

ARO®

Piston Pumps



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ARO®

ARO® is a brand of Ingersoll Rand. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$12 billion global business committed to a world of sustainable progress and enduring results.

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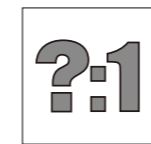
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 Ingersoll Rand®



Technical symbols

In the event of difficulty of interpretation, please refer to the following list to know the exact significance.



Ratio



Maximum flow per minute



Displacement per cycle



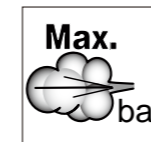
Max. cycles per minute



Cycles per litre



Fluid pressure range



Max. air pressure



Hydraulic inlet connection



Hydraulic return connection



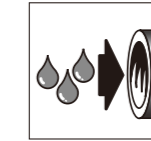
Pump motor diameter



Weight



Air inlet connection



Fluid inlet connection



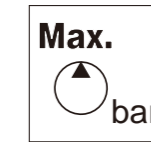
Fluid outlet connection



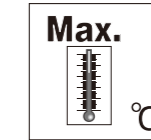
ATEX certified model



Sound level



Max. hydraulic pressure



Max. hydraulic temperature

Applications of the piston pumps

Piston Pumps are used in a wide variety of fluid handling applications. The majority of these can be broken into four different categories:

- **Transfer**
Simple transfer involves moving a low-to-medium viscosity fluid from one location to another. 2-ball and 4-ball style pumps are most frequently used in transfer applications.
- **Extrusion**
Extrusion involves using a Piston Pump to apply medium-to-high viscosity materials. Typical extrusion applications require accessories like rams and fluid regulators to meet customer requirements. Chop-Check and 2-ball pumps are used in extrusion applications.
- **Coating Application**
This involves application of a material by either spray or dipping. Coating applications use 2-ball and 4-ball pumps.
- **Measuring/Dispense**
Measuring and Dispense involves the delivery of a specified quantity of fluid on a repetitive basis. Measuring/Dispense applications use 2-ball, 4-ball and Chop-Check pumps.



Materials of Construction

Pump components are constructed of different materials to ensure the pump is best suited to a particular application:

- **Pump Body Component Options**
Stainless steel: Used with corrosive fluids and water-borne materials. Stainless steel is resistant to corrosion. It can be heat-treated, hard chrome-plated or Ultra-Coated™ to improve abrasion resistance.
Carbon steel: Provides excellent abrasion resistance. Can be heat-treated and hard chrome-plated. Not suited for water-borne fluids and corrosive materials, as it will rust and deteriorate.
- **Packings**
Used to seal movement of the plunger rod. The upper (throat) packings seal the rod as it moves through the outlet casting. The lower (piston) packings seal the piston as it reciprocates within the pump body.
Packings are made of different materials to ensure chemical and material compatibility to maximize service life. Using packings of different material combinations can often improve service life by utilizing the strengths of both materials.
- **UHMW-PE (Ultra-High Molecular Weight Polyethylene):**
An all-purpose packing material that provides excellent abrasion resistance. Commonly used with inks, acids and some solvents.
- **Teflon®***
Compatible with all fluids. Provides excellent corrosion resistance but poor abrasion resistance. Commonly used with corrosive chemicals, ketone, acids and room-temperature vulcanizing (RTV) materials.
- **Leather**
Commonly used in combination with UHMW-PE packings for excellent sealing and abrasion resistance. UHMW-PE and leather is most often used when pumping ink.

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Pump-to-Fluid Viscosity Guide

Considerations:

The chart should only be used as a guide, and not as an absolute solution to a pump problem. It does not take into consideration Vpressure losses due to sizes and lengths of hoses, piping runs, dispensing valves, hose swivels, elevations, and other restriction factors.

Flow	Maximum Delivery Rate gpm (L/min)	Ratio	Fluid Pressure Range psi (bar)	Material of Construction	Lower End Type	Pump on Page	500	1,000	5,000	7,500	10,000	12,500	15,000	20,000	35,000	50,000	75,000	100,000	250,000	500,000	750,000	1,000,000	
0 - 2	0.38 (1.4)	28:1	0 - 4200 (0 - 289.6)	Stainless steel	2-ball	15	Siphon		Flooded inlet														
	0.5 (1.9)	22:1	0 - 3300 (0 - 227.5)	Carbon steel	Chop-check	13			Flooded inlet							Ram Mounted							
	0.5 (1.9)	22:1	0 - 3300 (0 - 227.5)	Stainless steel	Chop-check	13			Flooded inlet							Ram Mounted							
	0.74 (2.8)	43:1	0 - 6549 (0 - 451.5)	Stainless steel	Chop-check	61			Flooded inlet							Ram Mounted							
	0.74 (2.8)	43:1	0 - 6549 (0 - 451.5)	Carbon steel	Chop-check	61			Flooded inlet							Ram Mounted							
	0.6 (2.3)	18:1	0 - 2700 (0 - 186.2)	Stainless steel	2-ball	12	Siphon		Flooded inlet														
	1.3 (4.9)	30:1	900 - 4629 (62.1 - 319.2)	Stainless steel	2-ball	33	Siphon		Flooded inlet							Ram Mounted							
	1.3 (5.1)	65:1	0 - 7475 (0 - 515)	Carbon steel	Chop-check	69			Flooded inlet							Ram Mounted							
	1.4 (5.4)	60:1	1800 - 6172 (124.1 - 425.5)	Stainless steel	2-ball	39	Siphon		Flooded inlet							Ram Mounted							
	1.5 (5.7)	3.6:1 Hyd	180 - 4320 (12.4 - 297.9)	Carbon steel	Chop-check	110			Flooded inlet							Ram Mounted							
	1.6 (6.1)	3.3:1 Hyd	165 - 3394 (11.4 - 234)	Stainless steel	2-ball	109	Siphon		Flooded inlet							Ram Mounted							
	1.8 (6.9)	23:1	0 - 3690 (0 - 254.4)	Carbon steel	Chop-check	54			Flooded inlet							Ram Mounted							
	1.8 (6.9)	46:1	0 - 7485 (0 - 516.1)	Carbon steel	Chop-check	67			Flooded inlet							Ram Mounted							
	1.9 (7.3)	22:1	660 - 3412 (45.5 - 235.3)	Stainless steel	2-ball	26	Siphon		Flooded inlet							Ram Mounted							
	1.9 (7.3)	45:1	1350 - 5459 (93.1 - 376.4)	Stainless steel	2-ball	37	Siphon		Flooded inlet							Ram Mounted							
0 - 4	2.1 (8)	4:1	0 - 600 (0 - 41.4)	Stainless steel	2-ball	11	Siphon		Ram Mounted														
	2.1 (8.1)	2:1	0 - 351 (0 - 24.2)	Carbon steel	2-ball	8	Siphon	Flooded inlet															
	2.1 (8.1)	2:1	0 - 351 (0 - 24.2)	Stainless steel	2-ball	9	Siphon	Flooded inlet															
	2.1 (8)	4:1	0 - 600 (0 - 41.4)	Carbon steel	2-ball	10	Siphon		Ram Mounted														
	2.7 (10.2)	2:1 Hyd	100 - 2400 (6.9 - 165.5)	Carbon steel	Chop-check	108			Flooded inlet							Ram Mounted							
	2.9 (10.8)	9:1	0 - 1350 (0 - 93.1)	Stainless steel	2-ball	20			Flooded inlet														
	2.8 (10.5)	9:1	0 - 1350 (0 - 93.1)	Carbon steel	2-ball	18			Flooded inlet														
	3.1 (11.9)	0.58:1 Hyd	85 - 2054 (5.9 - 141.6)	Stainless steel	2-ball	105	Siphon		Flooded inlet														
	3.2 (12.3)	23:1	0 - 4215 (0 - 290.6)	Carbon steel	Chop-check	56			Flooded inlet							Ram Mounted							
	3.2 (12.3)	12:1	0 - 2085 (0 - 143.8)	Carbon steel	Chop-check	48			Flooded inlet							Ram Mounted							
	3.7 (14)	11:1	330 - 1747 (22.8 - 120.5)	Stainless steel	2-ball	23	Siphon		Flooded inlet							Ram Mounted							
	3.8 (14.3)	23:1	690 - 3495 (47.6 - 241)	Stainless steel	2-ball	27	Siphon		Flooded inlet							Ram Mounted							
	3.8 (14.3)	40:1	1200 - 4697 (82.7 - 323.9)	Stainless steel	2-ball	35	Siphon		Flooded inlet							Ram Mounted							
	3.8 (14.3)	44:1	1320 - 3964 (91 - 273.3)	Carbon steel	Chop-check	63			Flooded inlet							Ram Mounted							
	0 - 10	4.9 (18.5)	1:1	0 - 150 (0 - 10.3)	Carbon steel	2-ball	7	Siphon															
6 (22.7)		28:1	840 - 3360 (57.9 - 231.7)	Carbon steel	Chop-check	58			Flooded inlet							Ram Mounted							
6 (22.9)		44:1	1320 - 3960 (91 - 273)	Carbon steel	Chop-check	65			Flooded inlet							Ram Mounted							
6 (22.9)		65:1	1950 - 5850 (134.5 - 403.3)	Carbon steel	Chop-check	71			Flooded inlet							Ram Mounted							
6.3 (23.7)		28:1	840 - 3360 (57.9 - 231.7)	Stainless steel	2-ball	32	Siphon		Flooded inlet							Ram Mounted							
6.3 (23.7)		45:1	1350 - 4050 (93.1 - 279.2)	Carbon steel	2-ball	36	Siphon		Flooded inlet							Ram Mounted							
6.3 (23.7)		65:1	1950 - 5850 (134.5 - 403.3)	Carbon steel	2-ball	41	Siphon		Flooded inlet							Ram Mounted							
8.7 (33.1)		1.2:1 Hyd	60 - 2670 (4.1 - 184.1)	Carbon steel	Chop-check	107			Flooded inlet							Ram Mounted							
0 - 20	12.2 (46.3)	13:1	390 - 1900 (26.9 - 131)	Carbon steel	Chop-check	50			Flooded inlet							Ram Mounted							
	12.2 (46.3)	20:1	600 - 2250 (41.4 - 155.1)	Carbon steel	Chop-check	52			Flooded inlet							Ram Mounted							
	12.2 (46.3)	30:1	900 - 3250 (62.1 - 224.1)	Carbon steel	Chop-check	60			Flooded inlet							Ram Mounted							
	12.9 (48.8)	0.8:1 Hyd	40 - 1600 (2.8 - 110.3)	Stainless steel	2-ball	106	Siphon		Flooded inlet														
	15.6 (58.9)	10:1	300 - 1200 (20.7 - 82.7)	Stainless steel	2-ball	22	Siphon		Flooded inlet							Ram Mounted							
	17 (64.4)	0.3:1 Hyd	15 - 386 (1 - 26.6)	Stainless steel	4-ball	104	Siphon		Flooded inlet														
	18.1 (68.6)	15:1	450 - 1350 (31 - 93.1)	Stainless steel	2-ball	25	Siphon		Flooded inlet							Ram Mounted							
	18.1 (68.6)	23:1	690 - 2070 (47.6 - 142.7)	Stainless steel	2-ball	31	Siphon		Flooded inlet														
0 - 35	21.3 (80.6)	2:1	60 - 312 (4.1 - 21.5)	Stainless steel	4-ball	43	Siphon		Flooded inlet														
	21.3 (80.6)	4:1	120 - 633 (8.3 - 43.6)	Stainless steel	4-ball	45	Siphon		Flooded inlet														
	22.4 (84.9)	0.2:1 Hyd	10 - 278 (0.7 - 19.2)	Stainless steel	4-ball	103	Siphon		Flooded inlet														
	23.5 (88.8)	7:1	210 - 1009 (14.5 - 69.6)	Stainless steel	4-ball	47	Siphon		Flooded inlet														
	29.3 (110.8)	3:1	90 - 457 (6.2 - 31.5)	Stainless steel	4-ball	44	Siphon		Flooded inlet														
	32.8 (124)	5:1	150 - 702 (10.3 - 48.4)	Stainless steel	4-ball	46	Siphon		Flooded inlet														

N-Series piston pumps and packages

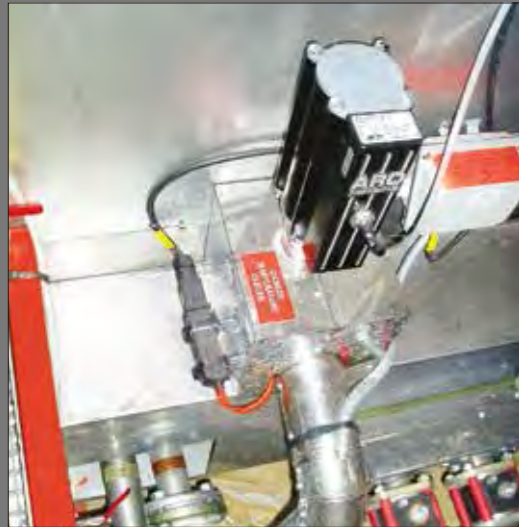


Motor

Aro's design uses fewer parts in its air motor than the comparable competitive industrial pump. With fewer parts come fewer problems, it's really just that simple.

Over 10 Million Cycles: in field tests under rigorous, real-world working conditions, the new N-Series pumps have turned over more than 10-million cycles-and are still running!

Patented ARO® Stall-Free, Ice-Free Air Motor Design: Your guarantee of trouble-free pump operation. The N Series air motor contains fewer parts and requires absolutely no mechanical assist devices such as trip rods or push pins.



Ease of installation: air inlet and fluid outlet can be oriented in 90° increments.

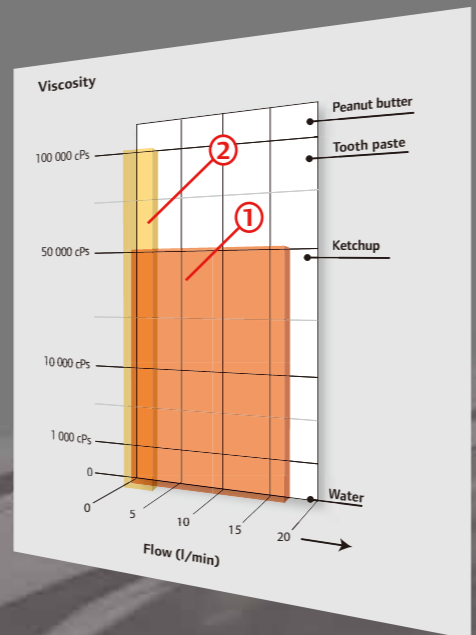
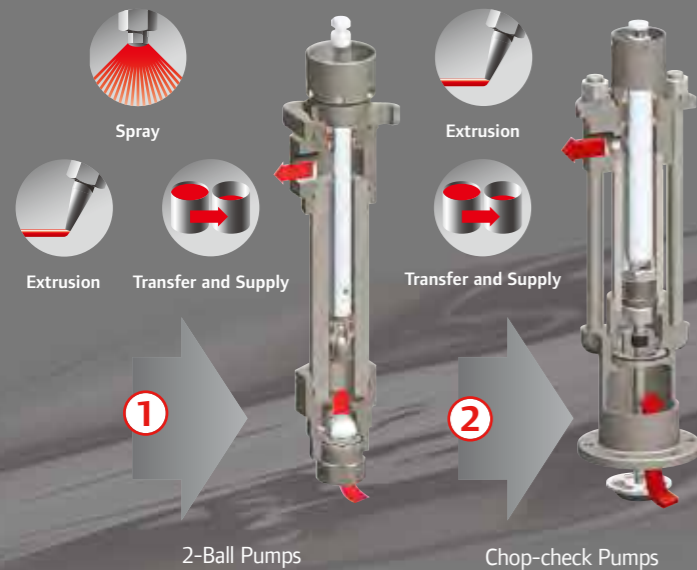


Groundable, ATEX-compliant

Lubrication-free operation

Piston pump types

The N-Series pumps are available in 2 balls and chop-check versions. The diagram illustrates the recommended working ranges, according to the fluid viscosity and the desired flow.



Pump lowers are available in two distinct alloys for today's tough fluid material demands. They fit on 20 L or 200 L drum and can also be installed on wall bracket.

1:1
18.5 l/min

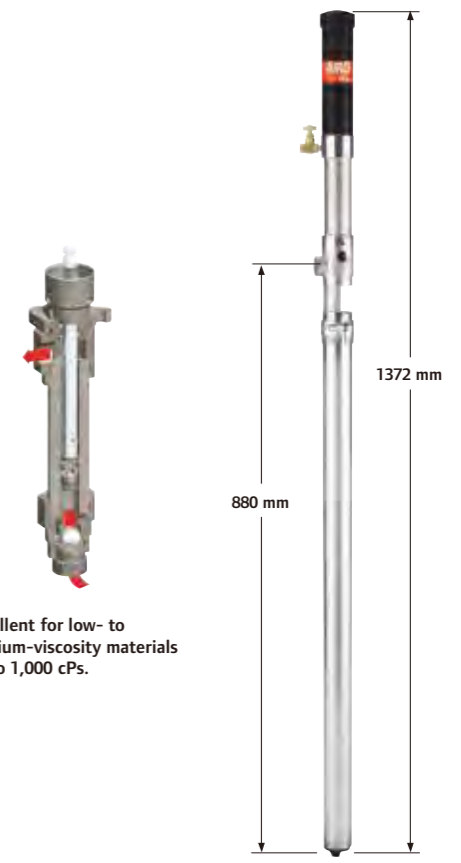
N Series

2-ball piston pump

Specifications			
Ratio	1:1	Max. bar	0 - 10 bar
Motor	2" (51 mm)	Cycle/min.	75 cycles/min.
Motor	6" (152 mm)	1 min.	18 l/min. @ 60 cycles/min.
AIR	1/4" NPT(F)	1 cycle	308 cc
Max. bar	0 - 10.3 bar	For 1 litre	3.3 cycles
Headphones	77.8 dBA @ 6.9 bar	Immersed	
Weight	5.9 kg		3/4" NPT(F)



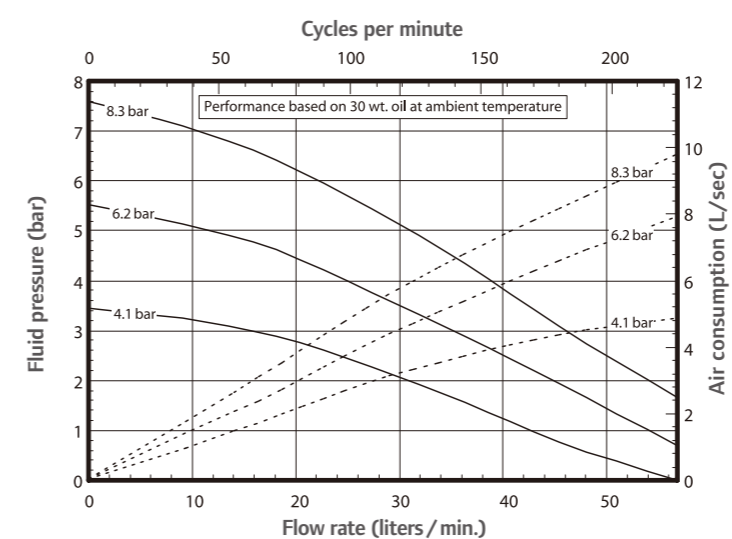
Transfer and Supply



Excellent for low- to medium-viscosity materials up to 1,000 cPs.

Pump model no.	Type	Plunger material	Packings (upper + lower)	ServiceKit (1)
Carbon steel pump				
612041-1	Wall mount or drum	Carbon steel	PTFE + PTFE	637081
612041-3			Buna	637083

(1) Lower pump repair kit



Pump accessories		
P39124-600	Air Filter and Regulator	
61113	Wall mount bracket	
61879	Muffler	
104104-N02	Needle valve	
635040	AroStop valve assembly	
637084	Motor service kit	

2:1
8.1 l/min

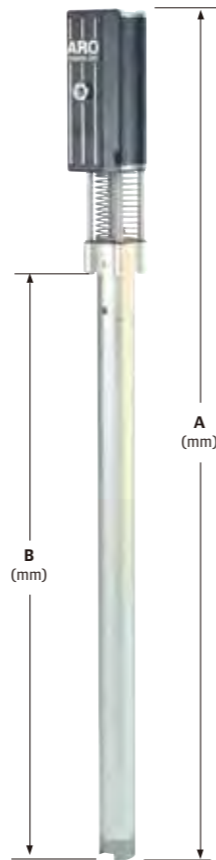
N Series

2-ball piston pump

Specifications			
?	2:1	Max. bar	4 - 21 bar
Motor	2" (51 mm)	Cycle/min	120 cycles/min.
Motor	3" (76 mm)	1 min. Cycle	8 l/min. @ 60 cycles/min.
AIR	1/4" NPT(F)	1 cycle	135 cc
Max. bar	2 - 10.3 bar	For 1 litre	7.4 cycles
80 dBA @ 6.9 bar		1 1/2" NPTF (NM2202A-11...) 1 1/4" NPTF (NM2202B-11...) Immersed (NM2202A-41...) (NM2202B-41...)	
Weights			3/4" NPT(F)
	NM2202A-11-X31: 7.9 kg NM2202A-41-X31: 8.9 kg NM2202B-11-X31: 7.8 kg NM2202B-41-X31: 10.2 kg		



Excellent for low- to medium-viscosity materials up to 7,500 cPs.



Transfer and Supply

	A	B
NM2202A-11-X31	868	509
NM2202A-41-X31	1215	856
NM2202B-11-X31	860	504
NM2202B-41-X31	1212	856

Pump model no.	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)
Carbon steel pump					
NM2202A-11-731	Stub (wall mount)	67320-731	Carbon steel	PTFE + PTFE	637378-731
NM2202A-11-C31		67320-C31		UHMW-PE + UHMW-PE	637378-C31
NM2202A-11-J31		67320-J31		Polyurethane + UHMW-PE	637378-J31
NM2202A-41-731	For 200 L drum	67319-731		PTFE + PTFE	637378-731
NM2202A-41-C31		67319-C31		UHMW-PE + UHMW-PE	637378-C31
NM2202A-41-J31		67319-J31		Polyurethane + UHMW-PE	637378-J31

(1) Lower pump repair kit

See stainless steel models on following page.

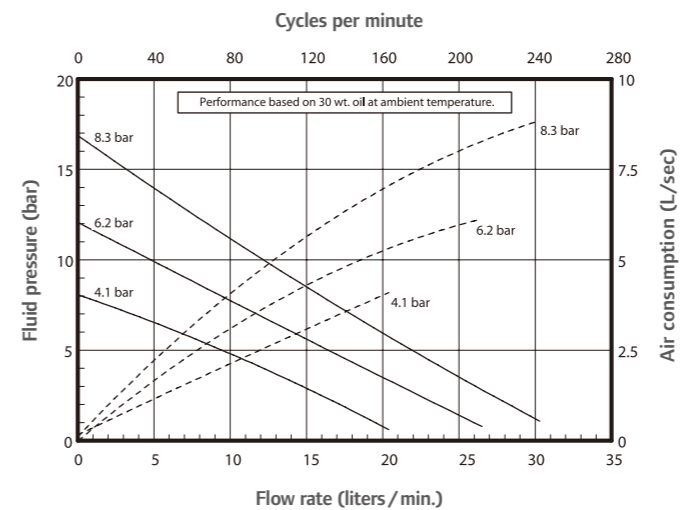
2:1
8.1 l/min

N Series

2-ball piston pump (continued)

Pump model no.	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)
Stainless steel pump					
NM2202B-11-731	Stub (wall mount)	67318-731	300 Series stainless steel	PTFE + PTFE	637379-731
NM2202B-11-C31		67318-C31		UHMW-PE + UHMW-PE	637379-C31
NM2202B-11-J31		67318-J31		Polyurethane + UHMW-PE	637379-J31
NM2202B-41-731	For 200 L drum	67317-731		PTFE + PTFE	637379-731
NM2202B-41-C31		67317-C31		UHMW-PE + UHMW-PE	637379-C31
NM2202B-41-J31		67317-J31		Polyurethane + UHMW-PE	637379-J31

(1) Lower pump repair kit



Pump accessories	
P39124-600	Air Filter and Regulator
104104-N02	Needle valve
66073-1	Air line connection kit
635040	AroStop valve assembly
61113	Wall mount bracket
637377	Motor service kit

4:1

8 l/min

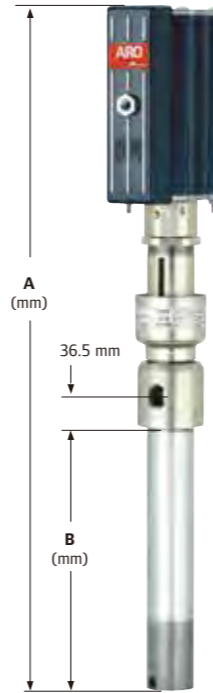
N
Series

2-ball piston pump

Specifications			
	4:1		8 - 41 bar
	3" (76 mm)		125 cycles/min.
	3" (76 mm)		8 l/min. @ 60 cycles/min.
	1/4" NPT(F)		135 cc
	0 - 10.3 bar		7.4 cycles
	85 dBA @ 6.9 bar		1 1/2" NPTF (NM2304A-11...) 1 1/4" NPTF (NM2304B-X1...)
	NM2304A-11-X11: 14.5 kg NM2304A-41-X11: 20.9 kg NM2304B-11-X11: 14.5 kg NM2304B-41-X11: 20.9 kg		3/4" NPT(F)



Excellent for low- to medium-viscosity materials up to 20,000 cPs.



	A	B
NM2304A-11-X11	769	298
NM2304A-41-X11	1 413	942
NM2304A-81-X11	769	298
NM2304A-91-X11	1 413	942
NM2304A-A1-X11	751	280

See stainless steel models on following page.



Spray



Extrusion



Transfer and Supply

Pump model no.	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)
Carbon steel pump					
NM2304A-11-C11		67151-1-C11		UHMW-PE + UHMW-PE	637228
NM2304A-11-311	Stub (wall mount)	67151-1-311		Glass-filled PTFE + Virgin PTFE	637176
NM2304A-11-511		67151-1-511		Glass-filled PTFE / leather + Virgin PTFE	637176
NM2304A-81-311	Stub, without bung	67151-8-311		Glass-filled PTFE + Virgin PTFE	637176
NM2304A-41-C11		67151-4-C11		UHMW-PE + UHMW-PE	637228
NM2304A-41-311	For 200 L drum	67151-4-311	Carbon steel	Glass-filled PTFE + Virgin PTFE	637176
NM2304A-41-511		67151-4-511		Glass-filled PTFE / leather + Virgin PTFE	637176
NM2304A-91-311	For 200 L drum, without bung	67151-9-311		Glass-filled PTFE + Virgin PTFE	637176
NM2304A-A1-C11		67151-A-C11		UHMW-PE + UHMW-PE	637228
NM2304A-A1-311	Stub, for follower plate	67151-A-311		Glass-filled PTFE + Virgin PTFE	637176
NM2304A-A1-511		67151-A-511		Glass-filled PTFE / leather + Virgin PTFE	637176

(1) Lower pump repair kit

4:1

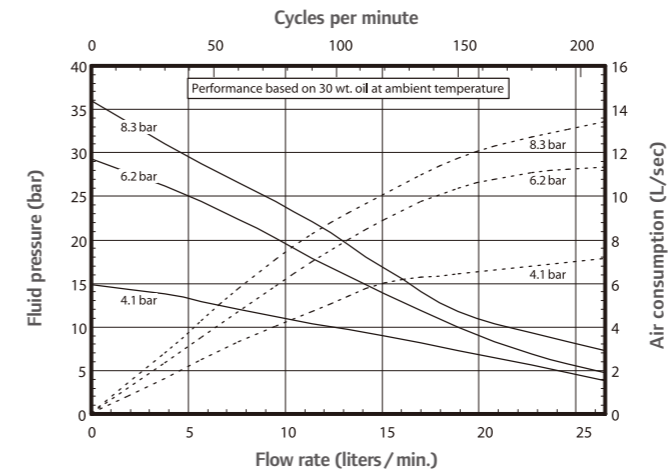
8 l/min

N
Series

2-ball piston pump (continued)

Pump model no.	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)
316 stainless steel pump					
NM2304B-11-C11		65108-4		UHMW-PE + UHMW-PE	637010-4
NM2304B-11-311		65108	316 stainless steel	Glass-filled PTFE + Virgin PTFE	637010
NM2304B-11-W11	Stub (Wall mount)	65108-8		Viton® + virgin PTFE	637010-6
NM2304B-11-C1B		65108-6	316 stainless steel / ceramic coating	UHMW-PE + UHMW-PE	637010-4
NM2304B-11-31B		65108-5		Glass-filled PTFE + Virgin PTFE	637010
NM2304B-41-C11	For 200 L drum	65106-4	316 stainless steel	UHMW-PE + UHMW-PE	637010-4
NM2304B-41-311		65106		Glass-filled PTFE + Virgin PTFE	637010

(1) Lower pump repair kit



66334-B

66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

Recommended for use in piston pumps solvent cups - Increase the performance and service life of pumping equipment.

Pump accessories

P39124-600	Air Filter and Regulator	
104104-N02	Needle valve	
66073-1	Air line connection kit	
635040	AroStop valve assembly	
61113	Wall mount bracket	
637316	Motor service kit	

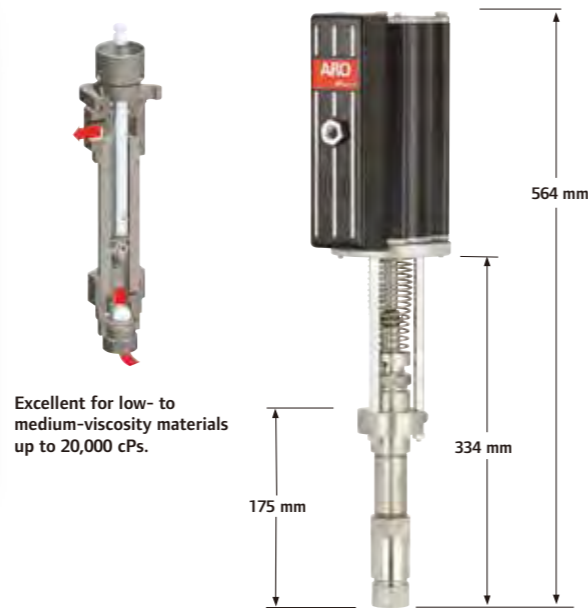
18:1

2.3 l/min

N Series

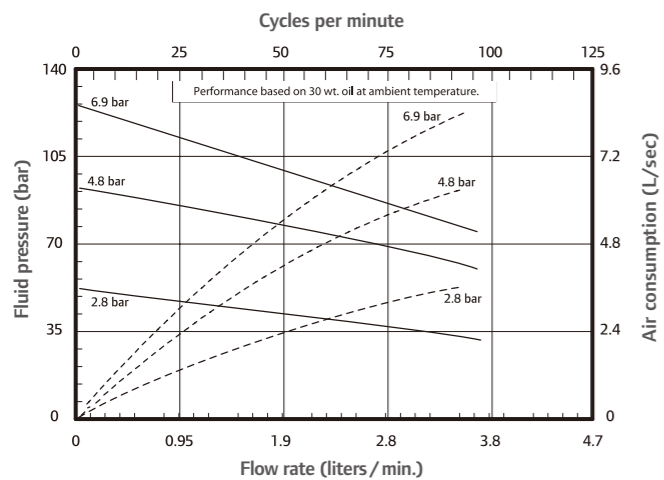
2-ball piston pump

Specifications			
?:1	18:1	Max. bar	35 - 185 bar
Motor	3" (76 mm)	Cycle/min.	120 cycles/min.
Motor	3" (76 mm)	1 min.	2.3 l/min. @ 60 cycles/min.
AIR	1/4" NPT(F)	1 cycle	38.5 cc
Max. bar	2 - 10.3 bar	For 1 litre	26.5 cycles
85 dBA @ 6.9 bar			1/2" NPT(F)
5.7 kg			1/4" NPSM



Pump model no.	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)
400 stainless steel pump					
NM2318B-13-C43	Stub (wall mount)	67310-13-C43	400 stainless steel / hard chrome	UHMW-PE (upper & lower)	637394-C43
NM2318B-13-L43		67310-13-L43		Mineral-filled PTFE (upper & lower)	637394-L43

(1) Lower pump repair kit



Pump accessories	
P39124-600	Air Filter and Regulator
104104-N02	Needle valve
66073-1	Air line connection kit
635040	AroStop valve assembly
95015	Wall mount bracket
637316	Motor service kit

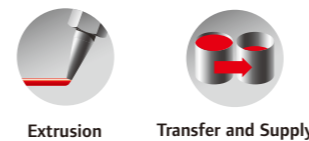
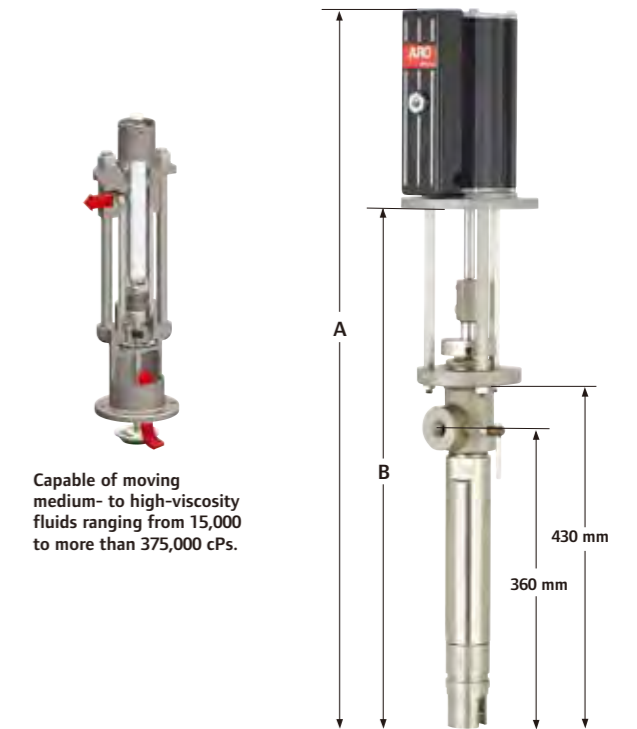
22:1

1.9 l/min

N Series

Chop Check Extrusion Pump

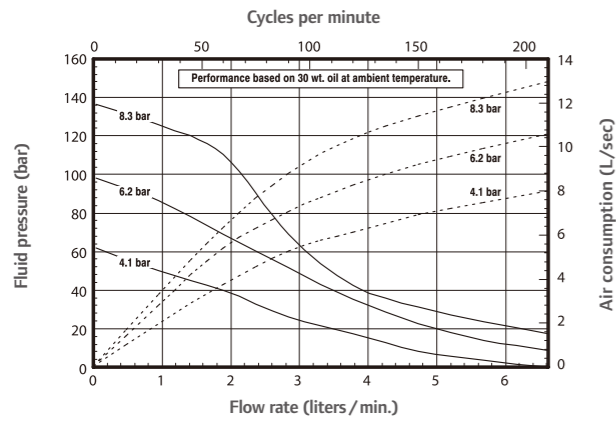
Specifications			
?:1	22:1	Max. bar	44 - 225 bar
Motor	3" (76 mm)	Cycle/min.	120 cycles/min.
Motor	3" (76 mm)	1 min.	1.9 l/min. @ 60 cycles/min.
AIR	1/4" NPT(F)	1 cycle	31.1 cc
Max. bar	2 - 10.3 bar	For 1 litre	32.1 cycles
85 dBA @ 6.9 bar			32.1 cycles
			3/4" NPT(F)
	NM2322X-11-P4X: 13.2 kg		
	NM2322X-71-P4X: 15.0 kg		



	A	B
NM2322X-11-P4X	844	621
NM2322X-71-P4X	1083	847

Pump model no.	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)
Carbon steel pump					
NM2322E-11-P43	Standard Length	67100-P43	17-4 Stainless steel hard chrome plated	UHMW-PE/glass-filled PTFE + UHMW-PE	637290-P43
NM2322E-71-P43	Extended Length	67100-P43			637290-P43
NM2322E-11-P48	Standard Length	67100-P48	Hardened stainless steel with alternate piston	UHMW-PE/glass-filled PTFE + UHMW-PE	637290-P48
NM2322E-71-P48	Extended Length	67100-P48			637290-P48
Stainless steel pump					
NM2322F-11-P43	Standard Length	67101-P43	17-4 Stainless steel hard chrome plated	UHMW-PE/glass-filled PTFE + UHMW-PE	637291-P43
NM2322F-71-P43	Extended Length	67101-P43			637291-P43
NM2322F-11-P48	Standard Length	67101-P48	Hardened stainless st. with alternate piston	UHMW-PE/glass-filled PTFE + UHMW-PE	637291-P48
NM2322F-71-P48	Extended Length	67101-P48			637291-P48

(1) Lower pump repair kit



22:1 ratio extrusion packages for 20 L drum










NP322FP43R7-13
20 L



NP322FP43R8-10
20 L

Model	NP322EP43R7-10	NP322FP43R7-13	NP322EP43R8-10	NP322FP43R8-10
Pump model	NM2322E-11-P43	NM2322F-11-P43	NM2322E-11-P43	NM2322F-11-P43
Single post RAM ⁽¹⁾	RM051S-C	RM051S-C	—	—
Air filter / regulator + Regulator	P39344-100 + R37121-100	P39344-100 + R37121-100	—	—
Two-post RAM ⁽¹⁾	—	—	RM052S-C	RM052S-C
2 air filter / regulator assemblies	—	—	P39344-100 + P39124-100	P39344-100 + P39124-100
Carbon steel follower plate	651840-1	—	651840-1	—
Stainless steel follower plate	—	651841-1	—	651841-1















⁽¹⁾ Includes RAM and pump air controls.

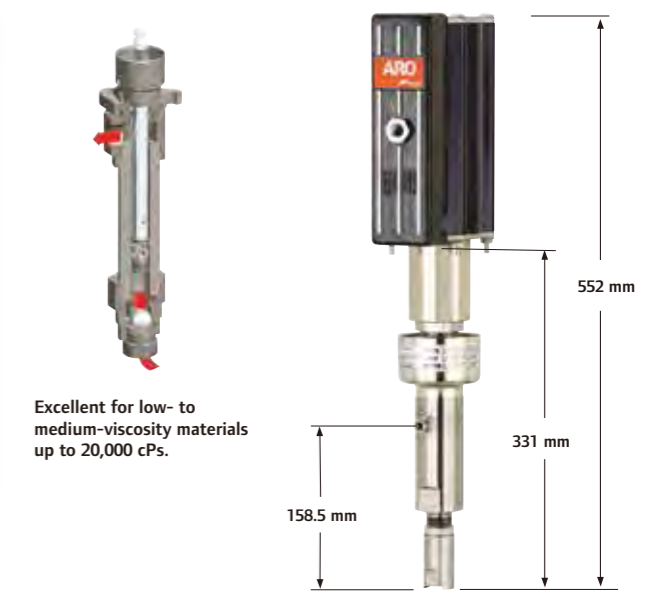
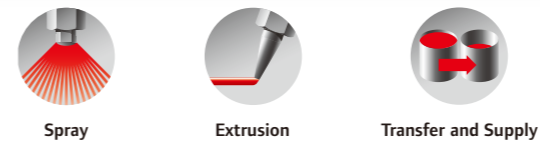
Pump accessories	
P39124-600	Air Filter and Regulator 
104104-N02	Needle valve 
66073-1	Air line connection kit 
635040	AroStop valve assembly 
651841-1	Follower plate 
61113	Wall mount bracket 
637316	Motor service kit 

28:1
1.4 l/min

N Series

2-ball piston pump

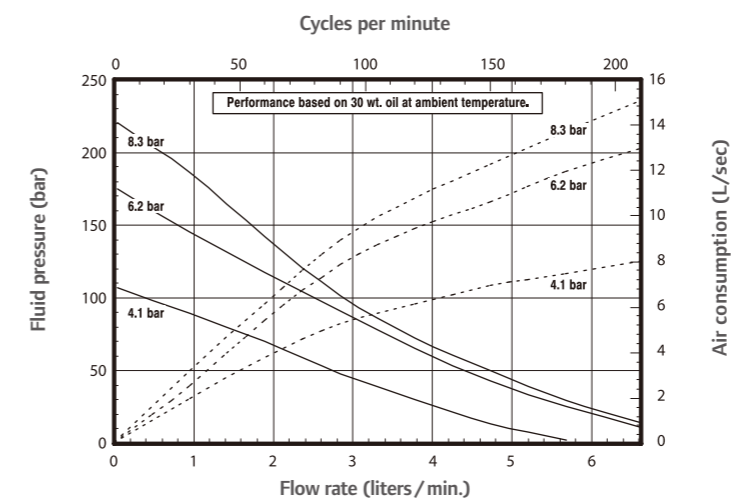
Specifications			
	28:1		56 - 288 bar
	3" (76 mm)		125 cycles/min.
	3" (76 mm)		1.4 l/min. @ 60 cycles/min.
	1/4" NPT(F)		23 cc
	0 - 10.3 bar		42 cycles
	85 dBA @ 6.9 bar		1/2" NPT(F)
	5.9 kg		1/4" NPT(M)



Excellent for low- to medium-viscosity materials up to 20,000 cPs.

