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ARO®

PISTON PUMPS

2-BALL PUMP MODELS



Ingersoll Rand

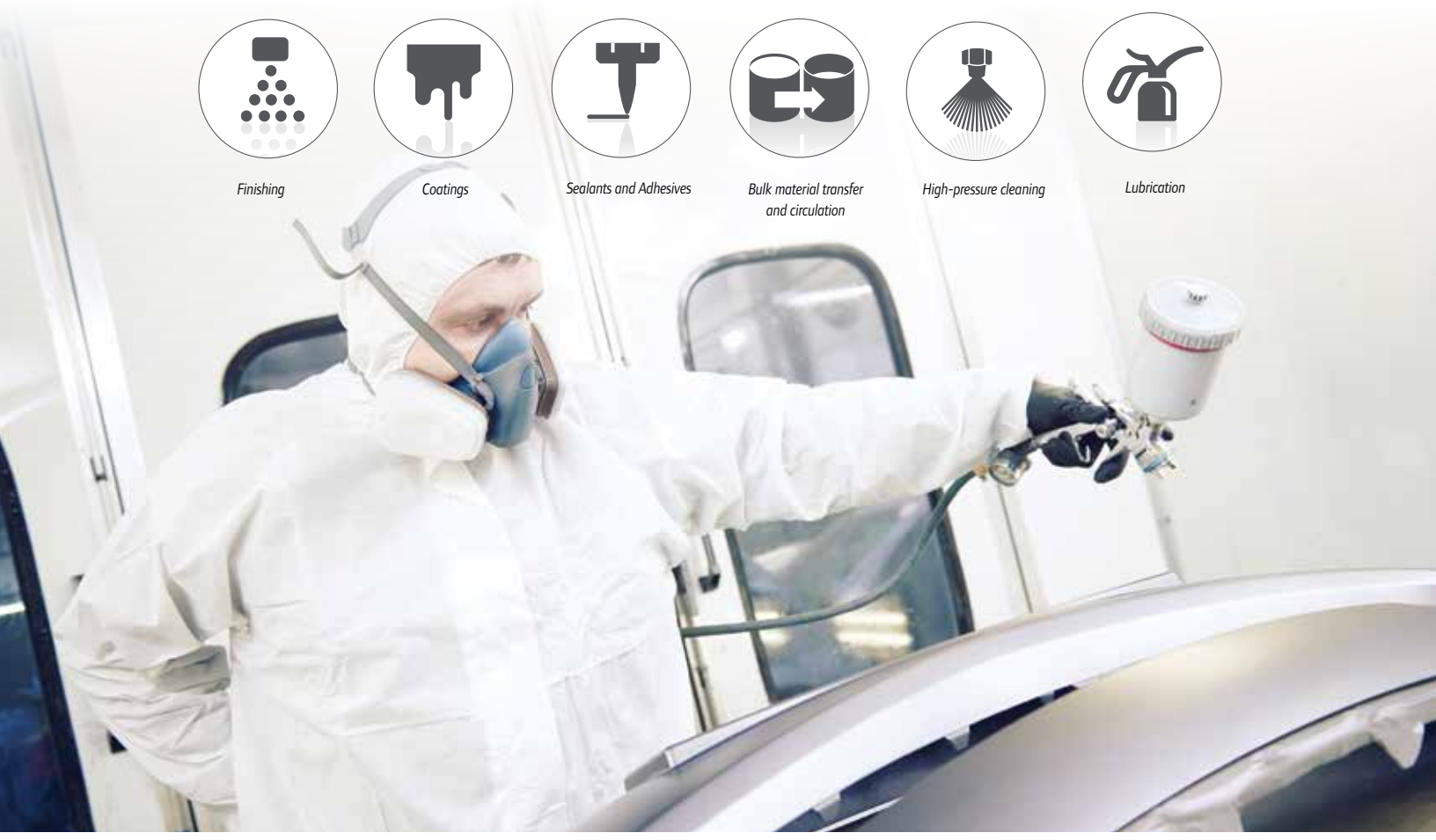
2-Ball piston pumps are designed for uniform, consistent fluid delivery

For over 85 years, the ARO® Fluid Products business of Ingersoll Rand® has developed partnerships with more than 200 original equipment manufacturers and distributors, enabling us to better focus on the unique pumping needs of many industries. It is a strategic merger of our partners' application expertise, along with our decades-long legacy of designing and building outstanding piston pumps.

Piston pumps are the heartbeat that keeps material flowing through your most vital systems. When a steady stream is essential to your operation, it's important to trust products that can handle the pressure—that's where ARO® comes in.

ARO® offers a versatile range of piston pump packages capable of meeting the specific needs of your specific application. Available in multiple configurations with a broad selection of pressure ratios and displacement rates, our pumps can help unlock superior performance and increase production across a number a unique applications.

Unmatched application expertise in:



Simply better pumps

ARO® LOWER PUMP END TECHNOLOGY

Whether your application requires a 2-ball, 4-ball, or chop-check piston pump, with ARO® you get a pump that's better engineered, from the inside out. We offer design features and performance enhancements that ensure your pump is as durable and dependable as possible — maximizing output and minimizing downtime for a long time to come.

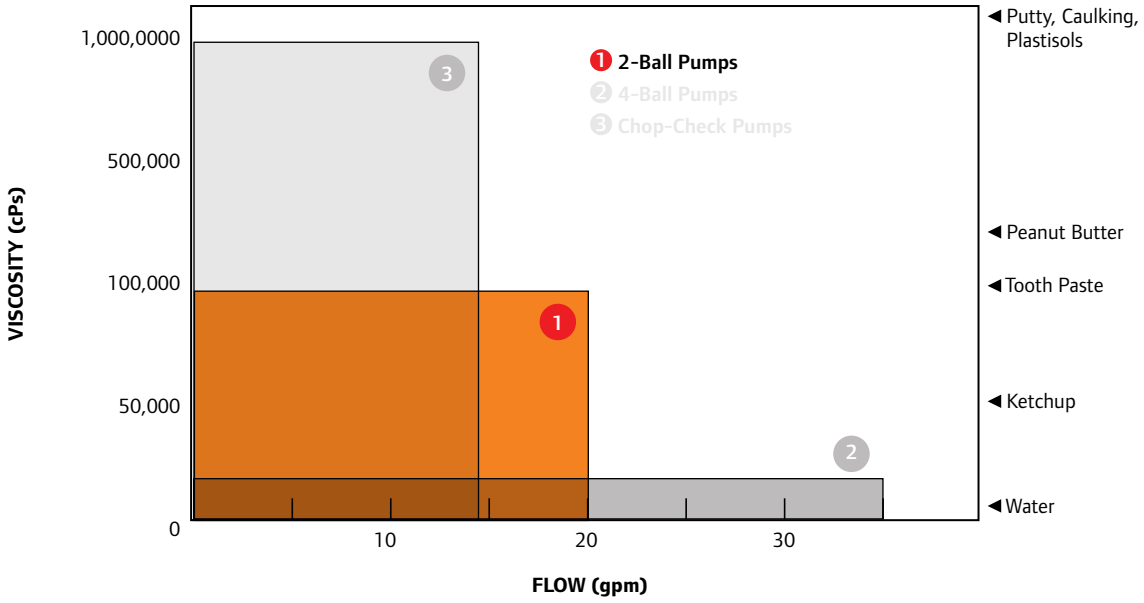
Pump selection made simple

With an ARO® piston pump, you can be assured of getting reliable equipment with the least amount of effort, calculation, or hassle on your part. There are basically four factors to take into consideration when selecting the right configuration for your application:

- Type of fluid
- Viscosity or thickness
- Required flow rate
- Required output pressure

Pump selection at a glance

Knowing fluid viscosity and flow rates makes it easier to choose the right pump for your application. Not sure what size air motor or piston pump you need? No problem. You can find out by calling ARO® Technical Support and working directly with our expert pump consultants, or by visiting our website to access specific pump performance data. Either way, you'll be sure to get a motor and pump package that operates efficiently, reliably, and safely.



Best-in-class output

- Our 6″ stroke delivers best-in-class displacement per cycle, delivering better flow rate, better output, and less fatigue on parts.

Easy serviceability

- Plungers and packings are easily accessible, minimizing downtime.
- Pump packings on the lower pumps are adjustable, featuring a wave spring and guide arrangement.
- Parts are available in convenient service kits so you have the right parts at the right time.

Superior performance with abrasive fluids

- Plunger rods and cylinder tubes feature a ceramic coating, extending service life up to twice as long. Available on 2-ball. Standard on 4-ball.
- Available in affordable **high-grade stainless-steel** construction.
- Electro-polished and passivated for material compatibility and corrosion-free operation.
- **Eight packing options** are available, including ultra-high molecular weight polyethylene (UHMW-PE), for even better material compatibility and excellent abrasion resistance.
- **Chrome-plated stainless steel plungers** for superior resistance to rust and corrosion.

Simply Versatile

2-ball pumps are among the most versatile in the ARO® line. They are capable of handling applications from simple transfer to the extrusion of low- to medium- viscosity materials up to 100,000 centipoise (cPs) with fluid delivery up to 18.1 gpm (68.6 L/min).

Applications advantages of 2-balls:

Spray: 2-ball pumps deliver the constant flow rate and pressure needed for consistent and efficient coatings applications

Transfer & Supply: Depending on the model, some 2-ball pumps can achieve flow rates up to 18.1 gpm, providing dependable results

Extrusion: 2-ball pumps generate pressure to handle extrusion of low-to medium-viscosity

Lubrication: ARO® 2-balls pumps provide the flow and pressure required for moving light oils and grease lubricants

High Pressure Cleaning: ARO® Wash Pump Packages are portable and offer the the right option for industrial cleaning applications

Materials advantages of 2-balls:

- **Sheer sensitive materials:** ARO® 2-ball pumps minimize friction points to prevent fluid shear, when compared to other similar pumping technologies
- **Abrasive and high solid materials:** ARO® 2-ball pump minimize friction points and allow smooth passages to maintain fluid consistency
- Optional ceramic coating provides an even stronger defense against highly abrasive fluids like paint and glass-filled sealer



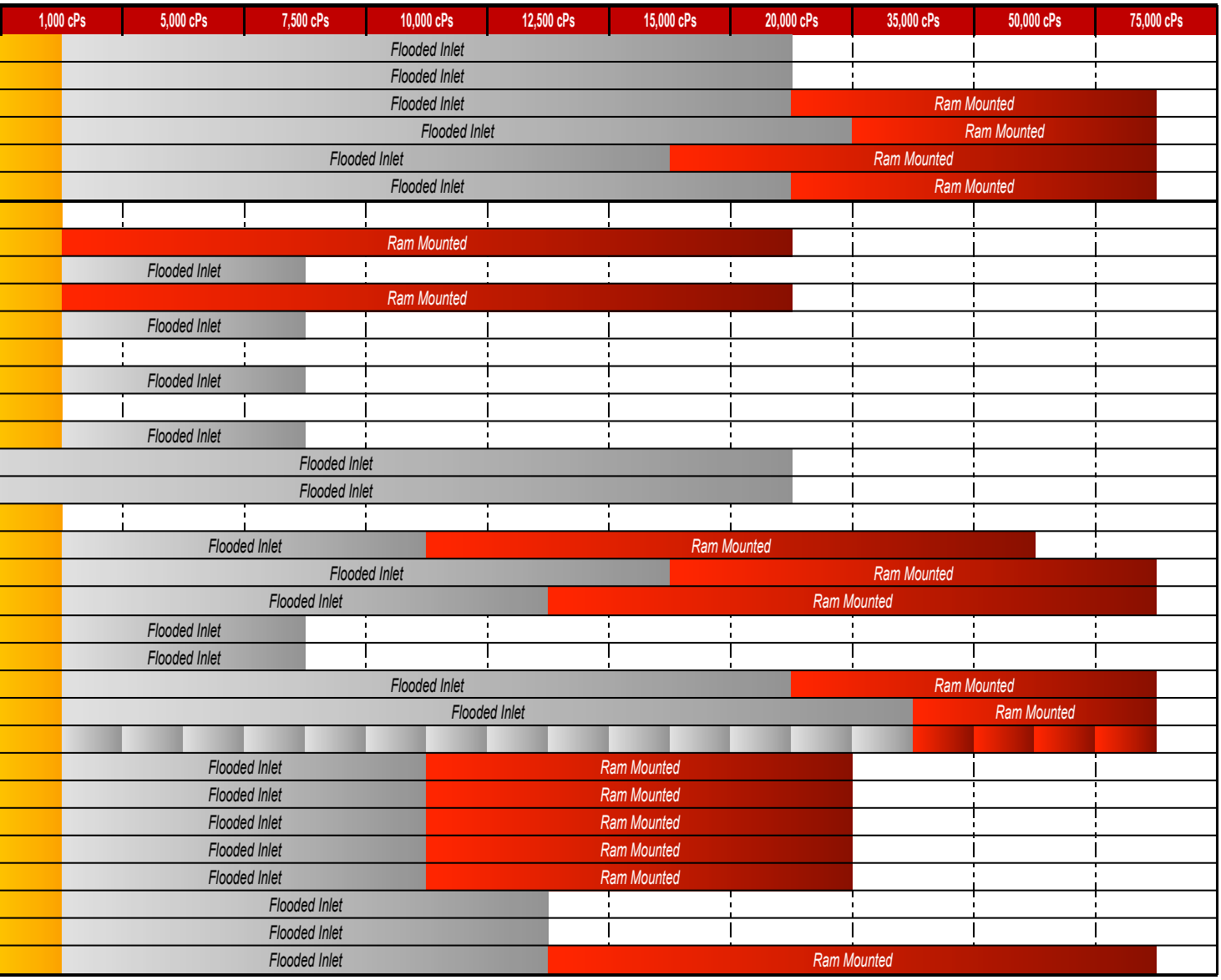
Selection Chart



				See Page
1:1	**9.0 gal/min** 34.1 l/min		*Carbon Steel*	*8*
2:1	**2.0 gal/min** 7.5 l/min		*Carbon Steel*	*9*
2:1	**4.26 gal/min** 16.1 l/min		*Stainless Steel*	*10*
2:1	**2.15 gal/min** 8.14 l/min		*Carbon Steel or Stainless Steel*	*11*
4:1	**2.11gal/min** 8 l/min		*Carbon Steel or Stainless Steel*	*12, 13*
4:1	**4.26 gal/min** 16.1 l/min		*Stainless Steel*	*15*
9:1	**2.8 gal/min** 10.5 l/min		*Carbon Steel*	*16*
9:1	**2.9 gal/min** 10.8 l/min		*Stainless Steel*	*18*
10:1	**15.6 gal/min** 58.9 l/min		*Stainless Steel*	*20*
11:1	**3.7 gal/min** 14 l/min		*Stainless Steel*	*21*
15:1	**18.1 gal/min** 68.6 l/min		*Stainless Steel*	*23*
18:1	**0.60 gal/min** 2.3 l/min		*Stainless Steel*	*24*
22:1	**1.9 gal/min** 7.3 l/min		*Stainless Steel*	*25*
23:1	**3.8 gal/min** 14.3 l/min		*Stainless Steel*	*26*
23:1	**18.1 gal/min** 68.6 l/min		*Stainless Steel*	*28*
23:1	**18.1 gal/min** 68.6 l/min		*Stainless Steel-UV/EB*	*29*
28:1	**0.38 gal/min** 1.4 l/min		*Stainless Steel*	*31*
28:1	**6.27 gal/min** 23.7 l/min		*Carbon Steel*	*33*
30:1	**1.3 gal/min** 4.9 l/min		*Stainless Steel*	*34*
40:1	**3.7 gal/min** 14 l/min		*Stainless Steel*	*36*
45:1	**1.9 gal/min** 7.3 l/min		*Stainless Steel*	*37*
45:1	**6.27 gal/min** 23.7 l/min		*Carbon Steel*	*39*
60:1	**1.4 gal/min** 5.4 l/min		*Stainless Steel*	*40*
65:1	**6.27 gal/min** 23.7 l/min		*Carbon Steel*	*42*

