

# ARO®

## PISTON PUMPS

CHOP-CHECK PUMP MODELS



# Chop-Check pumps are designed to move medium-to-high viscosity fluids in difficult applications.

For over 85 years, the ARO® Fluid Products business of Ingersoll Rand® has developed relationships with more than 200 original equipment manufacturers and distributors, enabling us to better focus on the unique pumping needs of many industries. It's a strategic merger of our customers' 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:



Finishing



Coatings



Sealants and Adhesives



Bulk material transfer and circulation



High-pressure cleaning



Lubrication



# 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.

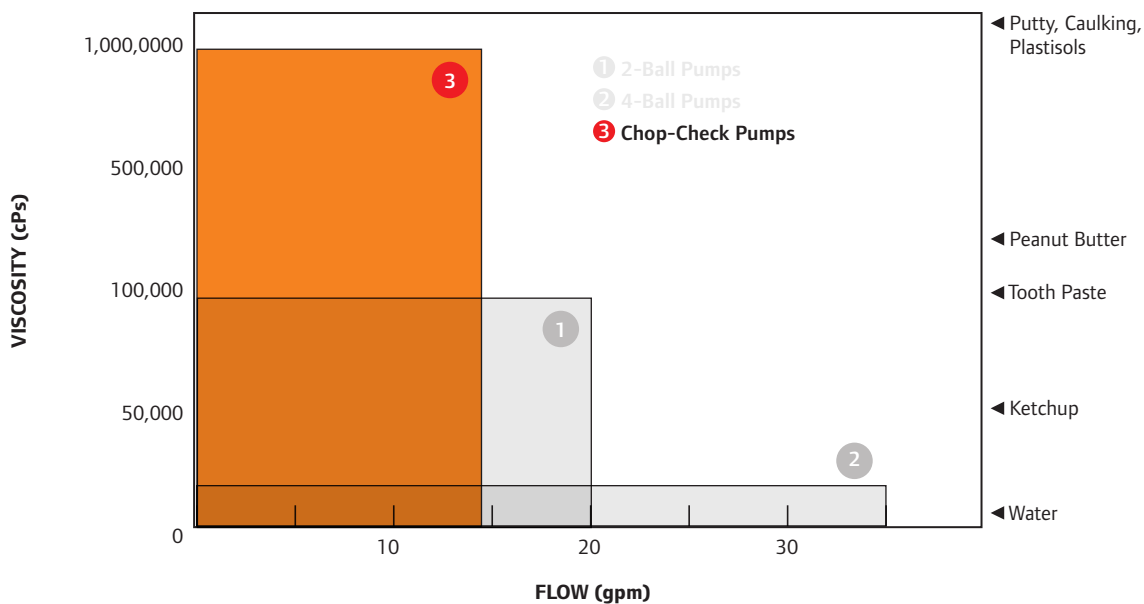
## Pump selection made simple

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

- ARO® chop-check pumps feature plunger rods that are hard chrome-plated or made of hardened stainless steel. The result: components that resist the scoring caused by pumping abrasive fluids.
- 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.

# Simply Versatile

The heavy-hitters of the line, ARO® chop-check pumps are designed to move medium-to high-viscosity fluids ranging from 15,000 cPs to more than 1,000,000 cPs, and at delivery rates up to 12.2 gpm (46.3 L/min).

## Applications advantages of Chop-Check:



**Extrusion:** Chop-Check pumps are workhorses - able to deliver viscous adhesives, sealants, caulking and heavy lubricants to the application point at the desired pressure and flow rate.



**Transfer & Supply:** Depending on the model, some Chop-Check pumps are capable of achieving flow rates up to 12.2 gpm, ensuring efficient transfer of heavy greases, inks and other viscous materials.

## Materials advantages of Chop-Checks:
















Chop-Check pumps have a primer piston to 'feed' material into the pump. They are often used in conjunction with a follower plate to force material down. This prevents loss of prime due to Channeling - a condition where the pump inlet becomes surrounded by air due to the cavity formed when a high viscosity material does not level off when removed (Slumpability).