Pump model no.	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit ⁽¹⁾
440 stainless steel pump					
NM2328A-11-311	Stub	66066-1	440 stainless steel	Glass-filled PTFE (upper & lower)	637006-1
NM2328A-11-G11		66066-2		UHMW-PE / Leather staggered (upper & lower)	637006-2
NM2328A-11-S11		66066-3		UHMW-PE/glass-filled PTFE staggered (upper & lower)	637006-3

⁽¹⁾ Lower pump repair kit



Pump accessories	
P39124-600	Air Filter and Regulator 
104104-N02	Needle valve 
66073-1	Air line connection kit 
635040	AroStop valve assembly 
61113	Wall mount bracket 
637316	Motor service kit 

28:1 ratio pump packages



NP328C01-2



NP328D02-1



NP328D01-3

Cart-mounted pump Pail-mounted pump for 20 L drum & gun Pail-mounted pump for 20 L drum

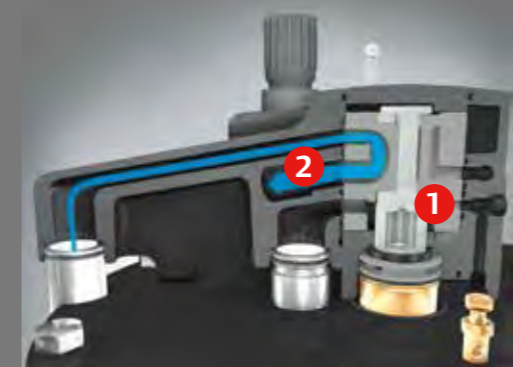
Model	NP328 C01-2	NP328 C02-2	NP328 D01-1	NP328 D01-2	NP328 D02-1	NP328 D02-2	NP328 D01-3	NP328 D01-4	NP328 D01-6
Pump model	NM2328A -11-S11	NM2328A -11-S11	NM2328A -11-G11	NM2328A -11-S11	NM2328A -11-G11	NM2328A -11-S11	NM2328A -11-G11	NM2328A -11-S11	NM2328A -11-S11
Air filter / Regulator	P39124-100	P39124-100	—	—	—	—	—	—	—
Air regulator	—	—	R37221-100	R37221-100	R37221-100	R37221-100	—	—	—
Inlet hose assembly	622581-6	622581-6	—	—	—	—	—	—	—
Material filter	651412	651412	651412	651412	651412	651412	651412	651412	651412
Outlet hose assembly	—	628042-25	628042-25	628042-25	628042-25	628042-25	—	—	—
Airless spray gun	—	651533	651533	651533	651533	651533	—	—	—
Spray nozzle	—	TC1550	TC-1550	TC-1550	TC-1550	TC-1550	—	—	—
Gun filter and swivel assembly	—	65030-5-B	65030-5-B	65030-5-B	65030-5-B	65030-5-B	—	—	—
Agitator	—	—	—	—	650252	650252	—	—	—
Bucket	—	—	65722	65722	65722	65722	65722	65722	—
Drum cover	—	—	65706	65706	65706	65706	65706	65706	65706
Pump foot screen	—	—	90273	90273	90273	90273	—	—	—

AFX-Series piston pumps and packages



Motor

The best engineered motor on the market with only 5 moving parts – designed for easy access and maintenance.



1

True link valve – eliminates pulse profile. Highly polished ceramic plates and PTFE-filled acetal valve components are directly linked to the drive piston. Changeover time is less than one-tenth of a second.

2

Progressive exhaust eliminates variability in pump performance caused by environmental conditions or icing.

Lubrication-free operation

Integrated control block – includes regulator, gauge and shut-off valve. Simplifies installation in a compact space.

Fiber-wound, conductive composite cylinder



ATEX compliant (motors and lower pumps)

Actuation control ports (patent pending)

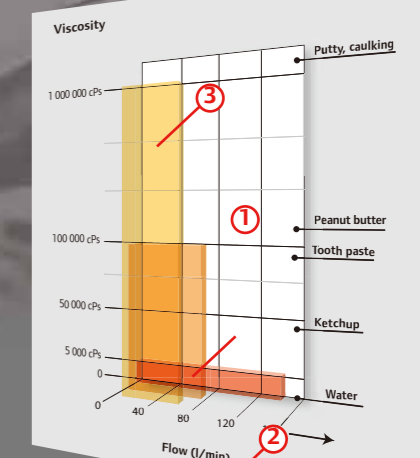
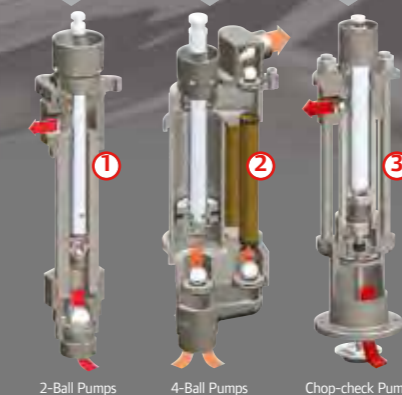
Universal lower end pump connection

Five motor sizes



Piston pump types

The AFX pumps are available in 2 balls, 4 balls and chop-check versions. The diagram illustrates the recommended working ranges, according to the fluid viscosity and the desired flow.



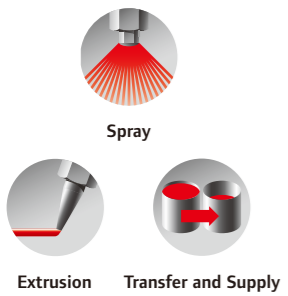
9:1
10.5 l/min

AFX Series

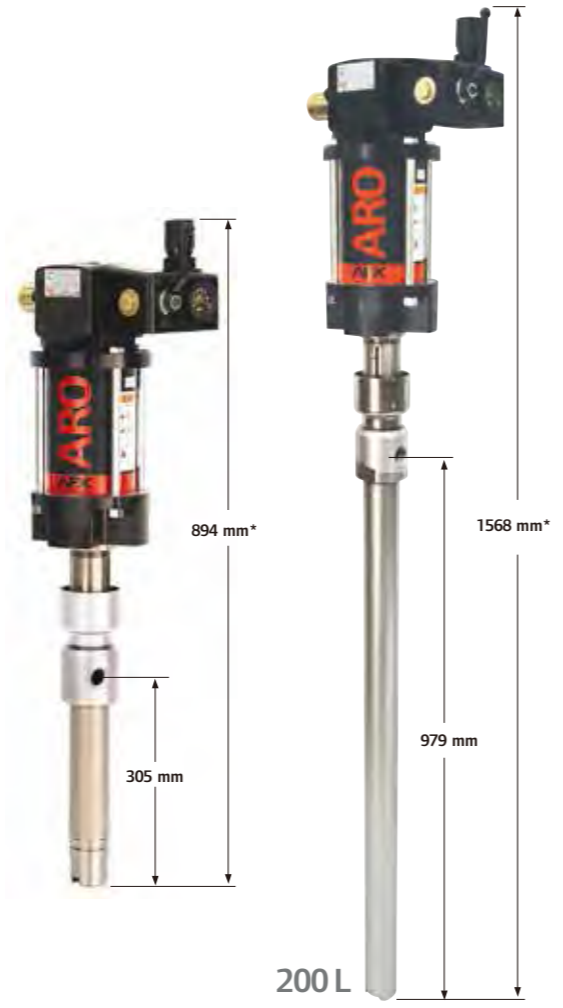
2-ball piston pump

Specifications			
? 9:1	Max. bar	0 - 90 bar	
Motor 4 1/4" (108 mm)	Cycle/min. 60 cycles/min.		
Motor 4" (102 mm)	1 min. 10.5 l/min. @ 60 cycles/min.		
AIR 1/2" NPT(F)	1 cycle 180 cc		
Max. bar 0 - 10.3 bar	For 1 litre 5.5 cycles		
80 dBA @ 4.1 bar	Immersed or 1 1/2" NPT(F) (1)		
15.8 kg 22.2 kg (200 L)	3/4" NPT(F)		

(1) Immersed with 20 L and 200 L containers — Remote mounting 1 1/2" fluid inlet.



Excellent for low- to medium-viscosity materials up to 20,000 cPs.




Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
For 20 L container					
AF0409A91LL2D	1875A91LL2D	Carbon steel	Carbon steel	Leather (upper & lower)	K1875A91LL2D
For 200 L container					
AF0409A51KS24-02	1875A51KS24	Carbon steel	Carbon steel / hard chrome	Glass-filled PTFE + Virgin PTFE	K1875A11KS24
AF0409A51FF24-02	1875A51FF24			UHMW-PE + UHMW-PE	K1875A11FF24
Remote mounting					
AF0409A81KS24-02	1875A81KS24	Carbon steel	Carbon steel / hard chrome	Glass-filled PTFE + Virgin PTFE	K1875A11KS24
AF0409A81US24-02	1875A81US24			Glass-filled PTFE / leather + Virgin PTFE	K1875A11US24
AF0409A81HF24-02	1875A81HF24			UHMW-PE / Leather + UHMW-PE	K1875A11HF24
AF0409A81FF24-02	1875A81FF24			UHMW-PE + UHMW-PE	K1875A11FF24

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit

Pump accessories	
67445-1	High performance muffler
23644-400	AroStop valve
67136	Floor / follower plate adapter
637489	Universal motor service kit
67442	Ball Valve Regulator

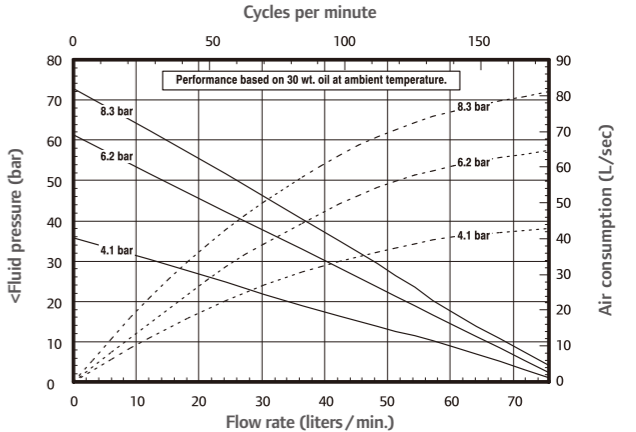
9:1 ratio pump packages



66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

66334-B



Model	Type	Pump model	Cart / lift model	Follower plate (model, seal and material)		Weight	
CL0409A91LL2DE31	Cart mount with lift	AF0409A91LL2D-1	67075-1-B	651840-1	Single-lipped seal, polyethylene / urethane	Carbon steel, nickel plated	65.7 kg
CL0409A91LL2DE3B (3)							

(3) Includes application kit with control handle and material hose.

Pump package accessories	
F35341-400	104317
Air filter	Filter element

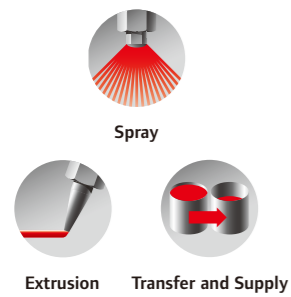


9:1
10.8 l/min

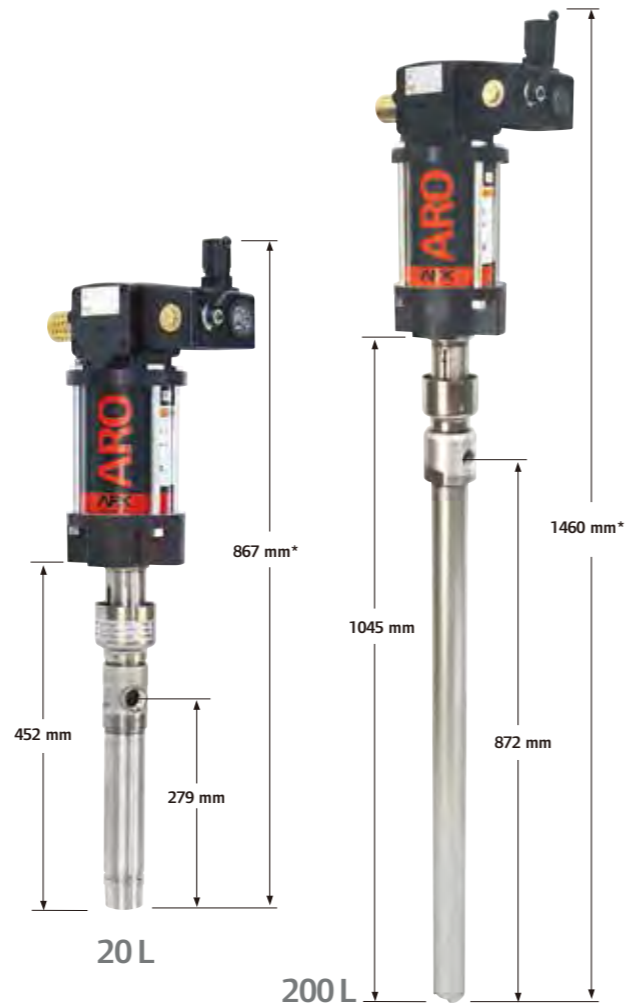
AFX Series

2-ball piston pump

Specifications			
9:1	9:1	Max. bar	0 - 90 bar
Motor	4 1/4" (108 mm)	Cycle/min.	60 cycles/min.
Motor	4" (102 mm)	1 min.	10.8 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	180 cc
Max. bar	0 - 10.3 bar	For 1litre	5.5 cycles
89.2 dBA @ 4.1 bar			1 1/4" NPT(F)
15.9 kg (20 L) 20.4 kg (200 L)			3/4" NPT(F)



Excellent for low- to medium-viscosity materials up to 20,000 cPs.



Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
For 20 L container				
AF0409C11FF22	1875C11FF22	316 stainless steel	316 stainless steel	K1875C11FF00
AF0409C11FF29	1875C11FF29		UHMW-PE + UHMW-PE	K1875C11FF00
AF0409C11SS22	1875C11SS22	316 stainless steel	304 stainless steel with ceramic coating	K1875C11SS00
AF0409C11VF2E	1875C11VF2E		Virgin PTFE (upper & lower)	K1875C11VF00
AF0409C11VF29	1875C11VF29		316 stainless steel, ceramic coated tube	K1875C11VF00
			Viton® + UHMW-PE	K1875C11VF00
			304 stainless steel with ceramic coating	K1875C11VF00
For 200 L container				
AF0409C51SS22	1875C51SS22	316 stainless steel	316 stainless steel	K1875C11SS00
AF0409C51FF22	1875C51FF22		UHMW-PE + UHMW-PE	K1875C11FF00

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit

Pump accessories	
67445-1	High performance muffler
23644-400	AroStop valve
67136	Floor / follower plate adapter
637489	Universal motor service kit
67442	Ball Valve Regulator

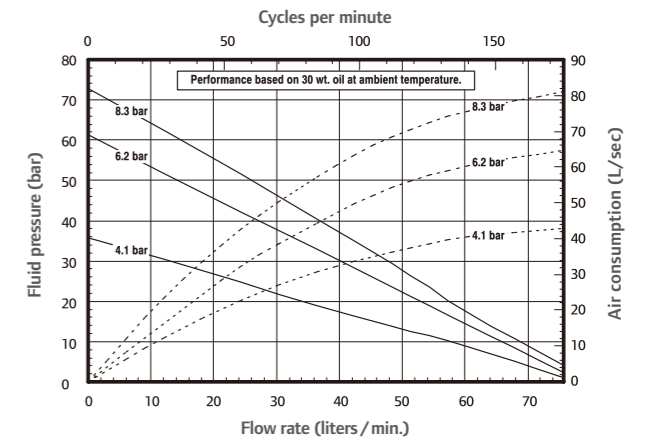
9:1 ratio pump package

66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

66334-B

Recommended for use in piston pumps solvent cups – Increase the performance and service life of pumping equipment.



Model	Type	Pump model	Lift	Drum cover	Material hose	Weight
AL0409C51FF22002	Pump with drum cover / agitator / lift	AF0409C51FF22	640067	66197	623600-10	74.8 kg

Pump package accessories	
P39344-100	104327
Air filter/regulator	Filter/regulator repair kit

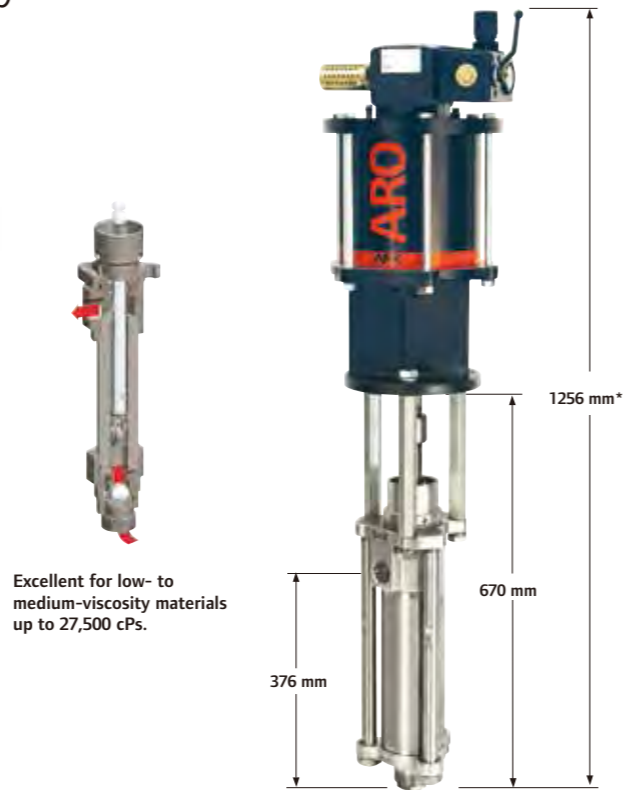


10:1
58.9 l/min

AFX Series

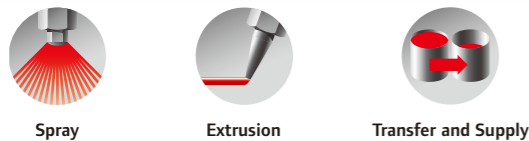
2-ball piston pump

Specifications			
?:1	10:1	Max. bar	0 - 80 bar
Motor	8" (203 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	58.9 l/min. @ 60 cycles/min.
AIR	3/4" NPT(F)	1 cycle	980 cc
Max. bar	0 - 8.3 bar	For 1 litre	0.98 cycle
Headphones	86.8 dBA @ 4.1 bar	2"	2" NPT(F)
Weight	46.3 kg	1 1/4"	1 1/4" NPT(F)



Excellent for low- to medium-viscosity materials up to 27,500 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

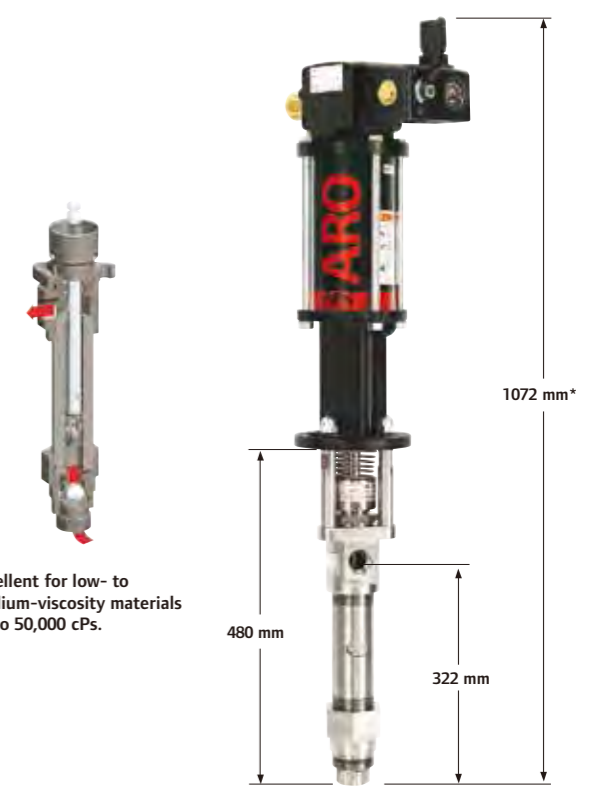


11:1
14 l/min

AFX Series

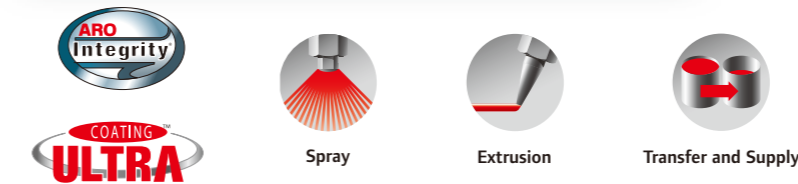
2-ball piston pump

Specifications			
?:1	11:1	Max. bar	25 - 120 bar
Motor	4 1/4" (108 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	14 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	237.6 cc
Max. bar	2 - 10.3 bar	For 1 litre	4.2 cycles
Headphones	86.5 dBA @ 4.1 bar	1"	1" NPT(F) / 2" NPT(M)
Weight	19.5 kg	1"	1" NPT(F)



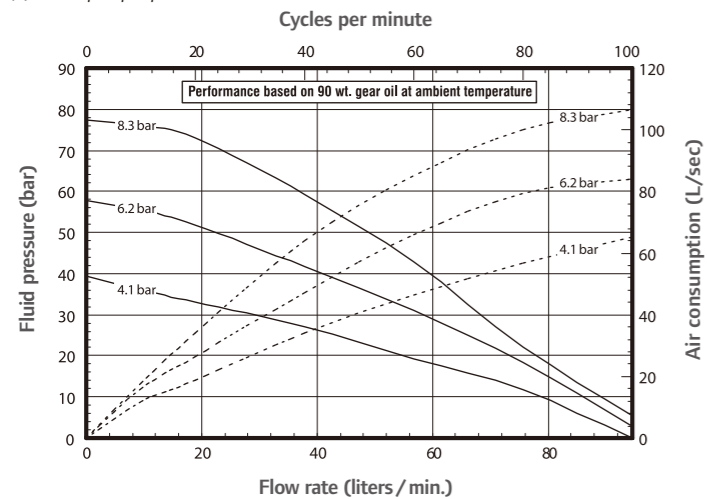
Excellent for low- to medium-viscosity materials up to 50,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0810C11CC15	66942-K3F	300 Series / CF8M stainless steel	321 stainless steel / hard chrome	Carbon-Graphite Filled PTFE (upper & lower)	637211-K63
AF0810C11FF35	66942-C6F		UHMW-PE + UHMW-PE	637211-C63	
AF0810C11KK35	66942-L6F		Mineral-filled PTFE (upper & lower)	637211-L63	
AF0810C11GF35	66942-P6F		UHMW-PE / Mineral-filled PTFE + UHMW-PE	637211-P63	
AF0810F11FF36	66941-C6D	15-5 stainless steel	15-5 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637211-C63
AF0810F11KK36	66941-L6D		Mineral-filled PTFE (upper & lower)	637211-L63	
AF0810F11RK36	66941-R6D		Mineral-filled PTFE / UHMW-PE + Mineral-filled PTFE	637211-R63	

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit

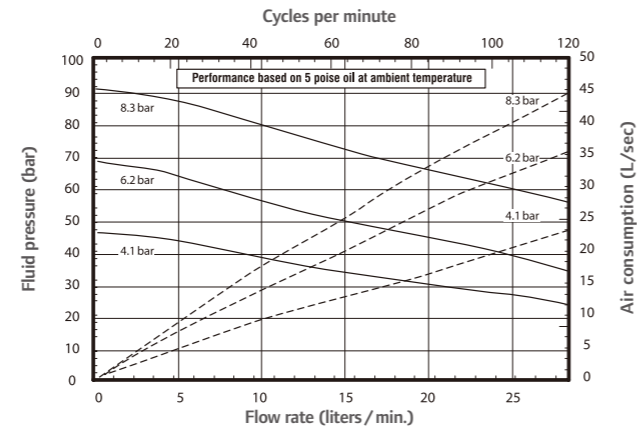


Pump accessories	
67445-3	High performance muffler
635043	AroStop valve
67136	Floor / follower plate adapter
637489	Universal motor service kit
67442	Ball Valve Regulator


Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0411G11FF47	66300-C43	17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637305-C43
AF0411G11KK47	66300-343		Glass-filled PTFE (upper & lower)	637305-343
AF0411G11KK48	66300-34B		Glass-filled PTFE (upper & lower)	637305-343
AF0411G11HH47	66300-G43		UHMW-PE / Leather staggered (upper & lower)	637305-G43
AF0411G11GF47	66300-P43	17-4 stainless steel / hard chrome	UHMW-PE/glass-filled PTFE + UHMW-PE	637305-P43
AF0411G11RK47	66300-R43		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637305-R43
AF0411G11FF48	66300-C4B		UHMW-PE + UHMW-PE	637305-C43
AF0411G11GF48	66300-P4B	17-4 stainless steel with ceramic coating	UHMW-PE/glass-filled PTFE + UHMW-PE	637305-P43
AF0411G11RK48	66300-R4B		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637305-R43

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit

Pump accessories	
67445-1	High performance muffler 
23644-400	AroStop valve 
67136	Floor / follower plate adapter 
637489	Universal motor service kit
67442	Ball Valve Regulator



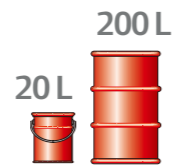
11:1 ratio pump packages



66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

66334-B



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight	
TP0411G21FF48A72	20 L / two-post RAM	AF0411G11FF48	RM052S-C	67347-2	Single-tube seal, EPR	Aluminum	103.3 kg
TP0411G21FF48A82				67347-1	Single-tube seal, Buna	Aluminum	
TP0411G51GF47AA2	200 L / two-post RAM	AF0411G11GF47	RM552S-C	66516-1	Double lip / polyurethane	Aluminum	177.2 kg

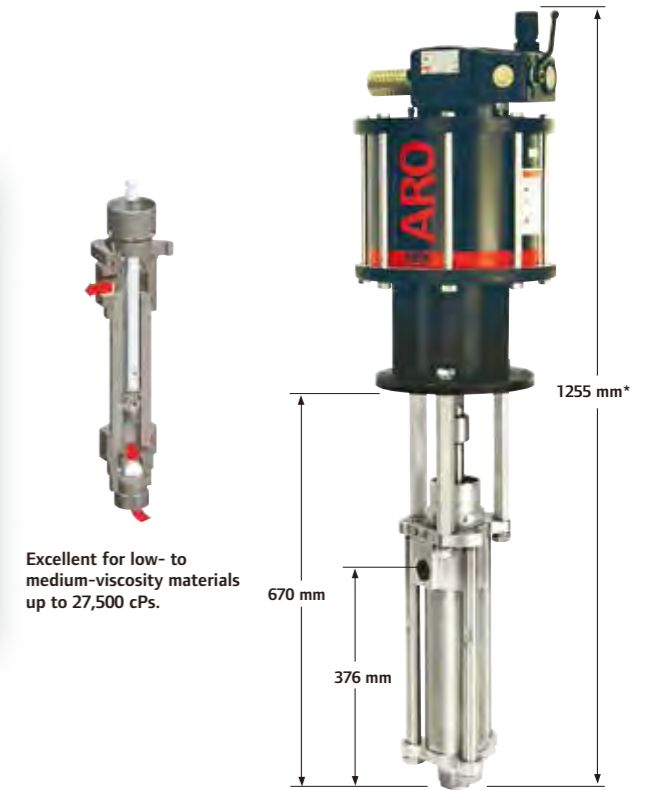
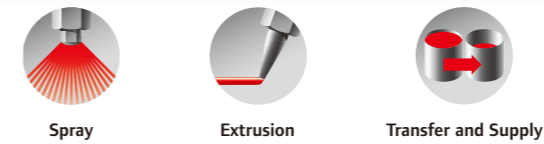
Pump package accessories			
66354-1	67480 (20 L) 67481 (200 L)	67500 (20 L) 67501 (200 L)	637466 (20 L) 637472 (200 L)
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	Two-post RAM repair kit

15:1

AFX Series

2-ball piston pump

Specifications			
?:1	15:1	Max. bar	30 - 90 bar
Motor	10" (254 mm)	Cycle/min	70 cycles/min.
Motor	6" (152 mm)	1 min.	68.6 l/min. @ 70 cycles/min
AIR	3/4" NPT(F)	1 cycle	980 cc
Max. bar	2.1 - 6.2 bar	For 1 litre	0.98 cycle
89.8 dBA @ 4.1 bar		2" NPT(F)	
56.7 kg		1 1/4" NPT(F)	

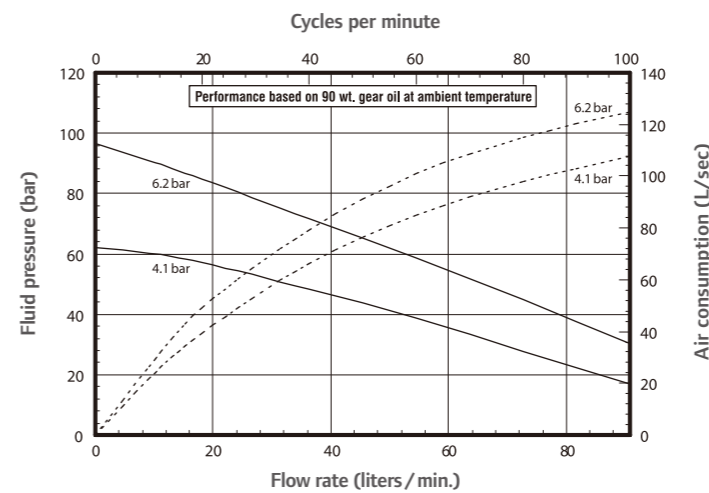





Excellent for low- to medium-viscosity materials up to 27,500 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF1015C11FF35	66942-C6F	300 / CF8M stainless steel	UHMW-PE + UHMW-PE	637211-C63
AF1015C11GF35	66942-P6F	321 stainless steel / hard chrome	UHMW-PE / Mineral-filled PTFE + UHMW-PE	637211-P63
AF1015J11FF36	66941-CDD	400 Series stainless steel with tungstene carbide seat	UHMW-PE + UHMW-PE	637211-C63
AF1015F11FF36	66941-C6D	15-5 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637211-C63
AF1015F11KK36	66941-L6D	400 stainless steel	Mineral-filled PTFE (upper & lower)	637211-L63
AF1015F11RK36	66941-R6D	15-5 stainless steel / hard chrome	Mineral-filled PTFE / UHMW-PE + Mineral-filled PTFE	637211-R63

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-4	High performance muffler 
635043	AroStop valve 
67136	Floor / follower plate adapter 
637489	Universal motor service kit
67442	Ball Valve Regulator

22:1

7.3 l/min

AFX Series

2-ball piston pump

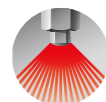
Specifications			
?:1	22:1	Max. bar	45 - 235 bar
Motor	4 1/4" (108 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	7.3 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	122.9 cc
Max. bar	2 - 10.3 bar	For 1 litre	8.1 cycles
Headphones	86.5 dBA @ 4.1 bar	1" NPT(F) / 2" NPT(M)	
Weight	19.5 kg	1" NPT(F)	



Excellent for low- to medium-viscosity materials up to 7,500 cPs.



Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Spray



Extrusion

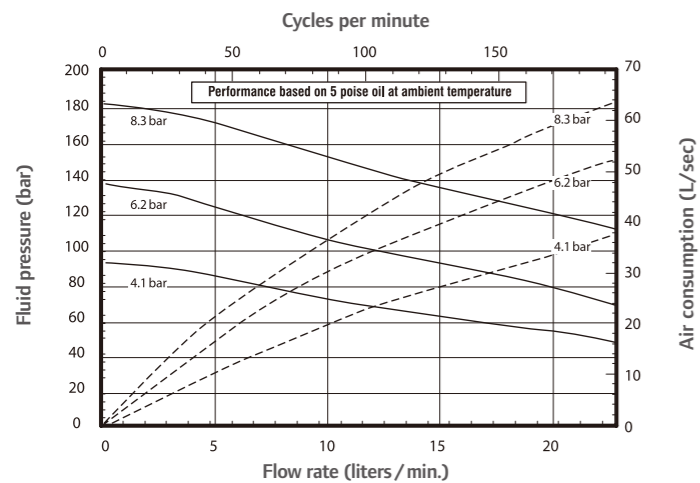


Transfer and Supply

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0422G11FF47	66301-C43	300 Series stainless steel with tungstene carbide seat	UHMW-PE + UHMW-PE	637306-C43
AF0422G11KK47	66301-343		Glass-filled PTFE (upper & lower)	637306-343
AF0422G11HH47	66301-G43		UHMW-PE / Leather staggered (upper & lower)	637306-G43
AF0422G11GF47	66301-P43		UHMW-PE/glass-filled PTFE + UHMW-PE	637306-P43
AF0422G11RK47	66301-R43		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637306-R43
AF0422G11RK48	66301-R48		17-4 stainless steel with ceramic coating	Glass-filled PTFE/UHMW-PE + Glass-filled PTFE

(1) Add "-1" to Model No. for Ball Valve Regulator

(2) Lower pump repair kit



Pump accessories		
67445-1	High performance muffler	
23644-400	AroStop valve	
67136	Floor / follower plate adapter	
637489	Universal motor service kit	
67442	Ball Valve Regulator	

23:1

14.3 l/min

AFX Series

2-ball piston pump

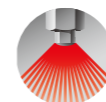
Specifications			
?:1	23:1	Max. bar	45 - 240 bar
Motor	6" (152 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	14.3 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	237.6 cc
Max. bar	2.1 - 10.3 bar	For 1 litre	4.2 cycles
Headphones	84.7 dBA @ 4.1 bar	1" NPT(F) / 2" NPT(M)	
Weight	21 kg	1" NPT(F)	



Excellent for low- to medium-viscosity materials up to 7,500 cPs.



Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Spray



Extrusion






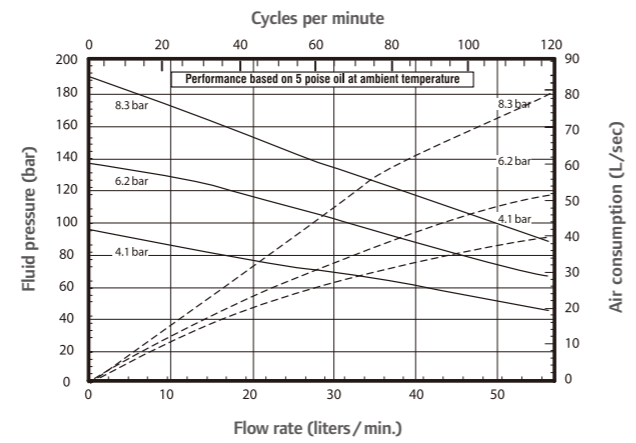
Transfer and Supply

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0623G11FF47	66300-C43	300 Series stainless steel with tungstene carbide seat	UHMW-PE + UHMW-PE	637305-C43	
AF0623G11KK47	66300-343		Glass-filled PTFE (upper & lower)	637305-343	
AF0623G11KK48	66300-348		17-4 stainless steel with ceramic coating	Glass-filled PTFE (upper & lower)	637305-343
AF0623G11HH47	66300-G43		17-4 stainless steel / hard chrome	UHMW-PE / Leather staggered (upper & lower)	637305-G43
AF0623G11HH48	66300-G48		17-4 stainless steel with ceramic coating	UHMW-PE / Leather staggered (upper & lower)	637305-G43
AF0623G11GF47	66300-P43		17-4 stainless steel / hard chrome	UHMW-PE/glass-filled PTFE + UHMW-PE	637305-P43
AF0623G11RK48	66300-R48	17-4 stainless steel with ceramic coating	Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637305-R43	
AF0623G11RK47	66300-C43	17-4 stainless steel / hard chrome	Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637305-R43	
AF0623G11FF48	66300-C43	17-4 stainless steel with ceramic coating	UHMW-PE + UHMW-PE	637305-C43	
AF0623G11GF48	66300-P48		UHMW-PE/glass-filled PTFE + UHMW-PE	637305-P43	


(1) Add "-1" to Model No. for Ball Valve Regulator

(2) Lower pump repair kit

Pump accessories	
67445-2	High performance muffler 
23644-400	AroStop valve 
67136	Floor / follower plate adapter 
637489	Universal motor service kit
67442	Ball Valve Regulator



23:1 ratio pump package



66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

66334-B

Recommended for use in piston pumps solvent cups – Increase the performance and service life of pumping equipment.



