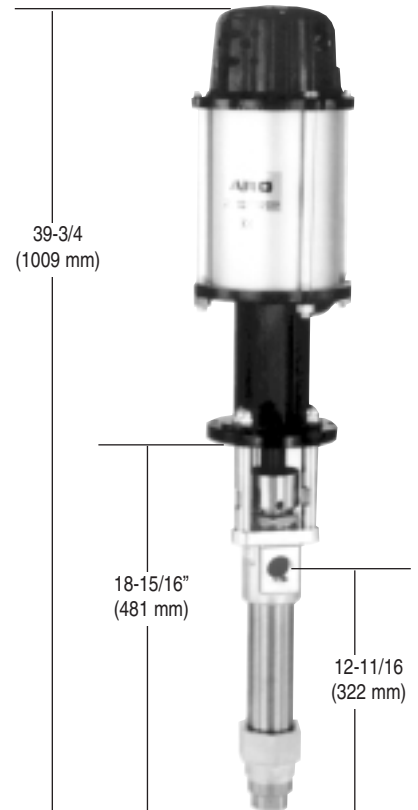


Performance

- Air Inlet Pressure Range 30 - 120 PSI (2 - 8.3 bar)
- Fluid Pressure Range 1350 - 5400 PSI (92.8 - 367.3 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 7.5 (122.9 cm³)
- Cycles Per Gallon (Liter) 30.9 (8.1)
- Flow @ 60 Cycles / Minute 1.9 GPM (7.2 lpm)
- Noise Level @ 60 Psi 84.8 db(A)

Specifications

- Lower Pump Material CF8M (316) Stnls. Steel
- Plunger Material See "Plunger Options" Below
- Cylinder Material See "Plunger Options" Below
- Air Motor 65665-B
- Motor Repair Kit 61355
- Motor Diameter 6"
- Stroke 6"
- Air Inlet 1/2" NPT(F)
- Two-Ball Pump Model 66301-X4X
- Lower Pump Repair Kit 637306-X43
- Material Inlet 1" NPT(F) 2" NPT(M)
- Material Outlet 1" NPT(F)
- Weight 46.2 lbs. (21 kgs.)



650684-X4X

Ordering

6 5 0 6 8 4 - X 4 X

Packings

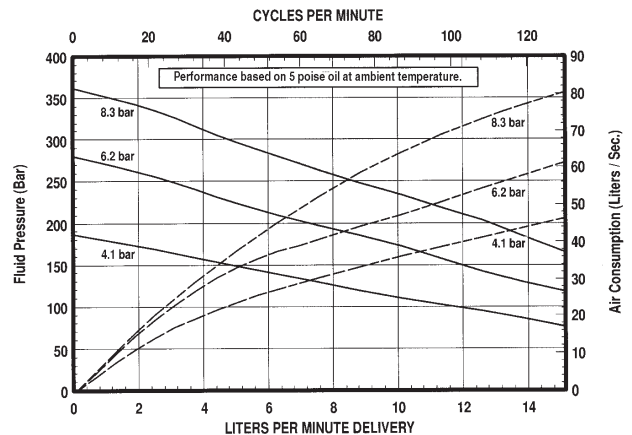
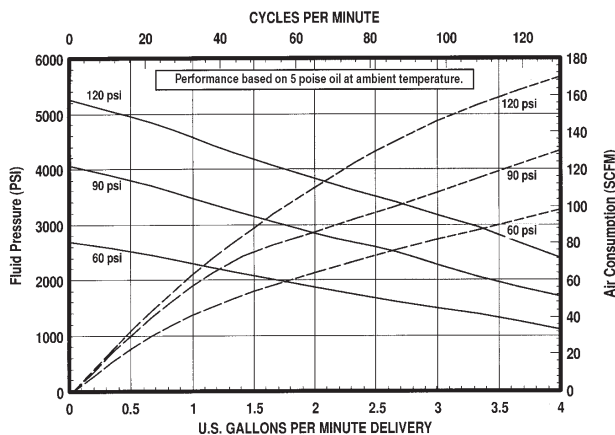
- 3 : Teflon
- C : UHMW-PE
- G : UHMW-PE/Leather Staggered
- P : UHMW-PE/Teflon Staggered (Upper)
UHMW-PE (Lower)
- R : UHMW-PE/Teflon Staggered (Upper)
Teflon (Lower)