- ▶ **Stringy materials:** Chop-Checks have mechanical, flat checks to overcome materials that resist cut-off and adhere to themselves.
- ▶ **Tacky materials:** Chop-Check pump options come in high ratios to generate the fluid pressure needed to move materials that will adhere to hoses and equipment while wet.



# Selection Chart



				See Page
<b>12:1</b>		3.2 gal/min 12.3 l/min	Carbon steel	8
<b>13:1</b>		12.2 gal/min 46.3 l/min	Carbon steel	10
<b>20:1</b>		12.2 gal/min 39.7 l/min	Carbon steel	12
<b>22:1</b>		0.5 gal/min 1.9 l/min	Carbon steel	14
<b>22:1</b>		0.5 gal/min 1.9 l/min	Stainless steel	15
<b>23:1</b>		1.8 gal/min 6.9 l/min	Carbon steel	17
<b>23:1</b>		3.2 gal/min 12.3 l/min	Carbon steel	19
<b>28:1</b>		6.0 gal/min 22.7 l/min	Carbon steel	21
<b>30:1</b>		12.2 gal/min 46.3 l/min	Carbon steel	23
<b>43:1</b>		0.74 gal/min 2.8 l/min	Carbon steel or stainless steel	24
<b>44:1</b>		3.8 gal/min 14.3 l/min	Carbon steel	26
<b>44:1</b>		6.0 gal/min 22.9 l/min	Carbon steel	28
<b>46:1</b>		1.8 gal/min 6.9 l/min	Carbon steel	30
<b>65:1</b>		1.3 gal/min 5.1 l/min	Carbon steel	32
<b>65:1</b>		6.0 gal/min 22.9 l/min	Carbon steel	34

# Viscosity Guide

Flow (gpm)	Maximum Delivery Rate gpm (L/min)	Ratio	Fluid Pressure Range psi (bar)	Pump Model Number	Material of Construction	Lower End Type	500 cPs	1,000 cPs	5,000 cPs
0-2	0.5 (1.9)	22:1	660 - 3300 (45.4 - 227.6)	NM2322E-XX-P4X	Carbon Steel	Chop-Check	Flooded Inlet		
	0.5 (1.9)	22:1	660 - 3300 (45.4 - 227.6)	NM2322F-XX-P4X	Stainless Steel	Chop-Check	Flooded Inlet		
	0.74 (2.8)	43:1	1308 - 6549 (90.2 - 451.7)	AF0443S21XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	0.74 (2.8)	43:1	1308 - 6549 (90.2 - 451.7)	AF0443T21XXXX	Stainless Steel	Chop-Check	Flooded Inlet		
	0.74 (2.8)	43:1	1308 - 6549 (90.2 - 451.7)	AF0443S71XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	1.3 (5.1)	65:1	1950 - 7475 (134.5 - 515.5)	AF0665S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	1.8 (6.9)	23:1	690 - 3690 (47.6 - 254.5)	AF0423S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	1.8 (6.9)	46:1	1380 - 7485 (95.1 - 516.2)	AF0646S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
2-4	3.2 (12.3)	23:1	690 - 4215 (47.6-290.7)	AF0623S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	3.2 (12.3)	12:1	360 - 2085 (24.8-143.8)	AF0412S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	3.8 (14.3)	44:1	1320 - 5964 (91 - 411.3)	AF0844S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
4-10	6 (22.7)	28:1	840 - 3360 (57.9 - 231.7)	AF0828S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	6 (22.7)	44:1	1320 - 3960 (91 - 273)	AF1044S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	6 (22.7)	65:1	1950 - 5850 (134.5 - 403.3)	AF1265S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
10-20	12.2 (46.3)	13:1	390 - 1900 (26.9 - 131)	AF0813S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	12.2 (46.3)	20:1	600 - 2250 (41.4 - 155.1)	AF1020S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		
	12.2 (46.3)	30:1	900 - 3250 (62.1 - 224.1)	AF1230S11XXXX	Carbon Steel	Chop-Check	Flooded Inlet		