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)	Weight
TP0623G51RK47TA2	200 L / two-post RAM	AF0623G11RK47	RM552S-C	66516-6 Double lip / polyurethane Aluminum / PTFE coating	179.5 kg

Pump package accessories			
66354-1	67481	67501	637472
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	200 L two-post RAM repair kit

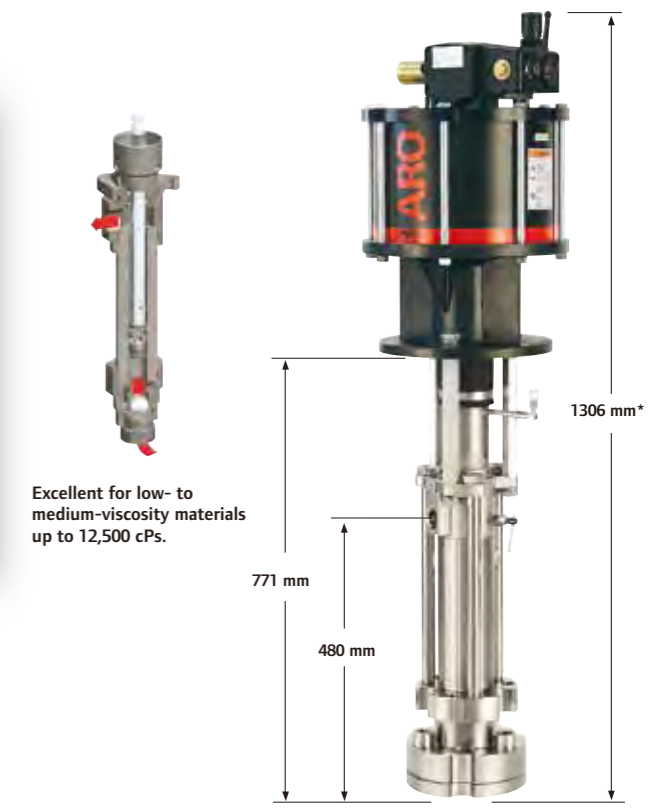
23:1

68.6 l/min

AFX Series

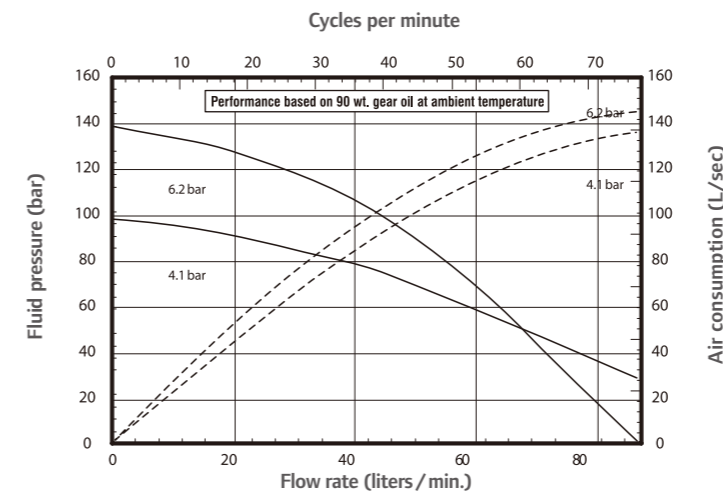
2-ball piston pump – UV/EB



Specifications			
	23:1		45 - 140 bar
	12" (305 mm)		70 cycles/min.
	6" (152 mm)		68.6 l/min. @ 60 cycles/min.
	3/4" NPT(F)		980 cc
	2.1 - 6.2 bar		1.02 cycle
	93 dBA @ 4.1 bar		Follower plate mounted
	90.7 kg		1 1/4" NPT(F)



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF1223C51FF35	67372-C6F	300 Series / CF8M stainless steel 321 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637444-C6D
AF1223C51FFP5	67372-CEF		UHMW-PE + UHMW-PE	637444-CED

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-5	High performance muffler 
635043	AroStop valve 
637489	Universal motor service kit
67442	Ball Valve Regulator

23:1 ratio UV ink pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)			Weight
TP1223C51FF35TAC	200 L / two-post RAM	AF1223C51FF35	RM552S-C	67409-6	Double lip / polyurethane	Aluminum / PTFE coating	233.4 kg
TP1223C51FFP5AN2		AF1223C51FFP5		67410-2	Double-tube, EPR	Aluminum	



Pump package accessories				
66353-1	104104-F06	67481	67501	637472
Pump stabilizing bracket	Inline flow control (1)	Cross Over Kit (2)	Low level cut-off (3)	200 L two-post RAM repair kit

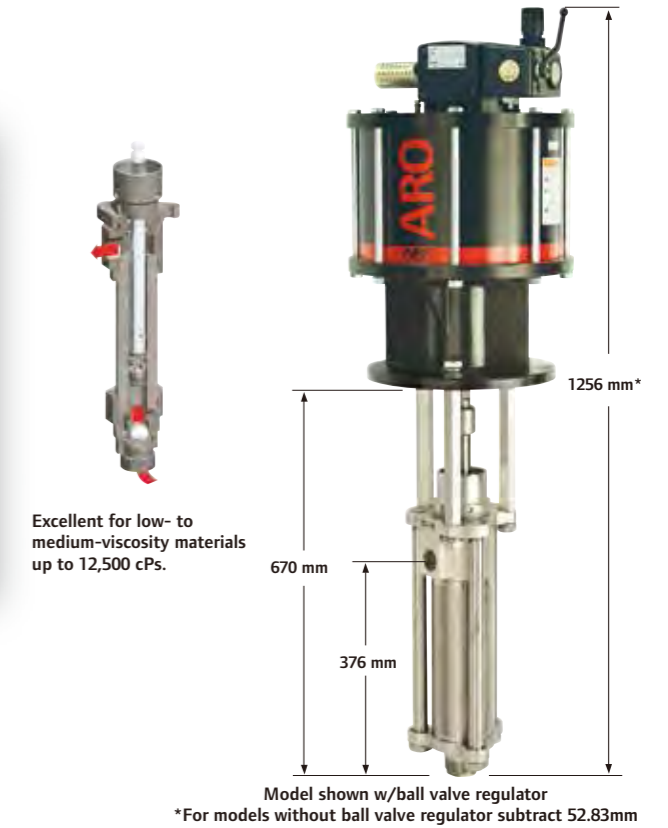
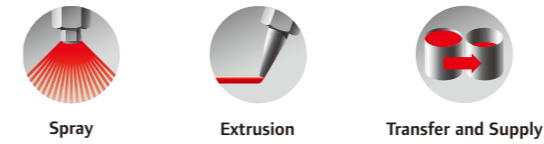
- (1) Helps set and maintain precise operating speeds in order to optimize pump performance.
- (2) Maintains fluid delivery in extrusion systems. Can activate alarm to alert maintenance to change empty fluid container.
- (3) Used to shut off air supply to pump when material container is empty or near-empty.

23:1
68.6 l/min

AFX Series

2-ball piston pump

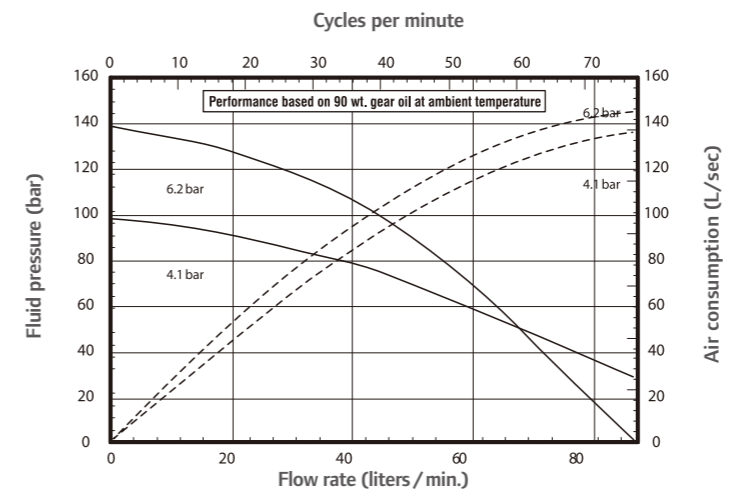
Specifications			
Ratio	23:1	Max. bar	45 - 140 bar
Motor	12" (305 mm)	Cycle/min	70 cycles/min.
Motor	6" (152 mm)	1 min. / cycle	68.6 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle / litre	980 cc
Max. bar	2.1 - 6.2 bar	For 1 litre	1.02 cycle
93 dBA @ 4.1 bar			2" NPT(F)
63.5 kg			1 1/4" NPT(F)



Excellent for low- to medium-viscosity materials up to 12,500 cPs.

Pump model no. (1)	Lower pump	Plunger materia	Packings (upper + lower)	ServiceKit (2)
AF1223C11CC15	66942-K3F	300 Series / CF8M stainless steel	Carbon-Graphite Filled PTFE (upper & lower)	637211-K33
AF1223C11FF35	66942-C6F		UHMW-PE + UHMW-PE	637211-C63
AF1223F11GF36	66941-P6D	400 Series stainless steel	UHMW-PE / mineral-filled PTFE + UHMW-PE	637211-P63
AF1223F11FF36	66941-C6D		UHMW-PE + UHMW-PE	637211-C63

- (1) Add "-1" to Model No. for Ball Valve Regulator
- (2) Lower pump repair kit



Pump accessories	
67445-5	High performance muffler
635043	AroStop valve
67136	Floor / follower plate adapter
637489	Universal motor service kit
67442	Ball Valve Regulator

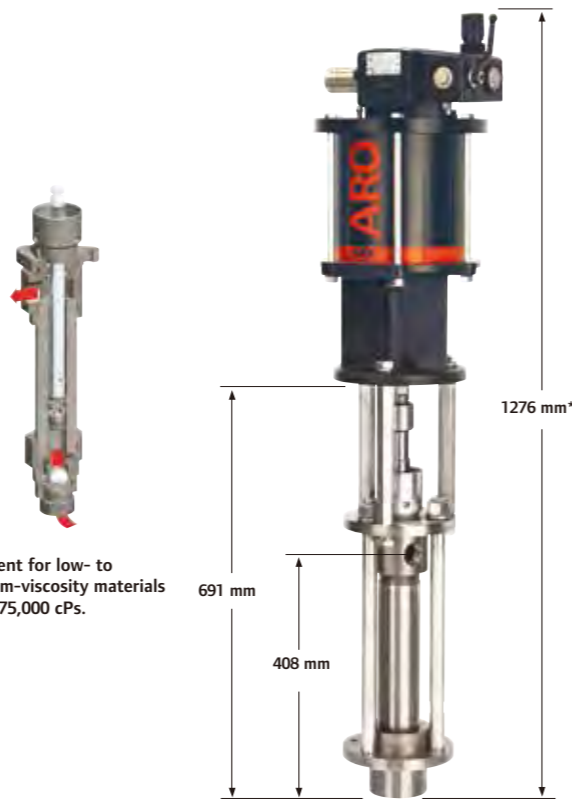
28:1

23.7 l/min

AFX Series

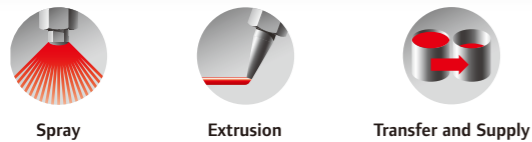
2-ball piston pump

Specifications			
?:1	28:1	Max. bar	60 - 230 bar
Motor	8" (203 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	23.7 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	338 cc
Max. bar	2.1 - 8.3 bar	For 1 litre	2.95 cycles
Headphones	86.8 dBA @ 4.1 bar		2" NPT(F)
Weight	51.3 kg		1" NPT(F)



Excellent for low- to medium-viscosity materials up to 75,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



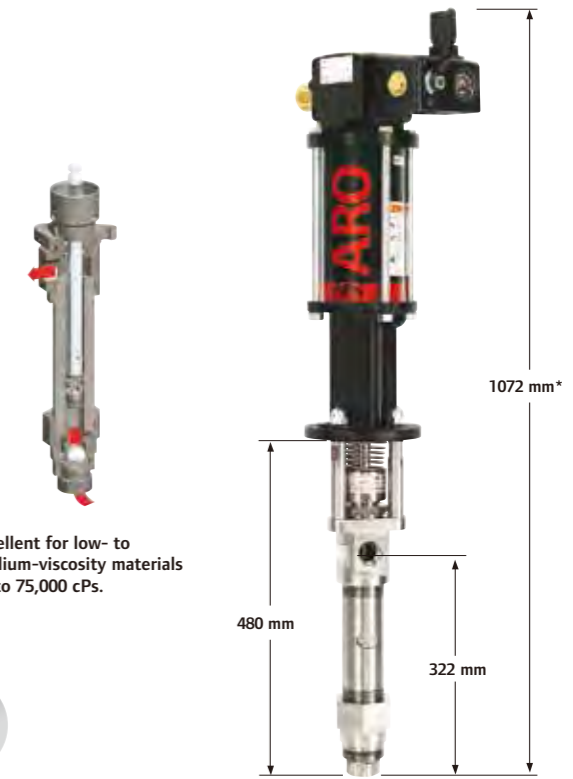
30:1

4.9 l/min

AFX Series

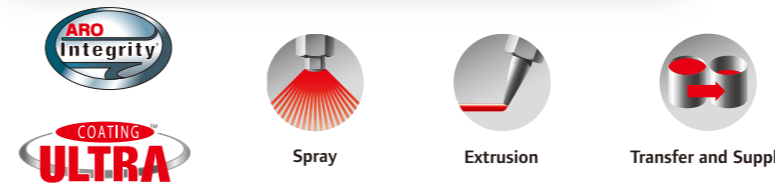
2-ball piston pump

Specifications			
?:1	30:1	Max. bar	60 - 320 bar
Motor	4 1/4" (108 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	4.9 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	90.1 cc
Max. bar	2 - 10.3 bar	For 1 litre	11 cycles
Headphones	86.5 dBA @ 4.1 bar		1" NPT(F) / 2" NPT(M)
Weight	19.5 kg		1 NPT(F)



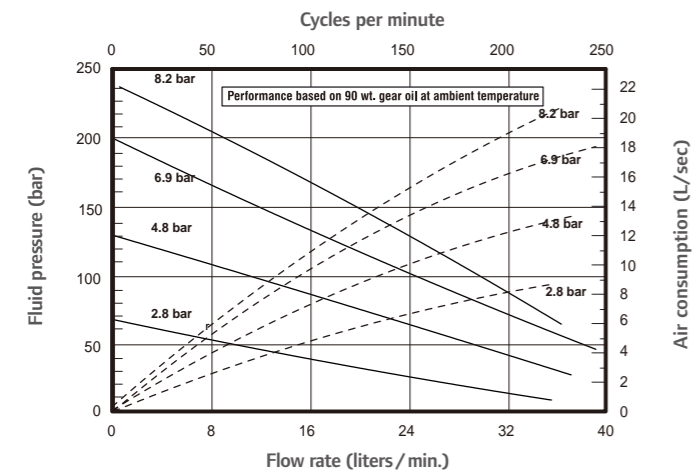
Excellent for low- to medium-viscosity materials up to 75,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm




Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0828B11RK47	66475-R4D	Carbon steel, nickel plated	17-4 stainless steel / hard chrome	Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	667098-R43

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-3	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator



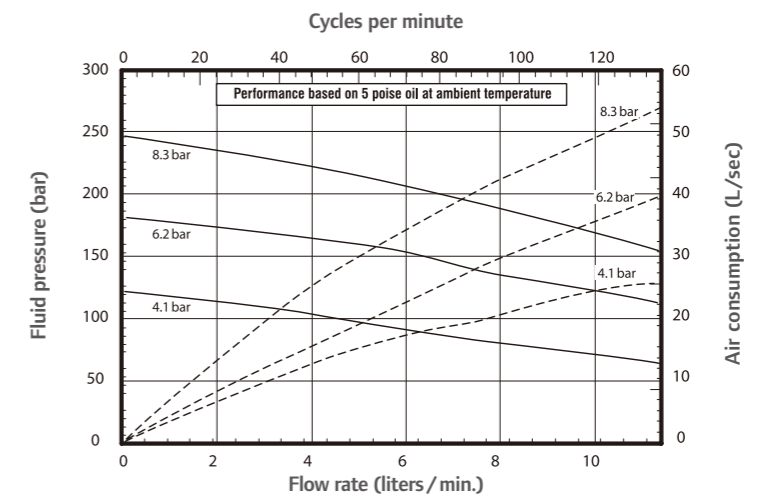
66333-B
WetSol, pump upper packing lubricant - 1 liter




66334-B
WetSol, pump upper packing lubricant - 3.8 liters


66334-B

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0430G11FF47	66302-C43	300 Series stainless steel with tungstene carbide seat	UHMW-PE + UHMW-PE	637307-C43
AF0430G11KK47	66302-343		Glass-filled PTFE (upper & lower)	637307-343
AF0430G11HH47	66302-G43		UHMW-PE / Leather staggered (upper & lower)	637307-G43
AF0430G11GF47	66302-P43		UHMW-PE/glass-filled PTFE + UHMW-PE	637307-P43
AF0430G11GF48	66302-P4B		17-4 stainless steel with ceramic coating	UHMW-PE/glass-filled PTFE + UHMW-PE
AF0430G11HH48	66302-G4B	UHMW-PE / Leather staggered (upper & lower)		637307-G43

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-1	High performance muffler 
23644-400	AroStop valve 
67136	Floor / follower plate adapter 
637489	Universal motor service kit
67442	Ball Valve Regulator



66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

66334-B

Recommended for use in piston pumps solvent cups – Increase the performance and service life of pumping equipment.

30:1 ratio pump package



20 L 

Model	Type	Pump model	Cart model	Material hose	Material filter	Weight
CM0430G11GF47001	Cart-mounted pump	AF0430G11GF47-1	67139	67140-1	651422-70	52.1 kg

Pump package accessories	
F35341-400	104317
Air filter	Filter element

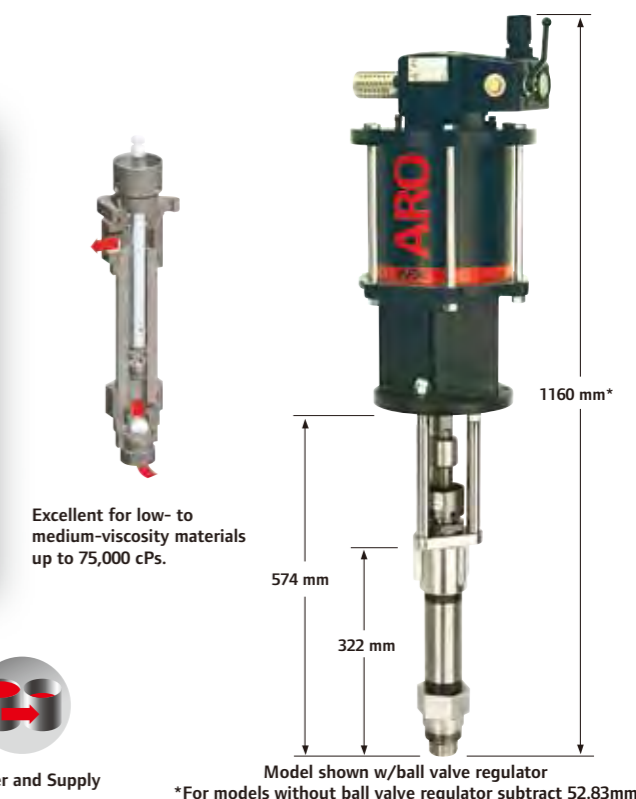


40:1

AFX
Series

2-ball piston pump

Specifications			
?:1	40:1	Max. bar	80 - 340 bar
Motor	8" (203 mm)	Cycle/min	70 cycles/min.
Motor	6" (152 mm)	1 min.	14 l/min. @ 60 cycles/min.
AIR	3/4" NPT(F)	1 cycle	237 cc
Max. bar	2.1 - 8.3 bar	For 1 litre	4.2 cycles
86.8 dBA @ 4.1 bar		1" NPT(F) / 2" NPT(M)	
30.9 kg		1 NPT(F)	

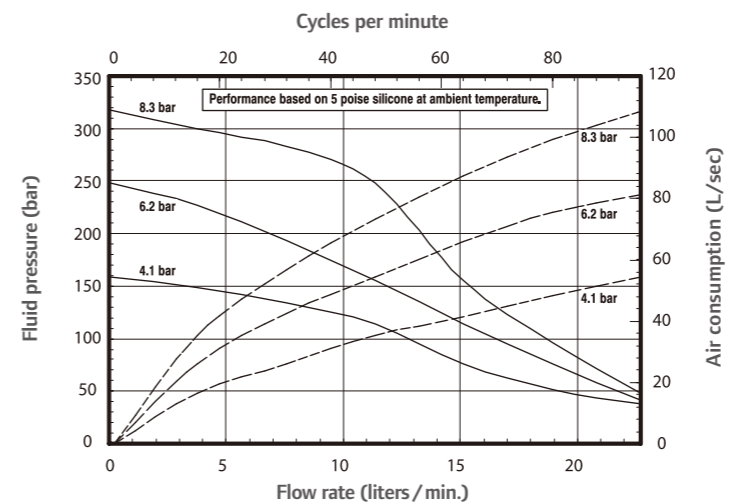







 Spray
  Extrusion
  Transfer and Supply

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0840G11FF47	66300-C4D	300 Series stainless steel with tungstene carbide seat	UHMW-PE + UHMW-PE	637305-C43
AF0840G11KK47	66300-34D		Glass-filled PTFE (upper & lower)	637305-343
AF0840G11GF47	66300-P4D		UHMW-PE/glass-filled PTFE + UHMW-PE	637305-P43
AF0840G11RS47	66300-R43		Glass-filled PTFE / UHMW-PE + Virgin PTFE	637305-R43
AF0840G11FF48	66300-C4G	17-4 stainless steel with ceramic coating	UHMW-PE + UHMW-PE	637305-C43
AF0840G11RS48	66300-R4G		Glass-filled PTFE / UHMW-PE + Virgin PTFE	637305-R43

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-3	High performance muffler 
635043	AroStop valve 
67136	Floor / follower plate adapter 
637489	Universal motor service kit
67442	Ball Valve Regulator

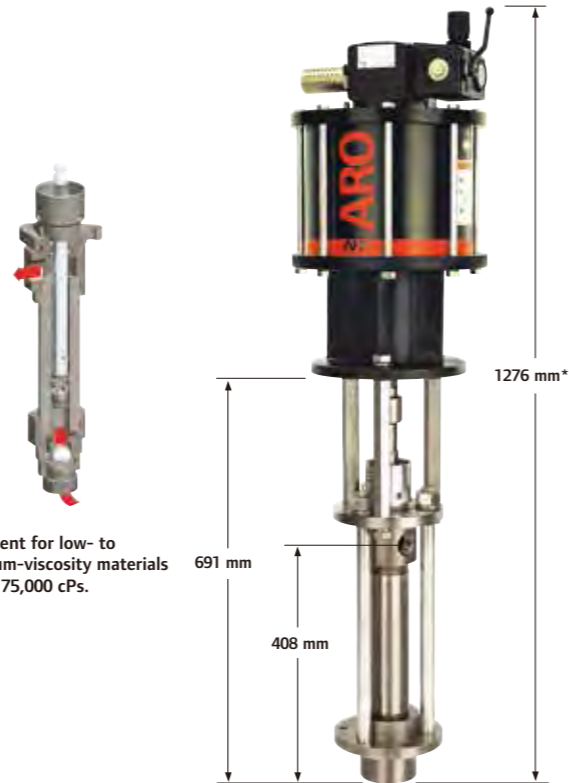
45:1

23.7 l/min

AFX Series

2-ball piston pump

Specifications			
?:1	45:1	Max. bar	95 -280 bar
Motor	10" (254 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	23.7 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	339 cc
Max. bar	2.1 - 6.2 bar	For 1 litre	2.9 cycles
89.8 dBA @ 4.1 bar		2" NPT(F)	
59.9 kg		1 NPT(F)	



Excellent for low- to medium-viscosity materials up to 75,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



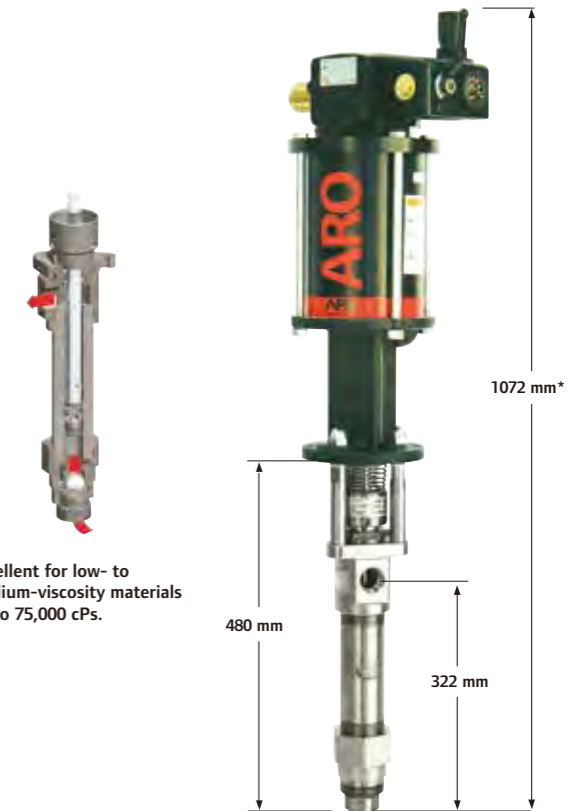
45:1

7.3 l/min

AFX Series

2-ball piston pump

Specifications			
?:1	45:1	Max. bar	95 - 375 bar
Motor	6" (152 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	7.3 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	123 cc
Max. bar	2 - 8.3 bar	For 1 litre	8.1 cycles
84.7 dBA @ 4.1 bar		1" NPT(F) / 2" NPT(M)	
21 kg		1 NPT(F)	



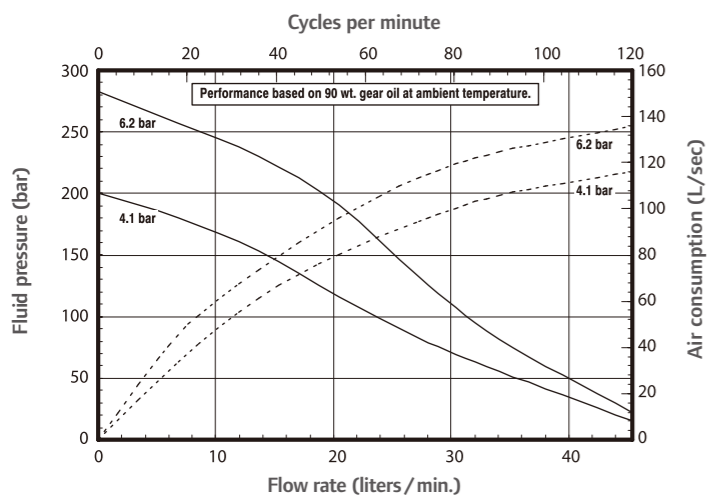
Excellent for low- to medium-viscosity materials up to 75,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF1045B11KK47	66475-34D	Carbon steel, nickel plated	17-4 stainless steel / hard chrome	Glass-filled PTFE (upper & lower)	637098-343
AF1045B11RK47	66475-R4D			Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637098-R43

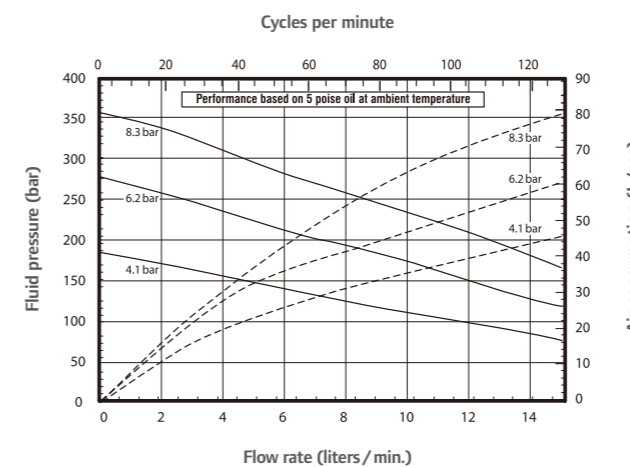
(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-4	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0645G11FF47	66301-C43	300 Series stainless steel with tungstene carbide seat	17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637306-C43
AF0645G11KK47	66301-343		Glass-filled PTFE (upper & lower)	637306-343	
AF0645G11HH47	66301-G43		UHMW-PE / Leather staggered (upper & lower)	637306-G43	
AF0645G11GF47	66301-P43		UHMW-PE/glass-filled PTFE + UHMW-PE	637306-P43	
AF0645G11RK47	66301-R43		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637306-R43	
AF0645G11FF48	66301-C4B		17-4 stainless steel with ceramic coating	UHMW-PE + UHMW-PE	637306-C43
AF0645G11RK48	66301-R4B	Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637306-R43		

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit

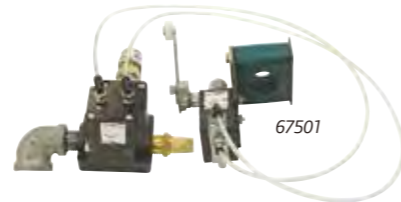
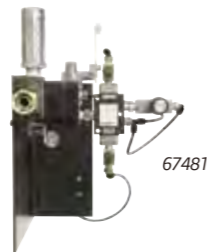


Pump accessories	
67445-2	High performance muffler
23644-400	AroStop valve
67136	Floor / follower plate adapter
637489	Universal motor service kit
67442	Ball Valve Regulator

45:1 ratio pump packages



Model	Pump	Cart	RAM	Material hose & filter	Follower plate (model, seal and material)	Weight
Cart-mounted pump						
CM0645G11GF47001	AF0645G11GF47-1	67139	—	67140-1 & 651422-70	—	53.5 kg
200 L, two-post RAM						
TP0645G51RK47TN2	AF0645G11RK47	—	RM552S-C	—	67195-6 Double-tube / EPR Aluminum / PTFE coating	180.4 kg
TP0645G51RK47TB2					66516-7 Double lip / EPR Aluminum / PTFE coating	



Pump package accessories			
66354-1	67481	67501	637472
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	200 L two-post RAM repair kit

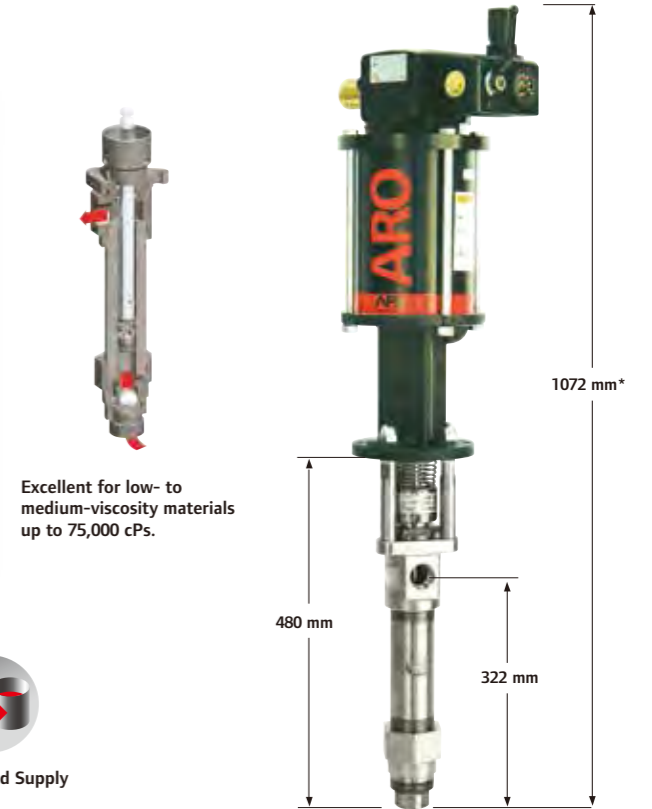
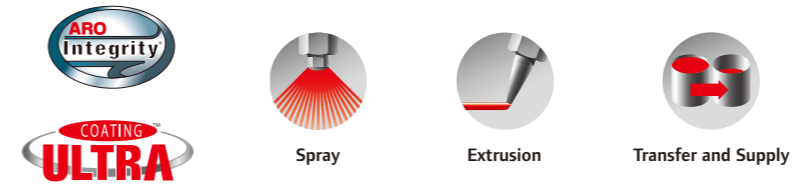
60:1

AFX Series

2-ball piston pump

5.4 l/min

Specifications			
?:1	60:1	Max. bar	125 - 425 bar
Motor	6" (152 mm)	Cycle/min	60 cycles/min.
Motor	6" (152 mm)	1 min.	5.4 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	90.1 cc
Max. bar	2 - 6.9 bar	For 1 litre	11 cycles
84.7 dBA @ 4.1 bar		1" NPT(F) / 2" NPT(M)	
21 kg		1 NPT(F)	

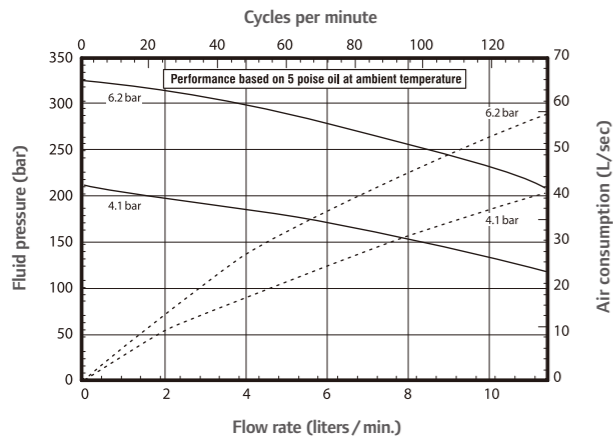





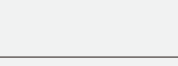
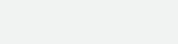
Excellent for low- to medium-viscosity materials up to 75,000 cPs.

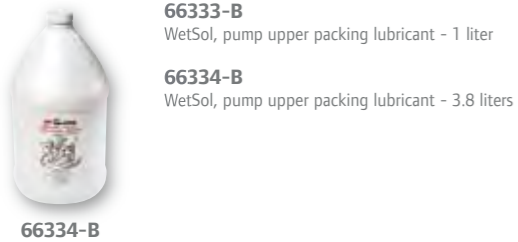
Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0660G11FF47	66302-C43	300 Series stainless steel with tungstene carbide seat	UHMW-PE + UHMW-PE	637307-C43
AF0660G11KK47	66302-343		Glass-filled PTFE (upper & lower)	637307-343
AF0660G11HH47	66302-G43		UHMW-PE / Leather staggered (upper & lower)	637307-G43
AF0660G11RK47	66302-R43		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637307-R43
AF0660G11GF47	66302-P43		UHMW-PE/glass-filled PTFE + UHMW-PE	637307-P43
AF0660G11FF48	66302-C4B	17-4 stainless steel with ceramic coating	UHMW-PE + UHMW-PE	637307-C43

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-2	High performance muffler 
23644-400	AroStop valve 
67136	Floor / follower plate adapter 
637489	Universal motor service kit 
67442	Ball Valve Regulator 



Recommended for use in piston pumps solvent cups – Increase the performance and service life of pumping equipment.

60:1 ratio pump package

















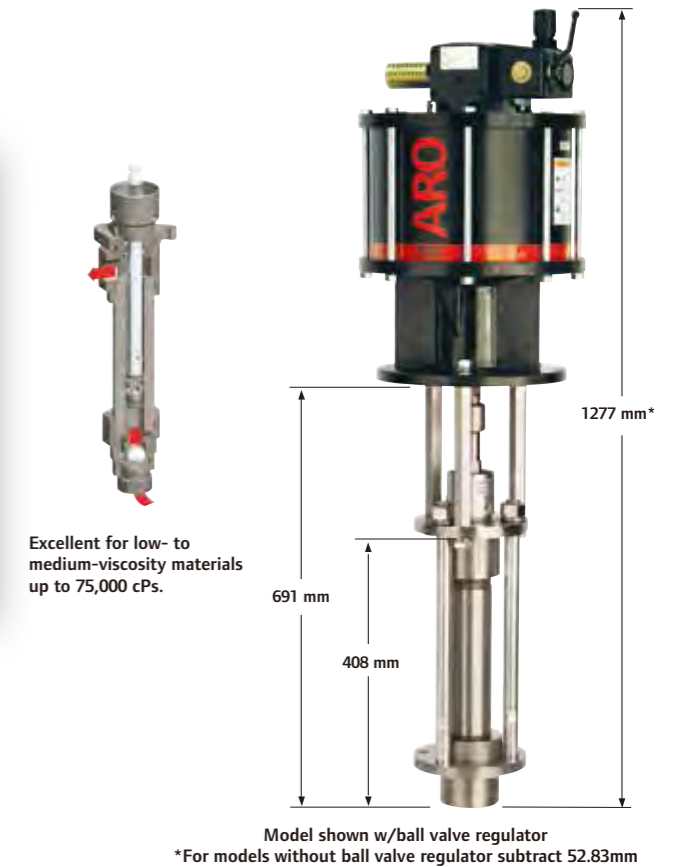
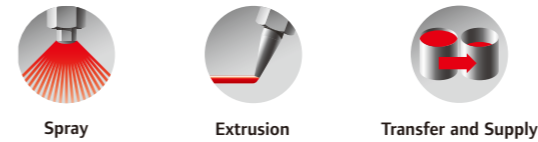
Model	Type	Pump model	Cart model	Material hose	Material filter	Regulator	Weight
CM0660G11GF47001	Cart-mounted pump	AF0660G11GF47-1	67139	67140-1	651422-70	67442	55.7 kg

Pump package accessories	
F35341-400	104317
Air filter	Filter element



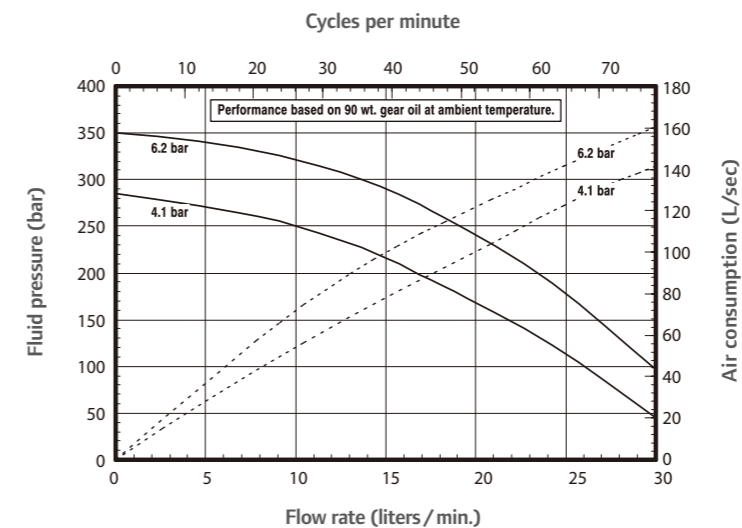
65:1
23.7 l/min
AFX Series
2-ball piston pump






Specifications			
	65:1		135 - 400 bar
	12" (305 mm)		70 cycles/min.
	6" (152 mm)		23.7 l/min. @ 70 cycles/min.
	3/4" NPT(F)		339 cc
	2.1 - 6.2 bar		2.9 cycles
	93 dBA @ 4.1 bar		2" NPT(F)
	66.7 kg		1 NPT(F)



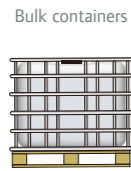
Pump model no. (1)	Lower pump	Plungter material	Packings (upper + lower)	ServiceKit (2)
AF1265B11HH47	66475-G4D	Carbon steel, nickel plated	UHMW-PE / Leather staggered (upper & lower)	637098-G43
AF1265B11FF47	66475-C4D		UHMW-PE + UHMW-PE	637098-C43
AF1265B11RK47	66475-R4D		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637098-R43

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-5	High performance muffler 
635043	AroStop valve 
65139	Floor mount 
637489	Universal motor service kit 
67442	Ball Valve Regulator 

65:1 ratio pump package



Model	Type	Pump model	Cart model	Material hose	Material filter	Material	Weight
CM1265B11HH47001	Cart-mounted pump	AF1265B11HH47-1	66554-2	66728	651481-70-B	Aluminum / PTFE coating	97.4 kg

Pump package accessories	
F35341-400 Air filter	104317 Filter element



F35341-400



66334-B

66333-B
WetSol, pump upper packing lubricant - 1 liter
66334-B
WetSol, pump upper packing lubricant - 3.8 liters

Recommended for use in piston pumps solvent cups – Increase the performance and service life of pumping equipment.

2:1
80.6 l/min

AFX Series

4-ball piston pump

Specifications			
?:1	2:1	Max. bar	4 - 21 bar
Motor	4 1/4" (108 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	80.6 l/min. @60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	1345 cc
Max. bar	2.1 - 10.3 bar	For 1litre	0.74 cycle
86.5 dBA @ 4.1 bar		1 1/2" NPT(F) / 2" NPT(M)	
30.8 kg		1 NPT(F)	



Transfer and Supply



Designed for high volume transfer of low-and medium-viscosity fluids up to 12,500 cPs.



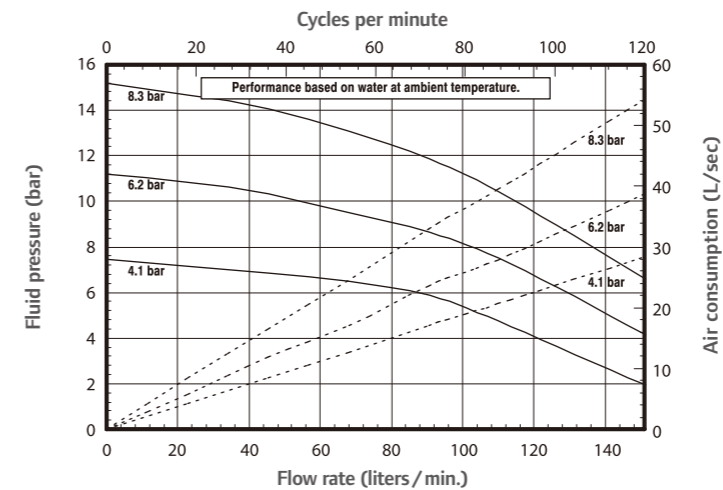
Model shown w/ball valve regulator

*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0402M11HF48	67200-F4B	300 Series / CF8M stainless steel	17-4 stainless steel with ceramic coating	UHMW-PE / Leather staggered + UHMW-PE	637317-F4B
AF0402M11RS48	67200-R4B		Glass-filled PTFE / UHMW-PE staggered + Virgin PTFE	637317-R4B	
AF0402M11KS48	67200-74B		Glass-filled PTFE + Virgin PTFE	637317-74B	
AF0402M11FF48	67200-C4B		UHMW-PE + UHMW-PE	637317-C4B	

(1) Add "-1" to Model No. for Ball Valve Regulator

(2) Lower pump repair kit



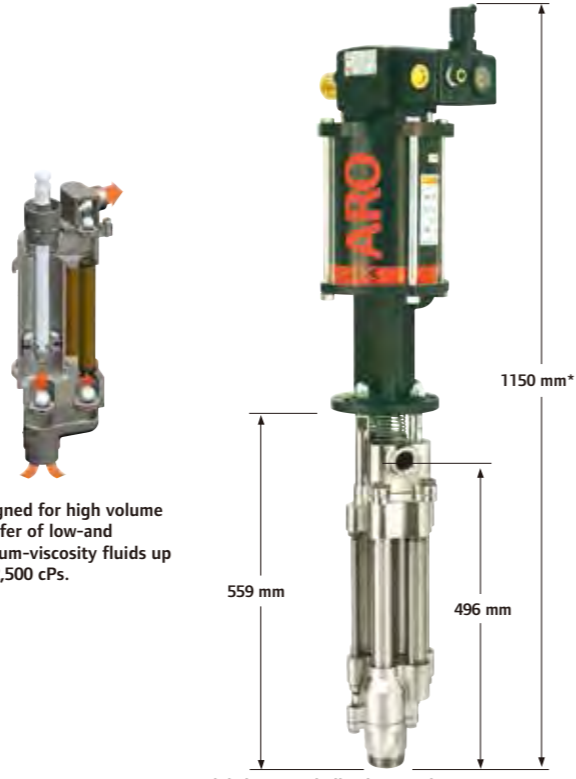
Pump accessories	
67445-1	High performance muffler
23644-400	AroStop valve
67187-1	Mounting post
637489	Universal motor service kit
67442	Ball Valve Regulator

3:1
110.8 l/min

AFX Series

4-ball piston pump

Specifications			
?:1	3:1	Max. bar	6 - 31 bar
Motor	6" (152 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	110.8 l/min. @60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	1847 cc
Max. bar	2.1 - 10.3 bar	For 1litre	0.54 cycle
84.7 dBA @ 4.1 bar		1 1/2" NPT(F) / 2" NPT(M)	
33.2 kg		1 NPT(F)	



Designed for high volume transfer of low-and medium-viscosity fluids up to 12,500 cPs.