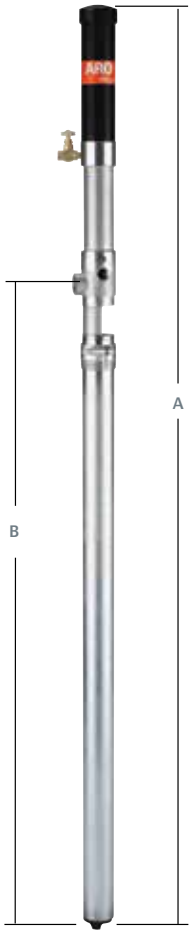
Viscosity Guide

Flow (gpm)	Recommended Delivery Rate gpm (L/min)	Ratio	Fluid Pressure Range psi (bar)	Pump Model Number	Material of Construction	Lower End Type	500 cPs
0 - 2	0.38 (1.4)	28:1	0 - 4200 (0 - 289.6)	NM2328A-11-X11	Stainless Steel	2-Ball	*Siphon*
	.6 (2.3)	18:1	0 - 2700 (0 - 186.2)	NM2318B-13-C43	Stainless Steel	2-Ball	*Siphon*
	1.3 (4.9)	30:1	900 - 4629 (62.1 - 319.2)	AF0430G11XXXX	Stainless Steel	2-Ball	*Siphon*
	1.4 (5.4)	60:1	1800 - 6172 (124.1 - 425.5)	AF0660G11XXXX	Stainless Steel	2-Ball	*Siphon*
	1.9 (7.2)	22:1	660 - 3412 (45.5 - 235.3)	AF0422G11XXXX	Stainless Steel	2-Ball	*Siphon*
	1.9 (7.2)	45:1	1350 - 5459 (93.1 - 376.4)	AF0645G11XXXX	Stainless Steel	2-Ball	*Siphon*
2 - 4	2 (7.5)	2:1	0 - 300 (0 - 20.7)	650110-C	Carbon Steel	2-Ball	*Siphon*
	2.1 (8)	4:1	0 - 600 (0 - 41.4)	NM2304A-11-XXX	Carbon Steel	2-Ball	*Siphon*
	2.1 (8)	4:1	0 - 600 (0 - 41.4)	NM2304A-41-XXX	Carbon Steel	2-Ball	*Siphon*
	2.1 (8)	4:1	0 - 600 (0 - 41.4)	NM2304B-11-XXX	Stainless Steel	2-Ball	*Siphon*
	2.1 (8)	4:1	0 - 600 (0 - 41.4)	NM2304B-41-XXX	Stainless Steel	2-Ball	*Siphon*
	2.15 (814)	2:1	0 - 351 (0 - 24.2)	NM2202A-11-XXX	Carbon Steel	2-Ball	*Siphon*
	2.15 (814)	2:1	0 - 351 (0 - 24.2)	NM2202A-41-XXX	Carbon Steel	2-Ball	*Siphon*
	2.15 (814)	2:1	0 - 351 (0 - 24.2)	NM2202B-11-XXX	Stainless Steel	2-Ball	*Siphon*
	2.15 (814)	2:1	0 - 351 (0 - 24.2)	NM2202B-41-XXX	Stainless Steel	2-Ball	*Siphon*
	2.8 (10.6)	9:1	0 - 1350 (0 - 93.1)	AF0409AX1XX24-02	Carbon Steel	2-Ball	
	2.9 (10.8)	9:1	0 - 1350 (0 - 93.1)	AF0409C51XXXX	Stainless Steel	2-Ball	
	2.9 (10.8)	9:1	0 - 1350 (0 - 93.1)	AF0409C11XXXX	Stainless Steel	2-Ball	*Siphon*
	3.7 (14)	11:1	330 - 1747 (22.8 - 120.5)	AF0411G11XXXX	Stainless Steel	2-Ball	*Siphon*
	3.7 (14)	40:1	1200 - 4697 (82.7 - 323.9)	AF0840G11XXXX	Stainless Steel	2-Ball	*Siphon*
	3.8 (14.3)	23:1	690 - 3495 (47.6 - 241)	AF0623G11XXXX	Stainless Steel	2-Ball	*Siphon*
4 - 10	4.26 (16.1)	4:1	0 - 600 (0 - 41.4)	650313-X, 650314-X	Stainless Steel	2-Ball	*Siphon*
	4.26 (16.1)	2:1	0 - 343 (0 - 23.6)	650311-X, 650312-X	Stainless Steel	2-Ball	*Siphon*
	6.27 (23.7)	45:1	1350 - 4050 (93.1 - 279.2)	AF1045B11XXXX	Carbon Steel	2-Ball	*Siphon*
	6.27 (23.7)	65:1	1950 - 5850 (134.5 - 403.3)	AF1265B11XXXX	Carbon Steel	2-Ball	*Siphon*
	6.27 (23.7)	28:1	840-3360 (57.9 - 231.7)	AF0828BXXXXXX	Carbon Steel	2-Ball	*Siphon*
	9 (34)	1:1	0 - 150 (0 - 10.3)	612041-X	Carbon Steel	2-Ball	*Siphon*
10 -20	15.6 (58.9)	10:1	0 - 1200 (0 - 82.7)	AF0810C11XXXX	Stainless Steel	2-Ball	*Siphon*
	15.6 (58.9)	10:1	0 - 1200 (0 - 82.7)	AF0810F11XXXX	Stainless Steel	2-Ball	*Siphon*
	18.1 (68.6)	15:1	450 - 1350 (31 - 93.1)	AF1015C11XXXX	Stainless Steel	2-Ball	*Siphon*
	18.1 (68.6)	15:1	450 - 1350 (31 - 93.1)	AF1015FX, AF1015JX	Stainless Steel	2-Ball	*Siphon*
	18.1 (68.5)	23:1	690 - 2070 (47.6 - 142.7)	AF1223C11XXXX	Stainless Steel	2-Ball	*Siphon*
	18.1 (68.5)	23:1	690 - 2070 (47.6 - 142.7)	AF1223F11XXXX	Stainless Steel	2-Ball	*Siphon*
	18.1 (68.5)	23:1	690 - 2070 (47.6 - 142.7)	AF1223C51XXXX	Stainless Steel	2-Ball	*Siphon*


1,000 cPs
5,000 cPs
7,500 cPs
10,000 cPs
12,500 cPs
15,000 cPs
20,000 cPs
35,000 cPs
50,000 cPs
75,000 cPs
Flooded Inlet
Ram Mounted

1:1
2"

61204X-X Series Pumps



Materials: Oils, Light fluids

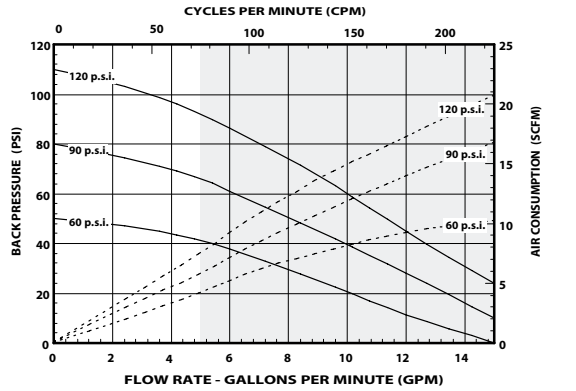
Pump Specifications

Ratio		1:1
Stroke in (mm)		6 (15.2)
Material Inlet		Immersed
Material Outlet		3/4" NPT(F)
Air Inlet (female)		1/4" NPT(F)
Air Inlet Pressure Range psi (bar)		0-150 (0-10.3)
Fluid Pressure Range psi (bar)		0-150 (0-10.3)
Max Cycles/Minute		75
Displacement/Cycle cu in (cm3)		18.8 (308)
Volume/Cycle oz (ml)		10.4 (307.7)
Cycles/gal (L)		12.3 (3.3)
Flow @ 75 Cycles gpm (L/min)		9.0 (34.1)
Noise Level @ 60 psi dBA		77.8
Weight* lb (kg)	612041-1, 612401-3	13 (5.9)
	612402-1	14 (6.4)

*Estimated weight. Contact Technical Support for exact weight.

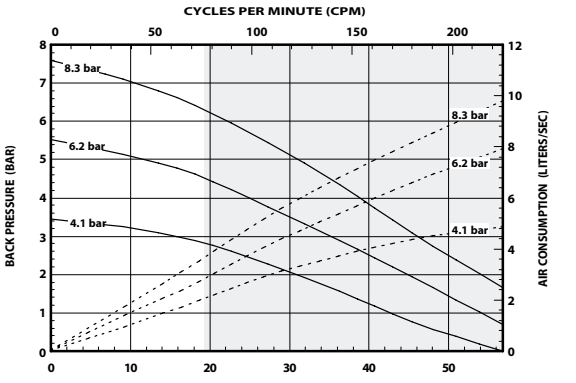
DIMENSIONS	A in (mm)	B in (mm)
612041-X	54 (1371.6)	34.625 (879.5)
612042-X	64.25 (1631.9)	44.875 (1139.8)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model	Container Suitability	Type	Plunger Material	Upper Packings	Lower Packings	Pump Service Kit •
Lower Pump Material - Carbon Steel						
612041-1	55 Gallon (208.2 L)	Wall mount or drum	Carbon Steel	Nitrile	Nitrile	637081
612401-3	55 Gallon (208.2 L)	Wall mount or drum	Carbon Steel	PTFE	PTFE	637083
612042-1	275 Gallon (1041 L)	Wall mount or drum	Carbon Steel	Nitrile	Nitrile	637081

Lower pump repair kit

Recommended Accessories



61879
Muffler



635040
ARO-Stop Valve



61113
Wall Mount Bracket



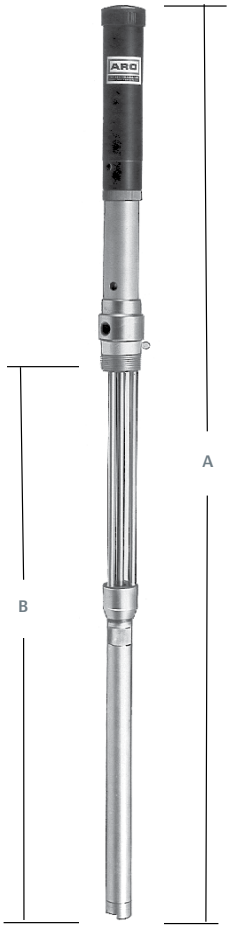
C38121-600
Air FRL

ServiceKits

637084
Air Motor Service Kit

2:1
2"

650110-X Series Pumps



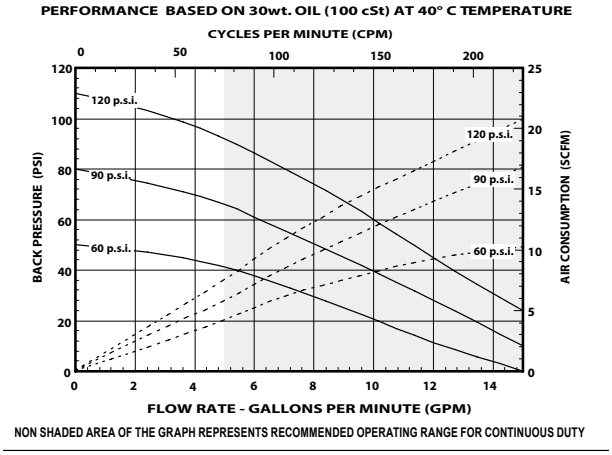
Materials: Oils, Light fluids

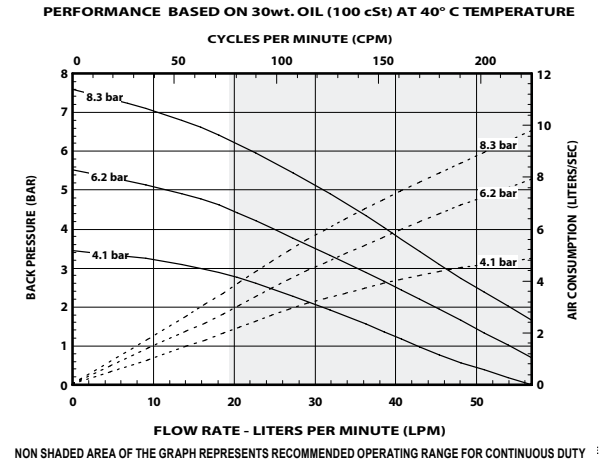
Pump Specifications

Ratio		2:1
Stroke in (mm)		6 (152)
Material Inlet		Immersed
Material Outlet	650110-C	.5″
	650110-1C	.75′ NPT(F)
Air Inlet (female)		.25″ NPT(F)
Air Inlet Pressure Range psi (bar)		0-150 (0-10.3)
Fluid Pressure Range psi (bar)		0-300 (0-20.7)
Max Cycles/Minute		120
Displacement/Cycle cu in (cm3)		8.0 (131)
Volume/Cycle oz (ml)		4.4 (131)
Cycles/gal (L)		28.9 (7.6)
Flow @ 60 Cycles gpm (L/min)		2.0 (7.5)
Noise Level @ 60 psi dBA		81
Weight* lb (kg)		12 (5.4)

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	A in (mm)	B in (mm)
650110-X	53.09(1349)	33.81(859)





Pump Model	Lower Pump Material	Plunger Material	Upper Packings	Lower Packings	Pump Service Kit •
Lower Pump Material - Carbon Steel					
650110-C	Carbon Steel	Carbon Steel	UHMW-PE	UHMW-PE	637028
650110-1C	Carbon Steel	Carbon Steel	PTFE	PTFE	637029

Lower pump repair kit

Recommended Accessories



61879
Muffler



635040
ARO-Stop Valve



61113
Wall Mount Bracket



C28121-600
Air FRL



66098
Air Motor Service Kit

2:1
2"

N Series

65031X-X Series Pumps

WITH CYCLE COUNTER

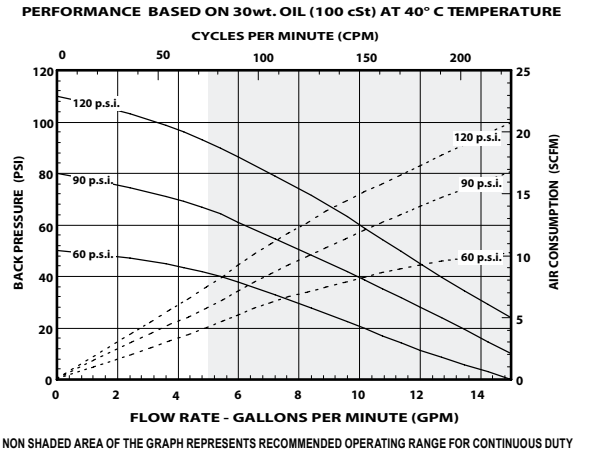


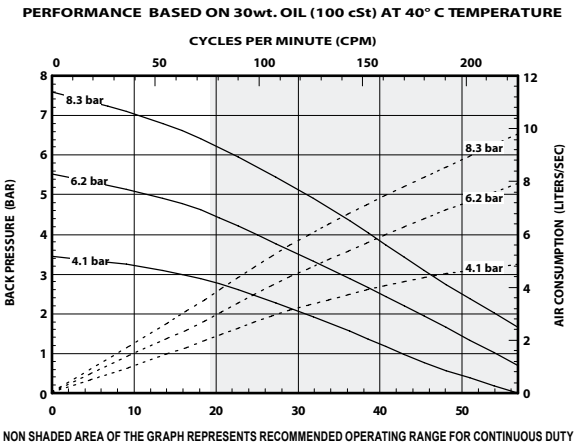
Materials: Oils, Light fluids

Pump Specifications

Ratio		2:1
Stroke in (cm)		3 (76)
Material Inlet		1.25" NPS
Material Outlet		.75" NPT(F)
Air Inlet (female)		.25" NPT(F)
Air Inlet Pressure Range psi (bar)		0-150 (0-10.3)
Fluid Pressure Range psi (bar)		0-343 (0-23.6)
Max Cycles/Minute		120
Max Working Flow Rate gpm (lpm)		4.26 (16.12)
Displacement/Cycle cu in (cm3)		8.2 (134.3)
Volume / Cycle oz (ml)		4.5 (133)
Cycles/gal (L)		28 (7.4)
Noise Level dBA		80
Weight lb (kg)	650311-X	23 (10.4)
	650312-X	41 (18.6)

DIMENSIONS	A in (mm)	B in (mm)
650311-X	28.093 (714)	9.875(251)
650312-X	51.437 (1306)	33.219 (846)





Pump Model	Lower Pump Material	Container Suitability	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
650311	Stainless Steel	Stub	Stainless Steel	PTFE	PTFE	1875C11SS22	**K18755C11SS20**
650311-4	Stainless Steel	Stub	Stainless Steel	UHMW-PE	UHMW-PE	1875C11FF22	**K18755C11FF20**
650311-5	Stainless Steel	Stub	Ceramic Coated Stainless Steel	PTFE	PTFE	1875C11SS29	**K18755C11FF20**
650311-6	Stainless Steel	Stub	Ceramic Coated Stainless Steel	UHMW-PE	UHMW-PE	1875C11FF29	**K18755C11FF20**
650311-7	Stainless Steel	Stub	Ceramic Coated Stainless Steel	Viton	UHMW-PE	1875C11VF29	**K18755C11VF20**
650311-8	Stainless Steel	Stub	Stainless Steel	Viton	PTFE	1875C11VF22	**K18755C11VF20**
650311-9	Stainless Steel	Stub	Stainless Steel	Viton	UHMW-PE	1875C11VF2E	**K18755C11VF20**
650312	Stainless Steel	55 Gallon	Stainless Steel	UHMW-PE	UHMW-PE	1875C51SS22	**K18755C11SS20**
650312-4	Stainless Steel	55 Gallon	Stainless Steel	PTFE	PTFE	1875C51FF22	**K18755C11FF20**

Recommended Accessories



66073-1
Air Line Connection Kit



635040
ARO-Stop Valve



61113
Wall Mount Bracket

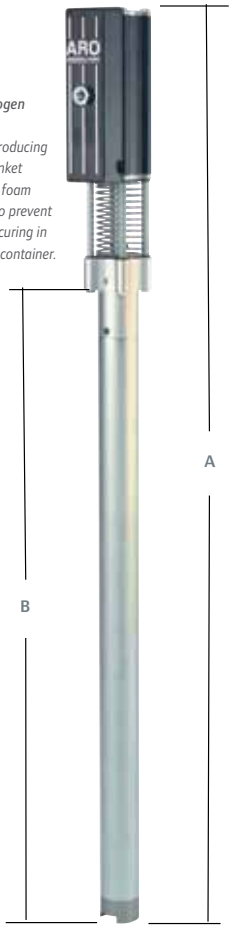
2:1
2"

N Series

NM2202X-X1-X31 Series Pumps

NITROGEN BLANKET PORT





Optional Nitrogen Blanket Port
Capable of introducing a nitrogen blanket for isocyanate foam applications, to prevent material from curing in the pump and container.