Plungers

- 3 : 17-4 S. S. Hard
Chrome Plated
- B : 17-4 S.S. "Ultra"
Coated

Accessories

- Air F/R/L: C28241-810
- Airline Oil: 62274
- Air Motor Muffler: 91790
- Wet Sol: 66333-B
- Wall Mounts: 66100
- Floor/Follower Adapter: 67136

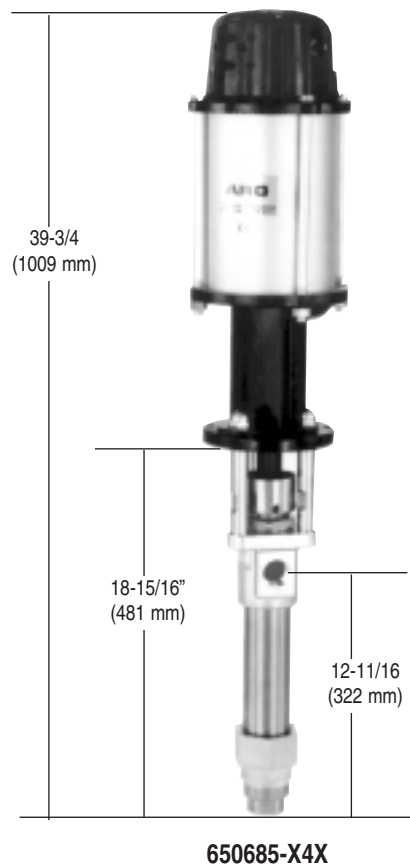


Performance

- Air Inlet Pressure Range 30 - 100 PSI (2 - 6.9 bar)
- Fluid Pressure Range 1800 - 6000 PSI (124 - 408 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 5.5 (90.1 cm³)
- Cycles Per Gallon (Liter) 41.9 (11.0)
- Flow @ 60 Cycles / Minute 1.3 GPM (4.9 lpm)
- Noise Level @ 60 Psi 84.8 db(A)

Specifications

- Lower Pump Material CF8M (316) Stnls. Steel
- Plunger Material See "Plunger Options" Below
- Cylinder Material See "Plunger Options" Below
- Air Motor 65665-B
- Motor Repair Kit 61355
- Motor Diameter 6"
- Stroke 6"
- Air Inlet 1/2" NPT(F)
- Two-Ball Pump Model 66302-X4X
- Lower Pump Repair Kit 637307-X43
- Material Inlet 1" NPT(F) 2" NPT(M)
- Material Outlet 1" NPT(F)
- Weight 46.2 lbs. (21 kgs.)