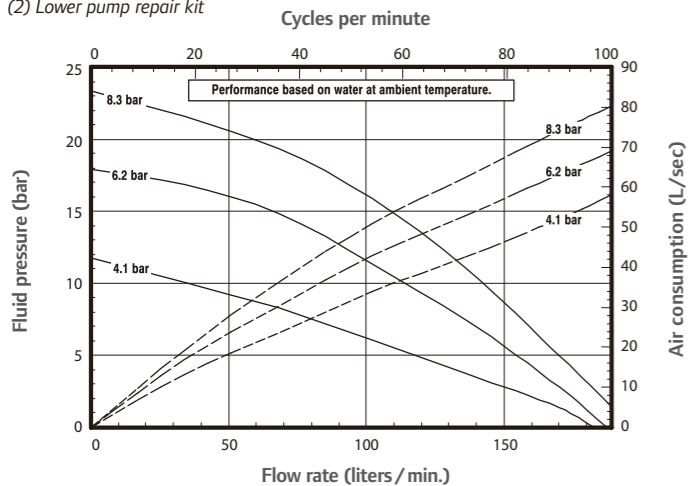
Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Transfer and Supply

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0603M11FF48	67201-C4B	300 Series / CF8M stainless steel	UHMW-PE + UHMW-PE	637318-C4B
AF0603M11KS48	67201-74B		Glass-filled PTFE + Virgin PTFE	637318-74B
AF0603M11HF48	67201-F4B		UHMW-PE / Leather staggered + UHMW-PE	637318-F4B
AF0603M11RS48	67201-R4B		Glass-filled PTFE / UHMW-PE staggered + Virgin PTFE	637318-R4B
AF0603M11GF48	67201-P4B		UHMW-PE/glass-filled PTFE + UHMW-PE	637318-P4B
			17-4 stainless steel with ceramic coating	

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



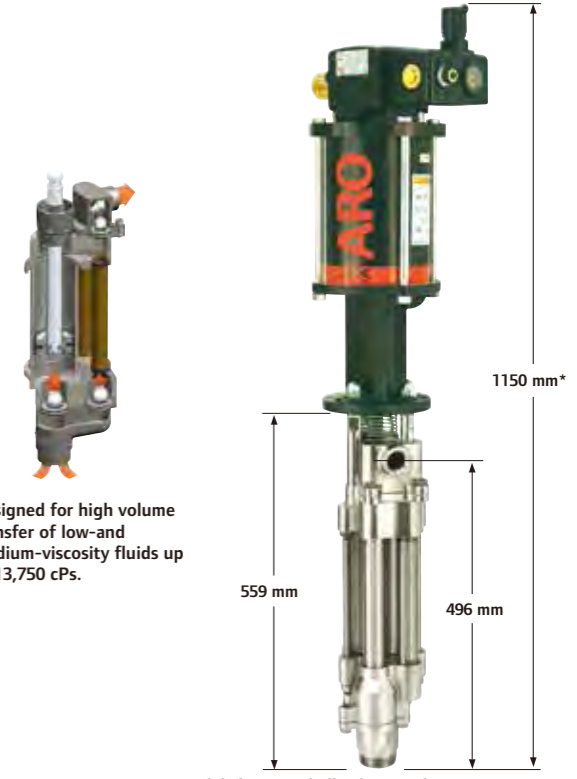
Pump accessories	
67445-2	High performance muffler
23644-400	AroStop valve
67187-1	Mounting post
637489	Universal motor service kit
67442	Ball Valve Regulator

4:1
80.6 l/min

AFX Series

4-ball piston pump

Specifications			
?:1	4:1	Max. bar	8 - 45 bar
Motor	6" (152 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	80.6 l/min. @60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	1345 cc
Max. bar	2.1 - 10.3 bar	For 1litre	0.74 cycle
84.7 dBA @ 4.1 bar		1 1/2" NPT(F) / 2" NPT(M)	
32.3 kg		1 NPT(F)	



Designed for high volume transfer of low-and medium-viscosity fluids up to 13,750 cPs.

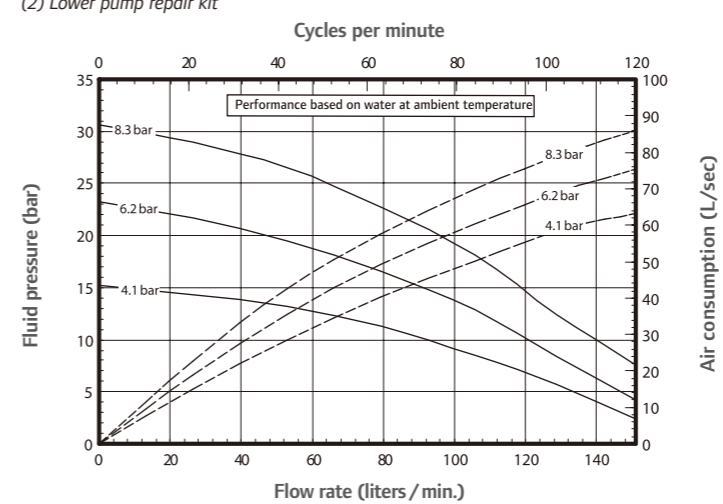
Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Transfer and Supply

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0604M11FF48	67200-C4B	300 Series / CF8M stainless steel	UHMW-PE + UHMW-PE	637317-C4B
AF0604M11KS48	67200-74B		Glass-filled PTFE + Virgin PTFE	637317-74B
AF0604M11HF48	67200-F4B		UHMW-PE / Leather staggered + UHMW-PE	637317-F4B
AF0604M11GF48	67200-P4B		UHMW-PE/glass-filled PTFE + UHMW-PE	637317-P4B
AF0604M11RS48	67200-R4B		UHMW-PE/glass-filled PTFE + Virgin PTFE	637317-R4B
			17-4 stainless steel with ceramic coating	

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



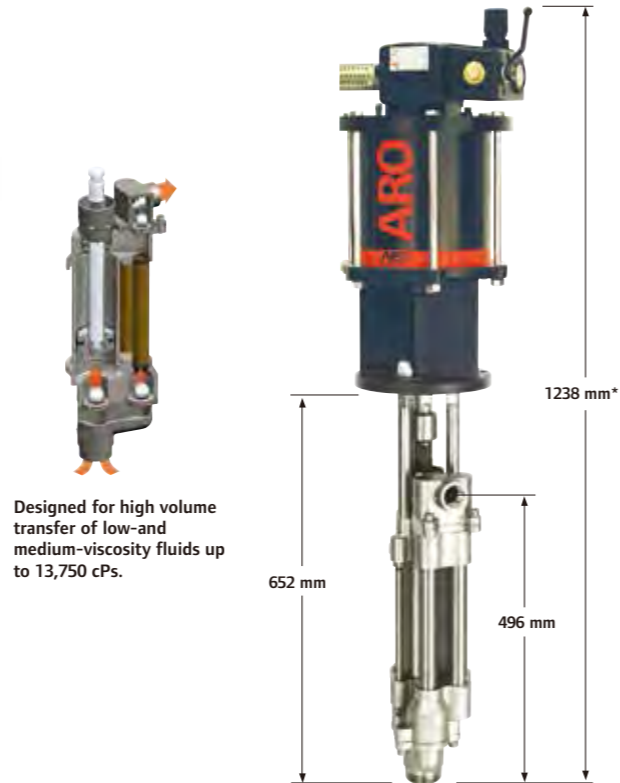
Pump accessories	
67445-2	High performance muffler
23644-400	AroStop valve
67187-1	Mounting post
637489	Universal motor service kit
67442	Ball Valve Regulator

5:1
124 l/min

AFX Series

4-ball piston pump

Specifications			
?:1	5:1		10 - 48 bar
	8" (203 mm)		70 cycles/min.
	6" (152 mm)		124 l/min. @70 cycles/min.
	3/4" NPT(F)		1771 cc
	2.1 - 8.3 bar		0.56 cycle
	86.8 dBA @ 4.1 bar		1 1/2" NPT(F) / 2" NPT(M)
	43.5 kg		1 NPT(F)



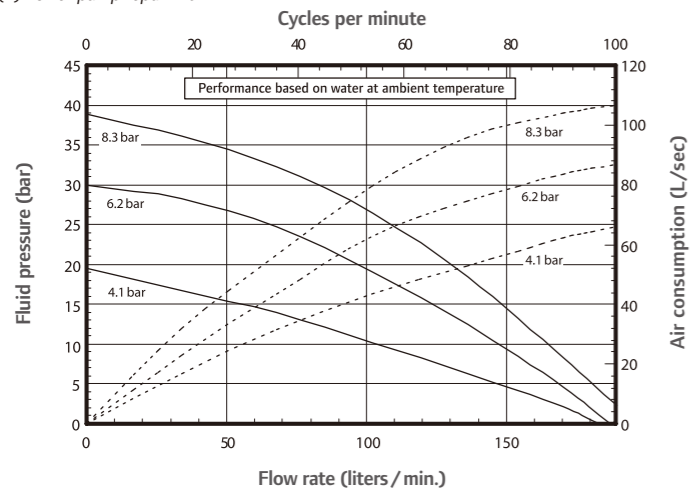
Designed for high volume transfer of low-and medium-viscosity fluids up to 13,750 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

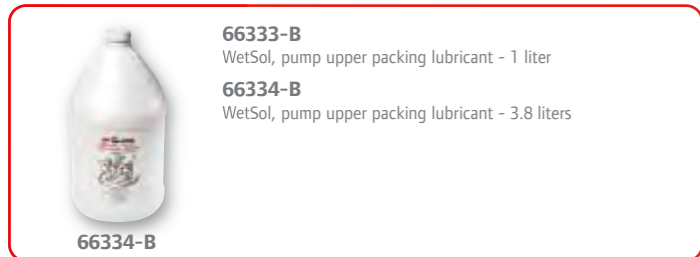


Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0805M11FF48	67201-C4G	300 Series / CF8M stainless steel	17-4 stainless steel with ceramic coating	UHMW-PE + UHMW-PE	637318-C4G
AF0805M11GF48	67201-P4G		UHMW-PE/glass-filled PTFE + UHMW-PE	637318-P4G	

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-3	High performance muffler
635043	AroStop valve
67187-1	Mounting post
637489	Universal motor service kit
67442	Ball Valve Regulator

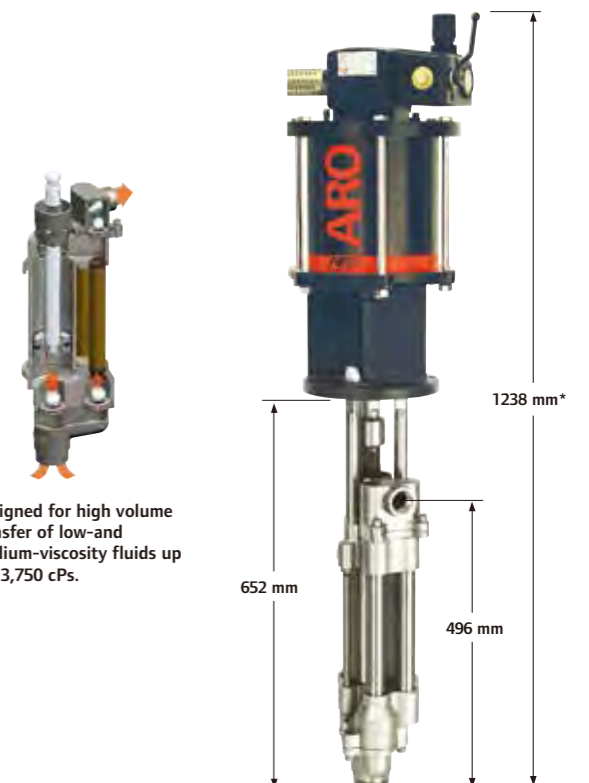


7:1
88.8 l/min

AFX Series

4-ball piston pump

Specifications			
?:1	7:1		15 - 70 bar
	8" (203 mm)		70 cycles/min.
	6" (152 mm)		88.8 l/min. @70 cycles/min.
	3/4" NPT(F)		1270 cc
	2.1 - 8.3 bar		0.78 cycle
	86.8 dBA @ 4.1 bar		1 1/2" NPT(F) / 2" NPT(M)
	43.5 kg		1 NPT(F)



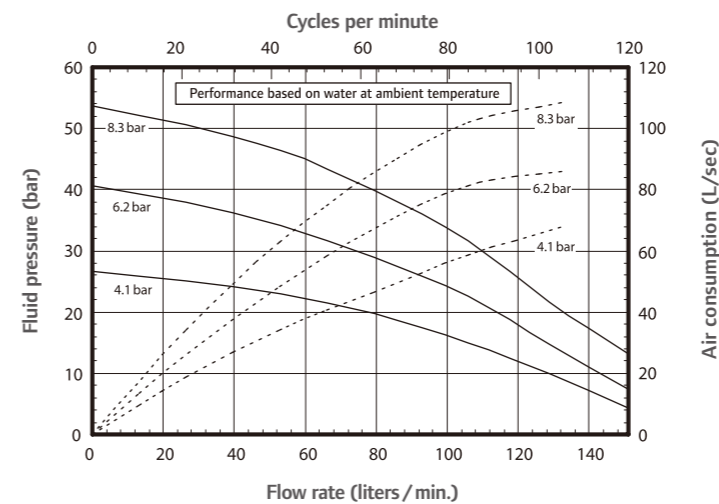
Designed for high volume transfer of low-and medium-viscosity fluids up to 13,750 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0807M11FF48	67200-C4G	300 Series / CF8M stainless steel	17-4 stainless steel with ceramic coating	UHMW-PE + UHMW-PE	637317-C4G
AF0807M11KS48	67200-74G		Class-filled PTFE + Virgin PTFE	637317-74G	
AF0807M11RS48	67200-R4G		Glass-filled PTFE / UHMW-PE staggered + Virgin PTFE	637317-R4G	
AF0807M11HF48	67200-F4G		UHMW-PE / Leather staggered + UHMW-PE	637317-F4G	

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



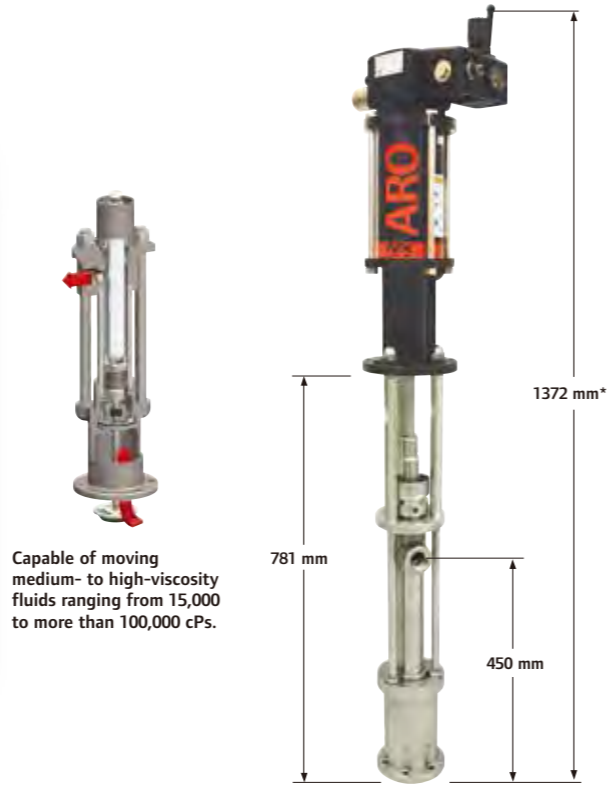
Pump accessories	
67445-3	High performance muffler
635043	AroStop valve
67187-1	Mounting post
637489	Universal motor service kit
67442	Ball Valve Regulator

12:1
12.3 l/min

AFX Series

Chop check extrusion pump

Specifications			
?:1	12:1	Max. bar	0 - 144 bar
Motor	4 1/4" (108 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	12.3 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	205 cc
Max. bar	0 - 10.3 bar	For 1 litre	4.9 cycles
Headphones	86.5 dBA @ 4.1 bar		Flange mount
Weight	29 kg		1" NPT(F)

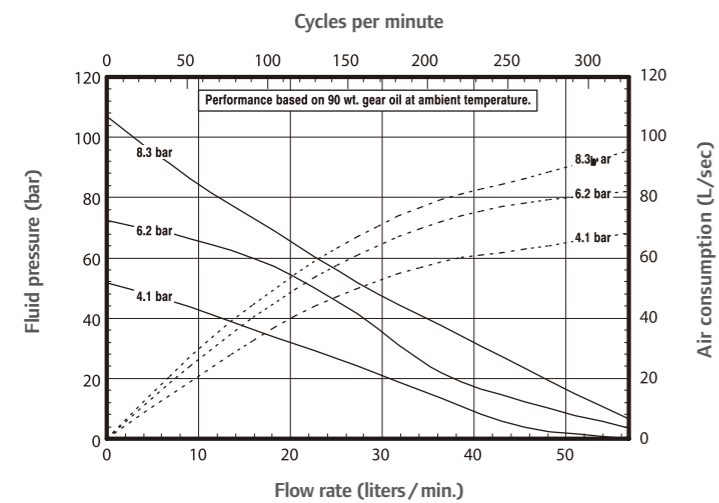


Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 100,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0412S11FF47	66243-C43-B	Carbon steel, nickel plated	UHMW-PE + UHMW-PE	637071-C43-B
AF0412S11KK47	66243-343-B		Glass-filled PTFE (upper & lower)	637071-343-B
AF0412S11HH47	66243-G43-B		UHMW-PE / Leather staggered (upper & lower)	637071-G43-B
AF0412S11GF47	66243-P43-B		UHMW-PE/glass-filled PTFE + UHMW-PE	637071-P43-B
AF0412S11RK47	66243-R43-B		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637071-R43-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-1	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

12:1
12.3 l/min

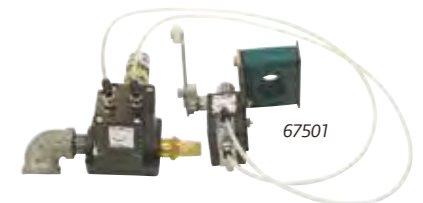
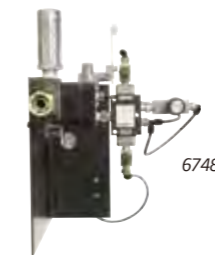
AFX Series

Chop check extrusion pump (continued)

12:1 ratio pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight
TP0412S51FF47AA2	200 L / two-post RAM	AF0412S11FF47	RM552S-C	66516-1	Double lip / polyurethane	Aluminum
TP0412S51KK47AA2		AF0412S11KK47				
TP0412S51HH47AA2		AF0412S11HH47				
TP0412S51GF47AA2		AF0412S11GF47				
TP0412S51GF47TA2		AF0412S11GF47				



Pump package accessories			
66354-1	67481	67501	637472
Pump stabilizing bracket	Cross over kit (1)	Low-level cut-off kit (2)	200 L two-post RAM repair kit

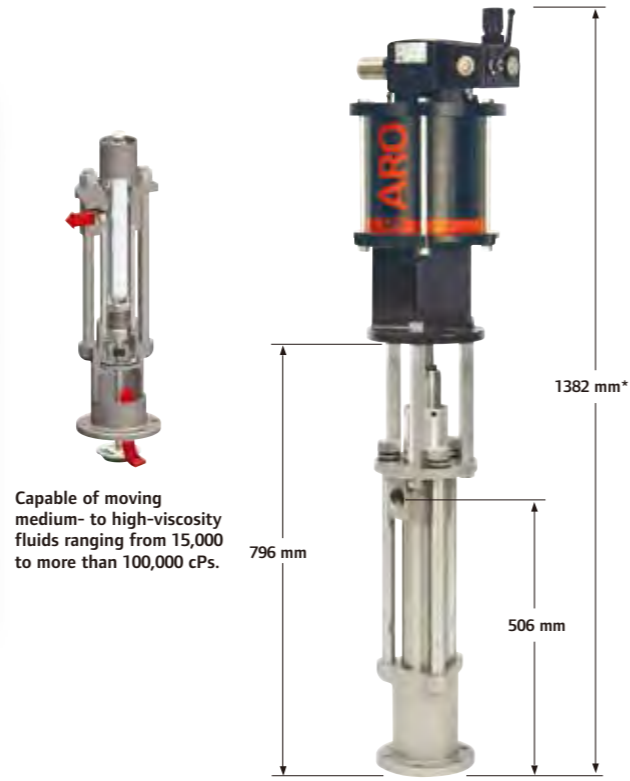
(1) Maintains fluid delivery in extrusion systems. Can activate alarm to alert maintenance to change empty fluid container.
(2) Used to shut off air supply to pump when material container is empty or near-empty.

13:1
46.3 l/min

AFX Series

Chop check extrusion pump

Specifications			
?:1	13:1	Max. bar	27 - 130 bar
Motor	8" (203 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	46.3 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	662 cc
Max. bar	2.1 - 8.3 bar	For 1 litre	1.5 cycles
Headphones	86.8 dBA @ 4.1 bar		Flange mount
Weight	56.9 kg		1 1/2" NPT(F)

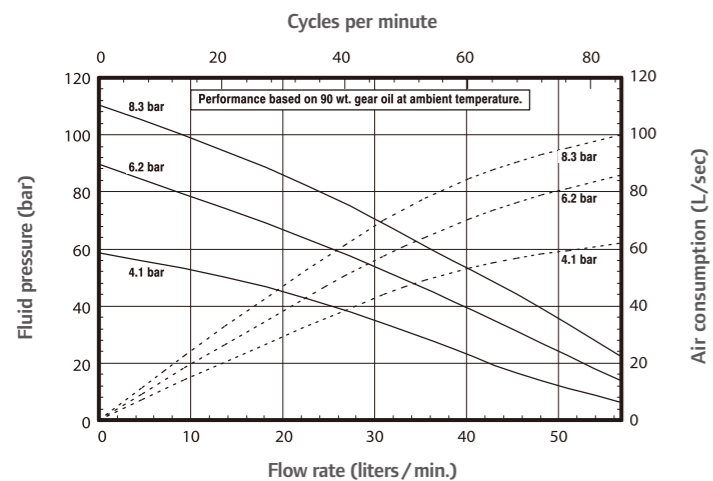


Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 100,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper lower)	ServiceKit (2)	
AF0813S11FF44	66236-C4E-B	Carbon steel, nickel plated	Carbon steel / hard chrome	UHMW-PE + UHMW-PE	637128-C44-B
AF0813S11GF44	66236-P4E-B			UHMW-PE/glass-filled PTFE + UHMW-PE	637128-P44-B
AF0813S11HF44	66236-F4E-B			UHMW-PE / Leather staggered + UHMW-PE	637128-F44-B
AF0813S11PF14	66236-J3E-B			Polyurethane + UHMW-PE	637128-J34-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-3	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

13:1
46.3 l/min

AFX Series

Chop check extrusion pump (continued)

13:1 ratio pump packages



Model	Type	Pump model	Floor mount kit	Material supply hose	Hose with fittings	Ball valve	Weight
FM0813S11PF14001	Floor mount	AF0813S11PF14-1	65139	628088-7	628089-6	67073	67.5 kg

Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight
TP0813S51HF44AA2	200 L / two-post RAM	AF0813S11HF44	RM552S-C	66517-1	Double lip / polyurethane Aluminum	199.9 kg

Pump package accessories			
66353-1	67481	67501	637472
Pump stabilizing bracket	Cross over kit (1)	Low-level cut-off kit (2)	200 L two-post RAM repair kit

(1) Maintains fluid delivery in extrusion systems. Can activate alarm to alert maintenance to change empty fluid container.
(2) Used to shut off air supply to pump when material container is empty or near-empty.

20:1
46.3 l/min

AFX Series

Chop check extrusion pump

Specifications			
?:1	20:1	Max. bar	40 - 155 bar
Motor	10" (254 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	46.3 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	662 cc
Max. bar	2.1 - 6.2 bar	For 1 litre	1.5 cycles
Headphones	89.8 dBA @ 4.1 bar		Flange mount
Weight	65.3 kg		1 1/2" NPT(F)



Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 125,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



20:1
46.3 l/min

AFX Series

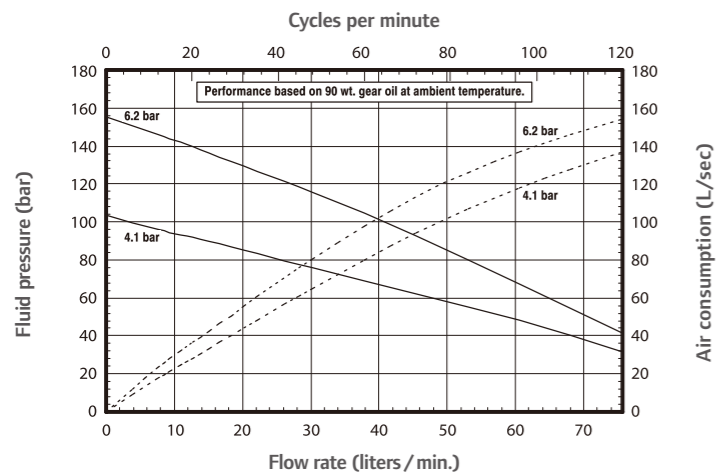
Chop check extrusion pump (continued)

20:1 ratio pump packages



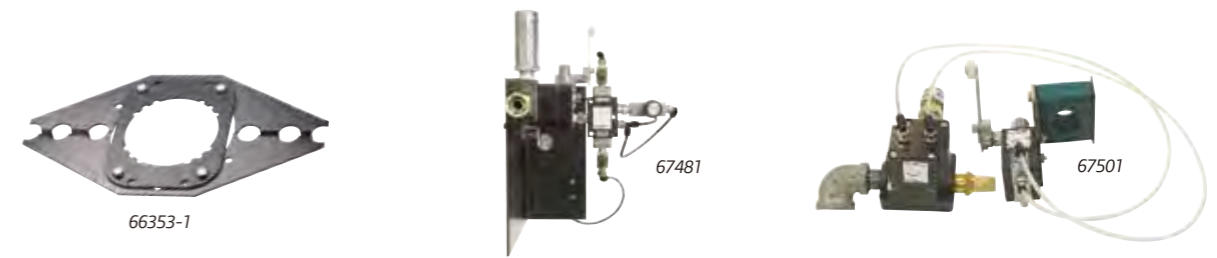
Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF1020S11FF44	66236-C4E-B	Carbon steel, nickel plated	Carbon steel / hard chrome	UHMW-PE + UHMW-PE	637128-C44-B
AF1020S11HF44	66236-F4E-B			UHMW-PE / Leather staggered + UHMW-PE	637128-F44-B
AF1020S11PF14	66236-J3E-B			Polyurethane + UHMW-PE	637128-J34-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-4	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

Model	Type	Pump model	RAM model	Follower plate (model, seal and material)	Weight
TPD020S51FF44AA2	200 L / two-post RAM	AF1020S11FF44	RM552S-C	66517-1 Double lip / polyurethane Aluminum	204.8 kg



Pump package accessories			
66353-1	67481	67501	637472
Pump stabilizing bracket	Cross over kit (1)	Low-level cut-off kit (2)	200 L two-post RAM repair kit

(1) Maintains fluid delivery in extrusion systems. Can activate alarm to alert maintenance to change empty fluid container.
(2) Used to shut off air supply to pump when material container is empty or near-empty.

23:1

6.9 l/min

AFX Series

Chop check extrusion pump

Specifications			
?:1	23:1	Max. bar	0 - 254 bar
Motor	4 1/4" (108 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	6.9 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	113 cc
Max. bar	0 - 10.3 bar	For 1 litre	8.8 cycles
Headphones	86.5 dBA @ 4.1 bar		Flange mount
Weight	28.9 kg		1" NPT(F)



Extrusion



Transfer and Supply

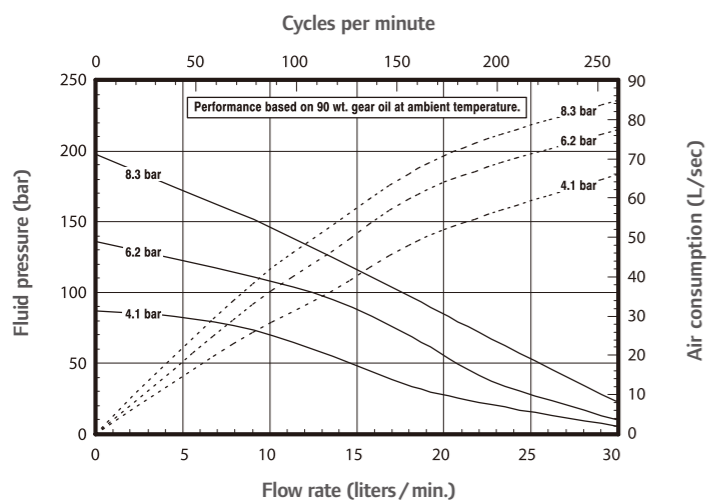


Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 500,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	.Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0423S11FF47	66266-C43-B	Carbon steel, nickel plated 17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637074-C43-B
AF0423S11KK47	66266-343-B		Glass-filled PTFE (upper & lower)	637074-343-B
AF0423S11HH47	66266-G43-B		UHMW-PE / Leather staggered (upper & lower)	637074-G43-B
AF0423S11RK47	66266-R43-B		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637074-R43-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-1	High performance muffler
23644-400	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

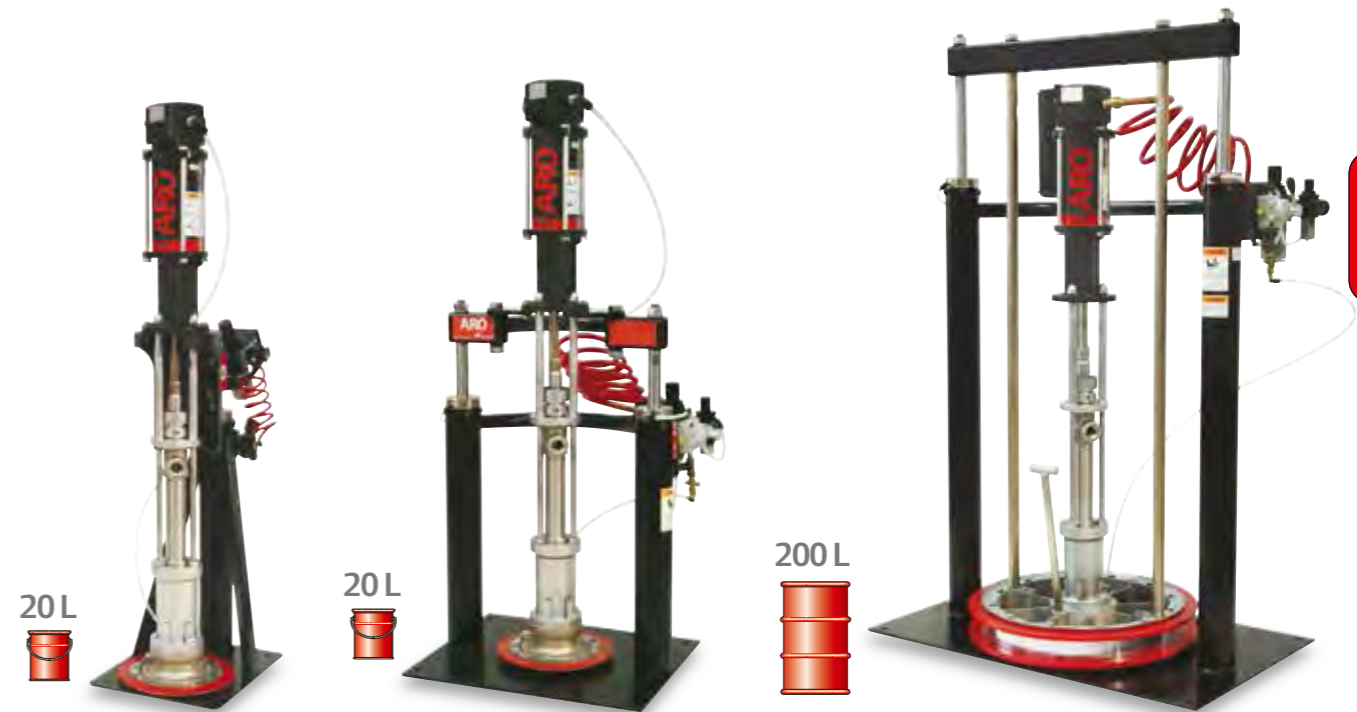
23:1

6.9 l/min

AFX Series

Chop check extrusion pump (continued)

23:1 ratio pump packages



Model	Type	Pump model	RAM model	Followler plate (model, seal and material)	Weight
SP0423S21FF47E32	20 L / single-post RAM	AF0423S11FF47	RM051S-C	67342-1 Single lip, polyethylene/urethane Carbon steel, nickel plated	74.8 kg
TP0423S21FF47E32	20 L / two-post RAM		RM052S-C		102.4 kg
TP0423S51FF47AA2		AF0423S11FF47	RM552S-C	66516-1 Double lip / polyurethane Aluminum	188.1 kg
TP0423S51HH47AA2	200 L / two-post RAM	AF0423S11HH47			
TP0423S51RK47AA2		AF0423S11RK47			

Pump package accessories			
66354-1	67482 (20 L / 1 post RAM) 67480 (20 L / 2 post RAM) 67481 (200 L / 2 post RAM)	67502 (20 L / 1 post RAM) 67500 (20 L / 2 post RAM) 67501 (200 L / 2 post RAM)	637465 (20 L / 1 post RAM) 637466 (20 L / 2 post RAM) 637472 (200 L / 2 post RAM)
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	RAM repair kit

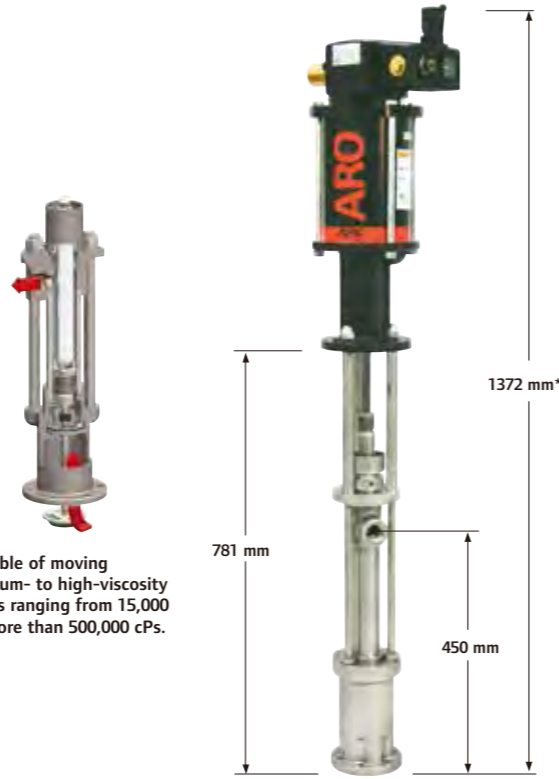
23:1

12.3 l/min

AFX Series

Chop check extrusion pump

Specifications			
?:1	23:1	Max. bar	0 - 290 bar
Motor	6" (152 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	12.3 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	205 cc
Max. bar	0 - 10.3 bar	For 1 litre	4.8 cycles
Headphones	84.7 dBA @ 4.1 bar		Flange mount
Weight	30.5 kg		1" NPT(F)



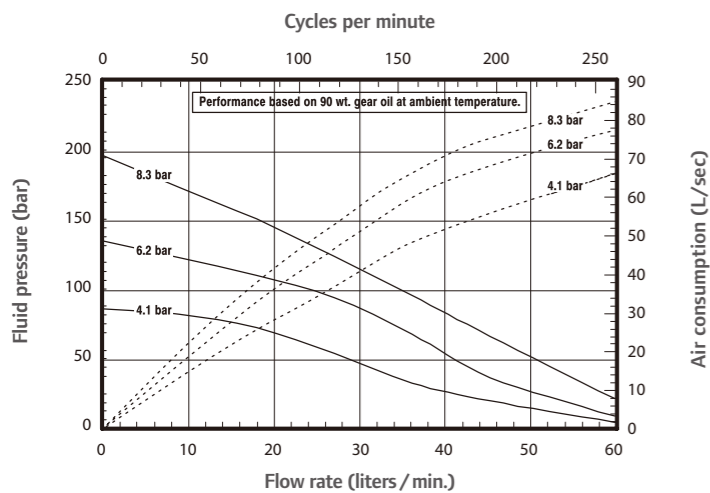
Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 500,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0623S11FF47	66243-C43-B	Carbon steel, nickel plated 17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637071-C43-B
AF0623S11KK47	66243-343-B		Glass-filled PTFE (upper & lower)	637071-343-B
AF0623S11HH47	66243-G43-B		UHMW-PE / Leather staggered (upper & lower)	637071-G43-B
AF0623S11HHD7(3)	66243-G93-B		UHMW-PE / Leather staggered (upper & lower)	637071-G93-B
AF0623S11GF47	66243-P43-B		UHMW-PE/glass-filled PTFE + UHMW-PE	637071-P43-B
AF0623S11RK47	66243-R43-B		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637071-R43-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit
(3) High capacity solvent cup with multiple wave spring



Pump accessories	
67445-2	High performance muffler
23644-400	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

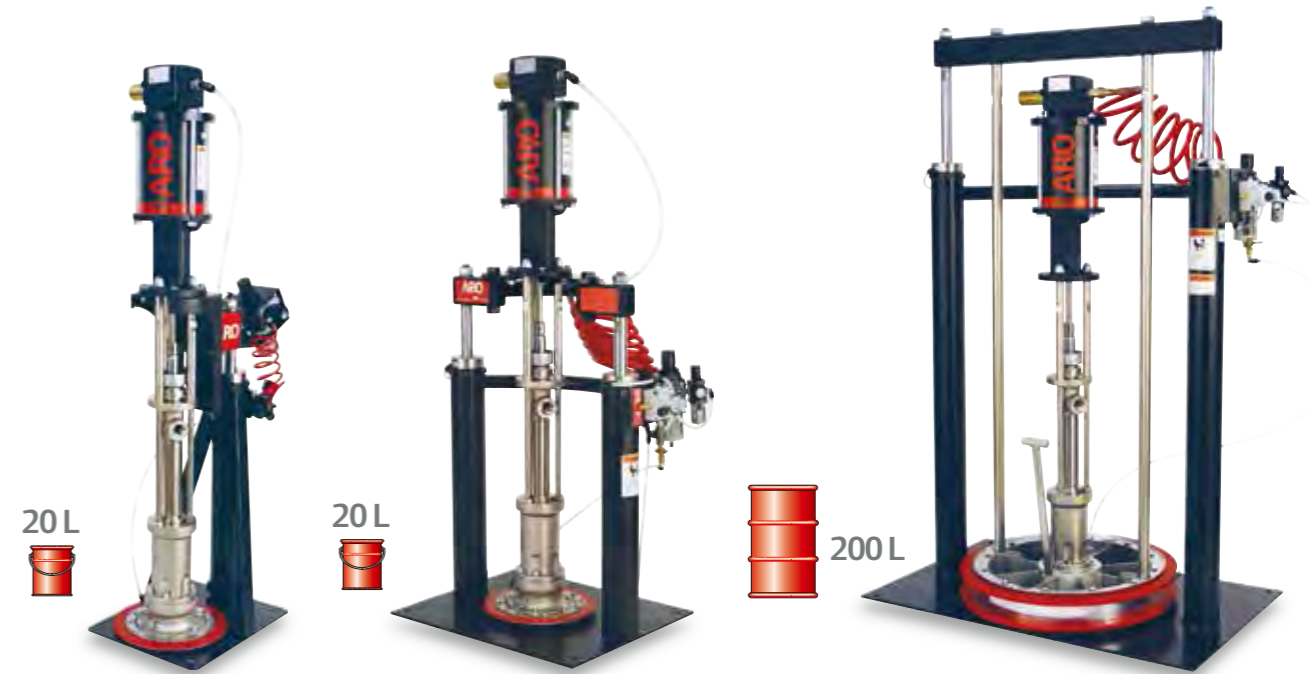
23:1

12.3 l/min

AFX Series

Chop check extrusion pump (continued)

23:1 ratio pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)	Weight
SP0623S21FF47E32	20 L / single-post RAM	AF0623S11FF47	RM051S-C	67342-1 Single lip, polyethylene/urethane	80.2 kg
SP0623S21RK47EC2		AF0623S11RK47		66732 Double lip / nitrile	
TP0623S21FF47E32	20 L / two-post RAM	AF0623S11FF47	RM052S-C	67342-1 Single lip, polyethylene/urethane	116.0 kg
TP0623S51FF47AA2	200 L / two-post RAM	AF0623S11FF47	RM552S-C	66516-1 Double lip / polyurethane	Aluminum
TP0623S51HH47AA2		AF0623S11HH47			
TP0623S51GF47AA2		AF0623S11GF47			
TP0623S51FF47AN2		AF0623S11FF47		67195-2 Double-tube / EPR	Aluminum

Pump package accessories			
66354-1	67482 (20 L / 1 post RAM) 67480 (20 L / 2 post RAM) 67481 (200 L / 2 post RAM)	67502 (20 L / 1 post RAM) 67500 (20 L / 2 post RAM) 67501 (200 L / 2 post RAM)	637465 (20 L / 1 post RAM) 637466 (20 L / 2 post RAM) 637472 (200 L / 2 post RAM)
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	RAM repair kit

28:1

22.7 l/min

AFX Series

Chop check extrusion pump

Specifications			
?:1	28:1	Max. bar	60 - 230 bar
Motor	8" (203 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	22.7 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	328 cc
Max. bar	2.1 - 8.3 bar	For 1 litre	3 cycles
Headphones	86.8 dBA @ 4.1 bar		Flange mount
Weight	63.5 kg		1 1/4" NPT(F)



Extrusion



Transfer and Supply



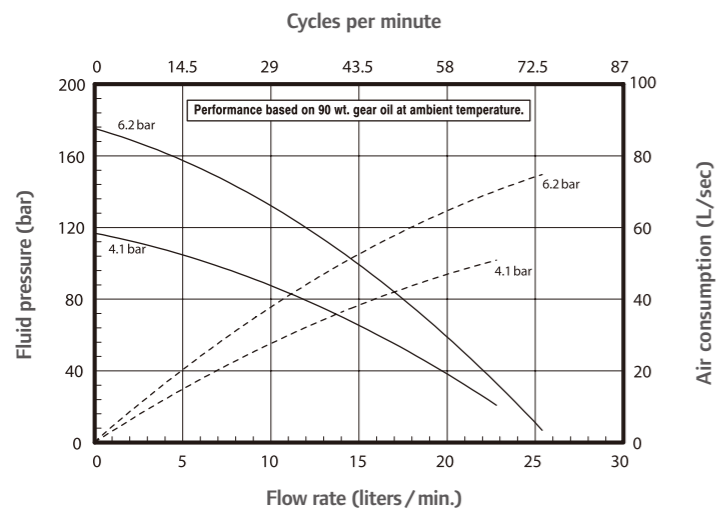
Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 125,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0828S11FF47	67300-C4D	Carbon steel, nickel plated	17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637348-C4D
AF0828S11PF17	67300-J3D				

(1) Add "-1" to Model No. for Ball Valve Regulator

(2) Lower pump repair kit



Pump accessories	
67445-3	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

28:1

22.7 l/min

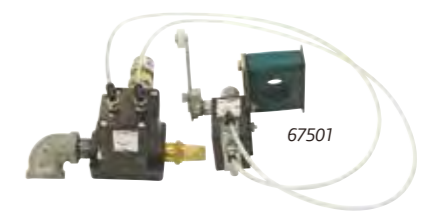
AFX Series

Chop check extrusion pump (continued)

28:1 ratio pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight
TPD828S51FF47AA2	200 L / two-post RAM	AF0828S11FF47	RM552S-C	66517-1	Double lip / polyurethane Aluminum	222.4 kg



Pump package accessories			
66353-1	67481	67501	637472
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	200 L two-post RAM repair kit

66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

66334-B

Recommended for use in piston pumps solvent cups - Increase the performance and service life of pumping equipment.