Materials: Oils, Light fluids

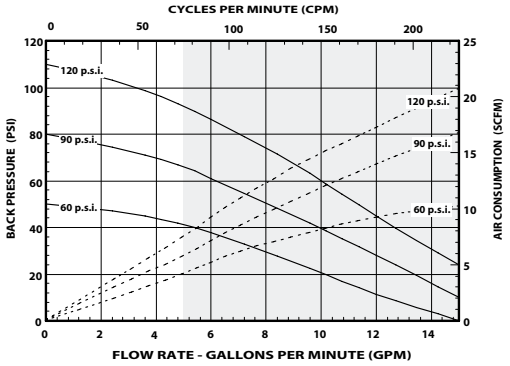
Pump Specifications

Ratio		2:1
Stroke in (cm)		3 (7.6)
Material Inlet		1.5″ NPT(F)
Material Outlet		.75″ NPT(F)
Air Inlet (female)		.25″ NPT(F)
Air Inlet Pressure Range psi (bar)		0-150 (0-10.3)
Fluid Pressure Range psi (bar)		0-351 (0-24.2)
Max Cycles/Minute		120
Displacement/Cycle cu in (cm3)		8.3 (136)
Cycles/gal (L)		27.9 (7.3)
Flow @ 60 Cycles gpm (L/min)		2.15 (8.14)
Noise Level @ 100 psi dBA		80
Weight* lb (kg)	NM2202A-11-X31	17.5 (7.9)
	NM2202A-41-X31	19.6 (8.9)
	NM2202B-11-X31	17.2 (7.8)
	NM2202B-41-X31	22.5 (10.2)

*Estimated weight. Contact Technical Support for exact weight.

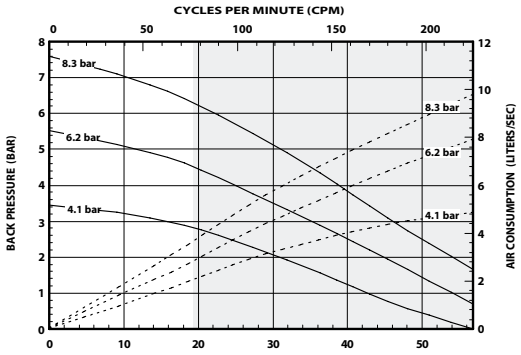
DIMENSIONS	A in (mm)	B in (mm)
NM2202A-11-X31	34.17(868)	20.03(509)
NM2202A-41-X31	47.83 (1215)	33.70(856)
NM2202B-11-X31	33.85 (860)	19.84(504)
NM2202B-41-X31	47.71(1212)	33.70(856)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model	Lower Pump Material	Plunger Material	Upper Packings	Lower Packings	Pump Service Kit*
Lower Pump Material - Carbon Steel					
NM2202A-11-731	Carbon Steel	Carbon Steel	PTFE	PTFE	**637378-731**
NM2202A-11-C31	Carbon Steel	Carbon Steel	UHMW-PE	UHMW-PE	**637378-C31**
NM2202A-11-J31	Carbon Steel	Carbon Steel	Polyurethane	UHWM-PE	**637378-J31**
NM2202A-41-731	Carbon Steel	Carbon Steel	PTFE	PTFE	**637378-731**
NM2202A-41-C31	Carbon Steel	Carbon Steel	UHMW-PE	UHMW-PE	**637378-C31**
NM2202A-41-J31	Carbon Steel	Carbon Steel	Polyurethane	UHMW-PE	**637378-J31**
Lower Pump Material - Stainless Steel					
NM2202B-11-731	Stainless Steel	Stainless Steel	PTFE	PTFE	**637379-731**
NM2202B-11-C31	Stainless Steel	Stainless Steel	UHMW-PE	UHMW-PE	**637379-C31**
NM2202B-11-J31	Stainless Steel	Stainless Steel	Polyurethane	UHMW-PE	**637379-J31**
NM2202B-41-731	Stainless Steel	Stainless Steel	PTFE	PTFE	**637379-731**
NM2202B-41-C31	Stainless Steel	Stainless Steel	UHMW-PE	UHMW-PE	**637379-C31**
NM2202B-41-J31	Stainless Steel	Stainless Steel	Polyurethane	UHMW-PE	**637379-J31**

*Lower pump repair kit

Recommended Accessories



66073-1
Air Line Connection Kit



635040
ARO-Stop Valve



61113
Wall Mount Bracket

ServiceKits

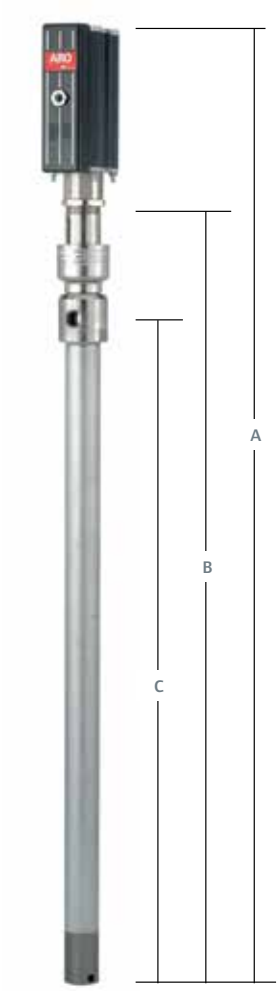
637377
Air Motor Service Kit

67088-4
Sealed Bung Assembly

4:1
3"

N Series

NM2304X-X1-X11 Series Pumps



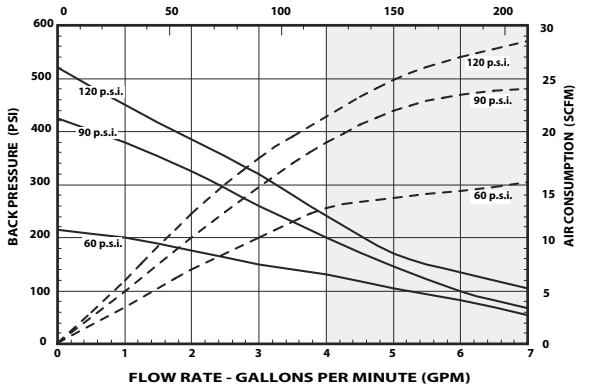
Materials: Oils, Light fluids

Pump Specifications

Ratio	4:1
Stroke in (cm)	3 (76)
Material Outlet	.75" NPT(F)
Air Inlet (female)	.25" NPT(F)
Air Inlet Pressure Range psi (bar)	0-150 (0-10.3)
Fluid Pressure Range psi (bar)	0-600 (0-41.4)
Max Cycles/Minute	120
Displacement/Cycle cu in (cm3)	8.2 (134.3)
Cycles/gal (L)	28 (7.4)
Flow @ 60 Cycles gpm (L/min)	2.1 (8.0)
Noise Level @ 100 psi dBA	85

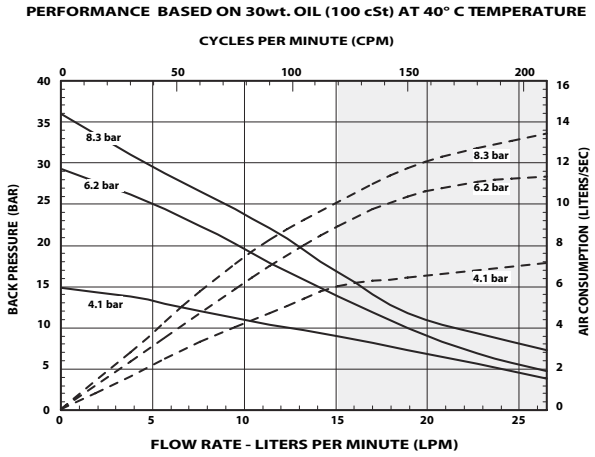
See stainless steel models on following page.

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model	Lower Pump Material	Plunger Material	Upper Packings	Lower Packings	Material Inlet	Weight lb (kg)	Pump Service Kit •
Lower Pump Material - Carbon Steel							
NM2304A-11-311	Carbon Steel	Carbon Steel	PTFE	PTFE	1.25" NPT(F)	32 (14.5)	**637176**
NM2304A-11-511	Carbon Steel	Carbon Steel	PTFE	PTFE	1.25" NPT(F)	32 (14.5)	**637176**
NM2304A-11-C11	Carbon Steel	Carbon Steel	UHMW-PE	UHMW-PE	1.25" NPT(F)	32 (14.5)	**637228**
NM2304A-41-311	Carbon Steel	Carbon Steel	PTFE	PTFE	Immersed	46 (20.9)	**637176**
NM2304A-41-511	Carbon Steel	Carbon Steel	PTFE	PTFE	Immersed	46 (20.9)	**637176**
NM2304A-41-C11	Carbon Steel	Carbon Steel	UHMW-PE	UHMW-PE	Immersed	46 (20.9)	**637228**
NM2304A-81-311	Carbon Steel	Stainless Steel	PTFE	PTFE	1.25" NPT(F)	31.4 (14.3)	**637176**
NM2304A-91-311	Carbon Steel	Stainless Steel	PTFE	PTFE	Immersed	45.4 (20.6)	**637176**
NM2304A-A1-311	Carbon Steel	Stainless Steel	PTFE	PTFE	Immersed	31 (14.1)	**637176**
NM2304A-B1-311	Carbon Steel	Stainless Steel	PTFE	PTFE	1.25" NPT(F)	32 (14.5)	**637176**

**Lower pump repair kit*

Model	A in (mm)	B in (mm)	C in (mm)
NM2304A-11-X11	30.25 (768.5)	11.75 (297.7)	13.187 (334.2)
NM2304A-41-X11	55.625 (1413.0)	37.125 (942.2)	38.562 (978.7)
NM2304B-11-X11	28.125 (714.4)	9.718 (246.8)	11.096 (281.8)
NM2304B-41-X11	51.656 (1312.1)	33.25 (844.6)	34-5/8 (879.6)

Recommended Accessories



P29122-600
Piggyback F/R



635040
ARO-Stop Valve



61113
Wall Mount Bracket



66333-B
Wet Sol

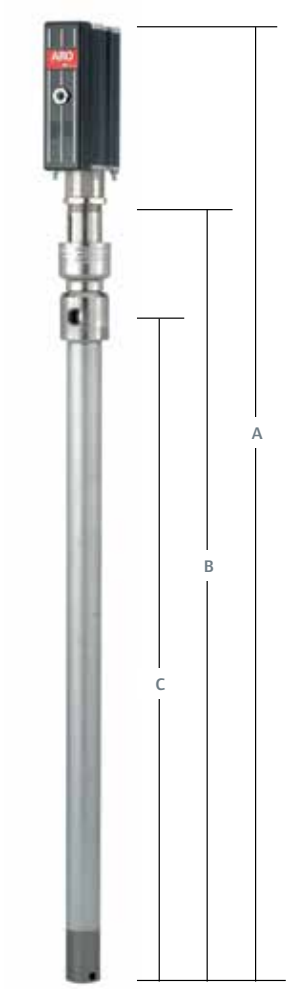


637316
Air Motor Service Kit

4:1
3"

N Series

NM2304X-X1-X11 Series Pumps

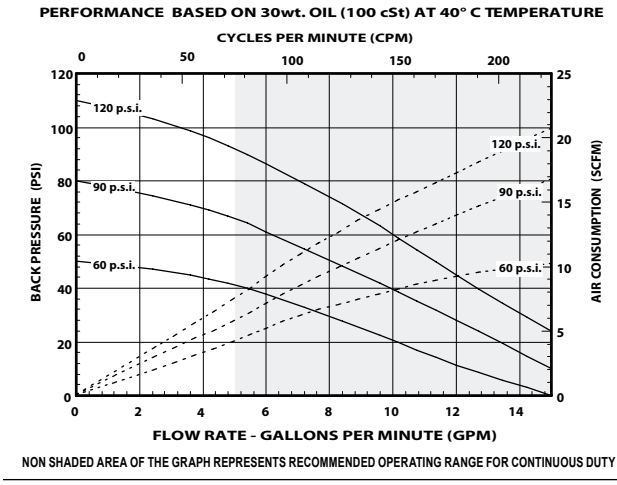


Materials: Oils, Chemicals

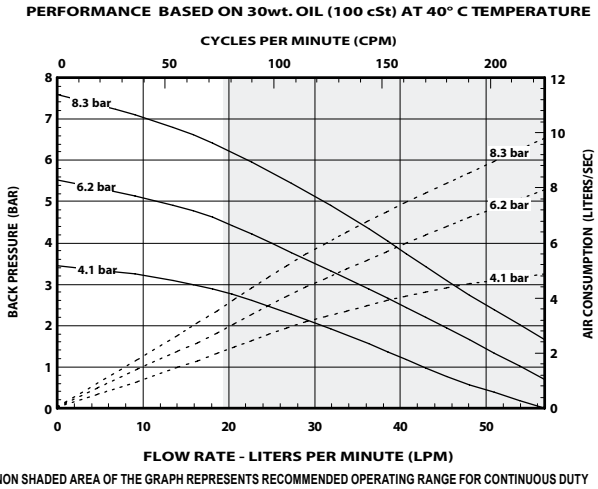
Pump Specifications

Ratio	4:1
Stroke in (cm)	3 (76)
Material Outlet	.75″ NPT(F)
Air Inlet (female)	.25″ NPT(F)
Air Inlet Pressure Range psi (bar)	0-150 (0-10.3)
Fluid Pressure Range psi (bar)	0-600 (0-41.4)
Max Cycles/Minute	120
Displacement/Cycle cu in (cm3)	8.2 (134.3)
Cycles/gal (L)	28 (7.4)
Flow @ 60 Cycles gpm (L/min)	2.1 (8.0)
Noise Level @ 100 psi dBA	85

4:1 Pump Packages on following page.