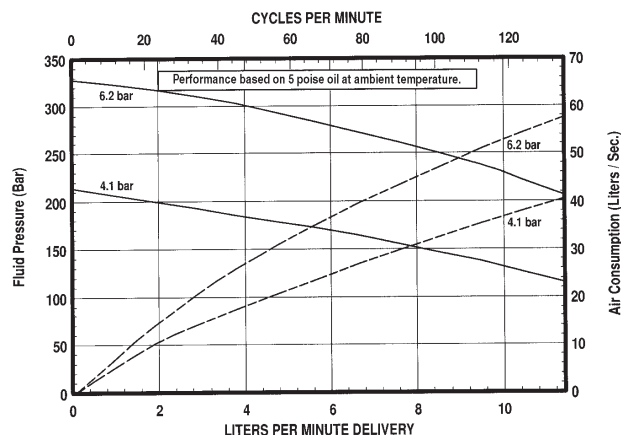
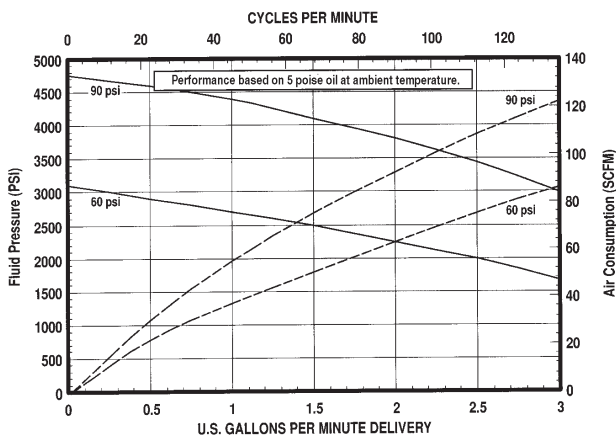


Ordering

- 6 5 0 6 8 5 - X 4 X
- | | |
|--|--|
| <p>Packings</p> <ul style="list-style-type: none"> 3 : Teflon C : UHMW-PE G : UHMW-PE/Leather Staggered P : UHMW-PE/Teflon Staggered (Upper)
UHMW-PE (Lower) R : UHMW-PE/Teflon Staggered (Upper)
Teflon (Lower) | <p>Plungers</p> <ul style="list-style-type: none"> 3 : 17-4 S. S. Hard
Chrome Plated B : 17-4 S.S. "Ultra"
Coated |
|--|--|

Accessories

- Air F/R/L: C28241-810
- Airline Oil: 62274
- Air Motor Muffler: 91790
- Wet Sol: 66333-B
- Wall Mounts: 66100
- Floor/Follower Adapter: 67136

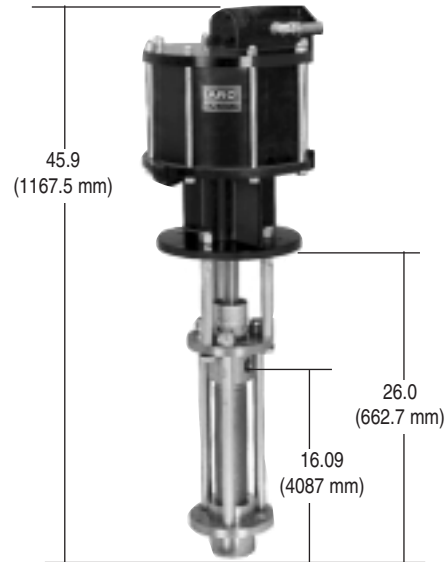


Pump Performance

- Air Inlet Pressure Range 30 - 100 PSI (2 - 6.8 bar)
- Fluid Pressure Range 1950 - 6500 PSI (132.6 - 442 bar)
- Max. Rec'd Cycles Per Minute . 60
- Displacement In³ Per Cycle . . . 113 (6.9 cm³)
- Cycles Per Gallon (Liter) 2.0 (0.5)
- Flow @ 60 Cycles / Minute . 5.4 GPM (20.4 lpm)
- Noise Level @ 60 Psi 88 db(A) w/66718 muffler

Pump Specifications

- Lower Pump Material Carbon Steel
- Plunger Material 17-4 Stnls. Steel
- Cylinder Material 400 Stnls. Steel
- Air Motor 66506-B
- Motor Repair Kit 637112
- Motor Diameter 12"
- Stroke 6"
- Air Inlet 3/4" NPT(F)
- Lower Pump End Series 66475-X4D
- Lower Pump Repair Kit 637098-XXX
- Material Inlet 2" NPT(F)
- Material Outlet 1" NPT(F)
- Weight 147 lbs. (66.8 kgs.)