7,500 cPs	10,000 cPs	12,500 cPs	15,000 cPs	20,000 cPs	35,000 cPs	50,000 cPs	75,000 cPs	100,000 cPs	250,000 cPs	500,000 cPs	750,000 cPs	1,000,000 cPs	
					Ram Mounted								
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12:1  
4-1/4"

**AFX  
Series**

# AF0412 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

## Pump Specifications

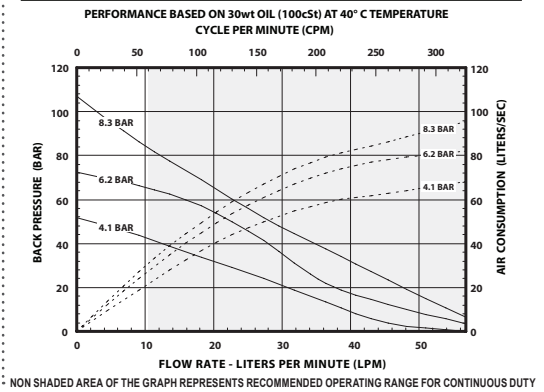
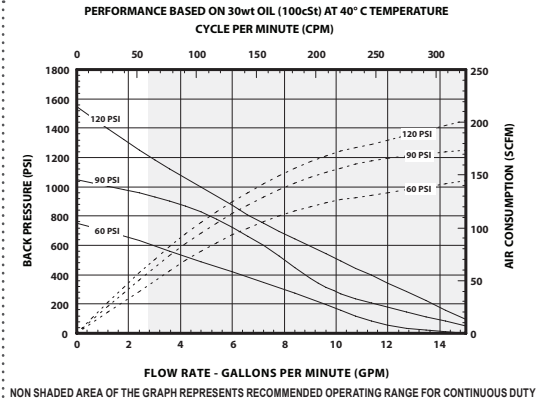
Ratio	12:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30-150 (2-10.3)
Fluid Pressure Range psi (bar)	360-2085 (24.8-143.8)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	12.5 (204.8)
Cycles/gal (L)	18.5 (4.8)
Flow @ 60 Cycles gpm (L/min)	3.2 (12.3)
Noise Level @ 60 psi dBA	86.5
Weight* lb (kg)	64 (29)
Container Suitability	Remote Mounting

\*Estimated weight. Contact Technical Support for exact weight.

### DIMENSIONS

A <sup>1</sup> in (mm)	54.01 (1371.83)
B in (mm)	30.74 (780.69)
C in (mm)	17.74 (450.49)

<sup>1</sup>For models without ball valve regulator subtract 2.08 in (52.83 mm)



Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Material - Carbon Steel, Nickel Plated (AF0412SXXXXXX)</b>						
AF0412S11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66243-C43-B	A	637071-C43-B
AF0412S11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66243-343-B	A	637071-343-B
AF0412S11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66243-G43-B	A	637071-G43-B
AF0412S11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66243-P43-B	A	637071-P43-B
AF0412S11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	66243-R43-B	A	637071-R43-B
<b>Lower Pump Material - Stainless Steel, (AF0412TXXXXXX)</b>						
AF0412T11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	1756T11FF47	A	K1756T11FF00
AF0412T11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	1756T11KK47	A	K1756T11KK00
AF0412T11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	1756T11RK47	A	K1756T11RK00
AF0412T11SS47	17-4 Stainless Steel w/Hard Chrome	Virgin PTFE	Virgin PTFE	1756T11SS47	A	K1756T11SS00