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model	Lower Pump Material	Plunger Material	Upper Packings	Lower Packings	Material Inlet	Weight lb (kg)	Pump Service Kit*
Lower Pump Material - Stainless Steel							
NM2304B-11-311	316 Stainless Steel	316 Stainless Steel	PTFE	PTFE	1.25″ NPT(F)	32 (14.5)	**637010**
NM2304B-11-31B	316 Stainless Steel	316 Stainless Steel	PTFE	PTFE	1.25″ NPT(F)	32 (14.5)	**637010**
NM2304B-11-C11	316 Stainless Steel	316 Stainless Steel	UHMW-PE	UHMW-PE	1.25″ NPT(F)	32 (14.5)	**637010-4**
NM2304B-11-C1B	316 Stainless Steel	316 Stainless Steel	UHMW-PE	UHMW-PE	1.25″ NPT(F)	32 (14.5)	**637010-4**
NM2304B-11-W11	316 Stainless Steel	316 Stainless Steel	PTFE	PTFE	1.25″ NPT(F)	32 (14.5)	**637010-6**
NM2304B-41-311	316 Stainless Steel	316 Stainless Steel	PTFE	PTFE	1.25″ NPT(F)	46 (20.9)	**637010**
NM2304B-41-C11	316 Stainless Steel	316 Stainless Steel	UHMW-PE	UHMW-PE	1.25″ NPT(F)	46 (20.9)	**637010-4**

**Lower pump repair kit*

Model	A in (mm)	B in (mm)	C in (mm)
NM2304A-11-X11	30.25 (768.5)	11.75 (297.7)	13.187 (334.2)
NM2304A-41-X11	55.625 (1413.0)	37.125 (942.2)	38.562 (978.7)
NM2304B-11-X11	28.125 (714.4)	9.718 (246.8)	11.096 (281.8)
NM2304B-41-X11	51.656 (1312.1)	33.25 (844.6)	34-5/8 (879.6)

Recommended Accessories



P29122-600
Piggyback F/R



635040
ARO-Stop Valve



61113
Wall Mount Bracket



66333-B
Wet Sol



637316
Air Motor Service Kit

N Series

4:1 Ratio Pump Packages



NP304R01-2
4:1 Ratio,
Single-Post Ram

5 GALLON

Model	Air Inlet Pressure Range psi (bar)	Fluid Pressure Range psi (bar)	Flow @ 60 Cycles per Minute gpm (L/min)	Displacement per Cycle cu in (mL)	Lower Pump Material	Plunger Material	Air Motor	Air Motor Repair Kit	Lower Pump End Series	Lower Pump Repair Kit
NP304R01-1-B	0 - 150 (0 - 10.3)	0 - 600 (0 - 41.4)	2.1 (8.0)	8.2 (134.3)	Carbon Steel	Carbon Steel	66913	637316	67151-A-C11	637228
NP304R01-2-B	0 - 150 (0 - 10.3)	0 - 600 (0 - 41.4)	2.1 (8.0)	8.2 (134.3)	Carbon Steel	Carbon Steel	66913	637316	67151-A-311	637176

Carbon-Steel Extrusion Package	
NP304R01-1	
NM2304A-A1-C11	Carbon-steel pump
651840-1	Carbon-steel follower plate with polyurethane single-lipped seal
RM051S-C-B	Single-post ram
67425	Portability kit
NP304R01-2	
NM2304A-A1-311	Carbon-steel pump
651840-1	Carbon-steel follower plate with polyurethane single-lipped seal
RM051S-C-B	Single-post ram
67425	Portability kit

4:1
3"

65031X-X Series Pumps

WITH CYCLE COUNTER



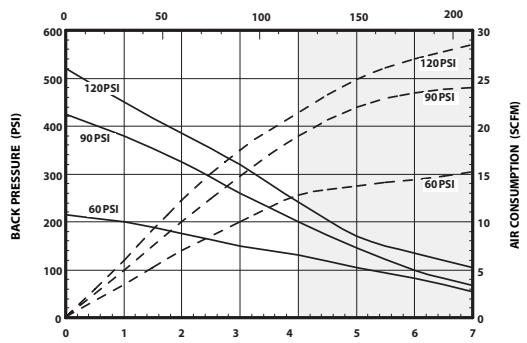
Materials: Oils, Light fluids

Pump Specifications

Ratio		4:1
Stroke in (cm)		3 (76)
Material Inlet		1.25″ NPS
Material Outlet		.75″ NPT(F)
Air Inlet (female)		.25″ NPT(F)
Air Inlet Pressure Range psi (bar)		0-150 (0-10.3)
Fluid Pressure Range psi (bar)		0-600 (0-41.4)
Max Cycles/Minute		120
Max Working Flow Rate gpm (lpm)		4.26 (16.12)
Displacement/Cycle cu in (cm3)		8.2 (134.3)
Volume / Cycle oz (ml)		4.5 (133)
Cycles/gal (L)		28 (7.4)
Noise Level @ 100 psi dBA		80
Weight lb (kg)	650313-X	23 (10.4)
	650314-X	41 (18.6)

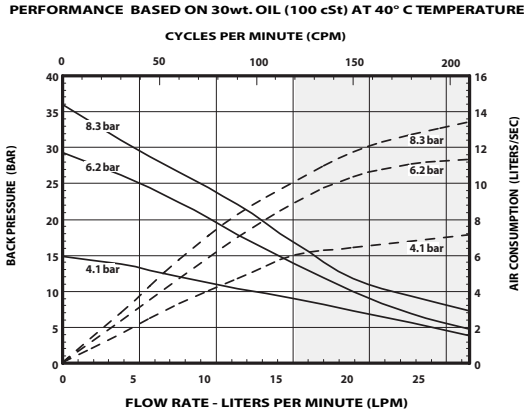
DIMENSIONS	A in (mm)	B in (mm)
650313-X	28.093 (714)	9.875(251)
650314-X	51.437 (1306)	33.219 (846)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model	Lower Pump Material	Container Suitability	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
650313	Stainless Steel	Stub	Stainless Steel	PTFE	PTFE	**1875C11SS22**	**K18755C11SS20**
650313-4	Stainless Steel	Stub	Stainless Steel	UHMW-PE	UHMW-PE	**1875C11FF22**	**K18755C11FF20**
650313-5	Stainless Steel	Stub	Ceramic Coated Stainless Steel	PTFE	PTFE	**1875C11SS29**	**K18755C11FF20**
650313-6	Stainless Steel	Stub	Ceramic Coated Stainless Steel	UHMW-PE	UHMW-PE	**1875C11FF29**	**K18755C11FF20**
650313-7	Stainless Steel	Stub	Ceramic Coated Stainless Steel	Viton	UHMW-PE	**1875C11VF29**	**K18755C11VF20**
650313-8	Stainless Steel	Stub	Stainless Steel	Viton	PTFE	**1875C11VF22**	**K18755C11VF20**
650313-9	Stainless Steel	Stub	Stainless Steel	Viton	UHMW-PE	**1875C11VF2E**	**K18755C11VF20**
650314	Stainless Steel	55 Gallon	Stainless Steel	PTFE	PTFE	**1875C51SS22**	**K18755C11SS20**
650314-4	Stainless Steel	55 Gallon	Stainless Steel	UHMW-PE	UHMW-PE	**1875C51FF22**	**K18755C11FF20**

Recommended Accessories



66073-1
Air Line Connection Kit



635040
ARO-Stop Valve



61113
Wall Mount Bracket

9:1
4-1/4"

AFX Series

AF0409 Series Pumps



(Model shown w/ball valve regulator)

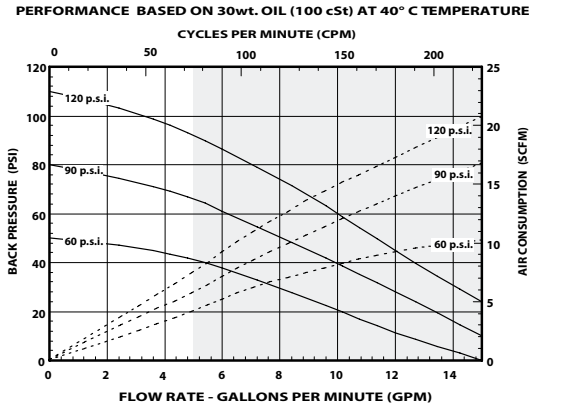
Materials: Oils, Paint, Coatings, Chemicals

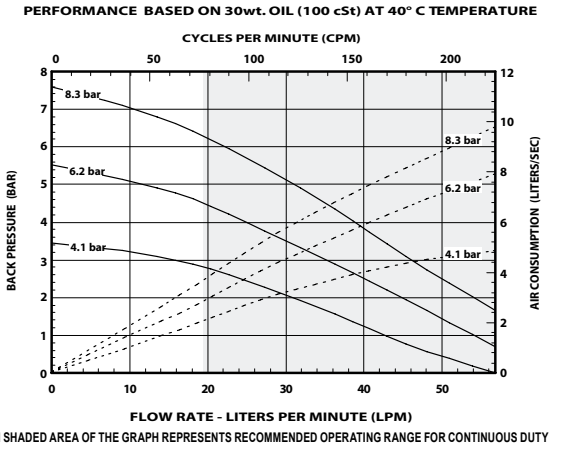
Pump Specifications

Ratio	9:1
Stroke (double acting)	4" (10.2 cm)
Material Inlet	See Dimensions
Material Outlet	3/4" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	0 - 150 (0 - 10.3)
Fluid Pressure Range psi (bar)	0 -1350 (0 - 93.1)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	11.0 (180.2)
Cycles/gal (L)	21 (5.5)
Flow @ 60 Cycles gpm (L/min)	2.8 (10.5)
Noise Level @ 60 psi dBA	80
Weight* lb (kg) 55 Gallon Unit	49 (22.2)
Remote Mount Unit	35 (15.8)

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
55 Gallon Unit	
A[1] in (mm)	61.74 (1568.25)
B in (mm)	38.53 (978.71)
Material Inlet	Immersed -
Remote Mount Unit	
A[1] in (mm)	35.21 (894.33)
B in (mm)	12.00 (304.80)
Material Inlet	1-1/2" NPT -





Pump Model**	Container Suitability	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - Carbon Steel						
AF0409A81KS24-02	Remote Mounting	Carbon Steel w/ Hard Chrome	Glass Filled PTFE	Virgin PTFE	1875A81KS24	K1875A11KS20
AF0409A51KS24-02	55 Gallon (400 lbs)	Carbon Steel w/ Hard Chrome	Glass Filled PTFE	Virgin PTFE	1875A51KS24	K1875A11KS20
AF0409A51FF24-02	55 Gallon (400 lbs)	Carbon Steel w/ Hard Chrome	UHMW-PE	UHMW-PE	1875A51FF24	K1875A11FF20
AF0409A81US24-02	Remote Mounting	Carbon Steel w/ Hard Chrome	Glass Filled PTFE/ Leather (Staggered)	Virgin PTFE	1875A81US24	K1875A11US20
AF0409A81HF24-02	Remote Mounting	Carbon Steel w/ Hard Chrome	UHMW-PE	UHMW-PE	1875A81HF24	K1875A11HF20
AF0409A81FF24-02	Remote Mounting	Carbon Steel w/ Hard Chrome	UHMW-PE	UHMW-PE	1875A81FF24	K1875A11FF20
AF0409A91LL2D	5 Gallon	Carbon Steel	Leather	Leather	1875A91LL2D	K1875A11LL20

***Add "-1" to Model No. or for Models Ending in "-02" change to "-12" for Ball Valve Regulator*

Recommended Accessories



67445-1
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

AFX Series

9:1 Ratio Pump Packages



CLX Series
Cart-Mounted Lift

5 GALLON

Packages						
Model No.	Package Type	Pump Model	Cart/Lift Model	Follower	Follower Description	Material
CL0409A91LL2DE31	Cart Mount w/Lift	AF0409A91LL2D-1	67075-1-B	651840-1	Single Lip, Polyethylene/Urethane	Carbon Steel, Electroless Nickel Coating
CL0409A91LL2DE3B*	Cart Mount w/Lift	AF0409A91LL2D-1	67075-1-B	651840-1	Single Lip, Polyethylene/Urethane	Carbon Steel, Electroless Nickel Coating

**Includes Application Kit with Control Handle and Material Hose*

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4″ NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings



Extrusion Gun Nozzle Kits
66541-6 Orifice .063″ (1.63 mm), **66541-9** Orifice .093″ (2.36 mm),
66541-2 Orifice .125″ (3.17 mm)



Swivel
636085 Straight, 3/8″ (M) x 3/8″ (F) / fabric with neoprene / 8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8″ (M) x 3/8″ (F) / fabric with neoprene / 8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4″-18 NPTF to 1/4″-18 NPSM / 10,000 psi (690 bar) max working pressure



Material Filters
1/2″ F (2) inlet 1/2″ F (1) outlet / 6,000 psi (414 bar) max. / 200 micron
651420-70 for Carbon Steel
651422-70 for Stainless Steel



3/8″ Fluid Pressure Regulators
651780-A3A-B Regulated 400 – 1,250 psi (28 – 86 bar) / 3,000 psi (207 bar) max. inlet / stainless steel
651780-B1A-B Regulated 400 – 1,250 psi (28 – 86 bar) / 3,000 psi (207 bar) max. inlet / carbon steel
651780-B1B-B Regulated 1,000 – 3,000 psi (69 – 345 bar) / 6,000 psi (414 bar) max. inlet / carbon steel
651780-B3R-B Regulated 400 – 5,000 psi (28 – 345 bar) / 6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
F35341-400	Filter
104317	Filter Element
637489	Universal Air Motor Service Kit

9:1
4-1/4"

AFX Series

AF0409 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

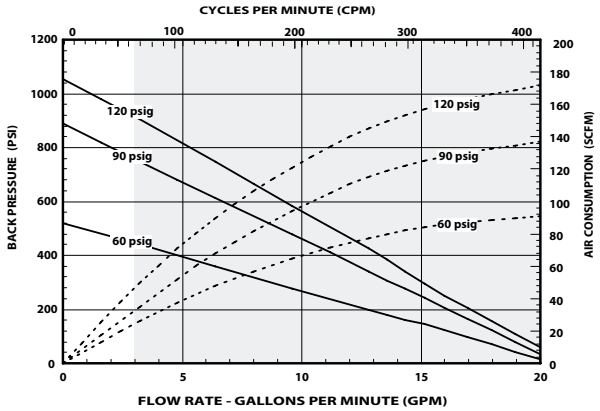
Ratio	9:1
Stroke (double acting)	4" (10.2 cm)
Material Inlet	1-1/4" NPT(F)
Material Outlet	3/4" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	0 - 150 (0 - 10.3)
Fluid Pressure Range psi (bar)	0 -1350 (0 - 93.1)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	11.0 (180.2)
Cycles/gal (L)	21 (5.5)
Flow @ 60 Cycles gpm (L/min)	2.9 (10.8)
Noise Level @ 60 psi dBA	89.2
Weight* lb (kg) 5 Gallon	35 (15.9)
Weight* lb (kg) 55 Gallon	45 (20.4)

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS 5-GALLON UNIT	
A[1] in (mm)	34.12 (866.55)
B in (mm)	17.78 (451.7)
C in (mm)	11(279.4)
DIMENSIONS 55-GALLON UNIT	
A[1] in (mm)	57.46 (1459.48)
B in (mm)	41.12 (1044.55)
C in (mm)	34.34 (872.34)

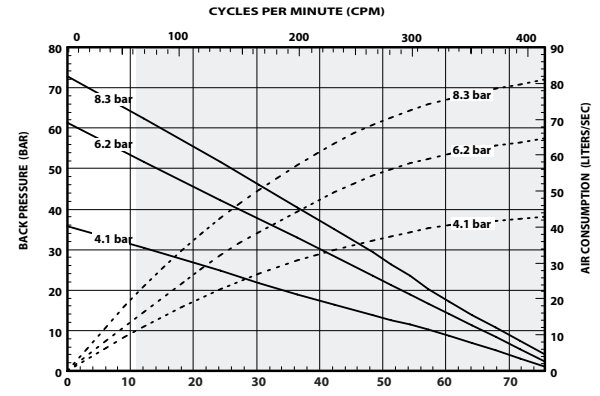
[1]For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Container Suitability	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - 316 Stainless Steel						
AF0409C11FF22	5 Gallon	316 Stainless Steel	UHMW-PE	UHMW-PE	1875C11FF22	K18755C11FF20
AF0409C11FF29	5 Gallon	304 Stainless Steel, Ceramic Coated	UHMW-PE	UHMW-PE	1875C11FF29	K18755C11FF20
AF0409C11SS22	5 Gallon	316 Stainless Steel, Ceramic Coated Tube	Virgin PTFE	Virgin PTFE	1875C11SS22	K18755C11SS20
AF0409C11VF2E	5 Gallon	316 Stainless Steel, Ceramic Coated Tube	Viton	UHMW-PE	1875C11VF2E	K18755C11VF20
AF0409C11VF29	5 Gallon	304 Stainless Steel, Ceramic Coated	Viton	UHMW-PE	1875C11VF29	K18755C11VF20
AF0409C51SS22	55 Gallon	316 Stainless Steel	Virgin PTFE	Virgin PTFE	1875C51SS22	K18755C11SS20

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

Recommended Accessories



67445-1
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

AFX Series

9:1 Ratio Pump Packages



ALX Series
Drum Cover Agitator w/Lift

55 GALLON

Packages					
Model No.	Package Type	Pump Model	Lift Model	Drum Cover	Material Hose
AL0409C51FF22002	Drum Cover w/Agitator Lift	AF0409C51FF22	640067	66197	623600-10

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4″ NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings



Extrusion Gun Nozzle Kits
66541-6 Orifice .063″ (1.63 mm)″, **66541-9** Orifice .093″ (2.36 mm),
66541-2 Orifice .125″ (3.17 mm)



Swivel
636085 Straight, 3/8″ (M) x 3/8″ (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8″ (M) x 3/8″ (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4″-18 NPTF to 1/4″-18 NPSM /
10,000 psi (690 bar) max working pressure



Material Filters
1/2″ F (2) inlet 1/2″ F (1) outlet / 6,000 psi (414 bar) max. / 200 micron
651420-70 for Carbon Steel
651422-70 for Stainless Steel