650963-X4D-B

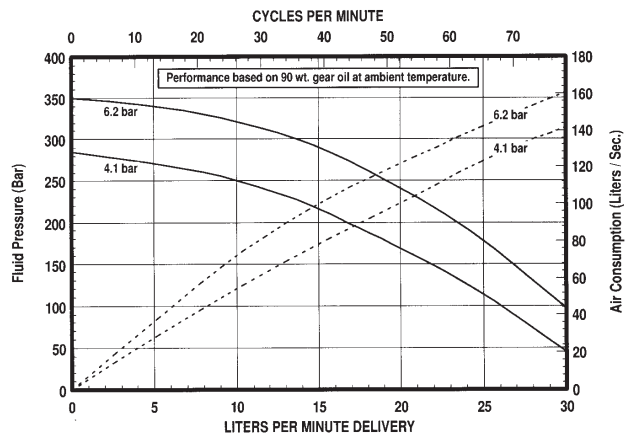
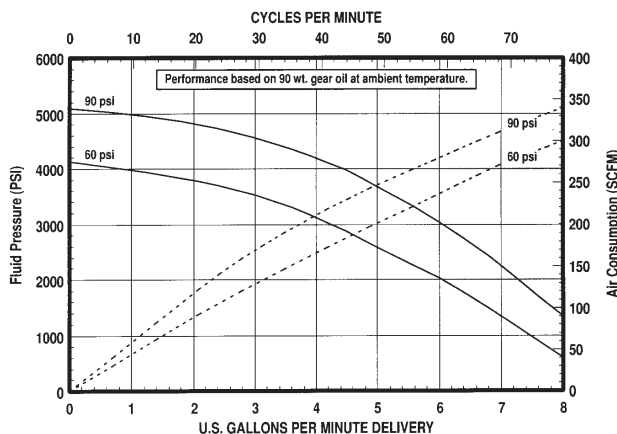
Ordering

6 5 0 9 6 3 - X 4 D - B
 Packings _____

- 3 : Teflon
- C : UHMW-PE
- G : UHMW-PE/Leather Staggered
- P : UHMW-PE/Teflon Staggered
- R : Teflon/UHMW-PE Staggered

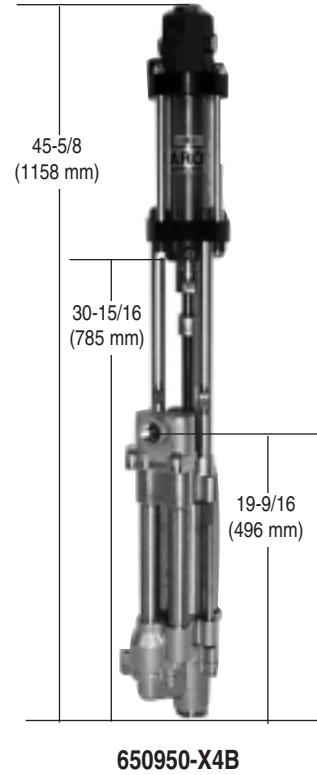
Accessories

- Air F/R/L: 28353
- Airline Oil: 62274
- Air Motor Muffler: 66718
- Wet Sol: 66333-B
- Wall Mounts: 66542



Performance

Hydraulic Inlet Pressure Range . 60 - 1200 PSI (3.4 - 81.6 bar)
 Fluid Pressure Range 12 - 240 PSI (.81 - 16.3 bar)
 Required H-power @ 50 cpm . . 3.2 @ 1200 (82.8 bar)
 Hydraulic flow req'd @ 50 cpm. . 8.7 gpm (32.9 lpm)
 Max. Rec'd Cycles Per Minute . 50
 Displacement In³ Per Cycle . . . 103.6 (1697.6 cm³)
 Volume / Cycle 57.4 oz.
 Cycles Per Gallon(Liter) 2.23 (.58)
 Flow @ 50 Cycles / Minute . . . 22.4 gpm (84.7 lpm)
 Maximum Hyd. Temp Limit . . . 130° F (54° C)