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



**AFX  
Series**

# 12:1 Ratio Pump Packages



TPX Series  
Two Post Ram

**55**  
GALLON

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
<b>Carbon Steel Packages</b>						
TP0412S51FF47AA2	55 Gallon Two Post Ram	AF0412S11FF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0412S51KK47AA2	55 Gallon Two Post Ram	AF0412S11KK47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0412S51KK47AN2	55 Gallon Two Post Ram	AF0412S11KK47	RM552S-C	67195-2	Double Tube, EPR	Aluminum
TP0412S51HH47AA2	55 Gallon Two Post Ram	AF0412S11HH47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0412S51GF47TA2	55 Gallon Two Post Ram	AF0412S11GF47	RM552S-C	66516-6	Double Lip, Polyurethane	Aluminum w/PTFE Coating
TP0412S51GF47AA2	55 Gallon Two Post Ram	AF0412S11GF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
<b>Stainless Steel Packages</b>						
SP0412T21KK47S22	5 Gallon Single Post Ram	AF0412T11KK47	RM051S-C-B	67536-1	Single Lip, Polyurethane	Stainless Steel
SP0412T21KK47TU2	5 Gallon Single Post Ram	AF0412T11KK47	RM051S-C-B	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0412T21KK47S22	5 Gallon Two Post Ram	AF0412T11KK47	RM052S-C	67536-1	Single Lip, Polyurethane	Stainless Steel
TP0412T21KK47TU2	5 Gallon Two Post Ram	AF0412T11KK47	RM052S-C	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0412T51KK47TK2	55 Gallon Two Post Ram	AF0412T11KK47	RM552S-C	67527-1	Double Tube, EPR	Screen - Aluminum w/PTFE Coating
TP0412T51KK47TL2	55 Gallon Two Post Ram	AF0412T11KK47	RM552S-C	67527-2	Double Tube, FDA Neoprene	Screen - Aluminum w/PTFE Coating

## Recommended Accessories



67445-1  
Muffler Kit



66334-B  
Wet-Sol Packing  
Lubricant



23644-400  
ARO-Stop  
Valve



65138  
Floor Mount



67442  
Ball Valve  
Regulator



637489  
Universal Air Motor  
Service Kit

13:1

8"

**AFX**  
**Series**

# AF0813 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

## Pump Specifications

Ratio	13:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1-1/2" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 120 (2.1 - 8.3)
Fluid Pressure Range psi (bar)	390 - 1900 (26.9 - 131.0)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	40.4 (662.0)
Cycles/gal (L)	5.7 (1.5)
Flow @ 70 Cycles gpm (L/min)	12.2 (46.3)
Noise Level @ 60 psi dBA	86.8
Weight* lb (kg)	125.5 (56.9)
Container Suitability	Remote Mounting

\*Estimated weight. Contact Technical Support for exact weight.

## DIMENSIONS

A <sup>1</sup> in (mm)	54.40 (1381.71)
B in (mm)	31.34 (796.11)
C in (mm)	19.94 (506.40)

<sup>1</sup>For models without ball valve regulator subtract 2.08 in (52.83 mm)

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Model Material - Carbon Steel, Nickel Plated</b>						
AF0813S11FF44	Carbon Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66236-C4E-B	B	637128-C44-B
AF0813S11GF44	Carbon Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66236-P4E-B	B	637128-P44-B
AF0813S11HF44	Carbon Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE	66236-F4E-B	B	637128-F44-B
AF0813S11PF14	Carbon Steel w/Hard Chrome	Polyurethane	UHMW-PE	66236-J3E-B	B	637128-J34-B