3/8″ Fluid Pressure Regulators
651780-A3A-B Regulated 400 – 1,250 psi (28 – 86 bar) /
3,000 psi (207 bar) max. inlet / stainless steel
651780-B1A-B Regulated 400 – 1,250 psi (28 – 86 bar) /
3,000 psi (207 bar) max. inlet / carbon steel
651780-B1B-B Regulated 1,000 – 3,000 psi (69 – 345 bar) /
6,000 psi (414 bar) max. inlet / carbon steel
651780-B3R-B Regulated 400 – 5,000 psi (28 – 345 bar) /
6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
P39344-100	Filter/Regulator
104327	Filter/Regulator Repair Kit
637489	Universal Air Motor Service Kit

10:1
8"

AFX Series

AF0810 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

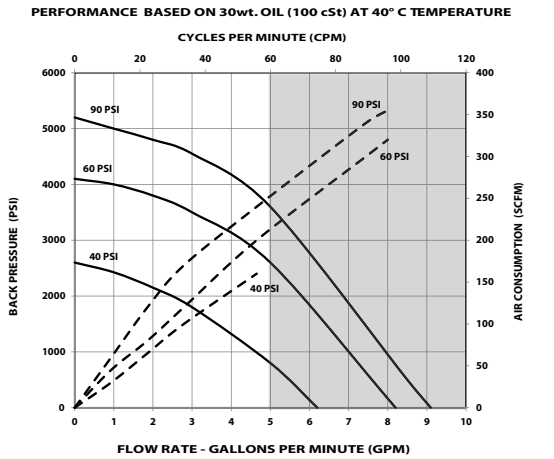
Pump Specifications

Ratio	10:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	2" NPT(F)
Material Outlet	1-1/4" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	0 - 120 (0 - 8.3)
Fluid Pressure Range psi (bar)	0 - 1200 (0 - 82.8)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	59.9 (979.9)
Cycles/gal (L)	3.9 (1.0)
Flow @ 60 Cycles gpm (L/min)	15.6 (58.9)
Noise Level @ 60 psi dBA	86.8
Weight* lb (kg)	102 (46.3)
Container Suitability	Remote Mounting

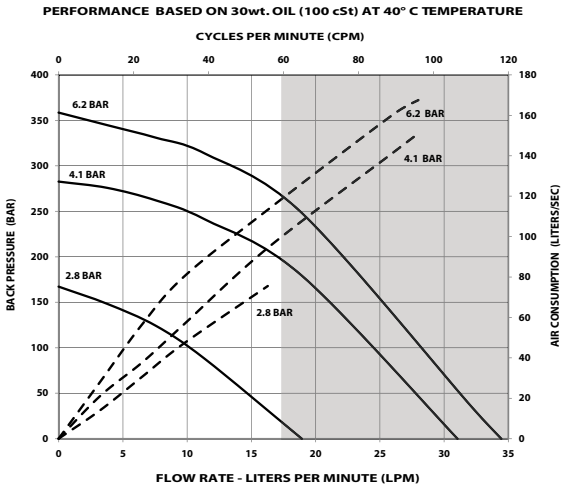
*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	49.43 (1255.5)
B in (mm)	26.37 (669.90)
C in (mm)	14.81 (376.22)

[1]For models without ball valve regulator subtract 2.08 in (52.83 mm)



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Model Material - 300 Series / CF8M Stainless Steel					
AF0810C11CC15	321 Stainless Steel w/Hard Chrome	Carbon-Graphite Filled PTFE	Carbon-Graphite Filled PTFE	66942-K3F	637211-K63
AF0810C11FF35	321 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66942-C6F	637211-C63
AF0810C11KK35	321 Stainless Steel w/Hard Chrome	Mineral Filled PTFE	Mineral Filled PTFE	66942-L6F	637211-L63
AF0810C11GF35	321 Stainless Steel w/Hard Chrome	UHMW-PE/Mineral Filled PTFE (Staggered)	UHMW-PE	66942-P6F	637211-P63
Lower Pump Model Material - 400 Series Stainless Steel					
AF0810F11FF36	15-5 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66941-C6D	637211-C63
AF0810F11KK36	15-5 Stainless Steel w/Hard Chrome	Mineral Filled PTFE	Mineral Filled PTFE	66941-L6D	637211-L63
AF0810F11RK36	15-5 Stainless Steel w/Hard Chrome	Mineral Filled PTFE/ UHMW-PE (Staggered)	Mineral Filled PTFE	66941-R6D	637211-R63

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

Recommended Accessories



67445-3
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

11:1
4-1/4"

AFX Series

AF0411 Series Pumps



(Model shown w/ball valve regulator)

11:1 Pump Packages on following page.

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

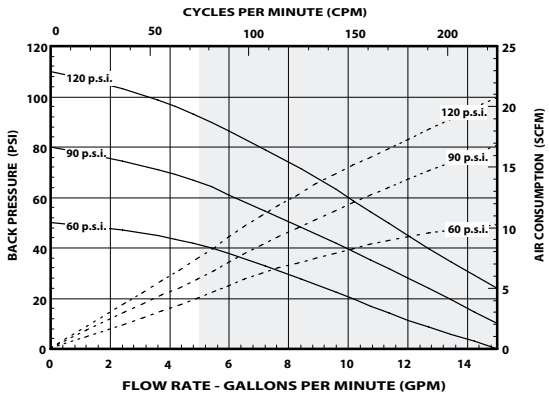
Ratio	11:1
Stroke (double acting)	6″ (15.24 cm)
Material Inlet	1″ NPT(F) 2″ NPT(M)
Material Outlet	1″ NPT(F)
Air Inlet (female)	1/2″ NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 150 (2 - 10.3)
Fluid Pressure Range psi (bar)	330 - 1747 (23 - 120)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	14.5 (237.6)
Cycles/gal (L)	15.9 (4.2)
Flow @ 60 Cycles gpm (L/min)	3.7 (14.0)
Noise Level @ 60 psi dBA	86.5
Weight* lb (kg)	42.9 (19.5)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	42.18 (1071.47)
B in (mm)	18.91(480.34)
C in (mm)	12.66 (321.59)

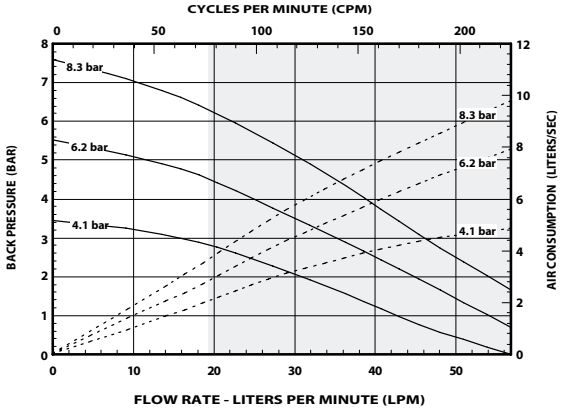
[1]For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - 300 Series SS w/ Tungsten Carbide Seat					
AF0411G11FF47	17-4 Stainless w/Hard Chrome	UHMW-PE	UHMW-PE	66300-C43	637305-C43
AF0411G11KK47	17-4 Stainless w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66300-343	637305-343
AF0411G11KK48	17-4 Stainless, Ceramic Coated	Glass Filled PTFE	Glass Filled PTFE	66300-34B	637305-343
AF0411G11HH47	17-4 Stainless w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66300-G43	637305-G43
AF0411G11GF47	17-4 Stainless w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66300-P43	637305-P43
AF0411G11RK47	17-4 Stainless w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66300-R43	637305-R43
AF0411G11FF48	17-4 Stainless, Ceramic Coated	UHMW-PE	UHMW-PE	66300-C4B	637305-C43
AF0411G11GF48	17-4 Stainless, Ceramic Coated	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66300-P4B	637305-P43
AF0411G11RK48	17-4 Stainless, Ceramic Coated	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66300-R4B	637305-R43

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

Recommended Accessories



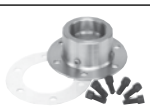
67445-1
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator

ServiceKits

637489
Universal Air Motor Service Kit

AFX Series

11:1 Ratio Pump Packages



TPX Series
Two-Post Ram

5 GALLON

Packages						
Model No.	Package Type	Pump Model	Ram Model	Follower	Follower Description	Material
TP0411G21FF48A72	5 Gallon Two Post Ram	AF0411G11FF48	RM052S-C	67347-2	Single Tube, EPR	Aluminum
TP0411G51GF47AA2	55 Gallon Two Post Ram	AF0411G11GF47	RM552S-C	66516-1	Double Lip, Polyure-thane	Aluminum
TP0411G21FF48A82	5 Gallon Two Post Ram	AF0411G11FF48	RM052S-C	67347-1	Single Tube, Buna	Aluminum

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4" NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings



Extrusion Gun Nozzle Kits
66541-6 Orifice .063" (1.63 mm), **66541-9** Orifice .093" (2.36 mm),
66541-2 Orifice .125" (3.17 mm)



Swivel
636085 Straight, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4"-18 NPTF to 1/4"-18 NPSM /
10,000 psi (690 bar) max working pressure



Material Filters
1/2" F (2) inlet 1/2" F (1) outlet / 6,000 psi (414 bar) max. / 200 micron
651420-70 for Carbon Steel
651422-70 for Stainless Steel



3/8" Fluid Pressure Regulators
651780-A3A-B Regulated 400 – 1,250 psi (28 – 86 bar) /
3,000 psi (207 bar) max. inlet / stainless steel
651780-B1A-B Regulated 400 – 1,250 psi (28 – 86 bar)/
3,000 psi (207 bar) max. inlet / carbon steel
651780-B1B-B Regulated 1,000 – 3,000 psi (69 – 345 bar) /
6,000 psi (414 bar) max. inlet / carbon steel
651780-B3R-B Regulated 400 – 5,000 psi (28 – 345 bar) /
6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
66354-1	Stabilizing Bracket
637489	Universal Air Motor Service Kit
637466	5 Gallon Two Post Ram Repair Kit
637491	55 Gallon Two Post Ram Repair Kit (RM552S-X)
67448	Cross Over Kit
67500	Low-Level Cut-Off Kit

15:1
10"

AFX Series

AF1015 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

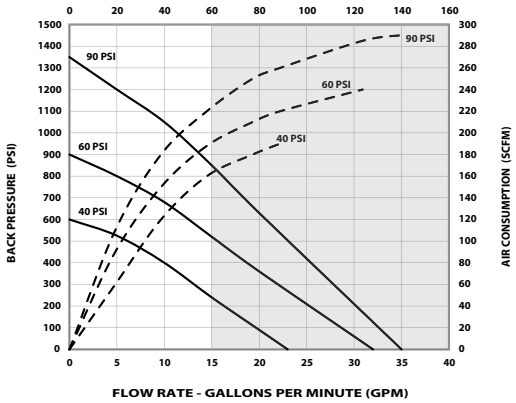
Ratio	15:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	2" NPT(F)
Material Outlet	1-1/4" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	450 - 1350 (31.0 - 93.1)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	59.8 (979.9)
Cycles/gal (L)	3.9 (1.0)
Flow @ 70 Cycles gpm (L/min)	18.1 (68.6)
Noise Level @ 60 psi dBA	89.8
Weight* lb (kg)	125 (56.7)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	49.43 (1255.5)
B in (mm)	26.37 (669.90)
C in (mm)	14.81 (376.22)

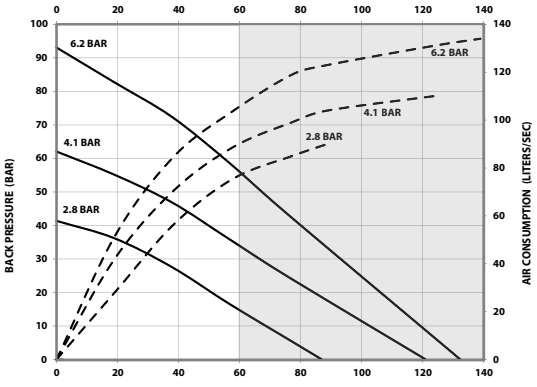
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material – 300 Series / CF8M Stainless Steel					
AF1015C11FF35	321 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66942-C6F	637211-C63
AF1015C11GF35	321 Stainless Steel w/Hard Chrome	UHMW-PE/Mineral Filled PTFE (Staggered)	UHMW-PE	66942-P6F	637211-P63
Lower Pump Model Material – 400 Series SS w/Tungsten Carbide Seat					
AF1015J11FF36	15-5 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66941-CDD	637211-C63
Lower Pump Model Material – 400 Series Stainless Steel					
AF1015F11FF36	15-5 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66941-C6D	637211-C63
AF1015F11KK36	15-5 Stainless Steel w/Hard Chrome	Mineral Filled PTFE	Mineral Filled PTFE	66941-L6D	637211-L63
AF1015F11RK36	15-5 Stainless Steel w/Hard Chrome	Mineral Filled PTFE/ UHMW-PE (Staggered)	Mineral Filled PTFE	66941-R6D	637211-R63

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

Recommended Accessories



67445-4
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



635043
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator

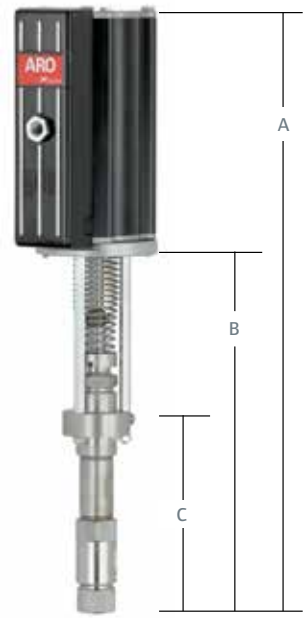


637489
Universal Air Motor Service Kit

18:1
3"

N Series

NM2318B-13-X43 Series Pumps



Materials: Paint, Coatings

Pump Specifications

Ratio	18:1
Stroke in (mm)	3 (76)
Material Inlet	.50" NPT(F)
Material Outlet	.25" NPT(F)
Air Inlet (female)	.25" NPT(F)
Air Inlet Pressure Range psi (bar)	0-150 (0-10.3)
Fluid Pressure Range psi (bar)	0-2,700 (0-186.2)
Max Cycles/Minute	120
Displacement/Cycle cu in (cm3)	2.3 (37.6)
Cycles/gal (L)	98.3 (26.5)
Flow @ 60 Cycles gpm (L/min)	0.60 (2.3)
Noise Level @ 100 psi dBA	85
Weight* lb (kg)	12.6 (5.7)

*Estimated weight. Contact Technical Support for exact weight.

Model	A in (mm)	B in (mm)	C in (mm)
NM2318B-13-X43	23.187 (563.6)	13.812 (334.2)	6.937 (175.4)

Pump Model	Lower Pump Material	Plunger Material	Upper Packings	Lower Packings	Pump Service Kit*
Lower Pump Material - Stainless Steel					
NM2318B-13-C43	304 Stainless Steel	17-4 Stainless Steel	UHMW-PE	UHMW-PE	**637394-X43**
NM2318B-13-L43	304 Stainless Steel	17-4 Stainless Steel	PTFE	PTFE	**637394-X43**

Lower pump repair kit

Recommended Accessories


P29122-600
Piggyback F/R


635040
ARO-Stop Valve


95015
Wall Mount


66333-B
Wet Sol


651533
Airless Spray Gun



637316
Air Motor Service Kit

TC1550
Airless Spray Nozzle

628042-25
Hose Assembly

22:1
4-1/4"

AFX Series

AF0422 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

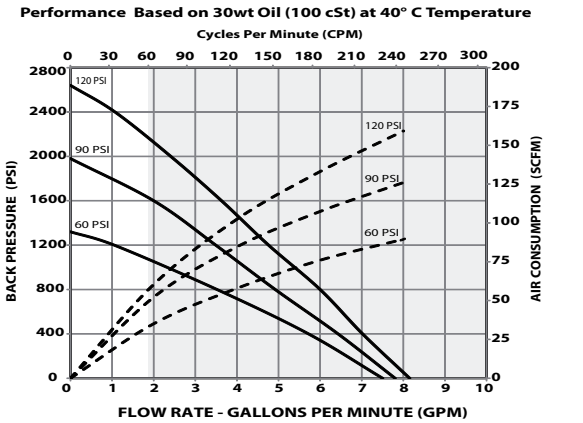
Pump Specifications

Ratio	22:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	1" NPT(F) 2" NPT(M)
Material Outlet	1" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 150 (2 - 10.3)
Fluid Pressure Range psi (bar)	660 - 3412 (46 - 235)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	7.5 (122.9)
Cycles/gal (L)	30.9 (8.1)
Flow @ 60 Cycles gpm (L/min)	1.9 (7.2)
Noise Level @ 60 psi dBA	86.5
Weight* lb (kg)	42.9 (19.5)
Container Suitability	Remote Mounting

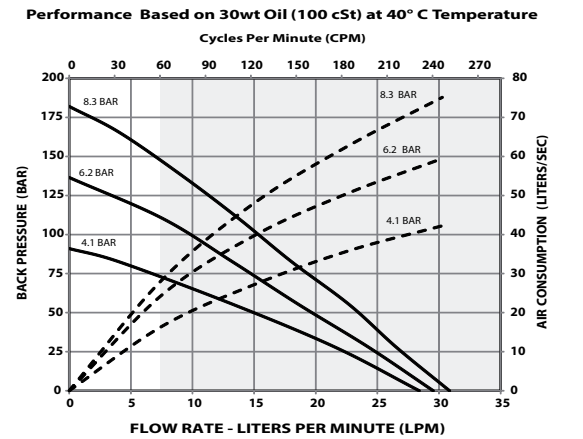
*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	42.18 (1071.47)
B in (mm)	18.91 (480.34)
C in (mm)	12.66 (321.59)

[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - 300 Series SS w/Tungsten Carbide Seat					
AF0422G11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66301-C43	637306-C43
AF0422G11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66301-343	637306-343
AF0422G11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66301-G43	637306-G43
AF0422G11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66301-P43	637306-P43
AF0422G11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66301-R43	637306-R43
AF0422G11RK48	17-4 Stainless Steel Ceramic Coated	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66301-R4B	637306-R43

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

Recommended Accessories



67445-1
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

23:1
6"

AFX Series

AF0623 Series Pumps



(Model shown w/ball valve regulator)

23:1 Pump Packages on following page.