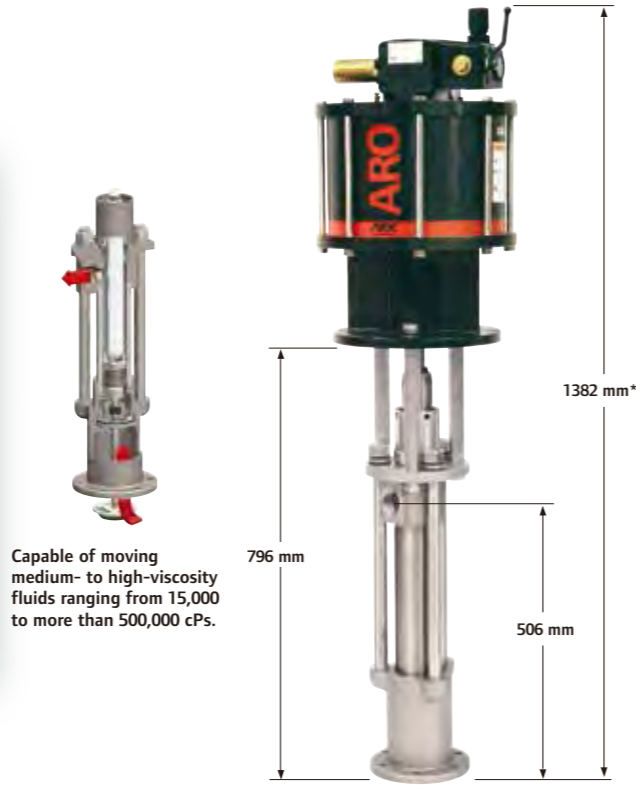
30:1

46.3 l/min

AFX Series

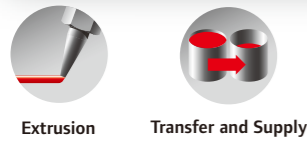
Chop check extrusion pump

Specifications			
?:1	30:1	Max. bar	60 - 220 bar
Motor	12" (304 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	46.3 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	662 cc
Max. bar	2.1 - 6.2 bar	For 1 litre	1.5 cycle
Headphones	93 dBA @ 4.1 bar		Flange mount
Weight	69 kg		1 1/2" NPT(F)



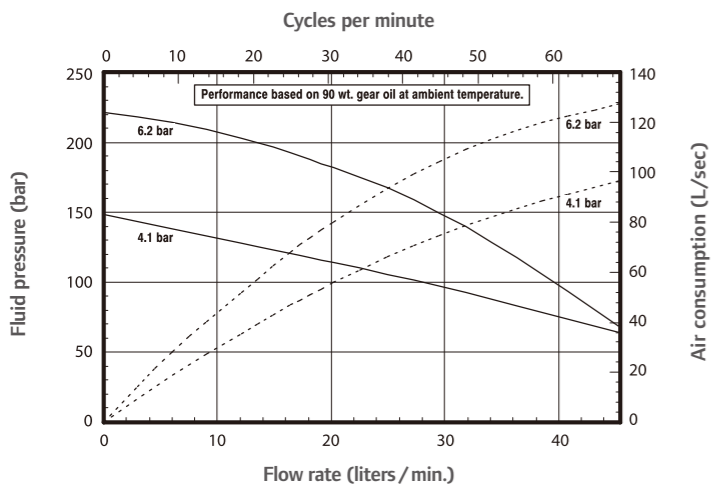
Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 500,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF1230S11FF44	66236-C4E-B	Carbon steel, nickel plated	UHMW-PE + UHMW-PE	637128-C44-B
AF1230S11HF44	66236-F4E-B		UHMW-PE / Leather staggered + UHMW-PE	637128-F44-B
AF1230S11PF14	66236-J3E-B		Polyurethane + UHMW-PE	637128-J34-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-5	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

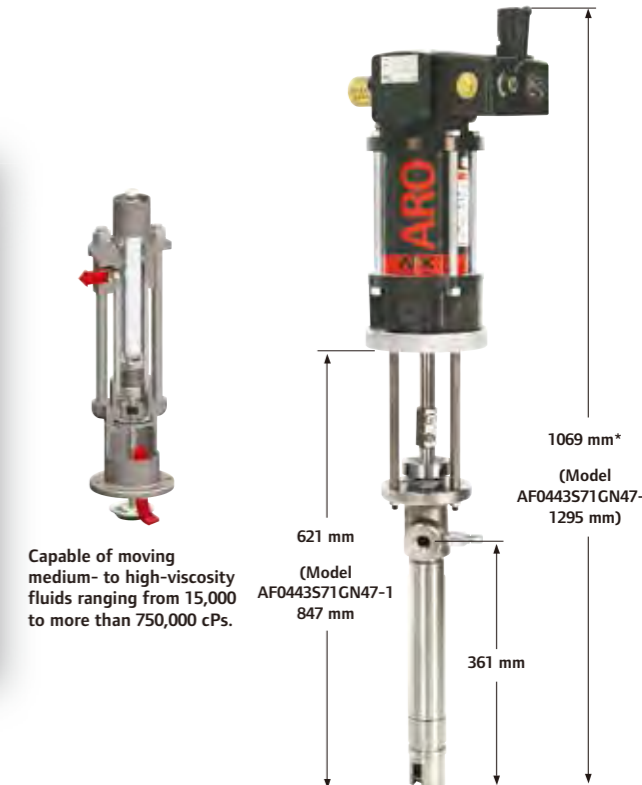
43:1

2.8 l/min

AFX Series

Chop check extrusion pump

Specifications			
?:1	43:1	Max. bar	0 - 450 bar
Motor	4 1/4" (108 mm)	Cycle/min.	60 cycles/min.
Motor	4" (102 mm)	1 min.	2.8 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	46 cc
Max. bar	0 - 10.3 bar	For 1 litre	21.7 cycles
Headphones	86.5 dBA @ 4.1 bar		Follower plate mounted
Weight	20 kg		1/2" NPT(F)



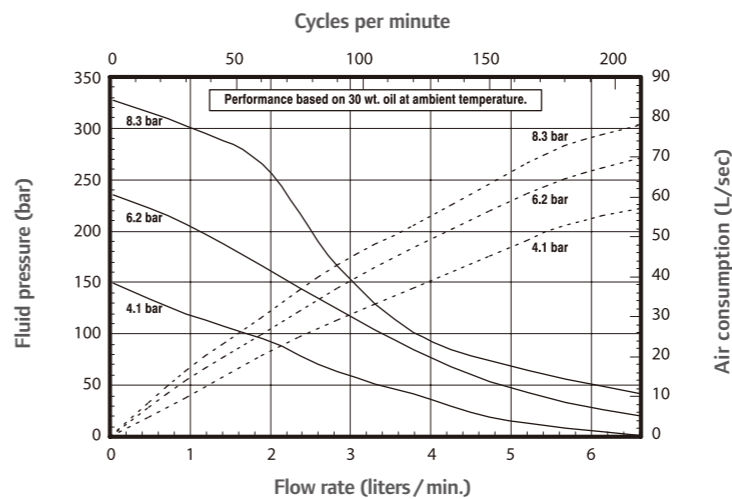
Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 750,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0443T21GN47	67101-P43	300 Series stainless steel	UHMW-PE/glass-filled PTFE + UHMW-PE hydraulic gland type	637291-P43
AF0443T21GF47	67101-P48		UHMW-PE/glass-filled PTFE + UHMW-PE	637291-P48
AF0443S21GN47	67100-P43	Carbon steel, nickel plated	UHMW-PE/glass-filled PTFE + UHMW-PE hydraulic gland type	637290-P43
AF0443S21GF47	67100-P48		UHMW-PE/glass-filled PTFE + UHMW-PE	637290-P48

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit

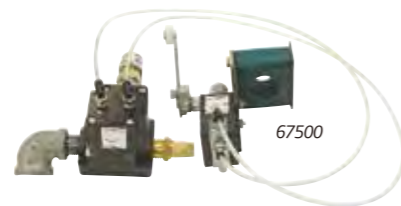


Pump accessories	
67445-1	High performance muffler
23644-400	AroStop valve
67136	Floor / follower plate adapter
637489	Universal motor service kit
67442	Ball Valve Regulator

43:1 ratio pump packages



Model	Type	Pump model	Cart / RAM	Follower plate (model, seal and material)	Weight
CL0443S21GN47E31	Cart-mounted pump	AF0443S21GN47-1	67075-B	651840-1 Single lip, polyethylene/urethane Carbon steel, nickel plated	67.5 kg
CL0443T21GN47S31		AF0443T21GN47-1		651841-1 Single lip, polyethylene/urethane Stainless steel	
SP0443S21GN47E52	20 L / single-post RAM	AF0443S21GN47	RM051S-C	651840-3 Single lip, nitrile/polyethylene Carbon steel, nickel plated	68.0 kg
SPD443S21GN47E32		AF0443S21GN47		651840-1 Single lip, nitrile/polyethylene Carbon steel, nickel plated	
SPD443S21GN47A72		AF0443S21GN47		67347-2 Single tube, EPR Aluminum	
SP0443T21GN47S32		AF0443T21GN47		651841-1 Single lip, urethane/polyethylene Stainless steel	
TP0443S21GN47E52		AF0443S21GN47		651840-3 Single lip, nitrile/polyethylene Carbon steel, nickel plated	
TP0443T21GN47S32	20 L / two-post RAM	AF0443T21GN47	RM052S-C	651841-1 Single lip, urethane/polyethylene Stainless steel	101.5 kg
TP0443S21GN47E32		AF0443S21GN47		651840-1 Single lip, urethane/polyethylene Carbon steel, nickel plated	
TPD443S31GN47E32	60L / two-post RAM	AF0443S21GN47	RM072S-C	651840-1 Single lip, nitrile/polyethylene Carbon steel, nickel plated	107.2 kg
TPD443S31GN47A72		AF0443S21GN47		67347-2 Single tube, EPR Aluminum	
TPD443S41GN47E32		AF0443S21GN47		651840-1-GL Single lip, nitrile/polyethylene Carbon steel, nickel plated	

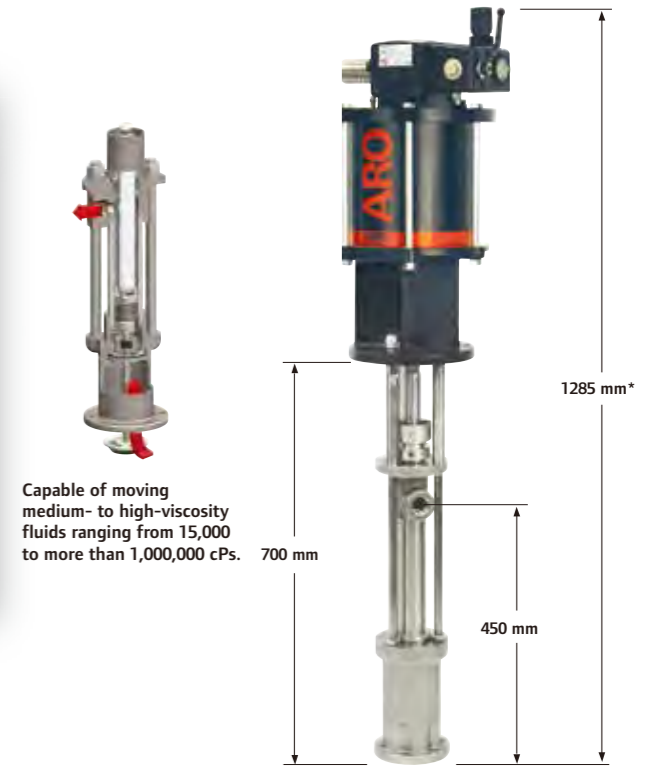
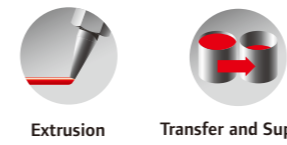


Pump package accessories				
F35341-400	67448	67500	637465	637466
Air filter	Cross over kit	Low-level cut-off kit	20 L single-post RAM repair kit	20 L two-post RAM repair kit

44:1
14.3 l/min
AFX Series

Chop check extrusion pump

Specifications			
44:1	44:1	Max. bar	90 - 410 bar
Motor	8" (203 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	14.3 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	205 cc
Max. bar	2.1 - 8.3 bar	For 1 litre	4.8 cycles
Headphones	86.8 dBA @ 4.1 bar	Flange mount	
Weight	55 kg	1" NPT(F)	

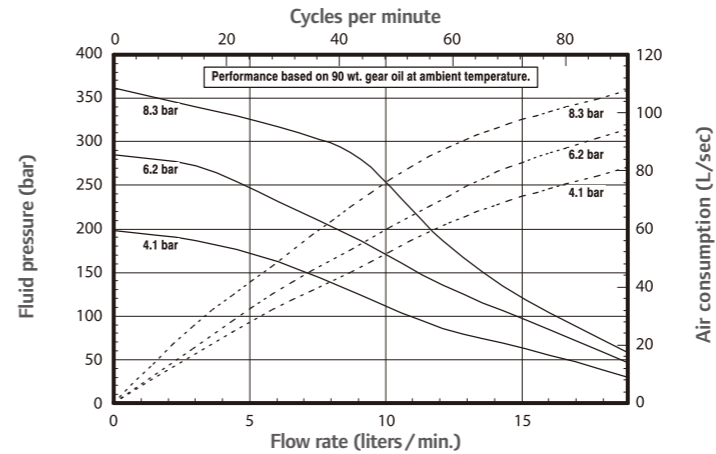


Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 1,000,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

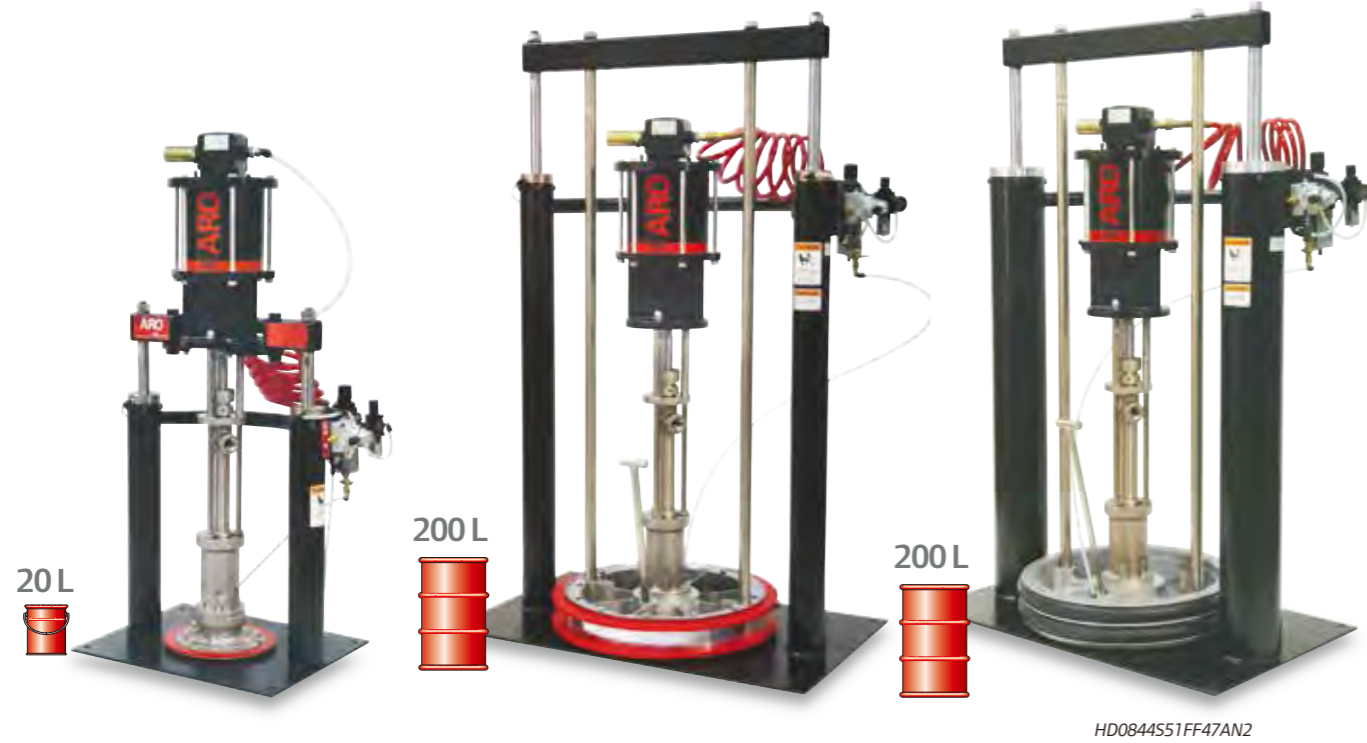
Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF0844S11FF47	66243-C4D-B	Carbon steel, nickel plated	UHMW-PE + UHMW-PE	637071-C4D-B
AF0844S11HH47	66243-G4D-B		UHMW-PE / Leather staggered (upper & lower)	637071-G4D-B
AF0844S11RK47	66243-R4D-B		Glass-filled PTFE/UHMW-PE + Glass-filled PTFE	637071-R4D-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-3	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

44:1 ratio pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight		
TP0844S21FF47E32	20 L / two-post RAM	AF0844S11FF47	RM052S-C	67342-1	Single lip, polyurethane/urethane Carbon steel, nickel plated	140.5 kg		
TP0844S51FF47AA2	200 L / two-post RAM	AF0844S11FF47	RM552S-C	66516-1	Double lip / polyurethane Aluminum	195.8 kg		
TPD844S51HH47AA2		AF0844S11HH47						
TP0844S51RK47AA2		AF0844S11RK47						
TP0844S51FF47AN2		AF0844S11FF47					67195-2	Double-tube / EPR Aluminum
TPD844S51HH47AM2		AF0844S11HH47					67195-1	Double tube / Neoprene Aluminum
TP0844S51HH47AC2		AF0844S11HH47					66516	Double lip / nitrile Aluminum
TP0844S51RK47AC2		AF0844S11RK47						
TP0844S51RK47TA2		AF0844S11RK47					66516-6	Double lip / polyurethane Aluminum / PTFE coating
HD0844S51FF47AN2	200 L / heavy-duty two-post RAM	AF0844S11FF47	RM552H-C	67195-2	Double-tube/EPR Aluminum	243.9 kg		

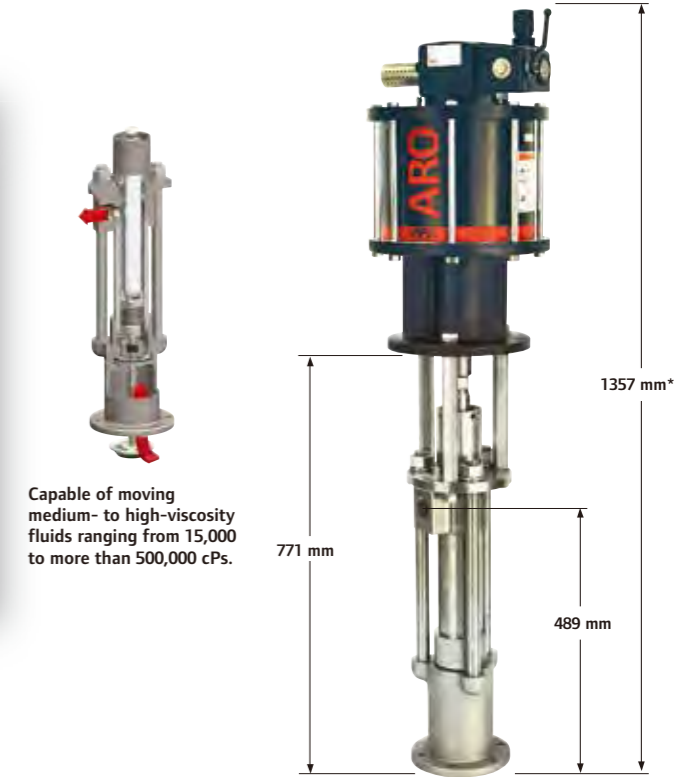
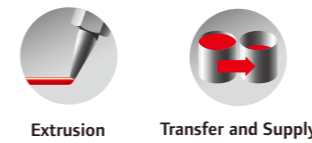
Pump package accessories			
66353-1	67480 (20 L) 67481 (200 L)	67500 (20 L) 67501 (200 L)	637466 (20 L / 2 post RAM) 637472 (200 L / 2 post RAM)
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	RAM repair kit

44:1
22.9 l/min

AFX Series

Chop check extrusion pump

Specifications			
Ratio	44:1	Max. bar	90 - 270 bar
Motor	10" (254 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	22.9 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	328 cc
Max. bar	2.1 - 6.2 bar	For 1 litre	3 cycles
Headphones	89.8 dBA @ 4.1 bar	Flange mount	
Weight	64 kg		1 1/4" NPT(F)

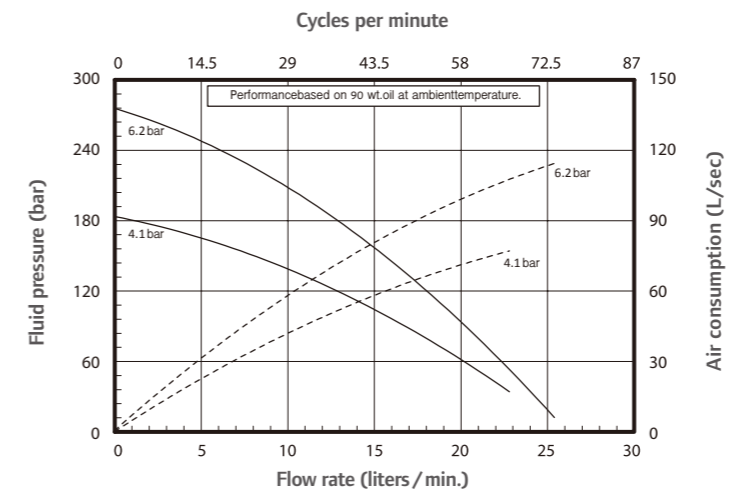


Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 500,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF1044S11FF47	67300-C4D	Carbon steel, nickel plated	UHMW-PE + UHMW-PE	637348-C4D
AF1044S11PF17	67300-J3D		Polyurethane + UHMW-PE	637348-J3D

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-4	High performance muffler
635043	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

44:1 ratio pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight
TP1044S51FF47AM2	200 L / two-post RAM	AF1044S11FF47	RM552S-C	67196-1	Double-tube / Neoprene	204.8 kg
TP1044S51FF47AC2				66517	Double lip / nitrile	
HD1044S51FF47AN2				67196-2	Double-tube / EPR	



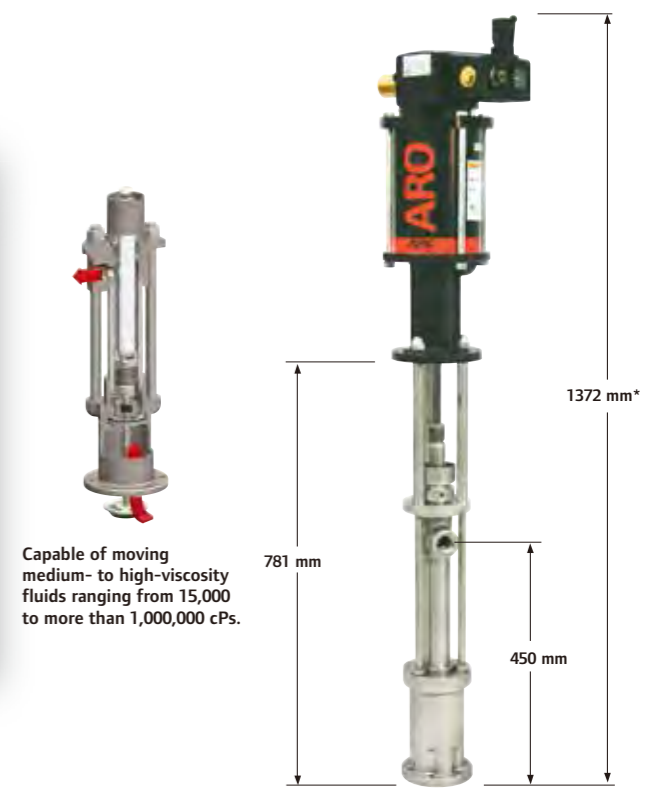
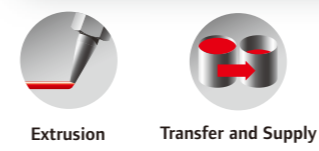
Pump package accessories			
67481	67501	66353-1	637472
Cross over kit	Low-level cut-off kit	Pump stabilizing bracket	200 L RAM repair kit (RM552H-C)

46:1
6.9 l/min

AFX Series

Chop check extrusion pump

Specifications			
Ratio	46:1	Max. bar	0 - 515 bar
Motor	6" (152 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	6.9 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	113 cc
Max. bar	0 - 10.3 bar	For 1 litre	8.8 cycles
Headphones	84.7 dBA @ 4.1 bar	Flange mount	
Weight	30.4 kg	1" NPT(F)	

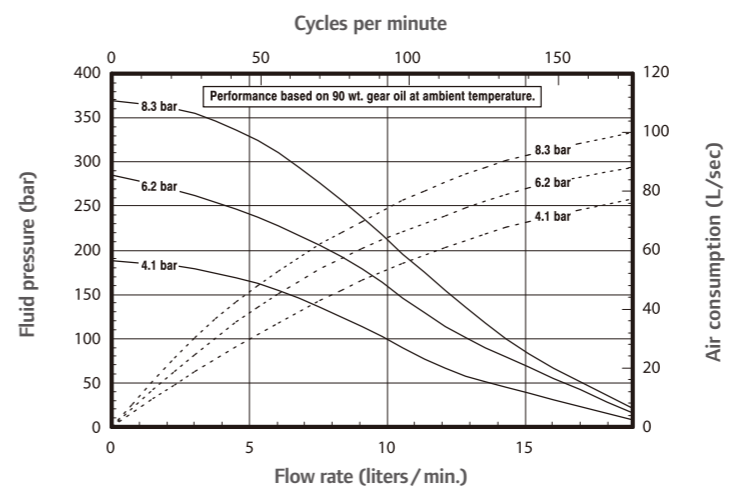


Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 1,000,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0646S11FF47	66266-C43-B	Carbon steel, nickel plated	17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637074-C43-B
AF0646S11GF47	66266-P43-B			UHMW-PE/glass-filled PTFE + UHMW-PE	637074-P43-B
AF0646S11KK47	66266-343-B			Glass-filled PTFE (upper & lower)	637074-343-B
AF0646S11HH47	66266-G43-B			UHMW-PE / Leather staggered (upper & lower)	637074-G43-B
AF0646S11RK47	66266-R43-B			Class-filled PTFE/UHMW-PE + Class-filled PTFE	637074-R43-B

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-2	High performance muffler
23644-400	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

46:1 ratio pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight	
SP0646S21FF47E32	20 L / single-post RAM	AF0646S11FF47	RM051S-C	67342-1	Single lip, polyurethane/urethane	Carbon steel, nickel plated	78.4 kg
SPD646S21RK47A2				67347-2	Single tube / EPR	Aluminum	
TP0646S21FF47E32	20 L / two-post RAM	AF0646S11FF47	RM052S-C	67342-1	Single lip, polyurethane/urethane	Carbon steel, nickel plated	111.9 kg
TP0646S51FF47AA2	200 L / two-post RAM	AF0646S11FF47	RM552S-C	66516-1	Double lip / polyurethane	Aluminum	188.5 kg
TP0646S51GF47AA2		AF0646S11GF47					
TP0646S51KK47AA2		AF0646S11KK47					
TPD646S51HH47AA2		AF0646S11HH47					
TPD646S51RK47AA2		AF0646S11RK47					
TP0646S51KK47TA2	200 L / two-post RAM	AF0646S11KK47	RM552S-C	66516-6	Double lip / polyurethane	Aluminum / PTFE coating	

Model	Type	Lower pump material	Packings (upper + lower)	Follower plate (model, seal and material)	Weight
SCS052CSA0646T7	20L / two-post RAM	300 Series stainless steel	UHMW-PE + UHMW-PE	Single tube / EPR Aluminum / PTFE coating	205.0 kg

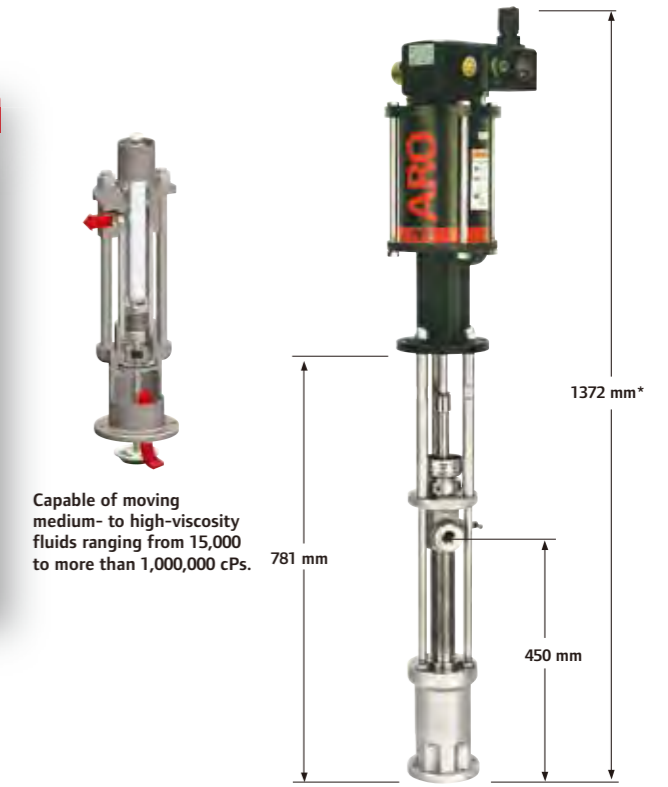
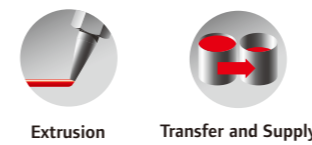
Model	Type	Pump model	Floor mount kit	Material supply hose	Hose with fittings	Ball valve	Weight
FM0646S11GF47001	Floor mount	AF0646S11GF47-1	65138	628088-7	628089-6	67073	58.0 kg

65:1
5.1 l/min

AFX Series

Chop check extrusion pump

Specifications			
Ratio	65:1	Max. bar	0 - 515 bar
Motor	6" (152 mm)	Cycle/min.	60 cycles/min.
Motor	6" (152 mm)	1 min.	5.1 l/min. @ 60 cycles/min.
AIR	1/2" NPT(F)	1 cycle	84 cc
Max. bar	0 - 7.9 bar	For 1 litre	11.9 cycles
Headphones	84.7 dBA @ 4.1 bar		Flange mount
Weight	30.4 kg		3/4" NPT(F)

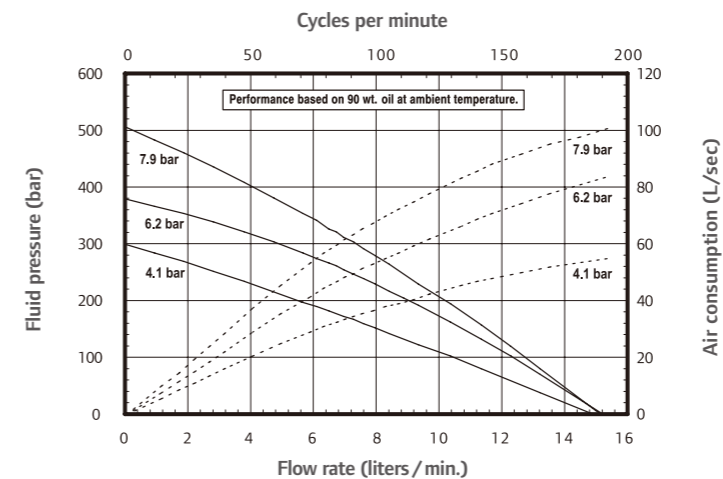


Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 1,000,000 cPs.