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

## Recommended Accessories



67445-3  
Muffler Kit



66334-B  
Wet-Sol Packing  
Lubricant



635043  
ARO-Stop  
Valve



65139  
Floor Mount

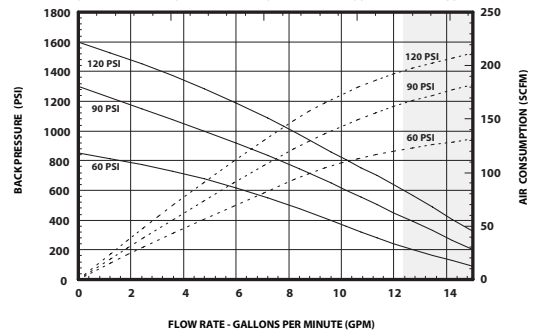


67442  
Ball Valve  
Regulator



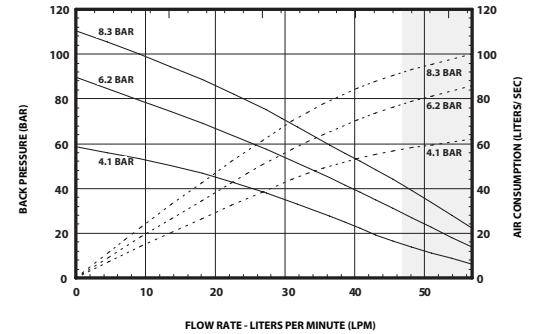
637489  
Universal Air Motor  
Service Kit

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



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

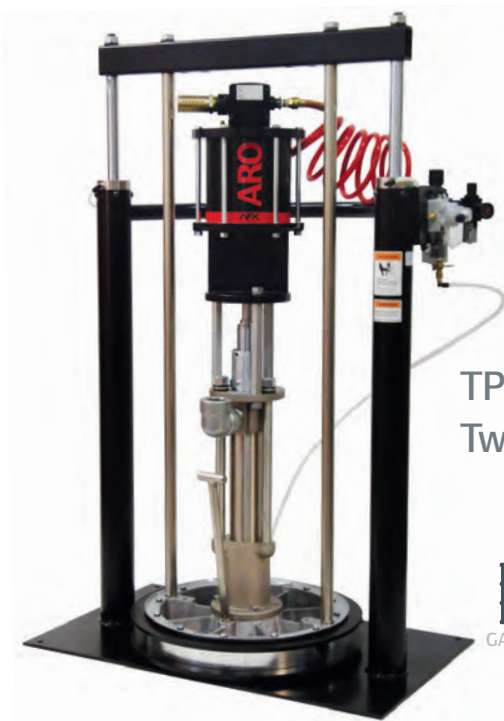
PERFORMANCE BASED ON 30wt. OIL (100cSt) AT 40°C TEMPERATURE  
CYCLE PER MINUTE (CPM)



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



# 13:1 Ratio Pump Packages



TPX Series  
Two Post Ram

55  
GALLON



FMX Series  
Floor Mount

BULK

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
TP0813S51HF44AA2	55 Gallon Two Post Ram	AF0813S11HF44	RM552S-C	66517-1	Double Lip, Polyurethane	Aluminum

Model No.	Package Type	Pump Model	Floor Mount Kit	Ball Valve	Material Supply Hose	Material Hose w/Fittings
FM0813S11PF14001	Floor Mount	AF0813S11PF14-1	65139	67073	628088-7	628089-6

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### 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-C3B-B** Regulated 750 – 2,500 psi (52 – 173 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)
66353-1	Stabilizing Bracket
637489	Universal Air Motor Service Kit
637472	55 Gallon Two Post Ram Repair Kit (RM552S-X / RM552H-X)
67480	55 Gallon Two Post Ram Cross Over Kit
67501	55 Gallon Two Post Ram Low Level Cut-Off Kit
67503	55 Gallon Drum Hold Down Kit

20:1  
10"