Specifications

Lower Pump Material CF8M (316) Stns. Steel
 Plunger Material 17 - 4 Stns. Steel, "Ultra" Coated
 Cylinder Material. 304 Stns. Steel, "Ultra" Coated
 Hydraulic Motor 67147
 Motor Repair Kit 637315
 Motor Size. 2.062 in² (13.3 cm²)
 Stroke 5.75" (14.6 cm)
 Hydraulic Inlet 3/8" NPT (F)
 Hydraulic Return 1/2" NPT (F)
 Lower Pump End Series. 67201-X4B
 Lower Pump Repair Kit 637318-X4B
 Material Inlet 1-1/2" NPT(F) / 2" NPT(M)
 Material Outlet 1" NPT(F)
 Weight. 72 lbs (32.7 Kgs.)

Ordering

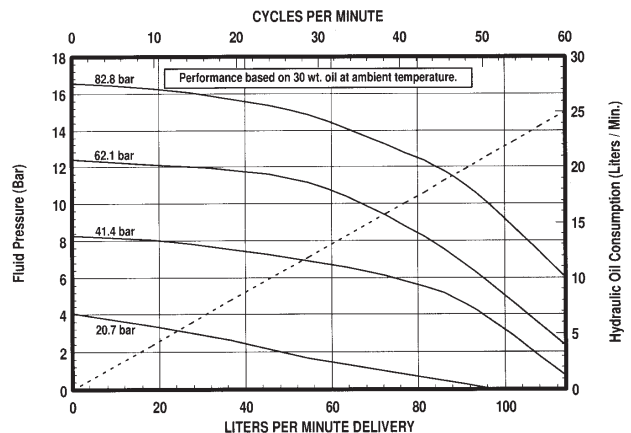
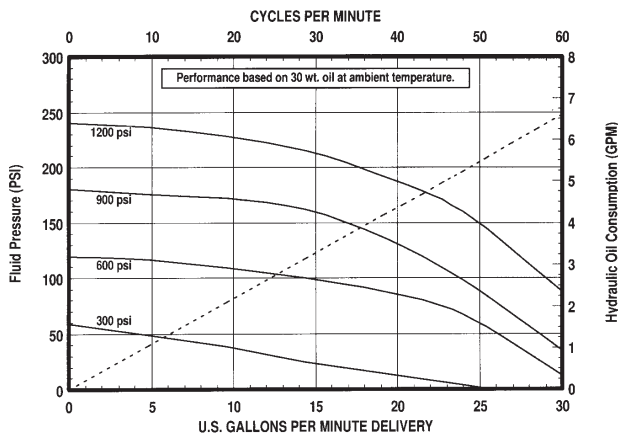
6 5 0 9 5 0 - X 4 B

Packings

- 7 : Teflon
- C : UHMW-PE
- F : UHMW-PE/Leather (Upper), UHMW-PE (Lower)
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

Accessories

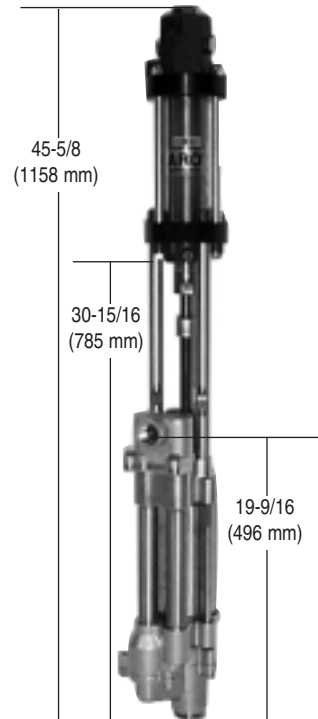
Wall Mount: 61937-1
 Mounting Post: 67187-2