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

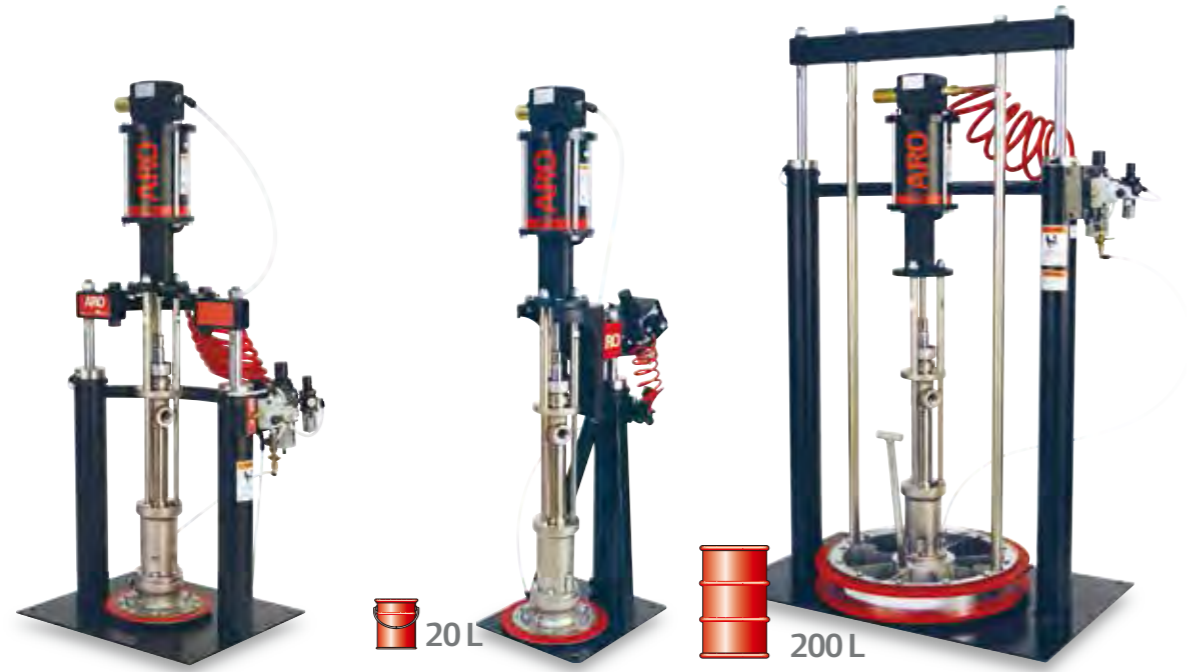
Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)	
AF0665S11FF47	67348-C43	Carbon steel, nickel plated	17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637464-C43
AF0665S11GF47	67348-P43		UHMW-PE / Mineral-filled PTFE + UHMW-PE	637464-P43	

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories	
67445-2	High performance muffler
23644-400	AroStop valve
65139	Floor mount
637489	Universal motor service kit
67442	Ball Valve Regulator

65:1 ratio pump packages

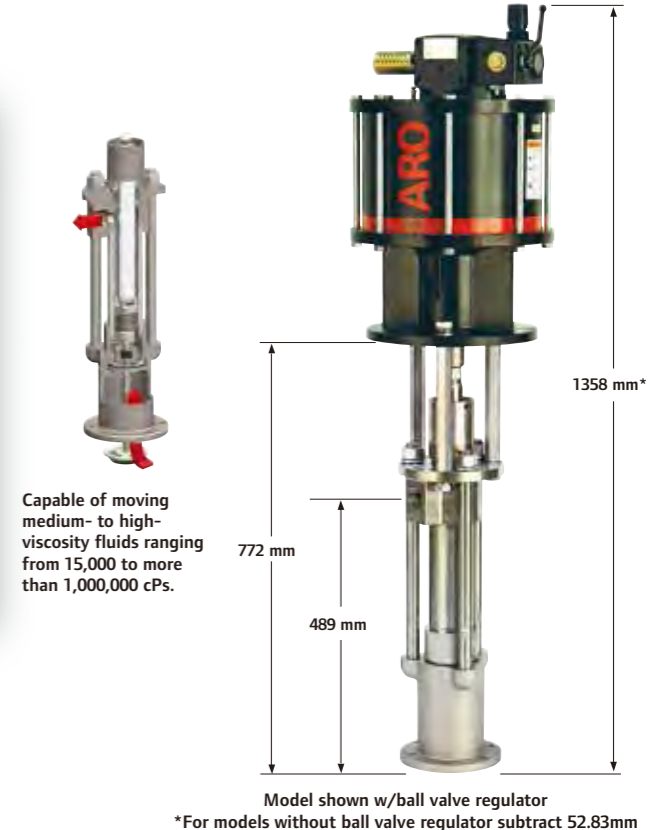


65:1
22.9 l/min

AFX Series

Chop check extrusion pump

Specifications			
Ratio	65:1	Max. bar	135 - 400 bar
Motor	12" (305 mm)	Cycle/min.	70 cycles/min.
Motor	6" (152 mm)	1 min.	22.9 l/min. @ 70 cycles/min.
AIR	3/4" NPT(F)	1 cycle	328 cc
Max. bar	2.1 - 6.2 bar	For 1 litre	3 cycles
Headphones	93 dBA @ 4.1 bar	Flange mount	
Weight	74.8 kg	1 1/4" NPT(F)	

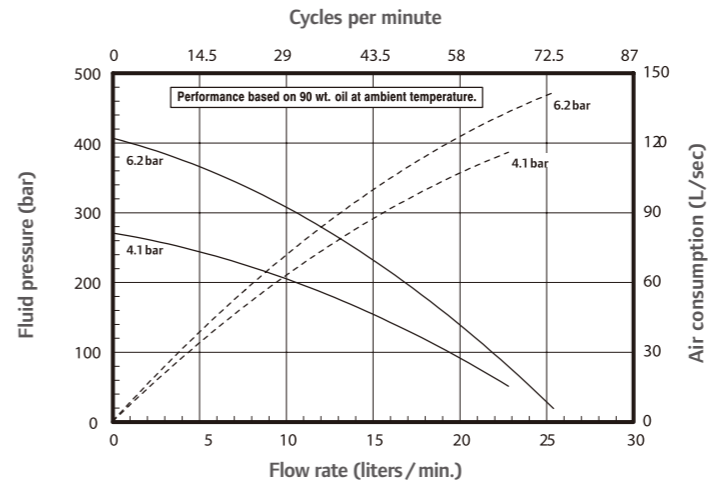


Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight
SPD665S21FF47A72	20 L / single-post RAM	AF0665S11FF47	RM051S-C	67347-2	Single-tube / EPR Aluminum	78.4 kg
SP0665S21FF47A82				67347-1	Single-tube / Neoprene	
SPD665S21FF47E32				67342-1	Single lip, polyurethane/urethane Carbon steel, nickel plated	
SP0665S21FF47EA2				66732-1	Double lip / polyurethane	
TP0665S21FF47A72	20 L / two-post RAM	AF0665S11FF47	RM052S-C	67347-2	Single-tube / EPR Aluminum	111.9 kg
TPD665S21FF47A82				67347-1	Single-tube / Neoprene	
TP0665S21FF47E32				67342-1	Single lip, polyurethane/urethane Carbon steel, nickel plated	
TPD665S21FF47EA2				66732-1	Double lip / polyurethane	
TP0665S51FF47AA2	200 L / two-post RAM	AF0623S11FF47	RM552S-C	66516-1	Double lip / polyurethane	190.3 kg
TP0665S51FF47AC2				66516	Double lip / nitrile	
TP0665S51FF47AM2				67195-1	Double-tube / Neoprene Aluminum	
TP0665S51FF47AN2				67195-2	Double-tube / EPR	
TP0665S51GF47AN2				67195-2		



Pump model no. (1)	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
AF1265S11PF17	67300-J3D	Carbon steel, nickel plated	Polyurethane + UHMW-PE	637348-J3D
AF1265S11FF47	67300-C4D		UHMW-PE + UHMW-PE	637348-C4D

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit



Pump accessories		
67445-5	High performance muffler	
635043	AroStop valve	
65139	Floor mount	
637489	Universal motor service kit	
67442	Ball Valve Regulator	

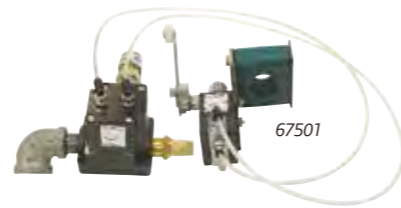
Pump package accessories			
66354-1	67482 (20 L / 1 post RAM) 67480 (20 L / 2 post RAM) 67481 (200 L / 2 post RAM)	67502 (20 L / 1 post RAM) 67500 (20 L / 2 post RAM) 67501 (200 L / 2 post RAM)	637465 (20 L / 1 post RAM) 637466 (20 L / 2 post RAM) 637472 (200 L / 2 post RAM)
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	RAM repair kit

65:1 ratio pump packages



Model	Type	Pump model	RAM model	Follower plate (model, seal and material)		Weight
SCS052CCB1265A8	20 L / two-post RAM	AF1265S11PF17	-	47520421001	Single-tube / Neoprene Aluminum	150 kg
TP1265S51PF17AA2	200 L / two-post RAM	AF1265S11PF17	RMS52S-C	66517-1	Double lip / polyurethane Aluminum	211.6 kg
TP1265S51FF47AN2		AF1265S11FF47		67196-2	Double-tube / EPR Aluminum	
TPD265S51PF17AM2		AF1265S11PF17		67196-2	Double-tube / EPR Aluminum	
TPD265S51PF17AM2		AF1265S11PF17		67196-1	Double tube / Neoprene Aluminum	
HDD265S51PF17AN2	200L / heavy-duty two-post RAM	AF1265S11PF17	RMS52H-C	67196-2	Double tube / Neoprene Aluminum	260 kg
HDD265S51PF17AM2		AF1265S11PF17		67196-1	Double tube / Neoprene Aluminum	

Model	Type	Lower pump material	Packings (upper + lower)	Follower plate (model, seal and material)	Weight
SCS552CSA1265TN	200L / two-post RAM	300 Series stainless steel	UHMW-PE + UHMW-PE	Double tube / EPR Aluminum / PTFE coating	265.0 kg



Pump package accessories			
66353-1	67481	67501	637472
Pump stabilizing bracket	Cross over kit	Low-level cut-off kit	200 L two-post RAM repair kit



66333-B
WetSol, pump upper packing lubricant - 1 liter

66334-B
WetSol, pump upper packing lubricant - 3.8 liters

Recommended for use in piston pumps solvent cups – Increase the performance and service life of pumping equipment.



Piston pumps accessories

The ARO accessories will improve the efficiency of your extrusion application. They include RAMs, follower plates, pressure regulators, etc. The illustrations presented on this page will enable you to select the equipment which will supplement your pump. Use only genuine ARO accessories and replacement parts to assure compatible pressure rating, longest service life possible and the best results in your operation.

2

RAMs: Function like a lift, but also exert downward force. Ram air cylinders push pump and follower plate into the fluid. Available in single or two-post configurations, for 20 L or 200 L containers. Used on medium to high viscosity fluids.

3

Follower Plates: Plates mount directly to pump inlet. Fluid is assisted into pump. Available for 20 litres pails and 200 litres drums.

Typical airless spray system.



4

Follower Seals: Forms seal between follower plate and container to maintain prime. Available in single or double lip models. Use single-lip wiper for viscosities up to 300,000 cP. Double lip wiper provides better wiping action on higher viscosity fluids. Use double-lip wipers for fluids viscosities over 300,000 cP.

5

Material filter

6

Material heater

7

Downstream Fluid Regulators: Used to control fluid pressure at the dispense point. Downstream regulators cut fluid pressure to desired level. Also used to eliminate pulsation to provide even consistent flow of material.

8

Extrusion Guns: Used to dispense fluids with viscosities above 200,000 cPs. Available in manual or automatic configurations. "Snuff-back" guns eliminate drippage at work site.

2

3

4

5

6

7

8

Typical extrusion system

Floor Mounts: Used when fluid is stored in large, bulk containers. Gravity feeds material into the pump inlet. Locate as close to fluid container as possible.

Lifts

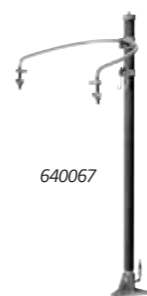
When fluids are too viscous to flow easily, extra steps are needed to keep a pump primed. That's where a lift or ram comes into play. Lifts are used to mount the pump above the fluid container. The weight of the pump and mounting bracket forces the pump into the fluid to keep it primed. An internal cylinder then lifts the pump from an empty container.

Portable Lifts



Model	Description	Usage Parameters	Dimensions
67075-X-B	Portable Lift For use with 5-gallon pails containing fluids with viscosities up to 200,000 cPs. A needle valve allows the operator to control the speed at which the pump is raised and lowered.	<ul style="list-style-type: none"> 67075-B is used with the CL0443S21GN47E32, CL0443T21GN47S31, and NP322LOX-X models 67075-1-B is used with the CL0409A91LL2DE31, CL0409A91LL2DE3B 	Base: 26-19/32" (675.5 mm) x 27-1/2" (698.5 mm) Height: 42-59/64" (1090.2 mm) lowered

Stationary Lifts



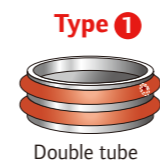
Model	Description	Used With	Dimensions
640169	Two-Post Lift For use with 5-gallon and 55-gallon drums. Features two 2" (50.8 mm) diameter cylinders connected by a mounting bracket. Lift cylinders are bolted to floor.	<ul style="list-style-type: none"> 4-1/4" and 6" air motor 2-ball, 4-ball and chop-check pumps 66469 single-lip follower plate for 5-gallon drums 66248 single-lip follower plate for 55-gallon drums 	Height (lowered): 55-1/2" (1409.7 mm) Height (raised): 92-1/4" (2343.1 mm)
640067	Single-Post Lift For use with 55-gallon drums. Lift is bolted to floor. Support arms attach to drum cover. Lift is used to raise drum cover and bung-mounted pump. Use when pumping grease, oil and low-viscosity fluids.	<ul style="list-style-type: none"> All 55-gallon bung-type pumps 651852 or 66197 drum covers 	Height (lowered): 55-1/2" (1409.7 mm) Height (raised): 92" (2336.8 mm)

Floor Mounts/Portable Carts



Model	Description	Used With
67187-1	Mounting Post Floor stand mounting post with 4-1/4", 6", and 8" air motors	4-1/4", 6" and 8" Stinger 4-ball pumps
66554-1	Portable Cart 24" to 30" wheel spacing adjustment; has 16" tires	4-1/4" and 6" Integrity 2-ball pumps
66554-2	Portable Cart 24" to 30" wheel spacing adjustment; has 16" tires	8", 10" and 12" air motor 2-ball pumps 8" air motor Integrity 2-ball pumps
67139	Portable Cart Will clear 28" openings Unique chair design distributes pump weight and makes moving easy 12" (305 mm) pneumatic tires also enhance smooth transport	4-1/4" and 6" Integrity 2-ball pumps

RAM & follower plate for 200 L container



Standard RAM

For use with materials over 200,000 cPs viscosity. Consists of two 89 mm diameter air cylinders joined by cross-over tubes and welded to a steel base. Cast aluminum follower plate has double edge or double tube wiper to clean drum and seal material from atmosphere.

Base 991 mm x 610 mm
 Raised height 2.5 m
 Lowered position height 1.6 m

Mounting

Mounting footprint is strictly a reference letter used to simplify the matching of pumps to follower plates and related accessories. (i.e. pump with "A" mounting footprint will fit any accessory with "A" mounting footprint).

Model no.	Follower plate	Mounting	Coating	Wiper type	Wiper material
RM552S-CAA-AC	66516	A	—	Type 2	Nitrile
RM552S-CAA-AA	66516-1	A	—	Type 2	Polyurethane
RM552S-CAA-AB	66516-2	A	—	Type 2	EPR
RM552S-CAB-AC	66517	B	—	Type 2	Nitrile
RM552S-CAB-AA	66517-1	B	—	Type 2	Polyurethane
RM552S-CAB-AB	66517-2	B	—	Type 2	EPR
RM552S-CAA-AN	67195-2	A	—	Type 1	EPR
RM552S-CAA-AM	67195-1	A	—	Type 1	Nitrile
RM552S-CAA-AV	67195-3	A	—	Type 1	Viton
RM552S-CAB-AN	67196-2	B	—	Type 1	EPR
RM552S-CAB-AM	67196-1	B	—	Type 1	Nitrile
RM552S-CAB-AV	67196-3	B	—	Type 1	Viton
RM552S-CAA-TA	66516-6	A	PTFE	Type 2	Polyurethane
RM552S-CAA-TB	66516-7	A	PTFE	Type 2	EPR
RM552S-CAB-TA	66517-6	B	PTFE	Type 2	Polyurethane
RM552S-CAA-TN	67195-6	A	PTFE	Type 1	EPR
RM552S-CAA-TM	67195-5	A	PTFE	Type 1	Nitrile
RM552S-CAA-TV	67195-7	A	PTFE	Type 1	Viton
RM552S-CAB-TN	67196-6	B	PTFE	Type 1	EPR
RM552S-CAB-TV	67196-7	B	PTFE	Type 1	Viton

Pump / Drum stabilizing brackets for RM552X-XXX-XX.



66354-1



67503

Model	Description	For use with:
66353-1	Pump Stabilizing Brackets – Attaches easily to RM552X-XXX-XX Ram. Kit includes hardware.	8", 10" and 12" air motor pumps
66354-1	Pump Stabilizing Brackets – Same as 66353-1 except fits smaller pumps.	4 1/2" and 6" air motor pumps
67503	Drum Hold-Down Brackets - Kit includes 2 brackets, clamp screws, nuts.	RM552S-XXX-XX
67504	Drum Hold-Down Brackets - Kit includes 2 brackets, clamp screws, nuts.	RM552H-XXX-XX

Extra Heavy-Duty RAM

Features 5 1/2" dia. post construction capable of delivering 0 - 8 bar* follower down force. This extra measure of down force makes the RM552H-XXX-XX RAM the best choice for the hard-duty supply of heavy inks, RTV silicones, caulking, varnishes, highly viscous adhesives and much more. Drum hold down bracket included.

*WARNING: Before using maximum follower down force, check container or consult container manufacturer for maximum pressure rating.



Model no.	Follower plate	Mounting	Coating	Wiper type	Wiper material
RM552H-CAA-AC	66516	A	—	Type 2	Nitrile
RM552H-CAA-AA	66516-1	A	—	Type 2	Polyurethane
RM552H-CAA-AB	66516-2	A	—	Type 2	EPR
RM552H-CAB-AC	66517	B	—	Type 2	Nitrile
RM552H-CAB-AA	66517-1	B	—	Type 2	Polyurethane
RM552H-CAB-AB	66517-2	B	—	Type 2	EPR
RM552H-CAA-AN	67195-2	A	—	Type 1	EPR
RM552H-CAB-AN	67196-2	B	—	Type 1	EPR
RM552H-CAB-AM	67196-1	B	—	Type 1	Nitrile

Follower plates for 200 L container

Mounting

Mounting footprint is strictly a reference letter used to simplify the matching of pumps to follower plates and related accessories. (i.e. pump with "A" mounting footprint will fit any accessory with "A" mounting footprint).



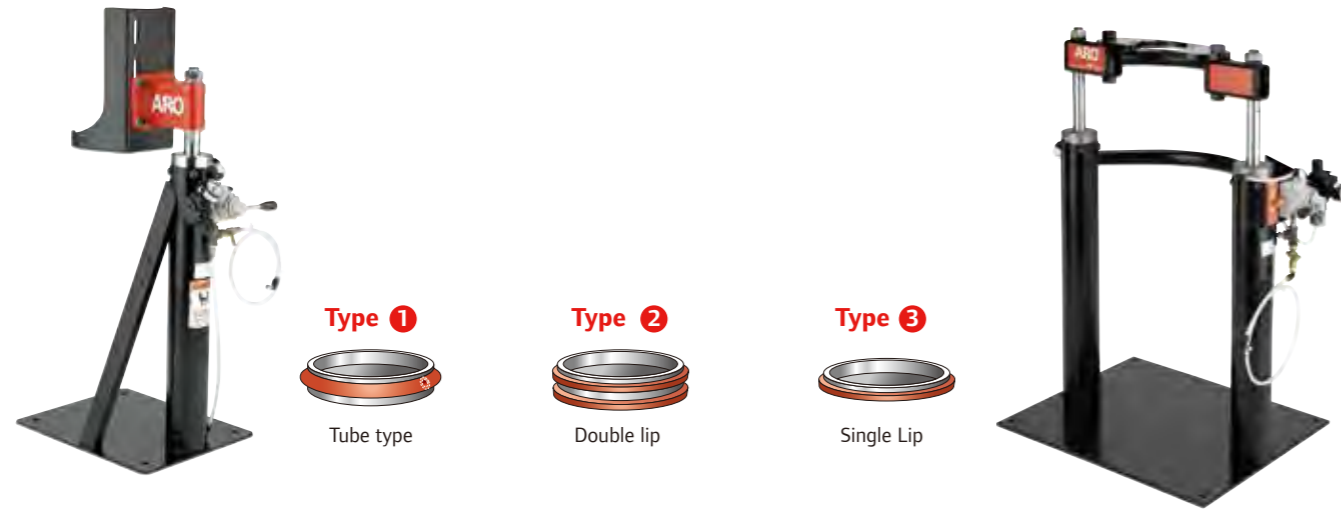
Model no.	Material	Coating	Wiper material	Used with RAM models:	Mounting
Single lip wiper					
66248	Carbon Steel	—	Nitrile, Polyethylene backup	640169	A
66248-1	Carbon Steel	—	Polyethylene	640169	A
Double lip wiper					
66516	Aluminium	—	Nitrile	RM552X-XXX-XX	A
66516-1	Aluminium	—	Polyurethane	RM552X-XXX-XX	A
66516-2	Aluminium	—	EPR	RM552X-XXX-XX	A
66516-5	Aluminum	PTFE	Nitrile	RM552X-XXX-XX	A
66516-6	Aluminum	PTFE	Polyurethane	RM552X-XXX-XX	A
66516-7	Aluminum	PTFE	EPR	RM552X-XXX-XX	A
66517	Aluminum	PTFE	Nitrile	RM552X-XXX-XX	B
66517-1	Aluminum	PTFE	Polyurethane	RM552X-XXX-XX	B
66517-2	Aluminum	PTFE	EPR	RM552X-XXX-XX	B
66517-5	Aluminum	PTFE	Nitrile	RM552X-XXX-XX	B
66517-6	Aluminum	PTFE	Polyurethane	RM552X-XXX-XX	B
66517-7	Aluminum	PTFE	EPR	RM552X-XXX-XX	B
Tube type wiper					
67195-1	Aluminium	—	Neoprene	RM552X-XXX-XX	A
67195-2	Aluminium	—	EPR	RM552X-XXX-XX	A
67195-3	Aluminium	—	Viton	RM552X-XXX-XX	A
67195-5	Aluminum	PTFE	Neoprene	RM552X-XXX-XX	A
67195-6	Aluminum	PTFE	EPR	RM552X-XXX-XX	A
67195-7	Aluminum	PTFE	Viton	RM552X-XXX-XX	A
67196-1	Aluminum	—	Nitrile	RM552X-XXX-XX	B
67196-2	Aluminum	—	EPR	RM552X-XXX-XX	B
67196-3	Aluminum	—	Viton	RM552X-XXX-XX	B
67196-5	Aluminum	PTFE	Nitrile	RM552X-XXX-XX	B
67196-6	Aluminum	PTFE	EPR	RM552X-XXX-XX	B
67196-7	Aluminum	PTFE	Viton	RM552X-XXX-XX	B

Seal Protectors

Package of 10 for 200 liters followers to be inserted between the follower plate and the material in the container. This helps to prevent corrosive materials from attacking the wiper and reduces clean-up time.

Model no. 91363-10

RAM & follower plate for 20 L container



Standard RAM

For use with materials lower 1,000,000 cPs viscosity.
Consists of a 3-1/4" (89 mm) diameter air cylinder, accommodate standard 20 liter containers.

Base: 432 mm x 356 mm
Raised height: 1.33 m (RM051S-CXX-XX)
1.28 m (RM051S-BXX-XX)
Lowered position height: 0.89 m (RM051S-CXX-XX)
0.84 m (RM051S-BXX-XX)

Standard RAM

For use with materials over 200,000 cPs viscosity.
Consists of two 3-1/4" (89 mm) diameter air cylinders joined by cross-over tubes and welded to a steel base.

Base: 610 mm x 502 mm
Raised height: 1.36 m
Lowered position height: 0.90 m

Model no.	Follower plate	Mounting	Coating	Wiper type	Wiper material
RM051S-C (RM051S-C-GL) ⁽¹⁾	—	—	—	—	—
RM051S-B ⁽¹⁾	—	—	—	—	—
RM051S-CAA-A7	67347-2	A	—	Type 1	EPR
RM051S-CAA-A8	67347-1	A	—	Type 1	Nitrile
RM051S-CAA-E3	67342-1	A	Electroless Nickel	Type 3	Polyethylene/Urethane
RM051S-CAA-EA	66732-1	A	Electroless Nickel	Type 2	Polyurethane
RM051S-CAA-EC	66732	A	Electroless Nickel	Type 2	Nitrile
RM051S-CAC-E3	651840-1	C	Electroless Nickel	Type 3	Polyethylene/Urethane
RM051S-CAC-E5	65840-3	C	Electroless Nickel	Type 3	Nitrile/Polyethylene
RM051S-CAC-S3	651841-1	C	Stainless Steel	Type 3	Polyethylene/Urethane

Model no.	Follower plate	Mounting	Coating	Wiper type	Wiper material
RM052S-C ⁽¹⁾	—	—	—	—	—
RM052S-B ⁽¹⁾	—	—	—	—	—
RM052S-CAA-A7	67347-2	A	—	Type 1	EPR
RM052S-CAA-A8	67347-1	A	—	Type 1	Nitrile
RM052S-CAA-E3	67342-1	A	Electroless Nickel	Type 3	Polyethylene/Urethane
RM052S-CAA-EA	66732-1	A	Electroless Nickel	Type 2	Polyurethane
RM052S-CBC-E3	651840-1	C	Electroless Nickel	Type 3	Polyethylene/Urethane
RM052S-CBC-E5	65840-3	C	Electroless Nickel	Type 3	Nitrile /Polyethylene
RM052S-CBC-S3	651841-1	C	Stainless Steel	Type 3	Polyethylene/Urethane
RM052S-CCA-A7	67347-2	A	—	Type 1	EPR
RM052S-CEA-E3	651840-1	A	Electroless Nickel	Type 3	Polyethylene/Urethane

(1) RM052S-B = basic model — RM052S-C = RAM with airline equipment.

RAM & follower plate for 20 L / 30 L / 60 L container



Standard RAM

The ARO model RM072 two post lift / RAM uses two 3 1/4" (Ø 89 mm) air powered cylinders connected by a steel cross member and welded to a heavy gauge base plate. It is normally used to raise and lower a fluid handling pump and follower in and out of a standard 20 liter drum, or when used as a RAM, it can force high viscosity flowable material into the pump inlet.

Base 502 mm x 610 mm
Raised height 1.87 m
Lowered position height 1.1 m.

Mounting

Mounting footprint is strictly a reference letter used to simplify the matching of pumps to follower plates and related accessories. (i.e. pump with "A" mounting footprint will fit any accessory with "A" mounting footprint).

Model no.	Follower plate	Mounting	Coating	Wiper type	Wiper material
RM072S-B ⁽¹⁾	—	—	—	—	—
RM072S-C ⁽¹⁾	—	—	—	—	—
RM072S-CAA-A7	67347-2	A	—	Type 1	EPR
RM072S-CAA-A8	67347-1	A	—	Type 1	Neoprene
RM072S-CAA-E3	67342-1	A	Electroless Nickel	Type 3	Polyethylene urethane
RM072S-CAA-EA	66732-1	A	Electroless Nickel	Type 2	Polyurethane
RM072S-CBC-E3	651840-1	C	Electroless Nickel	Type 3	Polyethylene urethane
RM072S-CBC-E5	651840-3	C	Electroless Nickel	Type 3	Polyethylene urethane
RM072S-CBC-S3	651841-1	C	Stainless Steel	Type 3	Polyethylene urethane
RM072S-CCA-A7	67347-2	A	—	Type 1	Neoprene
RM072S-CDD-S3	651842-1	D	Stainless Steel	Type 3	Polyethylene urethane
RM072S-CEA-E3	67342-1	A	Electroless Nickel	Type 3	Polyethylene urethane

(1) RM072S-B = basic model — RM072S-C = RAM with airline equipment.

Followers plates for 20 L container

Mounting

Mounting footprint is strictly a reference letter used to simplify the matching of pumps to follower plates and related accessories. (i.e. pump with "A" mounting footprint will fit any accessory with "A" mounting footprint).



Model no.	Material	Coating	Wiper material	Used with RAM models :	Mounting
Single lip wiper					
66469	Carbon Steel	—	Nitrile	67075-X-B, RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX, RM552S-XXX-XX	A
67342-2	Carbon Steel	Electroless Nickel	Nitrile	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
67342-1	Carbon Steel	Electroless Nickel	Polyethylene urethane	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
Double lip wiper					
66731-1	Carbon Steel	Electroless Nickel	Polyurethane	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	C
66731-2	Carbon Steel	Electroless Nickel	EPR	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	C
66732	Carbon Steel	Electroless Nickel	Nitrile	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
66732-1	Carbon Steel	Electroless Nickel	Polyurethane	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
66732-2	Carbon Steel	Electroless Nickel	EPR	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
Tube type wiper					
67347-1	Aluminium	—	Neoprene	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
67347-2	Aluminium	—	EPR	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
67347-11	Aluminum	PTFE	Neoprene	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A
67347-12	Aluminum	PTFE	EPR	RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX	A

Model no.	Diameter	Material	Coating	Wiper material	Used with RAM models:	Mounting
Designed for metric pails						
651840-1	290 mm	Carbon Steel	—	Polyethylene urethane	67075 65778	C
651840-2	295 mm	Carbon Steel	—	Nitrile	67075 65778	C
651840-3	311.9 mm	Carbon Steel	—	Polyethylene urethane	67075 65778	C
651841-1	290 mm	Stainless Steel	—	Polyethylene urethane	67075 65778	C
651842-1	290 mm	Stainless Steel	—	Polyethylene urethane	—	D

Seal Protectors

Package of 10 for 20 liters followers to be inserted between the follower plate and the material in the container. This helps to prevent corrosive materials from attacking the wiper and reduces clean-up time.

Model no. 91364-10

Floor mounts, adapters, siphon tubes

Floor mounts

Accepts suction line from bulk containers or mixing tanks. 3" NPT(F) inlet. 1/4" NPT(F) vent port with plug. footprint.

Model	For use with:	Mounting
V65138	4 1/4" & 6" air motor, 2-ball and extrusion pumps. Also 8" 40:1 2-ball and 44:1 extrusion pumps.	A
65139	8", 10" and 12" air motor 2-ball and extrusion pumps.	B

Followers plate adapter

67134 For attaching NM2322X-X and AF0443X21GN47 pumps to 200 L follower plates or floor stands

67136 For attaching Integrity pumps to follower plates or floor stand. Includes stainless steel adapter w/2" NPT(F) threads, seal and hardware.

Model	For use with:	Mounting
67134	66516-X & 6719X-X Followers – RM552S-XXX-XX, RM552H-XXX-XX Rams – 65138 Floor Mount.	A
67136	66248 & 66516 Followers – RM051S-XXX-XX, RM052S-XXX-XX, RM072S-XXX-XX, RM552S-XXX-XX Rams – 65138 Floor Mount.	A

Wall mount brackets for oil pumps

Model	Description	For use with pumps:
61113	2" NPTF opening for bung-type pumps. Bracket can slip over rim of open-head drum or be wall-mounted.	LM2203A-1X-C, LM2305A-1X-B, 612041-1 & 612041-3, 612042-1, AF0409A13PFL1 (with additional, 60870 bung adapter)
66100	Wall-mount bracket has removable mounting plate.	AF0409AX3PFL1
66101	Wall-Mount Bracket • With 91396 removable mounting plate	• 4-1/4" and 6" air motor 2-ball and 4-ball pumps; including Integrity and Stinger models
66542	Wall-Mount Bracket • With 92371 removable mounting plate	• 8", 10" and 12" air motor 2-ball pumps • 8" air motor Stinger 4-ball pumps
76763	Wall-Mount • Open front permits easy installation of pump • Can be bolted to wall at back or side of bracket	• All "N" Series and 1/2" diaphragm pumps

2" male tread bung adapters

Model	For use with pumps:					
For oil pumps						
60870	612041-1	612041-3	612042-1	AF0409A13PFL1	AF0409A43PFL1	AF0409A53PFL1
67145-3-B	LM2203A-X2-C	LM2203A-X1-C				
67145-4-B	LM2305A-X2-B	LM2305A-X1-B				
For Grease pumps						
4148	AF0450L23PKL1	AF0450L43PKL1	AF0450L53PKL1	AF060BL43PKL1	AF060BL53PKL1	
67145-2	LM2250E-XX-B	LM2350E-XX-B				

Bung adapter seal kit

Model	Description	For use with:
67088	Water-tight seal for use outdoor.	LM series pumps

Drum Covers

Model	Description	For use with pumps:	Container Size
66971	Drum Cover • Stainless steel, accepts 651100 agitator	• 1/2" ports diaphragm pump	5 gallon
66197	Drum Cover • Includes hinged access covers, 2" NPT(F) bung opening, and will accept 651104-1 agitator • Carbon steel	• 2", 3" and 4-1/4" 55-gal bung-type pumps	55 gallon
651852	Drum Cover • Includes hinged access covers, 2" NPT(F) bung opening, 2" x 34" pipe extension and 60307-1 agitator • Carbon steel	• Accepts 65986-1 siphon hose from any wall-mounted pump; any 55-gallon bung-type pump that can be used with 640067 lift	55 gallon



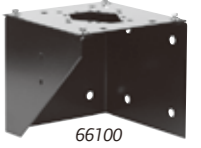
65138



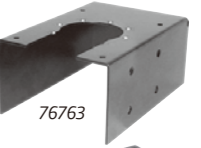
67136



61113



66100



76763



67145-X



67145-X-B



66197



651852

Siphon Hoses



67140-1



65986

Model	Description	For use with pumps:	Hose
65986	Siphon Hose • 55-gallon size; neoprene cover and thiokol tube • Includes 91020-2 pipe extension	• Wall-mounted stub pumps	• 6' length, 3/4" (M) fluid outlet
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' length, 3/4" (M) fluid outlet
622702-6	Siphon Hose • 1" I.D. hose with stainless steel fittings	• Stainless steel stub pumps	• 6' length, 1" (M) fluid outlet, 1" (M) fluid inlet
622701-6	Siphon Hose • 1" I.D. hose with carbon steel fittings	• Carbon steel stub pumps	• 6' length, 1" (M) fluid outlet, 1" (M) fluid inlet
67140-1	Stainless Steel Siphon hose • For 5-gallon containers; includes 16" wand and 5' of 3/4" I.D. hose	• Wall-mounted Integrity pumps	• 5' length, 3/4" (M) fluid outlet
67140-2	Stainless Steel Siphon hose • For 55-gallon containers; includes 36" wand and 5' of 3/4" I.D. hose	• Wall-mounted Integrity pumps	• 5' length, 3/4" (M) fluid outlet
61601	Includes 622651-6 hose, Y45-24-C adapter bushing, Y43-5-C street elbow, and 65109 carbon steel suction tube	• Wall-mounted stub pumps	• 6' length, 3/4" (M) fluid inlet and outlet

Tubes



65109



66568



91020-1

Model	Description	For use with pumps:	Fluid Outlet
65109	Siphon Tube Assembly • 55-gallon size carbon steel with 2" bung adapter; 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 twirl drum cover that has a 2" NPT(F) bung adapter	3/4" NPT(F) or 1" NPT(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" NPT(F)
66717	Pipe Extension • Constructed of PVC for AF0409C11XXXX and NM2304B-X pumps	• 55-gallon containers	—
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	—
61409	90° PVC siphon tube, 35-1/2" long with 2" bung adapter for 55-gallon drums. Can easily be cut to desired length, on site.	• 55-gallon containers • stub pumps	1/2" NPT(F)
66779	PVC tube has foot valve for positive priming. Includes 76193 bung adapter, adjustable to approximately 35-1/2"	• 55-gallon containers • stub pumps	1" NPT(F)
66779-2	PVC tube has foot valve for positive priming. Includes 76193 bung adapter, adjustable to approximately 48-1/4"	• 275-gallon tanks stub pumps	1" NPT(F)

High-pressure Hose

In selecting a hose, be sure the hose material is compatible with the fluid being pumped and that the maximum working pressure will not be exceeded in the application.

Only those hose length options listed with each model are available.

Substitute -XX with -5, -15, -25, etc., to indicate length selection.

(Example: Substitute -XX with length selection, such as -50. If length is single digit, use that digit only. Do not add zeros.)

***CAUTION: These hoses cannot be used with 100:1 ratio pumps.**

Never use a hose with a maximum pressure rating lower than the highest pressure the pump can generate.

Model	ID in (mm)	OD in (mm)	Fitting threads both ends in	Max pressure psi (bar)	Length ft (m)
BUNA-N TUBE, NEOPRENE COVER					
1-WIRE BRAID					
623501-2	1/2" (12.7)	29/32" (23.0)	1/2" NPT (M)	2,000 (138)	2' (0.6)
623501-5	1/2" (12.7)	29/32" (23.0)	1/2" NPT (M)	2,000 (138)	5' (1.5)
623501-6	1/2" (12.7)	29/32" (23.0)	1/2" NPT (M)	2,000 (138)	6' (1.8)
623501-8	1/2" (12.7)	29/32" (23.0)	1/2" NPT (M)	2,000 (138)	8' (2.4)
2-WIRE BRAID					
624201-2	1/4" (6.3)	11/16" (17.5)	1/8" NPT (F)	5,000 (345)	2' (0.6)
624201-6	1/4" (6.3)	11/16" (17.5)	1/8" NPT (F)	5,000 (345)	6' (1.8)
624201-10	1/4" (6.3)	11/16" (17.5)	1/8" NPT (F)	5,000 (345)	10' (3)
624201-30	1/4" (6.3)	11/16" (17.5)	1/8" NPT (F)	5,000 (345)	30' (9.1)
624401-4	3/8" (9.5)	27/32" (21.4)	3/8" NPT (M)	4,000 (276)	4' (1.2)
624401-8	3/8" (9.5)	27/32" (21.4)	3/8" NPT (M)	4,000 (276)	8' (2.4)
624601-4	3/4" (19.1)	1-1/4" (31.7)	3/4" NPT (M)	2,250 (155)	4' (1.2)
ELASTOMER TUBE, POLYESTER COVER					
1-WIRE BRAID					
628067-3	1" (25.4)	1-1/4" (31.7)	1" NPT (M)	800 (55)	3' (0.9)

Low-pressure Hose

Model	ID in (mm)	OD in (mm)	Fitting threads both ends in	Max pressure psi (bar)	Length ft (m)
NEOPRENE TUBE, NEOPRENE COVER					
2-FABRIC BRAID					
622651-5	3/4" (19.1)	1-3/16" (30.2)	3/4" NPT (M)	600 (41)	5' (1.5)
622651-6	3/4" (19.1)	1-3/16" (30.2)	3/4" NPT (M)	600 (41)	6' (1.8)
622651-10	3/4" (19.1)	1-3/16" (30.2)	3/4" NPT (M)	600 (41)	10' (3)
622651-15	3/4" (19.1)	1-3/16" (30.2)	3/4" NPT (M)	600 (41)	15' (4.6)
BUNA-N TUBE, NEOPRENE COVER					
2-FABRIC BRAID					
622201-3	1/4" (6.3)	5/8" (15.9)	1/4" NPT (M)	250 (17)	3' (0.9)
622201-5	1/4" (6.3)	5/8" (15.9)	1/4" NPT (M)	250 (17)	5' (1.5)
622201-25	1/4" (6.3)	5/8" (15.9)	1/4" NPT (M)	250 (17)	25' (7.6)

High pressure fluid regulators

The ARO I.D.L.[®] Fluid Regulator features smooth, consistent pressure regulation with easy-turn adjustment. Patented easy-access seat plug permits immediate service access to the regulator's ball and seat. Patented "floating" ball and seat design maintains proper regulation, even during significant fluctuations in line pressure.