**AFX  
Series**

# AF1020 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

### Pump Specifications

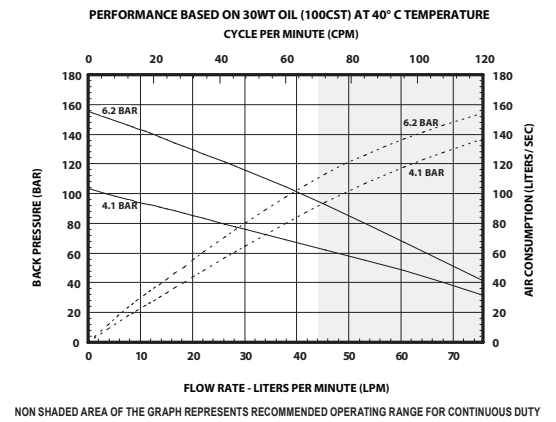
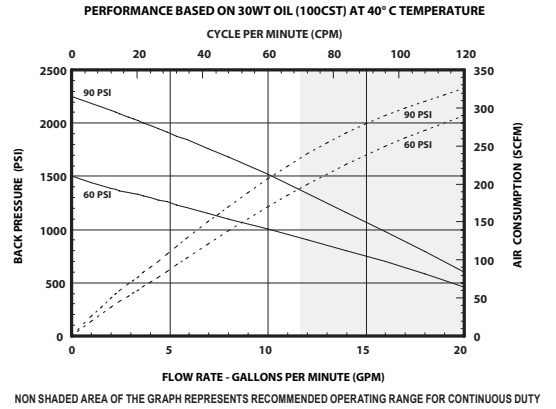
Ratio	20:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1-1/2" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	600 - 2250 (41.4 - 155.2)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	40.4 (662.0)
Cycles/gal (L)	5.7 (1.5)
Flow @ 70 Cycles gpm (L/min)	12.2 (46.3)
Noise Level @ 60 psi dBA	89.8
Weight* lb (kg)	144 (65.3)
Container Suitability	Remote Mounting

\*Estimated weight. Contact Technical Support for exact weight.

### DIMENSIONS

A <sup>1</sup> in (mm)	54.40 (1381.71)
B in (mm)	31.34 (796.11)
C in (mm)	19.94 (506.40)

<sup>1</sup> For models without ball valve regulator subtract 2.08 in (52.83 mm)



Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
Lower Pump Model Material - Carbon Steel, Nickel Plated						
AF1020S11FF44	Carbon Steel, w/Hard Chrome	UHMW-PE	UHMW-PE	66236-C4E-B	B	637128-C44-B
AF1020S11HF44	Carbon Steel, w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE	66236-F4E-B	B	637128-F44-B
AF1020S11PF14	Carbon Steel, w/Hard Chrome	Polyurethane	UHMW-PE	66236-J3E-B	B	637128-J34-B

\*\*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

**AFX  
Series**

# 20:1 Ratio Pump Packages



TPX Series  
Two Post Ram

**55**  
GALLON

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
TP1020S51FF44AA2	55 Gallon Two Post Ram	AF1020S11FF44	RM552S-C	66517-1	Double Lip, Polyurethane	Aluminum

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### 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

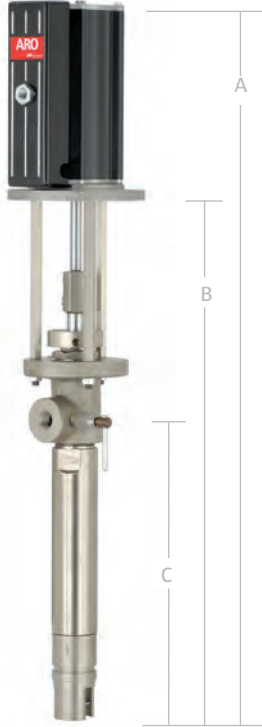
## Other Accessories & Repair Kits

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
637472	55 Gallon Two Post Ram Repair Kit (RM552S-X / RM552H-X)
67480	55 Gallon Two Post Ram Cross Over Kit
67501	55 Gallon Two Post Ram Low Level Cut-Off Kit
67503	55 Gallon Drum Hold Down Kit

22:1

3"

# NM2322E Series Pumps



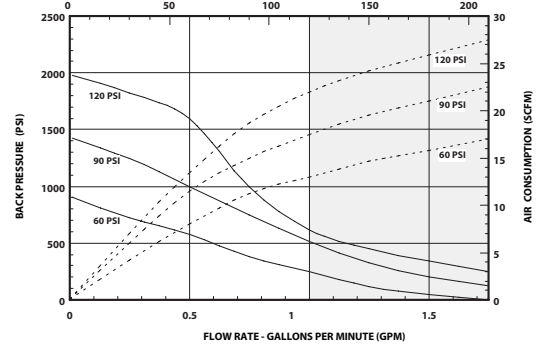
**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