Performance

Hydraulic Inlet Pressure Range . 60 - 1200 PSI (4 - 81.6 bar)
 Fluid Pressure Range 18 - 360 PSI (1.2 - 24.4 bar)
 Required H-power @ 50 cpm . . 3.2 @ 1200 (82.8 bar)
 Hydraulic flow req'd @ 50 cpm. . 8.7 gpm (32.9 lpm)
 Max. Rec'd Cycles Per Minute . 50
 Displacement In³ Per Cycle . . . 78.6 (1288 cm³)
 Volume / Cycle 43.6 oz.
 Cycles Per Gallon (Liter) 2.9 (.77)
 Flow @ 50 Cycles / Minute . . . 17.0 gpm (64.2 lpm)
 Maximum Hyd.Temp Limit 130° F (54° C)



650949-X4B

Specifications

Lower Pump Material CF8M (316) Stns. Steel
 Plunger Material 17 - 4 Stns. Steel, "Ultra" Coated
 Cylinder Material. 304 Stns. Steel, "Ultra" Coated
 Hydraulic Motor 67147
 Motor Repair Kit 637315
 Motor Size 2.062 in² (13.3 cm²)
 Stroke 5.75" (14.6 cm)
 Hydraulic Inlet 3/8" NPT(F)
 Hydraulic Return 1/2" NPT(F)
 Lower Pump End Series 67200-X4B
 Lower Pump Repair Kit 637317-X4B
 Material Inlet 1-1/2" NPT(F) / 2" NPT(M)
 Material Outlet 1" NPT(F)
 Weight 70 lbs (31.8 Kgs.)

Ordering

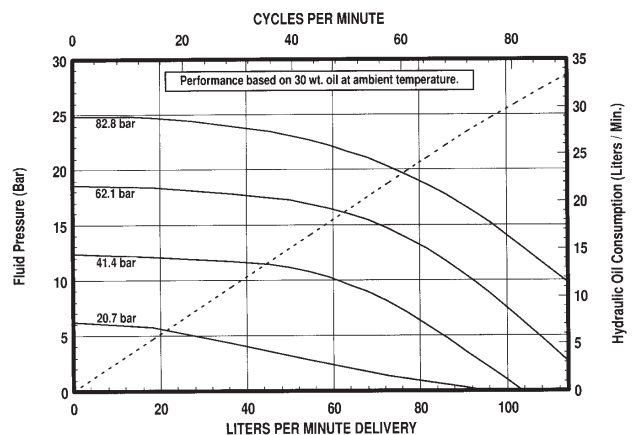
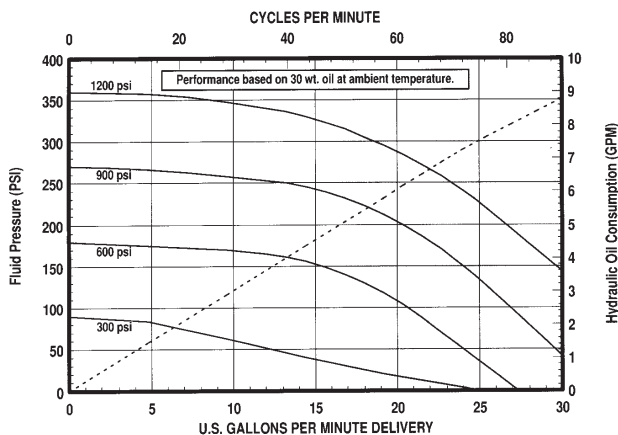
6 5 0 9 4 9 - X 4 B

Packings

- 7 : Teflon
- C : UHMW-PE
- F : UHMW-PE/Leather (Upper), UHMW-PE (Lower)
- P : UHMW-PE/Teflon (Upper), UHMW-PE (Lower)
- R : Teflon/UHMW-PE (Upper), Teflon (Lower)

Accessories

Wall Mount: 61937-1
 Mounting Post: 67187-2



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