Downstream regulators

Model no.	Housing base	Seat material	Regulated pressure range	Max. inlet pressure
3/8" ports, flow 11.4 L/min				
651780-A1A-B	Carbon steel	Tungsten carbide	28 - 86 bar	207 bar
651780-A1B-B	Carbon steel	Tungsten carbide	69 - 207 bar	414 bar
651780-A3A-B	Stainless steel	Tungsten carbide	28 - 86 bar	207 bar
651780-A3B-B	Stainless steel	Tungsten carbide	69 - 207 bar	414 bar
3/8" ports, flow 22.7 L/min				
651780-B1A-B	Carbon steel	Tungsten carbide	28 - 86 bar	207 bar
651780-B1B-B	Carbon steel	Tungsten carbide	69 - 207 bar	414 bar
651780-B3A-B	Stainless steel	Tungsten carbide	28 - 86 bar	207 bar
651780-B3B-B	Stainless steel	Tungsten carbide	69 - 207 bar	414 bar
3/4" ports, flow 75.7 L/min				
651780-C1B-B	Carbon steel	Tungsten carbide	52 - 172 bar	414 bar
651780-C1C-B	Carbon steel	Tungsten carbide	138 - 345 bar	414 bar
651780-C3B-B	Stainless steel	Tungsten carbide	52 - 172 bar	414 bar
3/8" ports, remote models, flow 22.7 L/min				
651780-B1R-B	Carbon steel	Tungsten carbide	28 - 345 bar	414 bar
651780-B3R-B	Stainless steel	Tungsten carbide	28 - 345 bar	414 bar
3/4" ports, remote models, flow 75.7 L/min				
651780-C1R-B	Carbon steel	Tungsten carbide	52 - 345 bar	414 bar
651780-C3R-B	Stainless steel	Tungsten carbide	52 - 345 bar	414 bar

* Flow rates tested in 55 cPs material

Backpressure regulators

Model no.	Housing base	Seat material	Regulated pressure range	Max. inlet pressure
3/8" ports, flow 22.7 L/min				
651781-B1B-B	Carbon steel	Tungsten carbide	7 - 207 bar	207 bar
651781-B3B-B	Stainless steel	Tungsten carbide	7 - 207 bar	207 bar
3/4" ports, flow 75.7 L/min				
651781-C1B-B	Carbon steel	Tungsten carbide	7 - 207 bar	207 bar
651781-C3B-B	Stainless steel	Tungsten carbide	7 - 207 bar	207 bar

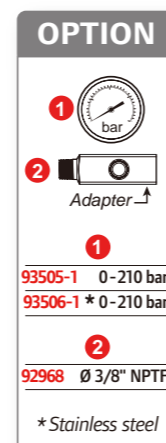
* Flow rates tested in 55 cPs material



651780-A1A-B



651780-B3R-B



Low pressure fluid regulators

Downstream regulators

Model no.	Housing base	Seat material	Regul. pressure range	Max. inlet pressure	Gauge pressure
3/8" ports, flow 11.4 L/min. Gauge included					
651790-A1B-B	Zinc aluminium	Tungsten carbide	0 - 2 bar	50 bar	0 - 4 bar
651790-A1C-B	Zinc aluminium	Tungsten carbide	1.3 - 4 bar	50 bar	0 - 4 bar
651790-A1D-B	Zinc aluminium	Tungsten carbide	3.4 - 14 bar	50 bar	0 - 20 bar
651790-A3B-B	Stainless steel	Tungsten carbide	0 - 2 bar	50 bar	0 - 4 bar
651790-A3C-B	Stainless steel	Tungsten carbide	1.3 - 4 bar	50 bar	0 - 4 bar
651790-A3D-B	Stainless steel	Tungsten carbide	3.4 - 14 bar	50 bar	0 - 20 bar
651790-A4B-B	Stainless steel	300 Stainless steel	0 - 2 bar	34 bar	0 - 4 bar
651790-A4C-B	Stainless steel	300 Stainless steel	1.3 - 4 bar	34 bar	0 - 4 bar
651790-A4D-B	Stainless steel	300 Stainless steel	3.4 - 14 bar	34 bar	0 - 20 bar
3/8" ports, flow 22.7 L/min. Gauge included					
651790-B1D-B	Zinc aluminium	Tungsten carbide	2 - 14 bar	86 bar	0 - 20 bar
651790-B1E-B	Zinc aluminium	Tungsten carbide	7 - 55 bar	86 bar	0 - 70 bar
651790-B3D-B	Stainless steel	Tungsten carbide	2 - 14 bar	86 bar	0 - 20 bar
651790-B3E-B	Stainless steel	Tungsten carbide	7 - 55 bar	86 bar	0 - 70 bar
651790-B4D-B	Stainless steel	300 Stainless steel	2 - 14 bar	34 bar	0 - 20 bar
3/8" ports, remote models, flow 11.4 L/min					
651790-A1R-B	Zinc aluminium	Tungsten carbide	2 - 14 bar	50 bar	—
651790-A3R-B	Stainless steel	Tungsten carbide	2 - 14 bar	50 bar	—
651790-A4R-B	Stainless steel	300 Stainless steel	2 - 14 bar	34 bar	—
3/8" ports, remote models, flow 22.7 L/min					
651790-B4R-B	Stainless steel	300 Stainless steel	2 - 14 bar	34 bar	—

* Flow rates tested in 30 wt. oil

Backpressure regulators

Model no.	Housing base	Seat material	Regul. pressure range	Max. inlet pressure	Gauge pressure
3/8" ports, flow 22.7 L/min. Gauge included					
651791-B1D-B	Zinc aluminium	Tungsten carbide	0 - 14 bar	14 bar	0 - 20 bar
651791-B1E-B	Zinc aluminium	Tungsten carbide	0 - 55 bar	55 bar	0 - 70 bar
651791-B3D-B	Stainless steel	Tungsten carbide	0 - 14 bar	14 bar	0 - 20 bar
651791-B3E-B	Stainless steel	Tungsten carbide	0 - 55 bar	55 bar	0 - 70 bar
651791-B4D-B	Stainless steel	300 Stainless steel	0 - 14 bar	14 bar	0 - 20 bar
1 1/4" ports, flow 70 L/min. Gauge included					
651791-C3D-B	Stainless steel	Tungsten carbide	0 - 14 bar	14 bar	0 - 20 bar
651791-C4D-B	Stainless steel	300 Stainless steel	0 - 14 bar	14 bar	0 - 20 bar

* Flow rates tested in 55 cPs material

1/4" Ports regulators

Model no.	Housing base	Seat material	Regul. pressure range	Max. inlet pressure
27520-400	Zinc	Tungsten carbide	0.3 - 2.0 bar	50 bar
27520-100	Zinc	Tungsten carbide	0.3 - 3.4 bar	50 bar
27520-000	Zinc	Tungsten carbide	0.3 - 8.5 bar	50 bar
27520-200	Zinc	Tungsten carbide	0.6 - 17 bar	50 bar



651790-A3D-B



651790-A3R-B



651791-B1D-B



27520-200

Extrusion guns

Extrusion nozzles kits and spray tips sold separately (see page 87)

Automatic guns

651511 Flow Gun

Requires 4-way air valve to open and close. Adjusting screw varies stroke length. Aluminum body with tungsten carbide seats.



651511

651513-11-B Flow Gun

Has air open, spring return actuator. Requires 3-way air valve to open. Adjusting screw varies stroke length. 316 stainless steel body with tungsten carbide seat.



661513-11-B

651536-1 Snuff-Back Gun

High flow automatic dispensing gun is designed to handle high-viscosity materials. Requires a 4-way air valve to open and close.



651536-1

651537-1 Flow Gun

Similar to 651511 except with carbon steel body and tungsten carbide ball and seat.

Model no.	Max. fluid pressure	Fluid inlet	Fluid outlet (ID and thread)	Air pressure - @Fluid pressure
661511	345 bar	2 x 3/8" NPTF	6 mm - 11/16" -16(M)	3.5- 140 bar
661513-11-B	345 bar	1/4" NPSM	2.3 mm - 11/16" -16(M)	3.5- 140 bar
651536-1	345 bar	2 x 3/8" NPTF	1/4" NPT (F)	3.5- 140 bar
651536-2	345 bar	2 x 3/8" NPTF	3/8" NPT (F)	3.5- 140 bar
651537-1	345 bar	2 x 3/8" NPTF	3/8" NPT (M)	3.5- 140 bar

Manual guns

651500 Flow Gun

Aluminum body* with tungsten carbide seats.



651533

651533 Flow Gun

Wetted parts are 316 series stainless steel with tungsten carbide seats.

641523-1 Flow Gun

Wetted parts are 300 Series stainless steel with PTFE packings.



651500

Model no.	Max. fluid pressure	Fluid inlet	Fluid outlet (ID and thread)
651500	515 bar	3/8" NPTF	6 mm - 11/16" -16(M)
651533	345 bar	1/4" NPSM	2.3 mm - 11/16" -16(M)
641523-1	205 bar	3/8" NPTF	6 mm - 1/4" NPT(F)

* Aluminum is not compatible with halogenated hydrocarbon solvents

Airless spray guns

Automatic guns

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 tip guard and nut.



651511-1

651513-12-B Spray Gun

Has air open, spring return cylinder. Requires 3-way air valve to open. Adjusting screw varies stroke length. 316 stainless steel body with tungsten carbide seat. Includes 66504 tip guard and nut.



651513-12-B

Model no.	Max. fluid pressure	Fluid inlet	Fluid outlet (ID and thread)	Air pressure - @Fluid pressure
661511-1	345 bar	2 x 3/8" NPTF	6 mm - 11/16" -16(M)	3.5- 140 bar
651513-12-B	345 bar	1/4" NPSM	2.3 mm - 11/16" -16(M)	3.5- 140 bar

Manual guns

651533 Spray Gun

Wetted parts of stainless steel with tungsten carbide seats. Used to airless spray paints, lacquers, and other light fluids. Includes 66504 tip guard and nut.



651533

651500-1 Spray Gun

Aluminum body* with tungsten carbide seats. Used for airless spraying material over 200,000 cPs. Includes 66504 tip guard and nut.



651500-1

Model no.	Max. fluid pressure	Fluid inlet	Fluid outlet (ID and thread)
651533	345 bar	1/4" NPSM	2.3 mm - 11/16" -16(M)
651500-1	515 bar	3/8" NPTF	6 mm - 11/16" -16(M)

* Aluminum is not compatible with halogenated hydrocarbon solvents

Extrusion gun nozzles – Airless spray tips

Extrusion gun nozzle kits

76751 Adapter – 1/4" NPTM to 11/16" -16(M) adapts 66541-XX extrusion nozzles to fluid outlet for 641523-1 and 651536-1 flow guns.



66541-XX

TC1850

66541-XX Extrusion nozzle kit

Used on manual or automatic extrusion guns. Hardened steel assembly includes nozzle and cap. 11/16-16 UN(F).

Model no.	66541-3	66541-4	66541-6	66541-9	66541-12	66541-15	66541-17	66541-18	66541-25	66541-37
Orifice Ø	0.8 mm	1.2 mm	1.6 mm	2.4 mm	3.2 mm	4.0 mm	4.4 mm	4.7 mm	6.4 mm	9.5 mm

Airless spray tips in tungsten carbide

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 104 bar at a 300 mm distance from the tip.

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

Model no.	Orifice Ø	Pattern width	Flow rate (l/min)			
			35 bar	69 bar	103 bar	138 bar
TC540	0.005	178	0.06	0.08	0.10	0.11
TC715	0.007	76	0.11	0.15	0.19	0.23
TC925 (1)	0.009	140	0.15	0.23	0.25	0.30
TC950	0.009	216	0.15	0.23	0.25	0.30
TC965	0.009	254	0.15	0.23	0.25	0.30
TC1115 (1)	0.011	76	0.23	0.30	0.38	0.46
TC1125 (1)	0.011	140	0.23	0.30	0.38	0.46
TC1140 (1)	0.011	178	0.23	0.30	0.38	0.46
TC1150 (1)	0.011	216	0.23	0.30	0.38	0.46
TC1165 (1)	0.011	254	0.23	0.30	0.38	0.46
TC1180	0.011	292	0.23	0.30	0.38	0.46
TC1325	0.013	140	0.34	0.46	0.57	0.68
TC1340 (1)	0.013	203	0.34	0.46	0.57	0.68
TC1350 (1)	0.013	229	0.34	0.46	0.57	0.68
TC1365 (1)	0.013	227	0.34	0.46	0.57	0.68
TC1380 (1)	0.013	330	0.34	0.46	0.57	0.68
TC1525 (1)	0.015	152	0.46	0.61	0.38	0.87
TC1540 (1)	0.015	208	0.46	0.61	0.38	0.87
TC1550 (1)	0.015	254	0.46	0.61	0.38	0.87
TC1565 (1)	0.015	305	0.46	0.61	0.38	0.87
TC1580 (1)	0.015	356	0.46	0.61	0.38	0.87
TC1595	0.015	394	0.46	0.61	0.38	0.87
TC1825 (1)	0.018	152	0.68	0.95	1.14	1.37
TC1840	0.018	216	0.68	0.95	1.14	1.37
TC1850 (1)	0.018	254	0.68	0.95	1.14	1.37
TC1865 (1)	0.018	330	0.68	0.95	1.14	1.37
TC1880 (1)	0.018	381	0.68	0.95	1.14	1.37
TC1895	0.018	432	0.68	0.95	1.14	1.37
TC2095	0.020	457	0.76	1.06	1.33	1.52

(1) For use with 651555-B Quick Clean only

Model no.	Orifice Ø	Pattern width	Flow rate (l/min)			
			35 bar	69 bar	103 bar	138 bar
TC2140 (1)	0.021	216	0.91	1.25	1.56	1.79
TC2150 (1)	0.021	292	0.91	1.25	1.56	1.79
TC2165 (1)	0.021	381	0.91	1.25	1.56	1.79
TC2180 (1)	0.021	432	0.91	1.25	1.56	1.79
TC2440 (1)	0.024	229	1.14	1.60	1.98	2.28
TC2465	0.024	381	1.14	1.60	1.98	2.28
TC2480	0.024	470	1.14	1.60	1.98	2.28
TC2495	0.024	533	1.14	1.60	1.98	2.28
TC2625	0.026	178	1.33	1.90	2.32	2.70
TC2650 (1)	0.026	305	1.33	1.90	2.32	2.70
TC2665 (1)	0.025	381	1.33	1.90	2.32	2.70
TC2680 (1)	0.026	470	1.33	1.90	2.32	2.70
TC2695	0.026	533	1.33	1.90	2.32	2.70
TC2965 (1)	0.029	381	1.71	2.39	3.04	3.42
TC2995	0.029	546	1.71	2.39	3.04	3.42
TC3140 (1)	0.031	229	2.01	2.85	3.50	4.18
TC3195	0.031	546	2.01	2.85	3.50	4.18
TC3640 (1)	0.036	229	2.70	3.80	4.56	5.32
TC3650	0.036	305	2.70	3.80	4.56	5.32
TC3680	0.036	470	2.70	3.80	4.56	5.32
TC4195	0.041	546	3.34	4.56	5.70	6.84
TC4340	0.043	229	4.18	5.70	6.84	7.98
TC4365	0.043	381	4.18	5.70	6.84	7.98
TC4895	0.048	559	4.56	6.46	7.98	9.50
TC5240	0.052	229	5.32	7.60	9.12	10.64
TC5265	0.052	381	5.32	7.60	9.12	10.64
TC6265	0.062	381	7.98	11.40	14.06	15.96
TC7265	0.072	381	10.64	15.20	18.62	15.96
TC8565	0.085	381	15.58	21.66	25.46	30.82

Spray gun accessories

Model	Description	For use 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 spraying heavy-viscosity material. Order tips separately.	• All manual/automatic spray guns
651551	Quick Clean Spray tip locked in operating position until reversed with lever for cleaning. For spraying heavy-viscosity material. Order TC-XXXX spray tip separately.	• 651500-1 guns • NOTE: To adapt 651551 to fit 651533, order 76555 pilot, 92367 retaining nut, Y167-1-1/8" (M) x 1/4" (F) adapter
65030-X-B	Swivel and Filter Assembly 1/4" NPT(M) x 1/4" NPS(F); swivels 360°. 6700-psi (462.3-bar) maximum working pressure	• All manual / automatic spray guns
65030-1-B	Swivel, no filter	—
65030-5-B	Swivel, 100-mesh stainless steel filter	—
65030-9-B	Swivel, 60-mesh stainless steel filter	—



651555-B

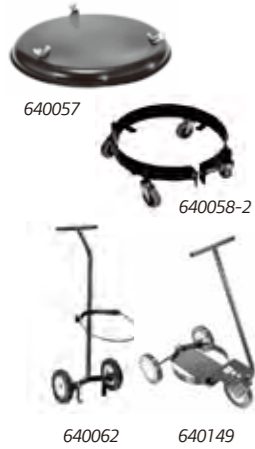


651551



65030-1

Dollies, Hand Trucks



DOLLIES

Model	Description	For use with:
640057	Platform-type dolly has four swivel casters and three drum clamps	• Steel or fiber drums • 16-gallon drums
640058-2	Band-type dolly has four rubber-wheeled casters and screw damp	• Steel or fiber drums • 16-gallon drums

HAND TRUCKS

Model	Description	For use with:
640062	Two-wheel truck has clamp rod and two base supports to hold drum; wheel are rubber	• 16-gallon drums
640149	Three-wheel truck includes hinged handle, swivel-type front wheel, and two 6" rubber rear wheels	• 16-gallon drums

Material heaters and filters



Fluid heaters

Cast aluminum with stainless steel fluid passages. Externally adjustable thermostat is variable from 15 C° to 120 C°. Explosion proof construction for Class 1, Group D hazardous environments. CSA approved.

Model no.	Voltage	AMPS	Accuracy	Temp. rise above ambient	Recovery	Working pressure	Fluid inlet /outlet
651747-1-B	120VAC	16.6 Amp	± 1.9° C	38° C	56.8 L/h	345 bar	1/2" NPTF
651747-2-B	240VAC	8.3 Amp	± 1.9° C	38° C	56.8 L/h	345 bar	1/2" NPTF
651747-3-B	440VAC	4.5 Amp	± 1.9° C	38° C	56.8 L/h	345 bar	1/2" NPTF

Material filters



Model no.	Inlet size / Quantity	Outlet size / Quantity	Max. fluid pressure	Filtration
Carbon steel				
651412	1/4" NPTF / 2	1/4" NPTF / 3	345 bar	200 microns
651412-8	1/4" NPTF / 2	1/4" NPTF / 3	345 bar	150 microns
Carbon steel, nickel plated				
651420-40	1/2" NPTF / 2	1/2" NPTF / 1	415 bar	375 microns
651420-70	1/2" NPTF / 2	1/2" NPTF / 1	415 bar	200 microns
651420-100	1/2" NPTF / 2	1/2" NPTF / 1	415 bar	150 microns
651418-40-B	1" NPTF / 2	3/8" NPTF / 3	415 bar	375 microns
651418-70-B	1" NPTF / 2	3/8" NPTF / 3	415 bar	200 microns
651418-100-B	1" NPTF / 2	3/8" NPTF / 3	415 bar	150 microns
651421-70	1" NPTF / 1	3/4" NPTF / 1	415 bar	200 microns
Stainless steel				
651422-40	1/2" NPTF / 2	1/2" NPTF / 1	415 bar	375 microns
651422-70	1/2" NPTF / 2	1/2" NPTF / 1	415 bar	200 microns
651422-100	1/2" NPTF / 2	1/2" NPTF / 1	415 bar	150 microns

Material filter screens

Model no.	Screen mesh	Filtration	Filter used with :
91192-2	70	200 microns	651412
91192-3	100	150 microns	651412
91192-4	200	75 microns	651412
93944-40	40	375 microns	651420 & 651422
93944-70	70	200 microns	651420 & 651422
93944-100	100	150 microns	651420 & 651422
93945-40	40	375 microns	651418
93945-70	70	200 microns	651418
93945-100	100	150 microns	651418

Oil control handles

Non-metered fluid control handles



Model	Description	Working pressure	Fluid inlet	Fluid outlet
High volume				
635193	Has flexible rubber hose with non-drip nozzle – use with 1:1 and 3:1 pumps.	41 bar Max.	3/4" NPTF	Non-drip tip
635395-2	Has flexible rubber hose with non-drip nozzle – use with 5:1 and 9:1 pumps.	63 bar Max.	3/4" NPTF	Non-drip tip
Standard volume				
635392	Has flexible rubber hose, built-in swivel, filter and non-drip nozzle.	69 bar Max.	1/2" NPTF	Non-drip tip
635399	Has flexible rubber hose, built-in swivel and right-angle non-drip nozzle.	69 bar Max.	1/2" NPTF	Non-drip tip
For water & antifreeze				
635129	Radiator type bibb – Zinc die casting with brass, and nitrile seals.	21 bar Max.	1/4" NPTF	Non-drip tip

Handles with preset metered flow control

Preset unit automatically shuts off when set quantity of fluid is delivered and meter indicator returns to zero.



Model	Description	Working pressure	Fluid inlet	Fluid outlet
635360-2	Digital totalizer registers up to 9.999 Liters.	69 bar Max.	1/2" NPTF	Non-drip flex extension
635360-22	Digital totalizer registers up to 9.999 Liters.	69 bar Max.	1/2" NPTF	Non-drip rigid extension
635367	Totalizer registers from 1 to 60 liters	69 bar Max.	1/2" NPTF	14 mm diameter non-drip tip

Digital metered fluid control handles

Our metered control handle features a patented oval gear wheel design for precise and reliable measurement. Its digital LCD readout operates on two standard alkaline batteries. This control handle is also available without meter.



Model	Max. flow rate	Working pressure	Fluid inlet	Fluid outlet
Metered handles				
635390-33	15 L	69 bar Max.	1/2" NPTF	Non-drip tip / rigid nozzle
635390-3	15 L	69 bar Max.	1/2" NPTF	Non-drip tip / flexible nozzle
635390-30	15 L	69 bar Max.	1/2" NPTF	Delivered without nozzle
Non metered handles				
635391-11	15 L	69 bar Max.	1/2" NPTF	Non-drip tip / rigid nozzle
635391-1	15 L	69 bar Max.	1/2" NPTF	Non-drip tip / flexible nozzle
Digital meter only				
635190-3	15 L	69 bar Max.	1/2" NPTF	—

Oil control handles (continued)

Non-drip Nozzle / Hose for motor oil, gear oil and transmission fluids



Model	Description	Fluid inlet	Length	Working pressure
629212	180°	3/4" NPT	300 mm	62 bar
629516	180°	1/2" NPT	330 mm	69 bar
629521	90°	1/2" NPT	380 mm	69 bar
6786	90° / Rigid	1/4" NPT	165 mm	69 bar
60798	180° / Rigid	1/2" NPT	130 mm	69 bar
629245-1	180°	1/2" NPT	381 mm	69 bar
629245-2	180° / Rigid	1/2" NPT	330 mm	69 bar

High-pressure grease control handles

Grease control handles

Model no. 636101

Dispenses lubricant at line pressure for lubricating grease fittings – Does not include nozzle or hydraulic coupler – For applications requiring high-flow capacity – Remove the 1/8" (M) x 3/8" (M) adapter for 3/8" (F) porting.

Model no. 636111

Dispenses lubricant at line pressure for lubricating grease fittings – Includes inlet material filter and curved nozzle with hydraulic coupler – Remove the 1/8" (M) x 3/8" (M) adapter for 3/8" (F) porting.

Model no. 636103

High-pressure booster handle delivers line pressure for normal lubrication – Trigger booster feature delivers 10,000 psi (690 bar) to loose tougher fittings – Includes curved nozzle with hydraulic coupler, inlet material filter and manual pressure vent for easy disconnection – Do not use with whip hose.



Model	Working pressure	Fluid inlet	Fluid outlet
636101	500 bar Max.	3/8" NPTF	11/16"-16 UN or 1/8" NPTF
636111	500 bar Max.	1/8" NPTM or 3/8" NPTF	Coupler
636103	500 bar Max.	1/8" NPTM or 3/8" NPTF	Coupler

Whip hose for grease control handles

Model no. 629742

Extra-long, wire braid whip hose with hydraulic coupler and swivel – Overall length 0.75 m – For use with coupler 636111 control handle – Allows operator to access hard-to-reach fittings.

Max. working pressure 345 bar, Fluid inlet 1/8" NPTF.



Low-Profile Dispensing Valves

Spray valves for the atomization of low-viscosity fluids

These compact, air-operated, automatic spray valves provide air-atomized application of low-viscosity fluids. They are designed to be used with either supply pumps or pressure tanks. Several unique design features seal the material from outside air and moisture and prevent premature curing of material, which allows for either continuous or intermittent use and reduces the need for daily cleanup.

Compact design provides mounting versatility

The narrow dimensions, block shape, and hose placement allow installation in narrow, recessed areas. Multiple valves can be grouped together in an area normally occupied by a single conventional spray valve.

Spray Patterns

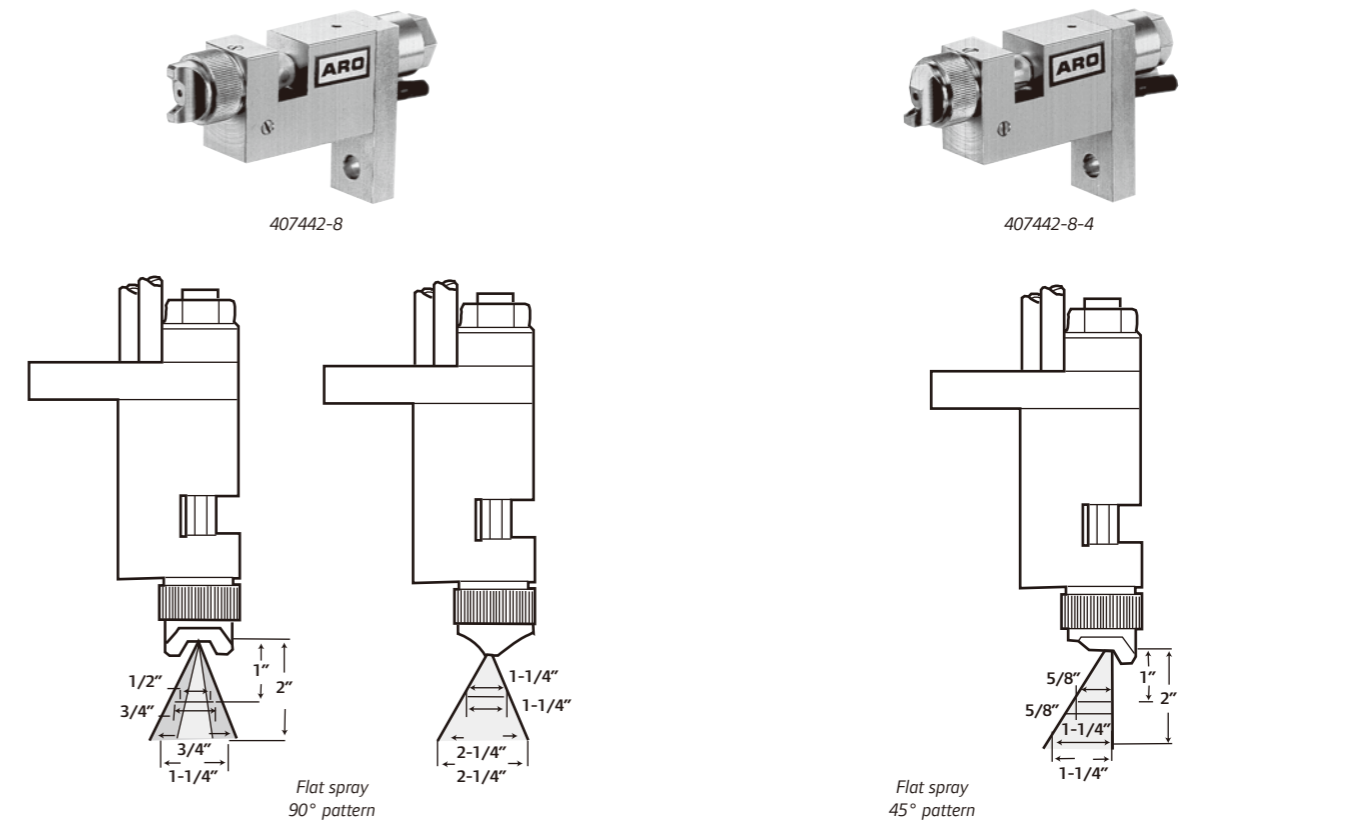
Unique spray patterns matched to application requirements

To meet the needs of your individual application, both flat and round spray patterns are available. For wide surface coverage with minimum film thickness, flat spray models are available in both 90 degree and 45 degree spray patterns. For a more focused pattern with a thicker film build or a conical substrate, the round spray models are the appropriate choice.

Extrusion valves for precise applications of bead patterns

For applications that require a precise bead of material rather than a sprayed coating, several extrusion valves are available. Like the spray valves, separate air pressure and material flow adjustments provide regulation of emissions for material savings and precise, accurate patterns.

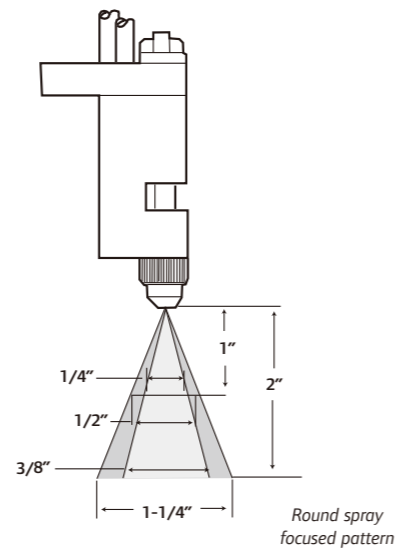
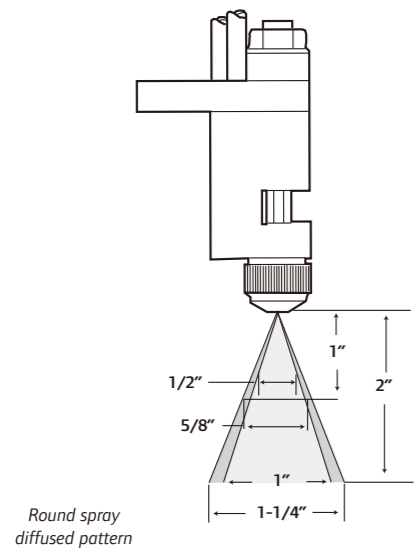
Multiple valves can be grouped together to achieve a multiple-bead pattern.



Model	Material Pressure psi (bar)	Control Air psi (bar)	Atomizing Air psi (bar)
407442-XX	15 (1.0)	55 (3.8)	20 (1.4)
	30 (2.1)	90 (6.2)	35 (2.4)

Model	Material Pressure psi (bar)	Control Air psi (bar)	Atomizing Air psi (bar)
407442-XX-4	15 (1.0)	55 (3.8)	20 (1.4)
	30 (2.1)	90 (6.2)	35 (2.4)

Model	Tip Diameter mm	Fluid Inlet NPT(M)	Atomizing Air Inlet NPT(M)	Control Air Inlet NPT(M)	Minimum Control Air Required psi (bar)	Max Fluid Operating Pressure psi (bar)	Recommended Range Atomizing Air Pressure psi (bar)
Flat Spray — 90° Pattern							
407442-8	0.8	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.5 – 37.5 (0.5 – 2.5)
407442-10	1	1/4"	1/4"	1/8"	55 (3.8)	180 (12)	7.5 – 37.5 (0.5 – 2.5)
407442-15	1.5	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.5 – 37.5 (0.5 – 2.5)
Flat Spray — 45° Pattern							
407442-8-4	0.8	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.5 – 37.5 (0.5 – 2.5)
407442-10-4	1	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.5 – 37.5 (0.5 – 2.5)
407442-15-4	1.5	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.5 – 37.5 (0.5 – 2.5)
Round Spray — Focused Pattern							
407443-8	0.08	1/4"	1/4"	1/8"	90 (6)	90 (6)	7.3 – 37.5 (0.5 – 2.5)
407443-12	1.2	1/4"	1/4"	1/8"	90 (6)	90 (6)	7.3 – 37.5 (0.5 – 2.5)
407443-20	2	1/4"	1/4"	1/8"	90 (6)	90 (6)	7.3 – 37.5 (0.5 – 2.5)
Round Spray — Diffused Pattern							
407441-8	0.08	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.3 – 37.5 (0.5 – 2.5)
407441-10	1	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.3 – 37.5 (0.5 – 2.5)
407441-15	1.5	1/4"	1/4"	1/8"	55 (3.7)	180 (12)	7.3 – 37.5 (0.5 – 2.5)
Extrusion ValveS							
407444-3	0.3	1/4"	1/4"	1/4"	90 (6)	1,000 (69)	None required
407444-5	0.5	1/4"	1/4"	1/4"	90 (6)	1,000 (69)	None required
407444-7	0.7	1/4"	1/4"	1/4"	90 (6)	1,000 (69)	None required



Model	Material Pressure psi (bar)	Control Air psi (bar)	Atomizing Air psi (bar)
407441-XX	15 (1.0)	55 (3.8)	20 (1.4)
407446-XX	30 (2.1)	90 (6.2)	35 (2.4)

Model	Material Pressure psi (bar)	Control Air psi (bar)	Atomizing Air psi (bar)
407443-XX	15 (1.0)	55 (3.8)	20 (1.4)
	30 (2.1)	90 (6.2)	35 (2.4)

Swivels

Swivels are used to give mobility and flexibility for material hoses and dispensing guns. Select the proper working pressure and check the compatibility of the seals with the material being pumped.

Model	Thread Size NPT x NPT in	Type of Seals	Max Working Pressure psi (bar)
STRAIGHT SWIVEL			
636075	1/8" (M) x 1/8" (F)	Fabric with neoprene	10,000 (689.4)
636085	3/8" (M) x 3/8" (F)	Fabric with neoprene	10,000 (689.4)
635107	3/8" (M) x 1/2" (F)	Fabric with neoprene	2,000 (137.8)
635117	1/2" (M) x 1/2" (F)	Fabric with neoprene	2,000 (137.8)
635108	3/4" (M) x 3/4" (F)	Fabric with neoprene	1,000 (68.9)
Z 360° SWIVEL			
636077	1/8" (M) x 1/8" (F)	Fabric with neoprene	10,000 (689.4)
636083	1/8" (F) x 3/8" (F)	Fabric with neoprene	10,000 (689.4)
636084	1/8" (F) x 1/4" (F)	Fabric with neoprene	10,000 (689.4)
636086-B	1/4" (F) x 1/4" (M)	Fabric with neoprene	6,700 (461.8)
636087-B	1/4" (F) x 1/4" (M)	Fabric with neoprene Includes 67176-5 edge-type filter element	6,700 (461.8)
636088	3/8" (M) x 3/8" (F)	Fabric with neoprene	10,000 (689.4)
635106	1/2" (F) x 3/8" (M)	Fabric with neoprene	10,000 (689.4)



636075



636077

Agitators

Model	Container Size gal	Drum Cover	Air Motor Number	hp (kW)	Motor rpm	Mount	Diameter in (mm)	Length in (mm)	Rod Model	Material
651100	5	651851 drum cover	650252	1/3 (.25)	500 – 1,000	Hub	1/2" (12.7)	12" (305)	92094-4	416 stainless steel
651104-3	5	drum cover	650250	3/4 (0.56)	300 – 3,000	Flange	1/2" (12.7)	10.5" (267)	92094-3	316SS stainless steel
60307-1	55	61729, 66197 drum cover	650250	3/4 (.56)	300 – 3,000	Flange	1/2" (12.7)	32" (813)	73120	Carbon steel
651103	55	Drum side mount	650250	3/4 (.56)	300 – 3,000	Flange	1/2" (12.7)	32" (813)	92094-1	316 stainless steel
651104-1	55	66197 drum cover	650250	3/4 (.56)	300 – 3,000	Flange	1/2" (12.7)	32" (813)	92094-1	316SS stainless steel

Propeller Specifications

Model	Number of Props	Diameter in (mm)	Prop Number	Material	Prop Direction
651100	1	4" (102)	94783-1	316 stainless steel	CCW
651104-3	1	5" (127)	94783-1	316 stainless steel	CCW
60307-1	2	5" (127)	73121, 73122	316 stainless steel	CCW
651103	2	5" (127)	94783-1	316 stainless steel	CCW
651104-1	2	5" (127)	94783-1	316 stainless steel	CCW



651100



651103



651104-3



651104-1

Airline accessories



ARO Stop® over-run controls

ARO-STOP® Valve shuts off air to the pump when material container is empty or line is broken. Quick set and reset feature.

Model no.	Compatible air motor size	Air inlet / outlet	Pressure range
635040	2" & 3"	1/4" NPT(F) / 1/4" NPT(M)	1.4 - 12 bar
23644-400	4 1/4", 6"	1/2" NPT(F) / 1/2" NPT(M)	1.4 - 12 bar
635043	8", 10" & 12"	3/4" NPT(F) / 3/4" NPT(M)	1.4 - 12 bar

Air Motor Mufflers

Reduces air exhaust noise level to acceptable OSHA standards.



Model no.	Compatible air motor size	Diameter	Length
67445-1	4 1/4"	133 mm	393 mm
67445-2	6"	133 mm	419 mm
67445-3	8"	133 mm	444 mm
67445-4	10"	133 mm	470 mm
67445-5	12"	133 mm	495 mm

Air filters regulators

The ARO-Flo Series units extend the life of air operated equipment while reducing operating costs.

- Max. inlet pressure: 17 bar (250 psi).
- Filter element 5 μ.
- Metallic bowl (with sight glass on 1/2" and 3/4" models).
- Gauge.
- Temperature range: -18°C to +79°C.



P39124-620



P39344-610



P39454-610

Model no.	Used with motor:	Air inlet	Pressure range	Max. flow	Bowl capacity (F / L)	Width, height, depth
P39124-620	2" & 3"	1/4" NPT	0 - 10 bar	22 l/s	11 ml	40 x 157 x 74 mm
P39344-610	4 - 1/4" & 6"	1/2" NPT	0 - 10 bar	81 l/s	68 ml	70 x 225 x 80 mm
P39454-610	8", 10" & 12"	3/4" NPT	0 - 10 bar	111 l/s	150 ml	90 x 347 x 104 mm



Filter element 40 μ

Air control needle valve



104104-N02

104393-5

Model no.	For use with FRL:
104296	P39124-620 (1/4")
104318	P39344-610 (1/2")
104446	P39454-610 (3/4")

Model no.	Port size	Compatible air motor size
Needle valve		
104104-N02	1/4" NPT	2" & 3"
104104-N52 (1)	1/4" NPT	2" & 3"
104104-N04	1/2" NPT	4 1/4" & 6"
104104-N06	3/4" NPT	8" 10" & 12"
Lock-out valve		
104390-2	1/4" NPT	2" & 3"
104392-4	1/2" NPT	4 1/4" & 6"
104393-5	3/4" NPT	8" 10" & 12"

(1) Stainless steel needle and inserts.

Applications of the lubrication pumps



Ingersoll Rand / ARO lubrication equipment reflects the same high standards of performance as the Ingersoll Rand / ARO Process Diaphragm and Piston Pumps., with a full range of products that will keep all types of fluids moving efficiently. They are backed by more than 70 years of experience in pump and air system technology, and include models specifically designed for popular applications. They include:

- **Oil Pumps & Packages:** Piston and diaphragm pumps to handle all types of motor oil, gear oil, and transmission type fluids - These pumps are designed to pump from different sized drums and tank units.
- **Grease Pumps & Packages:** Grease pumps and packages designed to handle different drum sizes and applications in the workplace.
- **Speciality pumps:** Pump designed for high pressure cleaning. Wash pump can handle degreasers, detergents, cleaning solutions, water and metal brighteners etc.



Oil
Grease

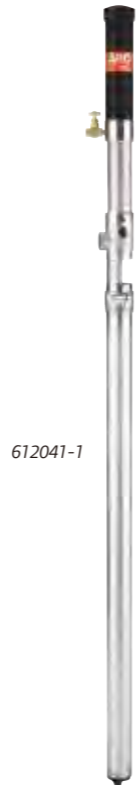
6120 Series

Lubrication piston pumps

Oil pumps

1:1 ratio pumps ideal for pumping motor oil, gear oil, and transmission fluids. Models available for 200 L and 1000 L drums (bung adaptor included).

612041-X	
?:1	1:1
Motor	2" (51 mm)
Max. bar	0 - 10.3 bar
Max. bar	0 - 10.3 bar
1 min.	18.5 l/min (23.1 L/min. MAX)
AIR	1/4" NPT(F)
	Immersed
	3/4" NPT(F)



612041-1



612042-1

Pump model no.	Type	Plunger material	Packings	ServiceKit (1)
Carbon steel pump				
612041-1	For 200 L drum	Carbon steel	Buna	637081
612041-3	For 200 L drum		PTFE	637083
612042-1	Stub (wall mount)		Buna	637081

(1) Lower pump repair kit

Oil
Grease

LM Series

Lubrication piston pumps

Standard features

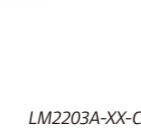
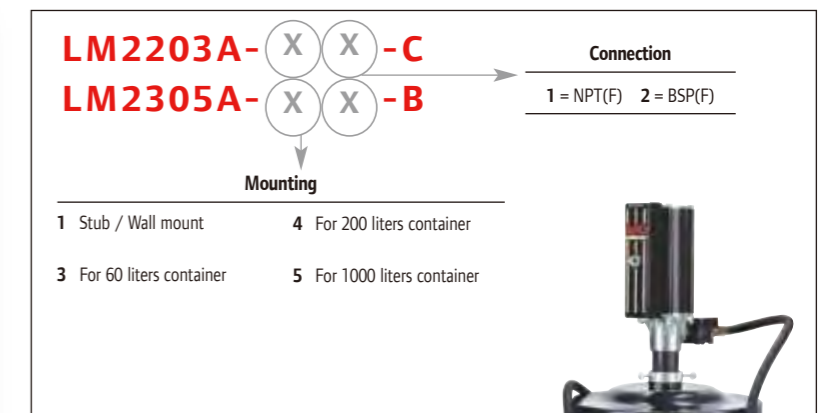
LM Series piston pumps deliver unmatched industrial-strength performance for pumping fluids with sizes to fit small (60 L oil / 16 kg grease) or large (1000 L oil / 180 kg grease) containers.

- Pump's patented design improves flow, reduces pulsation, and extends service life.
- Offers simple self-service maintenance due to advanced design with 50% fewer parts.
- Reduces service time, due to in-line service design with no special tools required.
- Features stall-free, ice-free air motor with tough, durable housing.