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

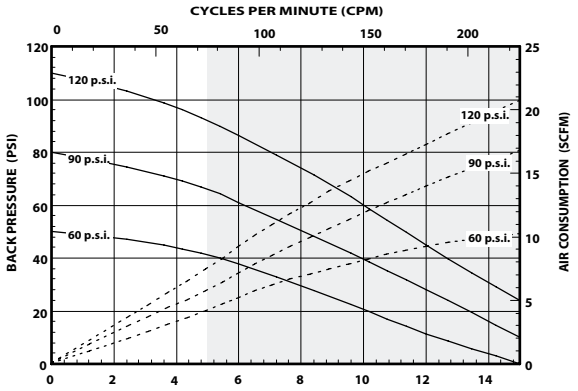
Ratio	23:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	1" NPT(F) 2" NPT(M)
Material Outlet	1" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 150 (2.1 – 10.3)
Fluid Pressure Range psi (bar)	690 – 3495 (47.6 – 241)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm^3)	14.5 (237.6)
Cycles/gal (L)	15.9 (4.2)
Flow @ 60 Cycles gpm (L/min)	3.8 (14.3)
Noise Level @ 60 psi dBA	84.7
Weight* lb (kg)	46.2 (21)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	42.18 (1071.47)
B in (mm)	18.91 (480.34)
C in (mm)	12.66 (321.59)

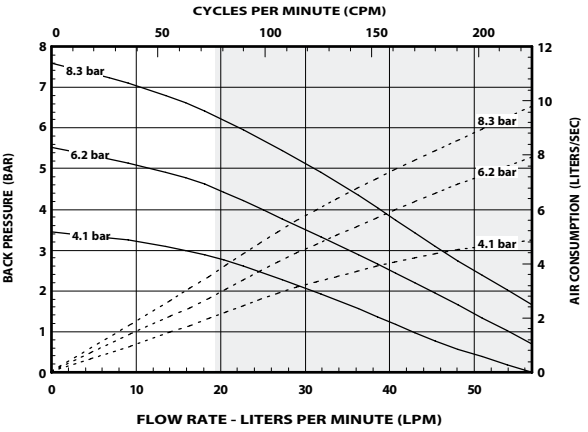
[1]For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE

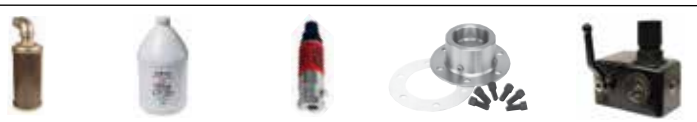


NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - 300 Series SS w/Tungsten Carbide Seat					
AF0623G11FF47	17-4 SS w/Hard Chrome	UHMW-PE	UHMW-PE	66300-C43	637305-C43
AF0623G11KK47	17-4 SS w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66300-343	637305-343
AF0623G11KK48	17-4 SS, Ceramic Coated	Glass Filled PTFE	Glass Filled PTFE	66300-34B	637305-343
AF0623G11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66300-G43	637305-G43
AF0623G11HH48	17-4 Stainless Steel, Ceramic Coated	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66300-G4B	637305-G43
AF0623G11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66300-P43	637305-P43
AF0623G11RK48	17-4 Stainless Steel, Ceramic Coated	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66300-R4B	637305-R43
AF0623G11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66300-R43	637305-R43
AF0623G11FF48	17-4 SS, Ceramic Coated	UHMW-PE	UHMW-PE	66300-C4B	637305-C43
AF0623G11GF48	17-4 Stainless, Ceramic Coated	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66300-P4B	637305-P43

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

Recommended Accessories



67445-2 Muffler Kit	66334-B Wet-Sol Packing Lubricant	23644-400 ARO-Stop Valve	67136 Floor/Follower Plate Adapter	67442 Ball Valve Regulator	637489 Universal Air Motor Service Kit

AFX Series

23:1 Ratio Pump Packages



TPX Series
Two Post Ram

55 GALLON

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Description	Material
TP0623G51RK47TA2	55 Gallon Two Post Ram	AF0623G11RK47	RM552S-C	66516-6	Double Lip, Polyurethane	Aluminum w/PTFE Coating

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4" NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings



Extrusion Gun Nozzle Kits
66541-6 Orifice .063" (1.63 mm), **66541-9** Orifice .093" (2.36 mm),
66541-2 Orifice .125" (3.17 mm)



Swivel
636085 Straight, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4"-18 NPTF to 1/4"-18 NPSM /
10,000 psi (690 bar) max working pressure

Material Filters
1" F (2) inlet 3/8" F (3) outlet / 6,000 psi (414 bar) max. / Carbon Steel
651418-40-B for 40 Mesh (375 Microns)
651418-70-B for 70 Mesh (200 Microns)



3/4" Fluid Pressure Regulators
651780-C1B-B Regulated 750 – 2,500 psi (52 – 173 bar) /
6,000 psi (414 bar) max. inlet / carbon steel
651780-C1C-B Regulated 2,000 – 5,000 psi (138 – 345 bar) /
6,000 psi (414 bar) max. inlet / carbon steel
651780-C3B-B Regulated 750 – 2,500 psi /
6,000 psi (414 bar) max. inlet / stainless steel
651780-C3R-B Regulated 750 – 5,000 psi (52 – 345 bar) /
6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
66354-1	Stabilizing Kit
637489	Universal Air Motor Service Kit
637491	55 Gallon Two Post Ram Repair Kit (RM552S-X)
67488	Cross Over Kit
67500	Low-Level Cut-Off Kit

23:1
12"

AFX Series

AF1223 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

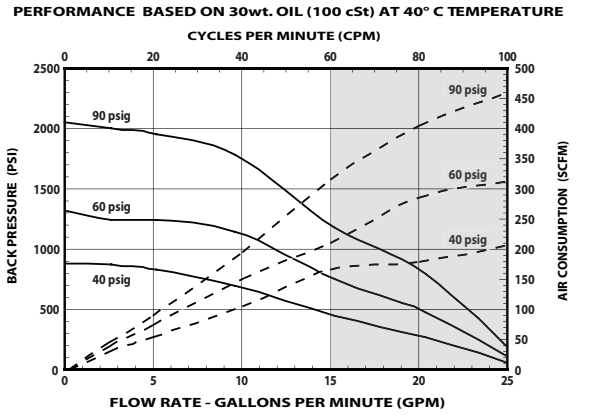
Pump Specifications

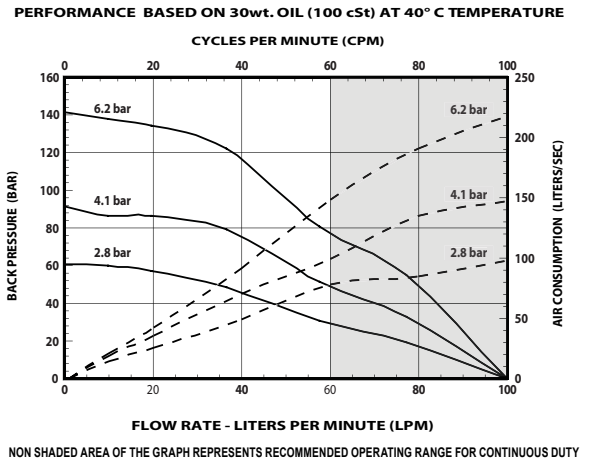
Ratio	23:1
Stroke (double acting)	6" (15.24)
Material Inlet	2" NPT(F)
Material Outlet	1-1/4" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	690 - 2070 (47.6 - 142.8)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	59.8 (979.9)
Cycles/gal (L)	3.9 (1.0)
Flow @ 70 Cycles gpm (L/min)	18.1 (68.6)
Noise Level @ 60 psi dBA	93
Weight* lb (kg)	140 (63.5)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	49.46 (1256.26)
B in (mm)	26.37 (669.89)
C in (mm)	14.81 (376.2)

[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)





Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Model Material – 300 Series / CF8M Stainless Steel					
AF1223C11CC15	321 Stainless Steel w/Hard Chrome	Carbon-Graphite Filled PTFE	Carbon-Graphite Filled PTFE	66942-K3F	637211-K33
AF1223C11FF35	321 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66942-C6F	637211-C63
Lower Pump Model Material – 400 Series Stainless Steel					
AF1223F11GF36	15-5 Stainless Steel w/Hard Chrome	UHMW-PE/Mineral Filled PTFE (Staggered)	UHMW-PE	66941-P6D	637211-P63
AF1223F11FF36	15-5 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66941-C6D	637211-C63

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

Recommended Accessories



67445-5
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



635043
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

23:1
12"

AFX Series

AF1223 Series Pumps
UV/EB 2-Ball Lower End



(Model shown w/ball valve regulator)

23:1 Pump Packages on following page.

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

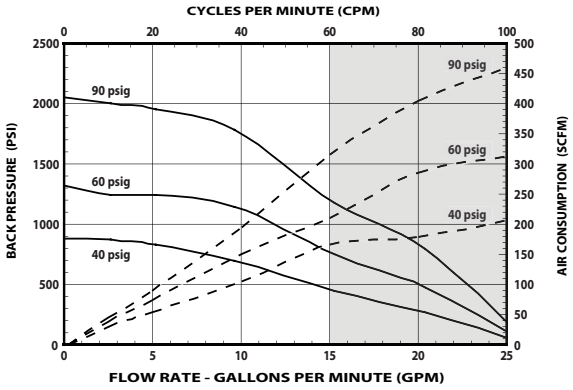
Ratio	23:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Follower Plate Mounted
Material Outlet	1-1/4" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	690 - 2070 (47.6 - 142.8)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	59.8 (980.12)
Cycles/gal (L)	3.9 (1.0)
Flow @ 70 Cycles gpm (L/min)	18.1 (68.6)
Noise Level @ 60 psi dBA	93
Weight* lb (kg)	200 (90.7)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	53.52 (1256.26)
B in (mm)	30.44 (669.89)
C in (mm)	18.88 (376.2)

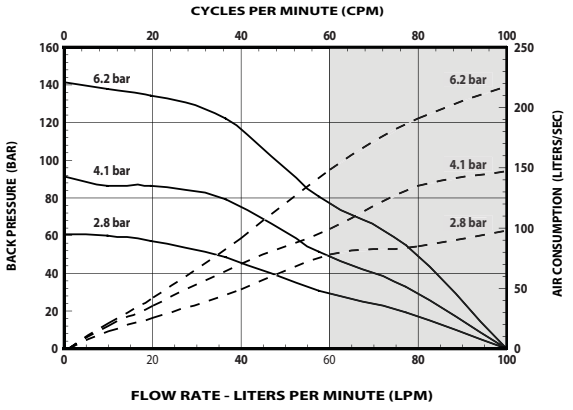
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Model Material - 300 Series / CF8M Stainless Steel w/ Large Inlet					
AF1223C51FF35	321 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	67372-C6F	637444-C6D
AF1223C51FFP5	321 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	67372-CEF	637444-CED

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

Recommended Accessories



67445-5
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



635043
ARO-Stop Valve



67442
Ball Valve Regulator

ServiceKits

637489
Universal Air Motor Service Kit

AFX Series

23:1 Ratio UV Ink Pump Packages



TPX Series
Two Post Ram

55 GALLON

Packages						
Model No.	Package Type	Pump Model	Ram Model	Follower	Follower Description	Material
TP1223C51FF35TAC	55 Gallon Two Post Ram	AF1223C51FF35	RM552S-C	67409-6	Double-Lip, Polyurethane	Aluminum w/PTFE Coating
TP1223C51FFP5AN2	55 Gallon Two Post Ram	AF1223C51FFP5	RM552S-C	67410-2	Double-Tube, EPR	Aluminum

Recommended Accessories



Low Level Cut-Off
67500 Used to shut off air supply to pump when material container is empty or near-empty



Inline Flow Control
104104-F06 Helps set and maintain precise operating speeds in order to optimize pump performance



Cross Over Kit
67448 Maintains fluid delivery in extrusion systems. Can activate alarm to alert maintenance to change empty fluid container.

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
66353-1	Stabilizing Bracket
637489	Universal Air Motor Service Kit
637491	55 Gallon Two Post Ram Repair Kit (Standard)

28:1
3"

N Series

NM2328A-11-X11 Series Pumps



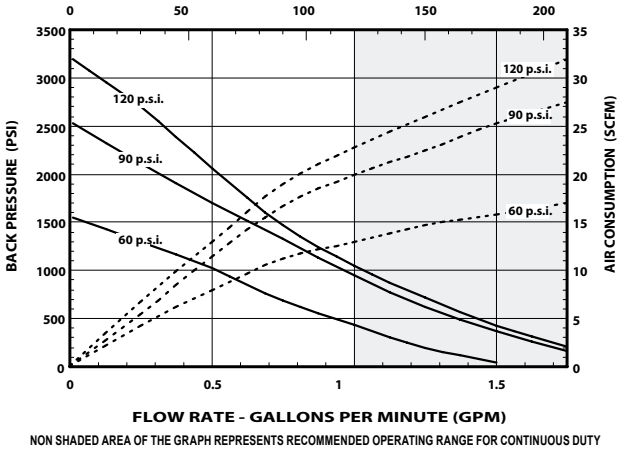
Materials: Paint, Coatings

Pump Specifications

Ratio	28:1
Stroke in (mm)	3 (76)
Material Inlet	.50" NPT(F)
Air Inlet (female)	.25" NPT(F)
Air Inlet Pressure Range psi (bar)	0-150 (0-10.3)
Fluid Pressure Range psi (bar)	0-4,200 (0-289.7)
Max Cycles/Minute	125
Displacement/Cycle cu in (cm3)	1.4 (22.9)
Cycles/gal (L)	157.5 (43.5)
Flow @ 60 Cycles gpm (L/min)	0.38 (1.4)
Noise Level @ 100 psi dBA	85
Weight* lb (kg)	13 (5.9)

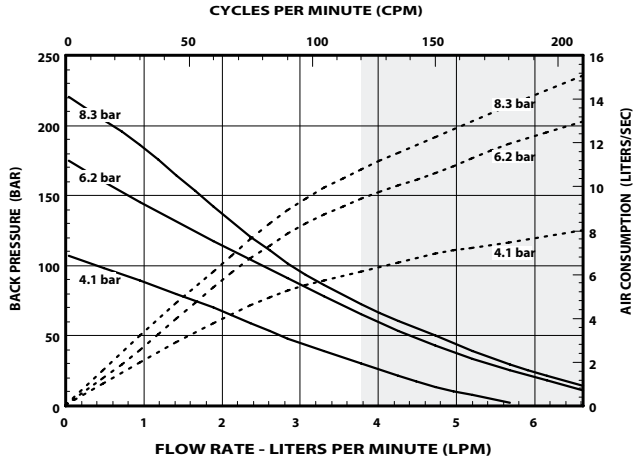
Model	A in (mm)	B in (mm)	C in (mm)
NM2328A-11-X11	21.75 (552.1)	13.031 (331)	6.25 (158.6)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

28:1 Pump Packages on following page.