Oil pumps

	LM2203A-XX-C	LM2305A-XX-B
?:1	3:1	5:1
Max. bar	0 - 10.3 bar	0 - 10.3 bar
Max. bar	0 - 31 bar	0 - 51.7 bar
1 min.	23 l/min (34 L/min. MAX)	23 l/min (34 L/min. MAX)
AIR	1/4" NPT(F)	1/4" NPT(F)
	3/4"	1 1/2"
	1/2" NPT(F)	1/2" NPT(F)

Ordering menu



LM2203A-XX-C



LM2305A-11-B



LP3101-1-B

Oil pump packages

Model	Mounting	Pump model	Meter (in L)	Control handle	Dolly	Drum cover	Hose	Valve
3:1 2" Air motor								
LP2100-1-B	60 L container	LM2203A-31-C	635190-1	635391-1	640058-2	94421	623501-6	67086
LP2101-1-B	60 L container	LM2203A-31-C	635190-3	635391-1	640058-2	94421	623501-6	67086
5:1 3" Air motor								
LP3100-1-B	60 L container	LM2305A-31-B	635190-1	635391-1	640058-2	94421	623501-6	—
LP3101-1-B	60 L container	LM2305A-31-B	635190-3	635391-1	640058-2	94421	623501-6	—

Oil
Grease

LM Series

Lubrication piston pumps

Grease pumps



	LM2250E-XX-B	LM2350E-XX-B
?:1	50:1	50:1
Max. bar	0 - 10.3 bar	0 - 10.3 bar
Max. bar	0 - 515 bar	0 - 515 bar
1 min.	1 kg/min (4 kg/min. MAX)	2 kg/min (3.4 kg/min. MAX)
AIR	1/4"	1/4"
	3/8"	3/8"

Ordering menu

LM2250E-X X -B
LM2350E-X X -B

Connection
1 = NPT(F) 2 = BSP(F)

Mounting*

2 For 16 kg container 4 For 180 kg container
3 For 55 kg container 6 For 27 kg container

* 2" NPSM bung adapter

Grease pump packages

Model	Mounting	Pump model	Control handle	Dolly	Drum cover	Hose	Follower plate	Adapter	Z-Swivel
50:1 2" Air motor									
LP2001-1-B	16 kg container	LM2250E-21-B	—	—	94420	—	640095-2-B	—	—
LP2002-1-B	16 kg container		636111	—	94420	624201-10	640095-2-B	76493	636077
LP2003-1-B	55 kg container		—	—	94421	—	640165	—	—
LP2004-1-B	55 kg container	LM2250E-31-B	636111	—	94421	624201-10	640165	76493	636077
LP2006-1-B	55 kg container		636111	640058-2	94421	624201-10	640165	76493	636077
LP2007-1-B	55 kg container		636111	640062	94421	624201-10	640165	76493	636077
LP2009-2-B	17.5 kg container	LM2250E-22-B	80192206	80192305	80192222	80192412	80192420	80192214	With in control handle
LP2010-2-B	25 kg container		80192206	80192305	80192222	80192412	80192370	80192214	With in control handle
50:1 3" Air motor									
LP3001-1	16 kg container	LM2350E-21-B	636103	—	94420	624201-10	640095-2-B	76493	636077
LP3002-1	55 kg container	LM2350E-31-B	—	—	94421	624401-4	640165	—	—
LP3003-1	55 kg container		636103	640057	94421	624201-10	640165	76493	636077
LP3004-1	55 kg container		636111	640058-2	94421	624201-10	640165	76493	636077
LP3005-1	180 kg container	LM2350E-41-B	—	—	94422	624401-4	—	—	—
LP3006-1	55 kg container	LM2350E-31-B	636103	640062	94421	624201-10	640165	76493	636077
LP3007-1	27 kg container	LM2350E-61-B	636111	—	62050	624401-6	—	—	636077
LP3008-1	16 kg container	LM2350E-21-B	—	—	94420	624201-10	640095-2-B	76493	—
LP3009-1	180 kg container	LM2350E-41-B	—	—	94422	624401-4	640015-1	—	—

Oil
Grease

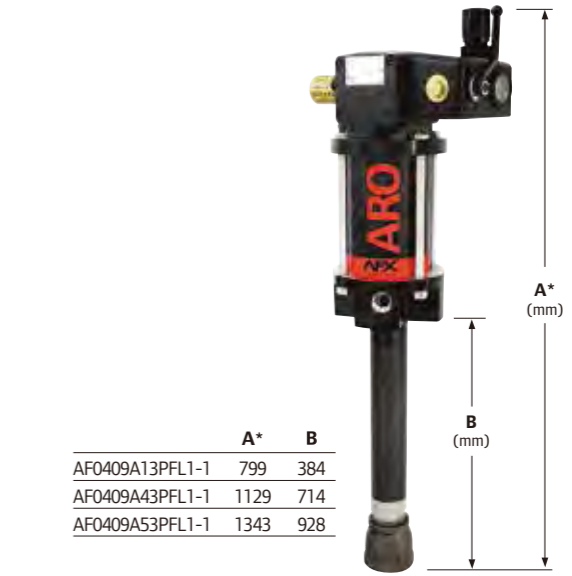
AFX Series

Heavy service lubrication pumps

Oil pumps

9:1 pump ratio and 4 1/4" (108 mm) diameter air motor. These pumps are ideal for pumping heavy oils over long distances.

AF0409AXXPFL1-1	
?:1	9:1
Motor	4 1/4" (108 mm)
Max. bar	0 - 10.3 bar
Max. bar	0 - 93 bar
1 min.	14.8 l/min
AIR	1/2" NPT(F)
	Immersed
	3/4" NPT(F)
	15.4 kg (Stub; 60L) 16.3 kg (200L)



	A*	B
AF0409A13PFL1-1	799	384
AF0409A43PFL1-1	1129	714
AF0409A53PFL1-1	1343	928

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. (1)	Type	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (2)
Carbon steel pump					
AF0409A13PFL1	Stub (wall mount)	60873	Carbon steel	Polyurethane + UHMW-PE	637486
AF0409A43PFL1	For 60 L drum	65033-1			637486
AF0409A53PFL1	For 200 L drum	65033			637486

(1) Add "-1" to Model No. for Ball Valve Regulator
(2) Lower pump repair kit

Oil pump package



DM0409A53PFL1000

Model	Type	Pump model	Bung adapter	Material hose	Air hose	Material	Weight
DM0409A53PFL1000	For 200 L drum	AF0409A53PFL1	60869	623501-8	621501-5	Aluminum	23.6 kg

Oil
Grease

AFX Series

Heavy service lubrication pumps

Grease pumps

These pumps are ideal where high pressures are demanded. When higher viscosity lubricants are being pumped, follower plates help maintain a good pump prime and continuous material flow.

	AF0450LX3PKL1-1	AF060BLX3PKL1-1
	50:1	100:1
	4 1/4" (108 mm)	6" (152 mm)
	0 - 10.3 bar	0 - 6.9 bar
	0 - 515 bar	0 - 690 bar ⁽¹⁾
	2.70 kg	0.95 kg
	1/2" NPT(F)	1/2" NPT(F)
	Immersed	
	1/2" NPT(F)	1/2" NPT(F)
	15.0 kg(20L) 15.9 kg(60L) 17.2 kg(200L)	18.6 kg(60L) 19.5 kg(200L)



	A*	B
AF0450L23PKL1-1	944	551
AF0450L43PKL1-1	1142	750
AF060BL43PKL1-1	1069	676
AF0450L53PKL1-1	1349	956
AF060BL53PKL1-1	1318	926

Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Pump model no. ⁽¹⁾	Type	Plunger material	Packings (upper + lower)	ServiceKit ⁽²⁾
Carbon steel pump				
AF0450L23PKL1	For 20 L pail	Carbon steel	Polyurethane + Glass-filled PTFE	637485
AF0450L43PKL1	For 60 L drum			637485
AF060BL43PKL1 ⁽³⁾				637483
AF0450L53PKL1	For 200 L drum			637485
AF060BL53PKL1 ⁽³⁾				637483

(1) Add "-1" to Model No. for Ball Valve Regulator

(2) Lower pump repair kit.

(3) WARNING: These 100:1 pumps deliver pressures up to 690 bar, which is in excess of the rated capacity of the accessories shown in this catalogue. They can only be used in permanently installed, where the pump is connected directly to piping with the proper rating for the application.

Grease pump packages



Model	Type	Pump model	Drum cover	Bung adapter	Material hose	Air hose	Follower plate	Weight
PM0450L23PKL1C10	For 20L drum	AF0450L23PKL1	80192222	67145-5	67468	—	651900	30.0 kg
DC0450L53PKL1000	For 200 L drum	AF0450L53PKL1	60898	4148	624401-8	621501-5	—	25.4 kg
DM0450L53PKL1000		AF0450L53PKL1	—	4148	624401-8	621501-5	—	24.5 kg
DC060BL53PKL1C11		AF060BL53PKL1-1	71060-1	60870	—	—	640015-5	43.5 kg
DC060BL43PKL1C11	For 60 L drum	AF060BL43PKL1-1	66715	—	—	—	640152-1	31.7 kg

Model	Type	Pump model	RAM model	Follower plate (model, seal and material)	Weight
SP0450L23PKL1E32	20 L / single-post RAM	AF0450L23PKL1	RM051S-C	651901 Single lip, polyethylene/urethane Carbon steel, nickel plated	57.0 kg

Pump accessories	
67445-1	High performance muffler
23644-400	AroStop valve
637489	Universal motor service kit
P39344-100	Air filter/regulator
104327	Filter/regulator repair kit
67442	Ball Valve Regulator



Specialty application pumps

Specifications	
?:1	9:1
Motor	4 1/4" (108 mm)
AIR	1/2" NPT(F)
Max. bar	0 - 10.3 bar
89.2 dBA @ 4.1 bar	
Max. bar	0 - 103 bar
1 min.	14.8 l/min.
1 cycle	180 cc
3/8" NPT(F)	
15.9 kg	



Model shown w/ball valve regulator
*For models without ball valve regulator subtract 52.83mm

Wash pump

Perfect for cleaning:

- Cars, trucks and engines
- Construction equipment
- Aircraft
- Farm equipment
- Plant structures
- Railroad equipment

With the application of:

- Degreasers
- Detergents
- Cleaning solutions
- Water
- Metal brighteners
- Aluminum brighteners

Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
AF0409C81BBW2	1875C81BBW2	316 stainless steel	316 stainless steel	Buna "N" + Buna "N"	K1875C81BB00

(1) Lower pump repair kit

Wash pump package



Model	Type	Pump model	Wall bracket	Suction tube	Control handle	Spray tip	Weight
WP0409C81BBW2000	Wash pump package	AF0409C81BBW2	61113	61139-1	641523	TP6250-18	35.8 kg

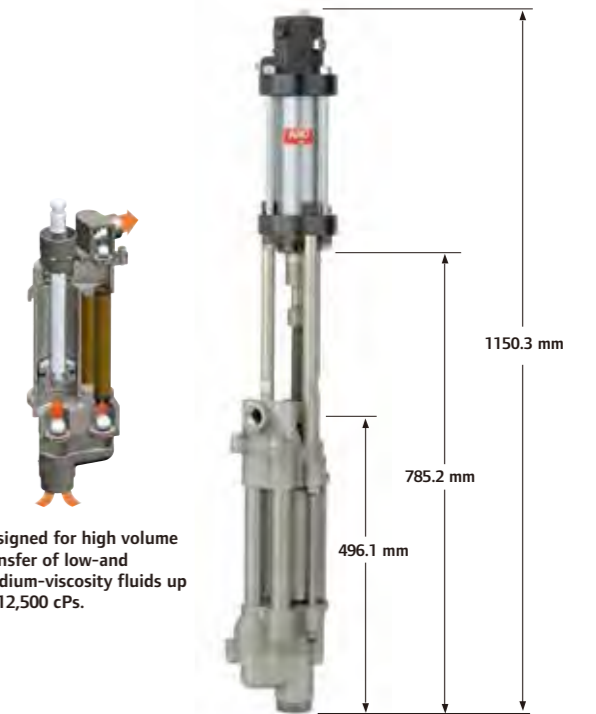
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84.9 l/min

Hydraulic Pumps

4-ball piston pump

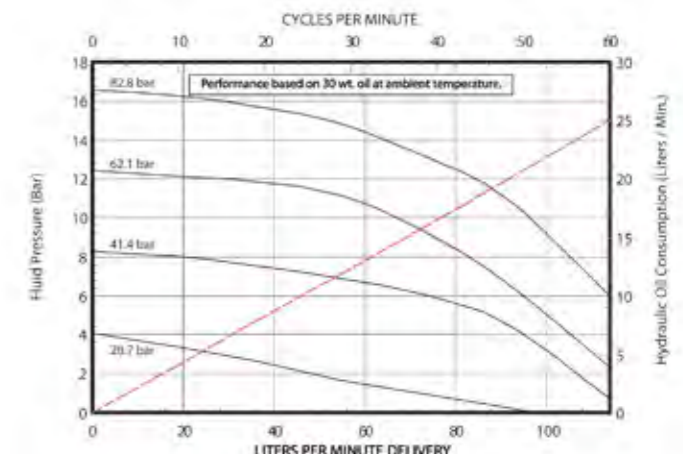
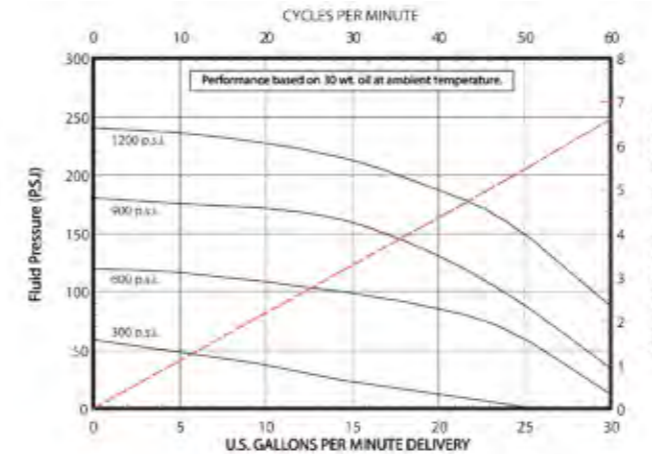
Specifications			
?:1	0.2:1	Max. bar	0.7 - 19.2 bar
Motor	2.062" (52 mm)	Cycle/min.	50 cycles/min.
Motor	5.7" (144 mm)	1 min.	84.9 l/min. @50 cycles/min.
AIR	3/8" NPT(F)	1 cycle	1698 cc
Max. bar	3.4 - 82.8 bar	For 1 litre	0.5 cycle
oil	1/2" NPT(F)		1 1/2" NPT(F) / 2" NPT(M)
Max. °C	54°C		1" NPT(F)
32.7 kg			



Designed for high volume transfer of low-and medium-viscosity fluids up to 12,500 cPs.

Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
650950-C4B	67201-C4B	300 Series / CF8M stainless steel	17-4 stainless steel with ceramic coating	UHMW-PE + UHMW-PE	637318-C4B
650950-P4B	67201-P4B			UHMW-PE/glass-filled PTFE + UHMW-PE	637318-P4B
650950-R4B	67201-R4B			Glass-filled PTFE / UHMW-PE staggered + Virgin PTFE	637318-R4B

(1) Lower pump repair kit



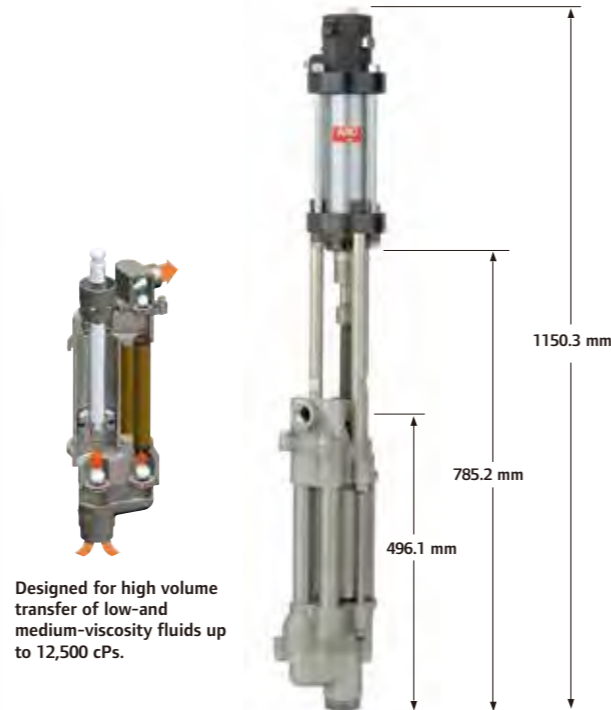
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64.4 l/min

Hydraulic Pumps

4-ball piston pump

Specifications			
?:1	0.3:1	Max. bar	1.0 - 26.6 bar
Motor	2.062" (52 mm)	Cycle/min.	50 cycles/min.
Motor	5.75" (146 mm)	1 min.	64.4 l/min. @50 cycles/min.
AIR	3/8" NPT(F)	1 cycle	1288 cc
Max. bar	3.4 - 82.8 bar	For 1 litre	0.77 cycle
OIL	1/2" NPT(F)		1 1/2" NPT(F) / 2" NPT(M)
Max. °C	54 °C		1" NPT(F)
Weight	31.8 kg		



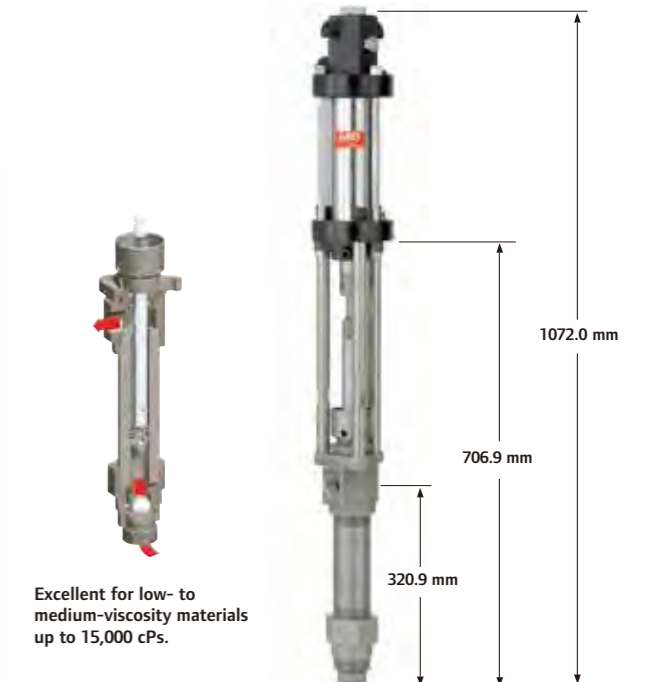
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11.9 l/min

Hydraulic Pumps

2-ball piston pump

Specifications			
?:1	0.58:1	Max. bar	5.9 - 141.7 bar
Motor	2.062" (52 mm)	Cycle/min.	50 cycles/min.
Motor	6" (152 mm)	1 min.	11.9 l/min. @50 cycles/min.
AIR	3/8" NPT(F)	1 cycle	237.6 cc
Max. bar	3.4 - 82.8 bar	For 1 litre	4.2 cycle
OIL	1/2" NPT(F)		1 1/2" NPT(F) / 2" NPT(M)
Max. °C	54 °C		1" NPT(F)
Weight	18.7 kg		

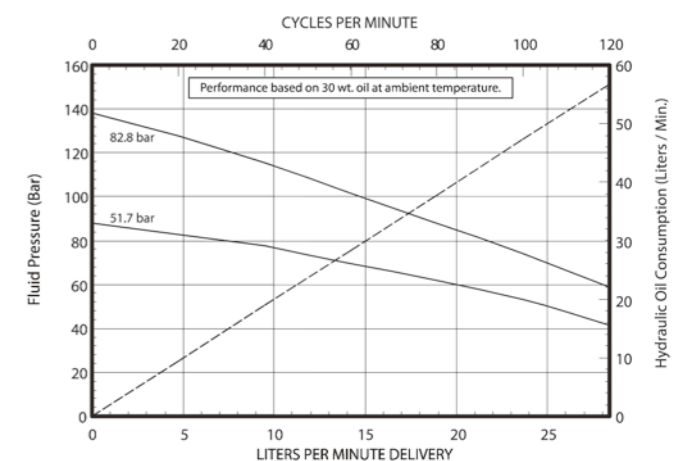
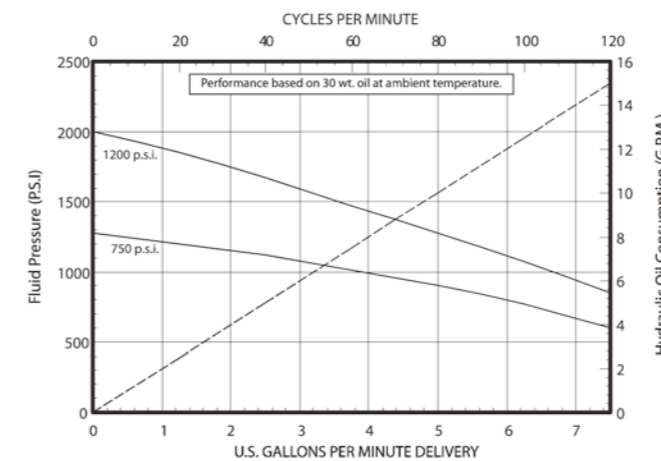
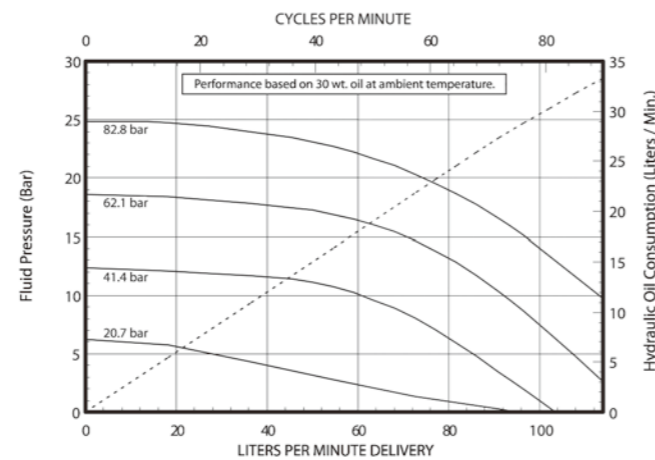
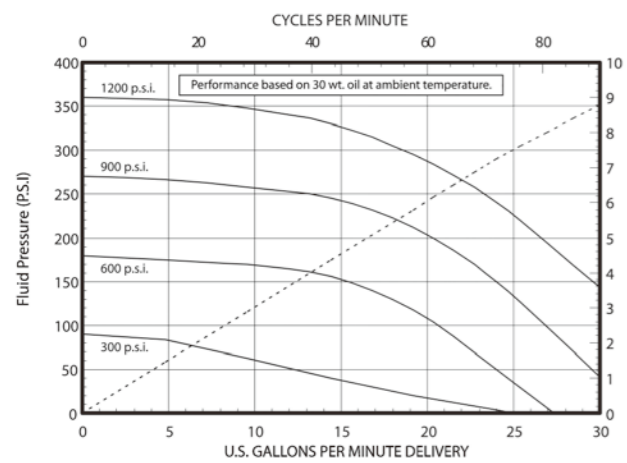


Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
650949-C4B	67200-C4B	300 Series / CF8M stainless steel	17-4 stainless steel with ceramic coating	UHMW-PE+UHMW-PE	637317-C4B
650949-74B	67200-74B		Glass-filled PTFE + Virgin PTFE	637317-74B	
650949-R4B	67200-R4B		UHMW-PE/glass-filled PTFE + UHMW-PE	637317-R4B	

(1) Lower pump repair kit

Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
650943-343-B	66300-343	300 Series stainless steel with tungstene carbide seat	17-4 stainless steel / hard chrome	Glass-filled PTFE (upper & lower)	637305-343

(1) Lower pump repair kit



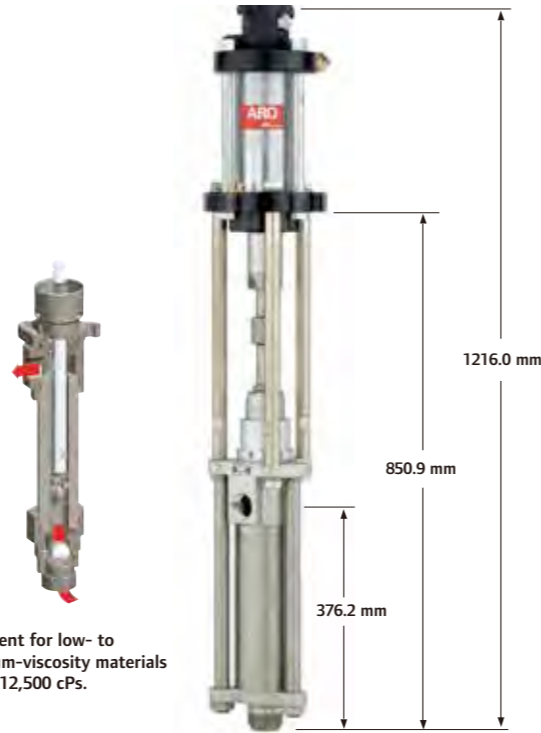
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48.8 l/min

Hydraulic Pumps

2-ball piston pump

Specifications			
?:1	0.8:1	Max. bar	2.8 - 110.3 bar
Motor	4.125" (105 mm)	Cycle/min.	50 cycles/min.
Motor	6" (152 mm)	1 min.	48.8 l/min. @50 cycles/min.
AIR	1/2" NPT(F)	1 cycle	976.6 cc
Max. bar	3.4 - 137.9 bar	For 1litre	1 cycle
OIL	3/4" NPT(F)		2" NPT(M)
Max. °C	54°C		1 1/4" NPT(F)
Weight	63.5 kg		



Excellent for low- to medium-viscosity materials up to 12,500 cPs.

1.2:1

33.1 l/min

Hydraulic Pumps

Chop check extrusion pump

Specifications			
?:1	1.2:1	Max. bar	4.1 - 184.1 bar
Motor	4.125" (105 mm)	Cycle/min.	50 cycles/min.
Motor	6" (152 mm)	1 min.	33.1 l/min. @50 cycles/min.
AIR	1/2" NPT(F)	1 cycle	648.7 cc
Max. bar	3.4 - 137.9 bar	For 1litre	1.5 cycle
OIL	3/4" NPT(F)		Flange mount
Max. °C	54°C		1 1/2" NPT(F)
Weight	65.3 kg		



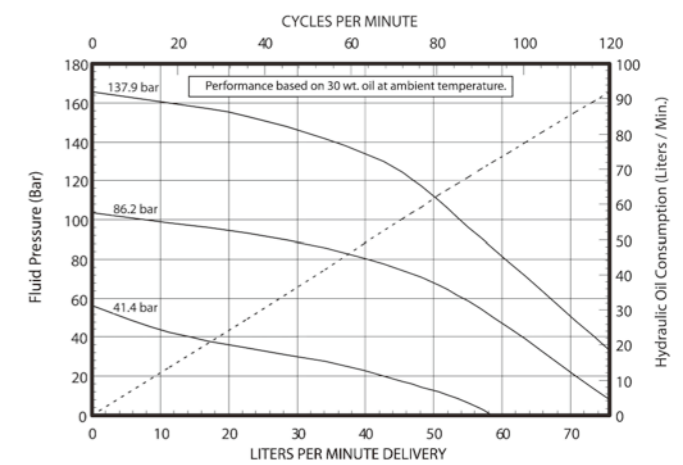
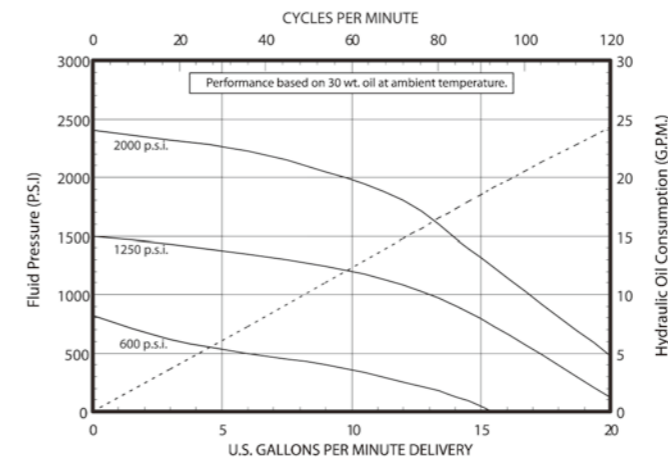
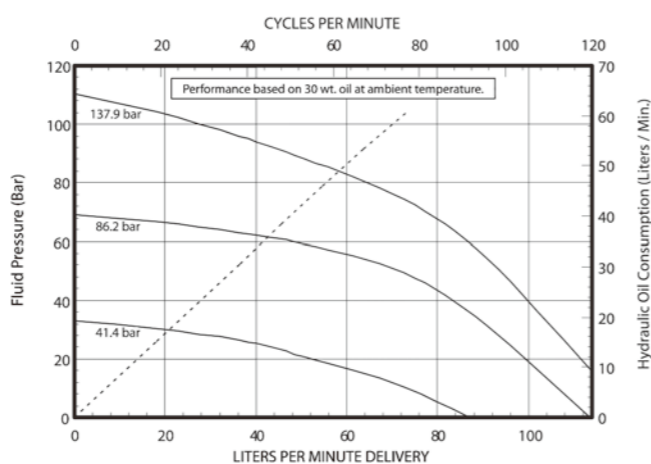
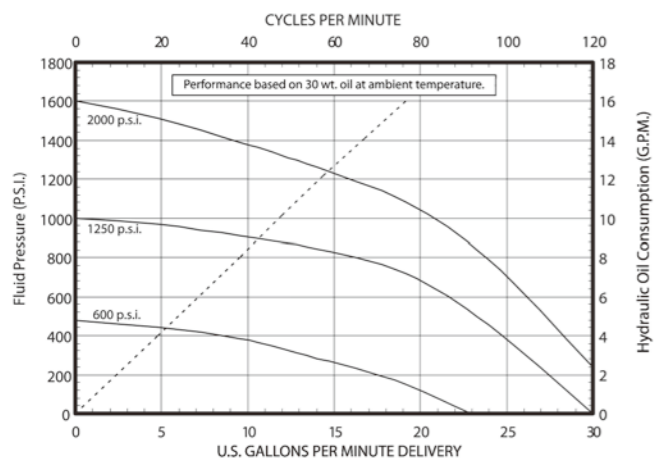
Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 125,000 cPs.

Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)
650940-C6D	66941-C6D	400 stainless steel	UHMW-PE +UHMW-PE	637211-C63
650940-L6D	66941-L6D		Mineral-filled PTFE (upper & lower)	637211-L63
650940-P6D	66941-P6D		UHMW-PE/glass-filled PTFE + UHMW-PE	637211-P63
650940-R6D	66941-R6D		Glass-filled PTFE / UHMW-PE staggered + Virgin PTFE	637211-R63
650940-CDD	66941-CDD	15-5 stainless steel / hard chrome	UHMW-PE +UHMW-PE	637211-C63
650940-LDD	66941-LDD		Mineral-filled PTFE (upper & lower)	637211-L63
650940-PDD	66941-PDD		UHMW-PE/glass-filled PTFE + UHMW-PE	637211-P63
650940-RDD	66941-RDD		Glass-filled PTFE / UHMW-PE staggered + Virgin PTFE	637211-R63
		400 Series stainless steel with tungstene carbide seat		

Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
650941-F4E-C	66236-F4E-B	Carbon steel, nickel plated	Carbon steel / hard chrome	UHMW-PE / Leather staggered + UHMW-PE	637128-F44-B

(1) Lower pump repair kit

(1) Lower pump repair kit

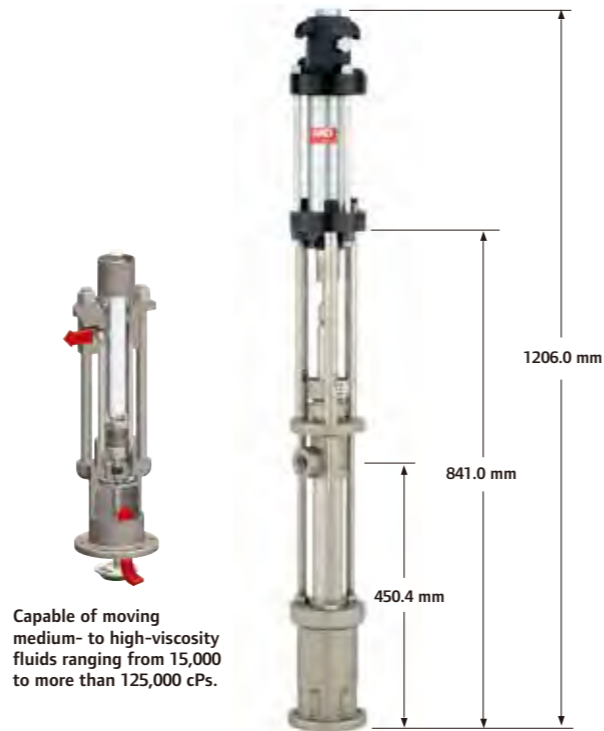


2:1
10.2 l/min

Hydraulic Pumps

Chop check extrusion pump

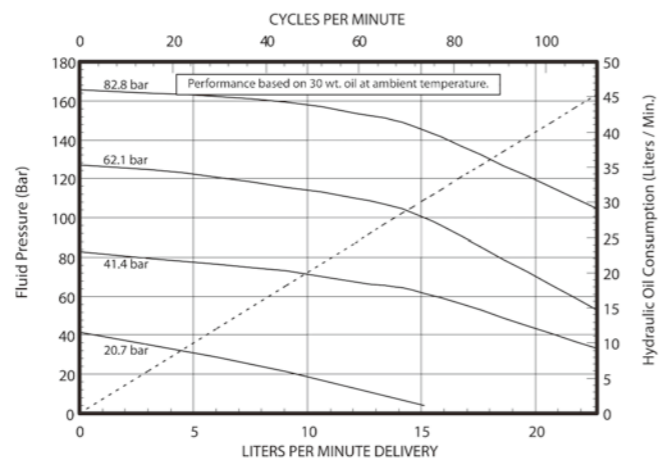
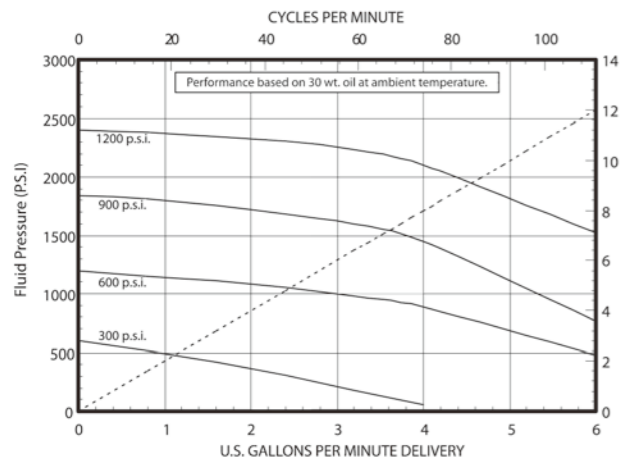
Specifications			
?:1	2:1	Max. bar	6.9 - 165.5 bar
Motor	2.026" (52 mm)	Cycle/min.	50 cycles/min.
Motor	6" (152 mm)	1 min.	10.2 l/min. @50 cycles/min.
AIR	3/8" NPT(F)	1 cycle	204.8 cc
Max. bar	3.4 - 82.8 bar	For 1 litre	4.8 cycle
OIL	1/2" NPT(F)		Flange mount
Max. °C	54 °C		1" NPT(F)
Weight	28.3 kg		



Capable of moving medium- to high-viscosity fluids ranging from 15,000 to more than 125,000 cPs.

Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
650934-G43-C	66243-G43-B	Carbon steel, nickel plated	17-4 stainless steel / hard chrome	UHMW-PE / Leather staggered (upper & lower)	637071-G43-B

(1) Lower pump repair kit



3.3:1
6.1 l/min

Hydraulic Pumps

2-ball piston pump

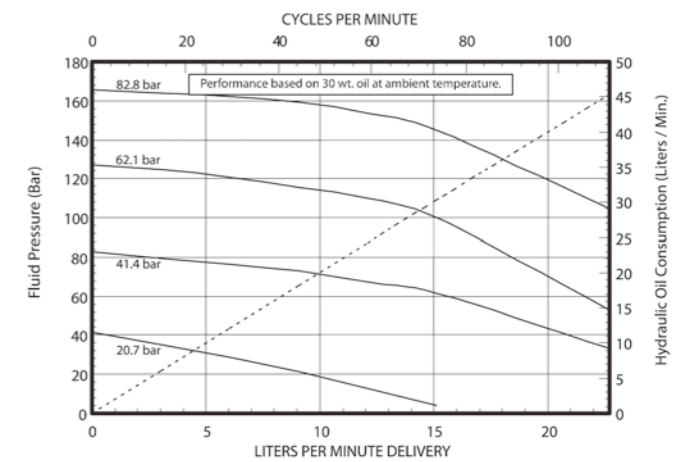
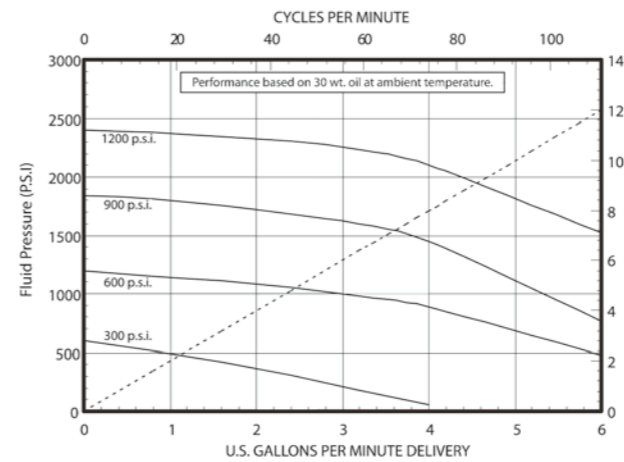
Specifications			
?:1	3.3:1	Max. bar	11.4 - 275.4 bar
Motor	2.062" (52 mm)	Cycle/min.	50 cycles/min.
Motor	6" (152 mm)	1 min.	6.1 l/min. @50 cycles/min.
AIR	3/8" NPT(F)	1 cycle	121.2 cc
Max. bar	3.4 - 82.8 bar	For 1 litre	8.2 cycle
OIL	1/2" NPT(F)		1 1/2" NPT(F) / 2" NPT(M)
Max. °C	54 °C		1" NPT(F)
Weight	18.7 kg		



Excellent for low- to medium-viscosity materials up to 100,000 cPs.

Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
650944-C43-C	66301-C43	300 Series stainless steel with tungstene carbide seat	17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637306-C43

(1) Lower pump repair kit



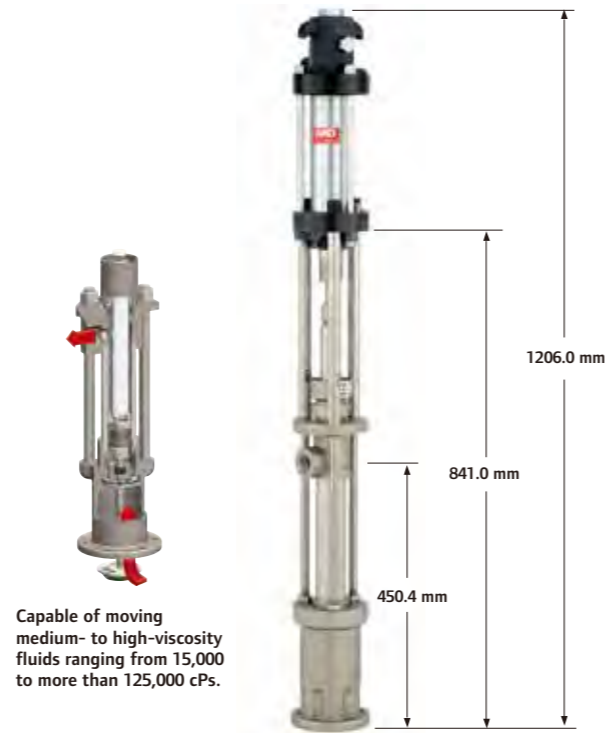
3.6:1

5.7 l/min

Hydraulic Pumps

Chop check extrusion pump

Specifications			
?:1	3.6:1	Max. bar	12.4 - 297.9 bar
Motor	2.026" (52 mm)	Cycle/min.	50 cycles/min.
Motor	6" (152 mm)	1 min.	5.7 l/min. @50 cycles/min.
AIR	3/8" NPT(F)	1 cycle	113.0 cc
Max. bar	3.4 - 82.8 bar	For 1 litre	8.8 cycle
OIL	1/2" NPT(F)		Flange mount
Max. °C	54 °C		1" NPT(F)
	28.2 kg		



Pump model no.	Lower pump	Plunger material	Packings (upper + lower)	ServiceKit (1)	
650935-C43-C	66266-C43-B	Carbon steel, nickel plated	17-4 stainless steel / hard chrome	UHMW-PE + UHMW-PE	637074-C43-B

(1) Lower pump repair kit