Pump Model	Lower Pump Material	Plunger Material	Upper Packings	Lower Packings	Material Outlet	Pump Service Kit*
Lower Pump Material - Stainless Steel						
NM2328A-11-311	440 Stainless Steel	440 Stainless Steel	PTFE	PTFE	.25" NPT(M)	**637006-3**
NM2328A-11-G11	440 Stainless Steel	440 Stainless Steel	UHMW-PE	UHMW-PE	1.25" NPT(M)	**637006-2**
NM2328A-11-S11	440 Stainless Steel	440 Stainless Steel	UHMW-PE	UHMW-PE	1.25" NPT(M)	**637006-3**

**Lower pump repair kit*

Recommended Accessories



P29122-600 Piggyback F/R	**635040** ARO-Stop Valve	**61113** Wall Mount	**66333-B** Wet Sol	**651533** Airless Spray Gun	**637316** Air Motor Service Kit	**TC1550** Airless Spray Nozzle	**628042-25** Hose Assembly

N Series

28:1 Ratio Pump Packages


NP328C01-2



NP328D01-1



NP438001-3



NP328D02-1

Model	Air Inlet Pressure Range psi (bar)	Fluid Pressure Range psi (bar)	Flow @ 60 Cycles per Minute gpm (L/min)	Displacement per Cycle cu in (mL)	Lower Pump Material	Plunger Material	Packing Material	Air Motor	Air Motor Repair Kit	Lower Pump End Series	Lower Pump Repair Kit
NP328C01-2	0 - 150 (0 - 10.3)	0 - 4,200 (0 - 289.7)	0.38 (1.4)	1.4 (24.0)	440 Stainless Steel	440 Stainless Steel	UHMW-PE/ Glass-filled PTFE (staggered)	66914	637316	66066-3	637006-3
NP328C02-2	0 - 150 (0 - 10.3)	0 - 4,200 (0 - 289.7)	0.38 (1.4)	1.4 (24.0)	440 Stainless Steel	440 Stainless Steel	UHMW-PE/ Glass-filled PTFE (staggered)	66914	637316	66066-3	637006-3
NP328D01-1	0 - 150 (0 - 10.3)	0 - 4,200 (0 - 289.7)	0.38 (1.4)	1.4 (24.0)	Hardened Stainless Steel	Hardened Stainless Steel	UHMW-PE/Leather (staggered)	66914	637316	66066-2	637006-2
NP328D01-2	0 - 150 (0 - 10.3)	0 - 4,200 (0 - 289.7)	0.38 (1.4)	1.4 (24.0)	Hardened Stainless Steel	Hardened Stainless Steel	UHMW-PE/ Glass-filled PTFE (staggered)	66914	637316	66066-3	637006-3
NP328D01-3	0 - 150 (0 - 10.3)	0 - 4,200 (0 - 289.7)	0.38 (1.4)	1.4 (24.0)	Hardened Stainless Steel	Hardened Stainless Steel	UHMW-PE/Leather (staggered)	66914	637316	66066-2	637006-2
NP328D01-4	0 - 150 (0 - 10.3)	0 - 4,200 (0 - 289.7)	0.38 (1.4)	1.4 (24.0)	Hardened Stainless Steel	Hardened Stainless Steel	UHMW-PE/ Glass-filled PTFE (staggered)	66914	637316	66066-3	637006-3
NP328D01-6	0 - 150 (0 - 10.3)	0 - 4,200 (0 - 289.7)	0.38 (1.4)	1.4 (24.0)	Hardened Stainless Steel	Hardened Stainless Steel	UHMW-PE/ Glass-filled PTFE (staggered)	66914	637316	66066-3	637006-3
NP328D02-1	0 - 150 (0 - 10.3)	840 - 4,200 (57.4 - 285.7)	0.38 (1.4)	1.4 (24.0)	Hardened Stainless Steel	Hardened Stainless Steel	UHMW-PE/Leather (staggered)	66914	637316	66066-2	637006-2
NP328D02-2	0 - 150 (0 - 10.3)	840 - 4,200 (57.4 - 285.7)	0.38 (1.4)	1.4 (24.0)	Hardened Stainless Steel	Hardened Stainless Steel	UHMW-PE/ Glass-filled PTFE (staggered)	66914	637316	66066-3	637006-3

28:1 Cart Mounted

NP328C01-2 / Stainless Steel

NM2328A-11-S11	Stainless-steel pump
P29122-100	Air filter/regulator
29850	Gauge
622581-6	Inlet hose assembly
651412	Material Filter

NP328C02-2 / Stainless Steel

NM2328A-11-S11	Stainless-steel pump
P29122-100	Air filter/regulator
29850	Gauge
622581-6	Inlet hose assembly
651412	Material filter
628042-25	Outlet hose assembly
651533	Airless spray gun
TC1550	Spray nozzle
65030-5-B	Gun filter and swivel assembly

28:1 5-Gallon Pail Mounted

NP328D01-1 / SS Airless Package

NM2328A-11-G11	Stainless-steel pump
651412	Material filter assembly
65706	Cover
628042-25	Hose assembly
R27221-100	Air regulator
100067	Gauge
65722	Bucket
651533	Dispense valve
TC-1550	Nozzle
65030-5-B	Filter/swivel assembly
91296	Screen inlet cover
90273	Foot screen

NP328D01-2 / SS Airless Package

NM2328A-11-S11	Stainless-steel pump
651412	Material filter assembly
65706	Cover
628042-25	Hose assembly
R27221-100	Air regulator
100067	Gauge
65722	Bucket
651533	Dispense valve
TC-1550	Nozzle
65030-5-B	Filter/swivel assembly
91296	Screen inlet cover
90273	Foot screen

28:1 5-Gallon Pail Mounted

NP328D01-3 / SS Airless Package

NM2328A-11-G11	Stainless-steel pump
651412	Material filter assembly
65706	Cover
65722	Bucket

NP328D01-4 / SS Airless Package

NM2328A-11-S11	Stainless-steel pump
651412	Material filter assembly
65706	Cover
65722	Bucket

NP328D01-6 / SS Airless Package

NM2328A-11-S11	Stainless-steel pump
651412	Material filter assembly
65706	Cover
N/A	Bucket

28:1 5-Gallon Pail Mounted

NP328D02-1 / SS Airless Package

NM2328A-11-G11	Stainless-steel pump
651412	Material filter assembly
67506	Cover
628042-25	Hose assembly
R27221-100	Air regulator
100067	Gauge
650252	Agitator
65722	Bucket
651533	Airless spray gun
TC-1550	Spray nozzle
65030-5-B	Filter/swivel assembly
91296	Screen inlet cover
90273	Foot screen

NP328D02-2 / SS Airless Package

NM2328A-11-S11	Stainless-steel pump
651412	Material filter assembly
67506	Cover
628042-25	Hose assembly
R27221-100	Air regulator
100067	Gauge
650252	Agitator
65722	Bucket
651533	Airless spray gun
TC-1550	Spray nozzle
65030-5-B	Filter/swivel assembly
91296	Screen inlet cover
90273	Foot screen

28:1
8"

AFX Series

AF0828 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

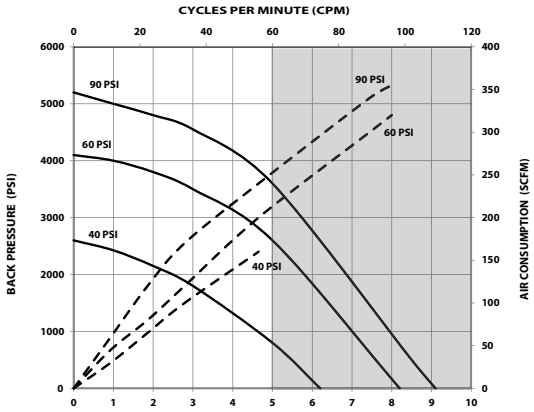
Ratio	28:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	2" NPT(F)
Material Outlet	1" NPT (F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 120 (2.1 - 8.3)
Fluid Pressure Range psi (bar)	840 - 3360 (57.9 - 231.7)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	20.7 (338.65)
Cycles/gal (L)	11.2 (42.34)
Flow @ 70 Cycles gpm (L/min)	6.27 (23.7)
Noise Level @ 60 psi dBA	86.8
Weight* lb (kg)	113 (51.3)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	50.24 (1276.15)
B in (mm)	27.19 (690.58)
C in (mm)	16.06 (408.00)

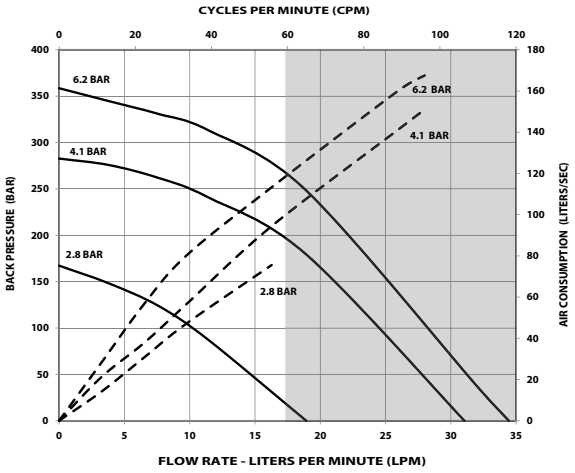
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - Carbon Steel Nickel Plated					
AF0828B11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66475-R4D	637098-R43

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

Recommended Accessories



67445-3
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



65139
Floor Mount



67442
Ball Valve Regulator

ServiceKits

637489
Universal Air Motor Service Kit

30:1
4-1/4"

AFX Series

AF0430 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

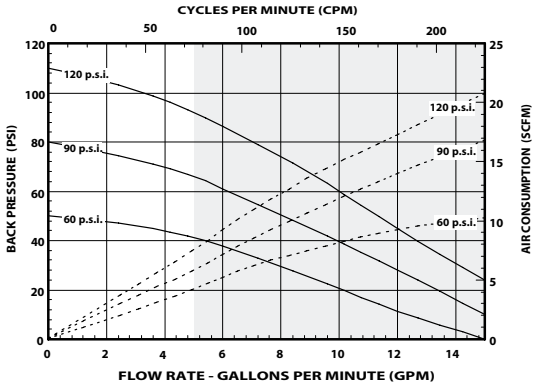
Ratio	30:1
Stroke (double acting)	6″ (15.24 cm)
Material Inlet	1″ NPT(F) 2″ NPT(M)
Material Outlet	1″ NPT(F)
Air Inlet (female)	1/2″ NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 150 (2 - 10.3)
Fluid Pressure Range psi (bar)	900 - 4629 (62 - 319)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	5.5 (90.1)
Cycles/gal (L)	41.9 (11.0)
Flow @ 60 Cycles gpm (L/min)	1.3 (4.9)
Noise Level @ 60 psi dBA	86.5
Weight* lb (kg)	42.9 (19.5)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	42.18 (1071.47)
B in (mm)	18.91 (480.34)
C in (mm)	12.66 (321.59)

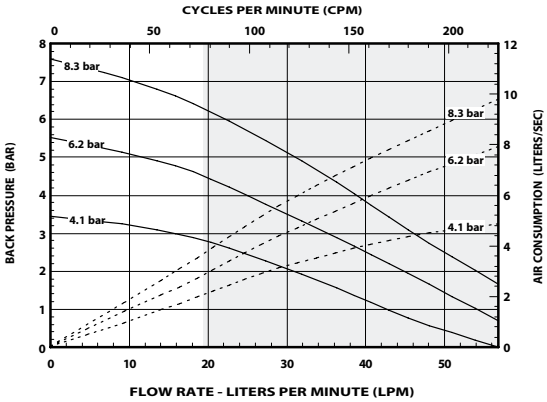
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - 300 Series SS w/Tungsten Carbide Seat					
AF0430G11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66302-C43	637307-C43
AF0430G11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66302-343	637307-343
AF0430G11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66302-G43	637307-G43
AF0430G11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66302-P43	637307-P43
AF0430G11GF48	17-4 Stainless, Ceramic Coated	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66302-P4B	637307-P43
AF0430G11HH48	17-4 Stainless, Ceramic Coated	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66302-G4B	637307-G43

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

Recommended Accessories



67445-1
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator

ServiceKits

637489
Universal Air Motor Service Kit

AFX Series

30:1 Ratio Pump Packages



CMX Series Cart Mount

5 GALLON

Packages					
Model No.	Package Type	Pump Model	Cart Model	Material Hose	Material Filter
CM0430G11GF47001	Cart Mount	AF0430G11GF47-1	67139	67140-1	651422-70

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4" NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings

Extrusion Gun Nozzle Kits
66541-6 Orifice .063" (1.63 mm), **66541-9** Orifice .093" (2.36 mm),
66541-2 Orifice .125" (3.17 mm)



Swivel
636085 Straight, 3/8" (M) x 3/8" (F) / fabric with neoprene / 8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8" (M) x 3/8" (F) / fabric with neoprene / 8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4"-18 NPTF to 1/4"-18 NPSM / 10,000 psi (690 bar) max working pressure



Material Filters
1/2" F (2) inlet 1/2" F (1) outlet / 6,000 psi (414 bar) max. / 200 micron
651420-70 for Carbon Steel
651422-70 for Stainless Steel



3/8" Fluid Pressure Regulators
651780-A3A-B Regulated 400 – 1,250 psi (28 – 86 bar) / 3,000 psi (207 bar) max. inlet / stainless steel
651780-B1A-B Regulated 400 – 1,250 psi (28 – 86 bar) / 3,000 psi (207 bar) max. inlet / carbon steel
651780-B1B-B Regulated 1,000 – 3,000 psi (69 – 345 bar) / 6,000 psi (414 bar) max. inlet / carbon steel
651780-B3R-B Regulated 400 – 5,000 psi (28 – 345 bar) / 6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
F35341-400	Filter
104317	Filter Element
637489	Universal Air Motor Service Kit

40:1
8"

AFX Series

AF0840 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

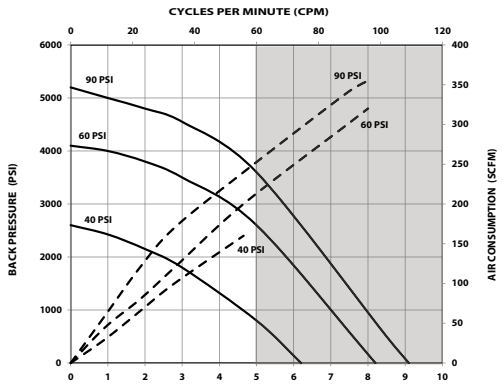
Ratio	40:1
Stroke (double acting)	6″ (15.24 cm)
Material Inlet	1″ NPT(F) 2″ NPT(M)
Material Outlet	1″ NPT(F)
Air Inlet (female)	1/2″ NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 120 (2.1 - 8.3)
Fluid Pressure Range psi (bar)	1200 - 4967 (82.2 - 342.6)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	14.5 (237.6)
Cycles/gal (L)	15.9 (4.2)
Flow @ 60 Cycles gpm (L/min)	3.7 (14.0)
Noise Level @ 60 psi dBA	86.8
Weight* lb (kg)	68.1 (30.9)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	45.65 (1159.43)
B in (mm)	22.59 (573.84)
C in (mm)	12.66 (321.59)

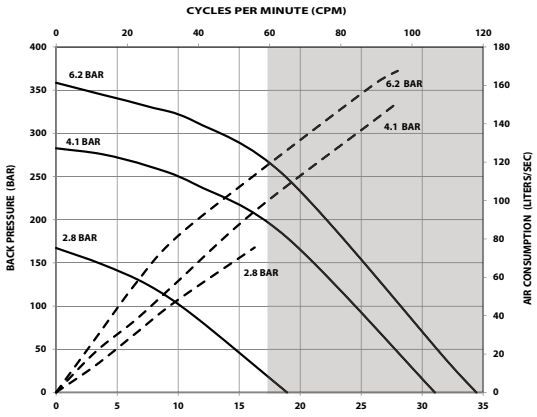
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Model Material – 300 Series SS w/ Tungsten Carbide Seat					
AF0840G11FF47	17-4 Stainless Steel w/ Hard Chrome	UHMW-PE	UHMW-PE	66300-C4D	637305-C43
AF0840G11KK47	17-4 Stainless Steel w/ Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66300-34D	637305-343
AF0840G11FF48	17-4 Stainless Steel, Ceramic Coated	UHMW-PE	UHMW-PE	66300-C4G	637305-C43
AF0840G11GF47	17-4 Stainless Steel w/ Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66300-P4D	637305-P43
AF0840G11RS48	17-4 Stainless, Ceramic Coated	Glass Filled PTFE/ UHMW-PE (Staggered)	Virgin PTFE	66300-R4G	637305-R43
AF0840G11RS47	17-4 Stainless Steel w/ Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Virgin PTFE	66300-R43	637305-R43

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

Recommended Accessories



67445-3 Muffler Kit



66334-B Wet-Sol Packing Lubricant



23644-400 ARO-Stop Valve



67136 Floor/Follower Plate Adapter



67442 Ball Valve Regulator



637489 Universal Air Motor Service Kit

45:1
6"

AFX Series

AF0645 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

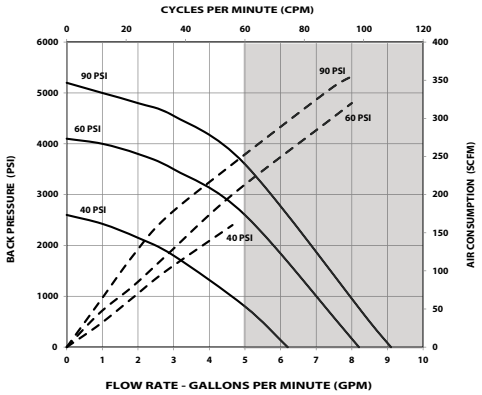
Ratio	45:1
Stroke (double acting)	6″ (15.24 cm)
Material Inlet	1″ NPT(F) 2″ NPT(M)
Material Outlet	1″ NPT(F)
Air Inlet (female)	1/2″ NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 120 (2 - 8.3)
Fluid Pressure Range psi (bar)	1350 - 5459 (93 - 376)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	7.5 (122.9)
Cycles/gal (L)	31 (8.1)
Flow @ 60 Cycles gpm (L/min)	1.9 (7.3)
Noise Level @ 60 psi dBA	84.7
Weight* lb (kg)	46.2 (21)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	42.18 (1071.47)
B in (mm)	18.91 (480.34)
C in (mm)	12.66 (321.59)

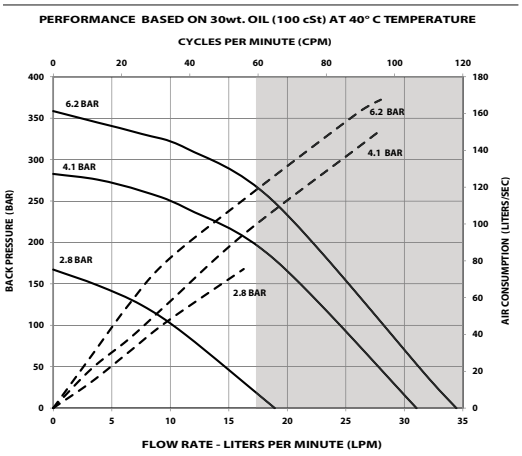
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - 300 Series SS w/Tungsten Carbide Seat					
AF0645G11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66301-C43	637306-C43
AF0645G11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66301-343	637306-343
AF0645G11FF48	17-4 Stainless Steel, Ceramic Coated	UHMW-PE	UHMW-PE	66301-C4B	637306-C43
AF0645G11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66301-G43	637306-G43
AF0645G11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66301-P43	637306-P43
AF0645G11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66301-R43	637306-R43
AF0645G11RK48	17-4 Stainless, Ceramic Coated	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66301-R4B	637306-R43

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

45:1 Pump Packages on following page.

Recommended Accessories



67445-2
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

AFX Series

45:1 Ratio Pump Packages



CMX Series Cart Mount

5 GALLON



TPX Series Two Post Ram

55 GALLON

Packages						
Model No.	**Package Type**	**Pump Model**	**Cart Model**	**Material Hose**	**Material Filter**	**Ball Valve Regulator**
CM0645G11GF47001	Cart Mount	AF0645G11GF47-1	67139	67140-1	651422-70	67442
Model No.	**Package Type**	**Pump Model**	**Ram Model**	**Follower**	**Follower Description**	**Material**
TP0645G51RK47TN2	55 Gallon Two Post Ram	AF0645G11RK47	RM552S-C	67195-6	Double Tube, EPR	Aluminum w/PTFE Coating
TP0645G51RK47TB2	55 Gallon Two Post Ram	AF0645G11RK47	RM552S-C	66516-7	Double Lip, EPR	Aluminum w/PTFE Coating

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4" NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings



Extrusion Gun Nozzle Kits
66541-6 Orifice .063" (1.63 mm), **66541-9** Orifice .093" (2.36 mm),
66541-2 Orifice .125" (3.17 mm)



Swivel
636085 Straight, 3/8" (M) x 3/8" (F) / fabric with neoprene / 8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8" (M) x 3/8" (F) / fabric with neoprene / 8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4"-18 NPTF to 1/4"-18 NPSM / 10,000 psi (690 bar) max working pressure

Material Filters
1" F (2) inlet 3/8" F (3) outlet / 6,000 psi (414 bar) max. / Carbon Steel
651418-40-B for 40 Mesh (375 Microns)
651418-70-B for 70 Mesh (200 Microns)



3/4" Fluid Pressure Regulators
651780-C1B-B Regulated 750 – 2,500 psi (52 – 173 bar) / 6,000 psi (414 bar) max. inlet / carbon steel
651780-C1C-B Regulated 2,000 – 5,000 psi (138 – 345 bar) / 6,000 psi (414 bar) max. inlet / carbon steel
651780-C3B-B Regulated 750 – 5,000 psi (52 – 345 bar) / 6,000 psi (414 bar) max. inlet / stainless steel
651780-C3R-B Regulated 750 – 5,000 psi (52 – 345 bar) / 6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
66354-1	Stabilizing Bracket
637489	Universal Air Motor Service Kit
637491	55 Gallon Two Post Ram Repair Kit (RM552S-X)
67448	Cross Over Kit
67500	Low-Level Cut-Off Kit

45:1
10"

AFX Series

AF1045 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

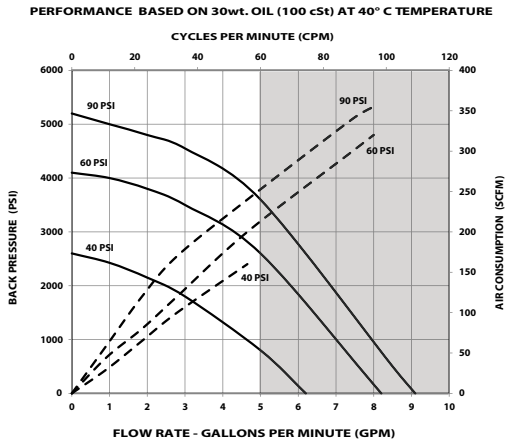
Pump Specifications

Ratio	45:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	2" NPT(F)
Material Outlet	1" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	1350 - 4050 (93.1 - 279.3)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	20.7 (339.2)
Cycles/gal (L)	11.2 (2.9)
Flow @ 70 Cycles gpm (L/min)	6.27 (23.7)
Noise Level @ 60 psi dBA	89.8
Weight* lb (kg)	132 (59.9)
Container Suitability	Remote Mounting

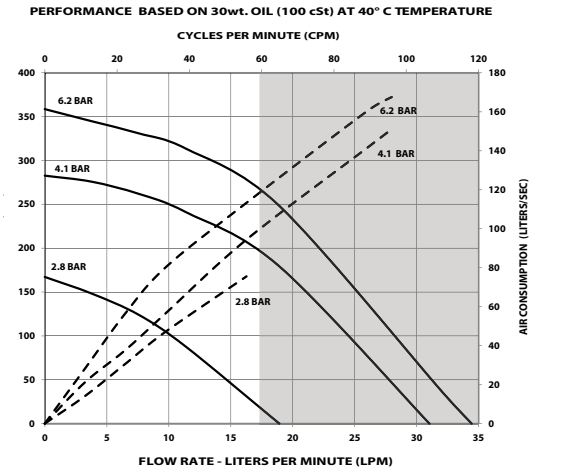
*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	50.24 (1276.15)
B in (mm)	27.19 (690.58)
C in (mm)	16.06 (408.00)

[1]For models without ball valve regulator subtract 2.08 in (52.83 mm)



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Model Material - Carbon Steel Nickel Plated					
AF1045B11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66475-34D	637098-343
AF1045B11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66475-R4D	637098-R43

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

Recommended Accessories



67445-4 Muffler Kit	66334-B Wet-Sol Packing Lubricant	635043 ARO-Stop Valve	65139 Floor Mount	67442 Ball Valve Regulator	637489 Universal Air Motor Service Kit

60:1
6"

AFX Series

AF0660 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

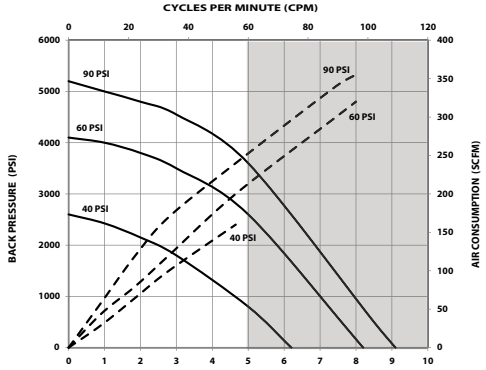
Ratio	60:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	1" NPT(F) 2" NPT(M)
Material Outlet	1" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 100 (2 - 6.9)
Fluid Pressure Range psi (bar)	1800 - 6172 (124 - 426)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	5.5 (90.1)
Cycles/gal (L)	41.9 (11)
Flow @ 60 Cycles gpm (L/min)	1.4 (5.4)
Noise Level @ 60 psi dBA	84.7
Weight* lb (kg)	46.2 (21)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	42.18 (1071.47)
B in (mm)	18.91 (480.34)
C in (mm)	12.66 (321.59)

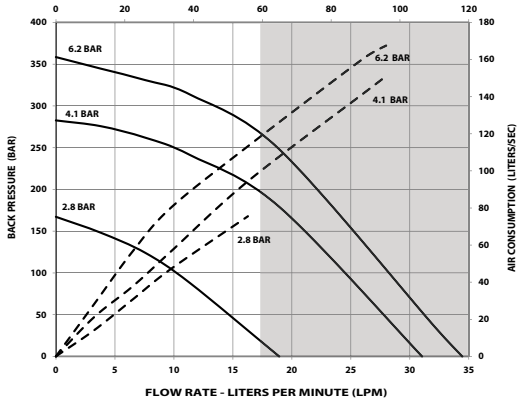
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - 300 Series SS w/Tungsten Carbide Seat					
AF0660G11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66302-C43	637307-C43
AF0660G11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66302-343	637307-343
AF0660G11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66302-G43	637307-G43
AF0660G11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66302-R43	637307-R43
AF0660G11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66302-P43	637307-P43
AF0660G11KK48	17-4 Stainless, Ceramic Coated	Glass Filled PTFE	Glass Filled PTFE	66302-34B	637307-343
AF0660G11FF48	17-4 Stainless, Ceramic Coated	UHMW-PE	UHMW-PE	66302-C4B	637307-C43

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

Recommended Accessories



67445-2
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



23644-400
ARO-Stop Valve



67136
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

AFX Series

60:1 Ratio Pump Packages



CMX Series Cart Mount

5 GALLON

Packages						
Model No.	Package Type	Pump Model	Cart Model	Material Hose	Material Filter	Ball Valve Regulator
CM0660G11GF47001	Cart Mount	AF0660G11GF47-1	67139	67140-1	651422-70	67442

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4" NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings



Extrusion Gun Nozzle Kits
66541-6 Orifice .063" (1.63 mm), **66541-9** Orifice .093" (2.36 mm),
66541-2 Orifice .125" (3.17 mm)



Swivel
636085 Straight, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4"-18 NPTF to 1/4"-18 NPSM /
10,000 psi (690 bar) max working pressure



Material Filters
1" F (2) inlet 3/8" F (3) outlet / 6,000 psi (414 bar) max. / Carbon Steel
651418-40-B for 40 Mesh (375 Microns)
651418-70-B for 70 Mesh (200 Microns)



3/4" Fluid Pressure Regulators
651780-C1B-B Regulated 750 – 2,500 psi (52 – 173 bar) /
6,000 psi (414 bar) max. inlet / carbon steel
651780-C1C-B Regulated 2,000 – 5,000 psi (138 – 345 bar) /
6,000 psi (414 bar) max. inlet / carbon steel
651780-C3B-B Regulated 750 – 2,500 psi (52 – 173 bar) /
6,000 psi (414 bar) max. inlet / stainless steel
651780-C3R-B Regulated 750 – 5,000 psi (52 – 345 bar) /
6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
F35341-400	Filter
104317	Filter Element
637489	Universal Air Motor Service Kit

65:1
12"

AFX Series

AF1265 Series Pumps



(Model shown w/ball valve regulator)

Materials: Oils, Paint, Coatings, Chemicals

Pump Specifications

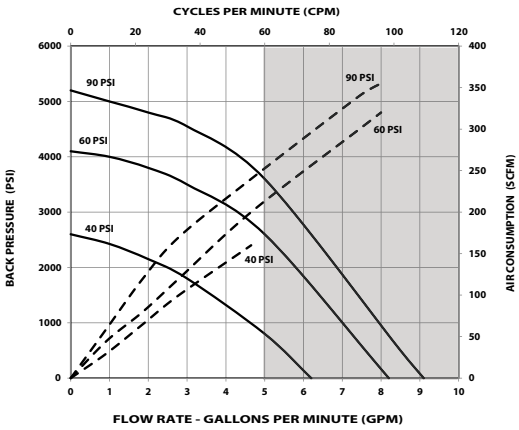
Ratio	65:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	2" NPT(F)
Material Outlet	1" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	1950 - 5850 (134.5 - 403.4)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	20.7 (339.2)
Cycles/gal (L)	11.2 (2.9)
Flow @ 70 Cycles gpm (L/min)	6.27 (23.7)
Noise Level @ 60 psi dBA	93
Weight* lb (kg)	147 (66.7)
Container Suitability	Remote Mounting

*Estimated weight. Contact Technical Support for exact weight.

DIMENSIONS	
A[1] in (mm)	50.27 (1276.91)
B in (mm)	27.19 (690.58)
C in (mm)	16.06 (408.00)

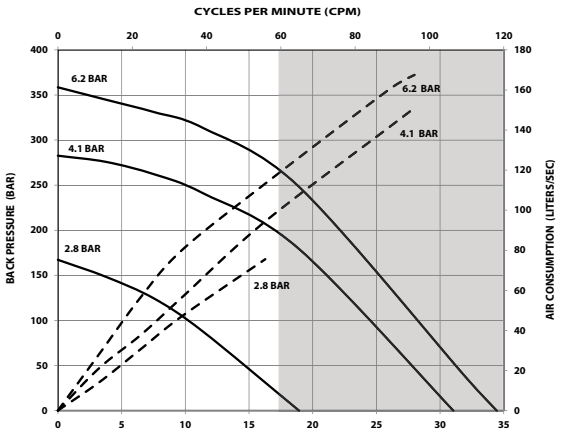
[1] For models without ball valve regulator subtract 2.08 in (52.83 mm)

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

PERFORMANCE BASED ON 30wt. OIL (100 cSt) AT 40° C TEMPERATURE



NON SHADED AREA OF THE GRAPH REPRESENTS RECOMMENDED OPERATING RANGE FOR CONTINUOUS DUTY

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Pump Service Kit
Lower Pump Material - Carbon Steel, Nickel-Plated					
AF1265B11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66475-G4D	637098-G43
AF1265B11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66475-C4D	637098-C43
AF1265B11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/ UHMW-PE (Staggered)	Glass Filled PTFE	66475-R4D	637098-R43

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

Recommended Accessories



67445-5
Muffler Kit



66334-B
Wet-Sol Packing Lubricant



635043
ARO-Stop Valve



65139
Floor/Follower Plate Adapter



67442
Ball Valve Regulator



637489
Universal Air Motor Service Kit

AFX Series

65:1 Ratio Pump Packages



CMX Series
Cart Mount

Packages						
Model No.	Package Type	Pump Model	Cart Model	Material Hose	Material Filter	Material
CM1265B11HH47001	Cart Mount	AF1265B11HH47-1	66554-2	66728	651481-70-B	Aluminum w/PTFE Coating

Recommended Accessories



Extrusion Guns
651533 For low- to medium-viscosity fluids 1/4" NPS (M) inlet
641523-1 Wetted parts are 300 Series SS with PTFE packings



Extrusion Gun Nozzle Kits
66541-6 Orifice .063" (1.63 mm), **66541-9** Orifice .093" (2.36 mm),
66541-2 Orifice .125" (3.17 mm)



Swivel
636085 Straight, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
636088 Z-360°, 3/8" (M) x 3/8" (F) / fabric with neoprene /
8,000 psi (552 bar) max. working pressure
75364 Straight, for use with 651533 gun / 1/4"-18 NPTF to 1/4"-18 NPSM /
10,000 psi (690 bar) max working pressure



Material Filters
1" F (2) inlet 3/8" F (3) outlet / 6,000 psi (414 bar) max. / Carbon Steel
651418-40-B for 40 Mesh (375 Microns)
651418-70-B for 70 Mesh (200 Microns)



3/4" Fluid Pressure Regulators
651780-C1B-B Regulated 750 – 2,500 psi (52 – 173 bar) psi /
6,000 psi (414 bar) max. inlet / carbon steel
651780-C1C-B Regulated 2,000 – 5,000 psi (138 – 345 bar) /
6,000 psi (414 bar) max. inlet / carbon steel
651780-C3B-B Regulated 750 – 2,500 psi (52 – 173 bar) /
6,000 psi (414 bar) max. inlet / stainless steel
651780-C3R-B Regulated 750 – 5,000 psi (52 – 345 bar) /
6,000 psi (414 bar) max. inlet / stainless steel

Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
F35341-400	Filter
104317	Filter Element
637489	Universal Air Motor Service Kit

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