## Pump Specifications

Ratio	22:1
Stroke (double acting)	3" (7.62 cm)
Material Inlet	Follower Plate
Material Outlet	Mounted
Air Inlet (female)	1/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 -150 (2.1 - 10.3)
Fluid Pressure Range psi (bar)	660 - 3,300 (45.4 - 227.6)
Max Cycles/Minute	120
Displacement/Cycle cu in (cm3)	1.9 (31.1)
Cycles/gal (L)	121.6 (32.1)
Flow @ 60 Cycles gpm (L/min)	.5 (1.9)
Noise Level @ 100 psi dBA	85
Weight* lb (kg)	NM2322E-11-P43 29 (13.2) NM2322E-11-P48 29 (13.2) NM2322E-11-P71 33 (15.0)

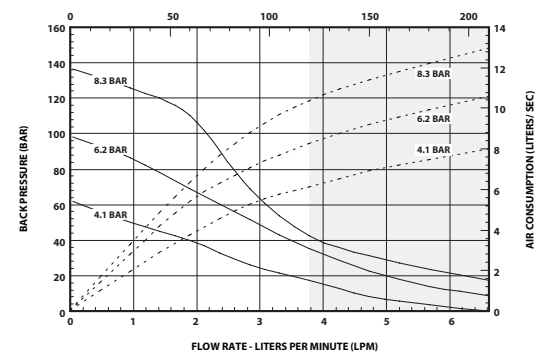
\*Estimated weight. Contact Technical Support for exact weight.

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



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

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



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

DIMENSIONS	A in (mm)	B in (mm)	C in (mm)
NM2322E-11-P4X	33-23/32" (856.1)	24-15/32" (620.8)	14-3/16" (360.5)
NM2322E-71-P4X	42-5/8" (1082.6)	33-11/32" (846.9)	14-3/16" (360.5)
NM2322F-11-P4X	33-23/32" (856.1)	24-15/32" (620.8)	14-3/16" (360.5)
NM2322F-71-P4X	42-5/8" (1082.6)	33-11/32" (846.9)	14-3/16" (360.5)

Pump Model	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Model Material - Carbon Steel</b>						
NM2322E-11-P43	17-4, Stainless*	UHMW-PE PTFE Staggered	UHMW-PE with standard plunger	67100-P43	C	637290-P43
NM2322E-11-P48	17-4, Stainless*	UHMW-PE PTFE Staggered	UHMW-PE with alternative piston**	67100-P48	C	637290-P48
NM2322E-71-P43	17-4, Stainless*	UHMW-PE PTFE Staggered	UHMW-PE with standard plunger	67100-P43	C	637290-P43

\*Hard-chrome plated \*\* Better for fluids containing filler material

## Recommended Accessories



**62274**  
Air Line Oil



**P39124-600**  
Piggyback  
Filter/Regulator



**637316**  
Universal Air Motor  
Service Kit



**637134**  
Adapter

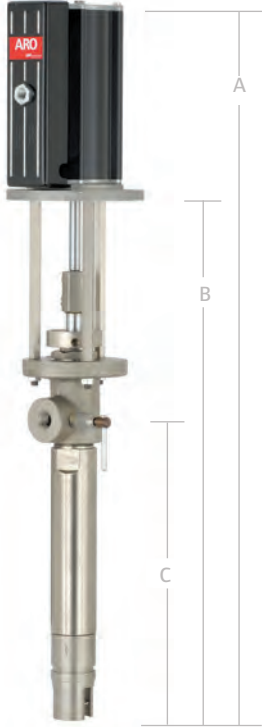


**635040**  
ARO Stop  
Valve

22:1

3"

# NM2322F Series Pumps



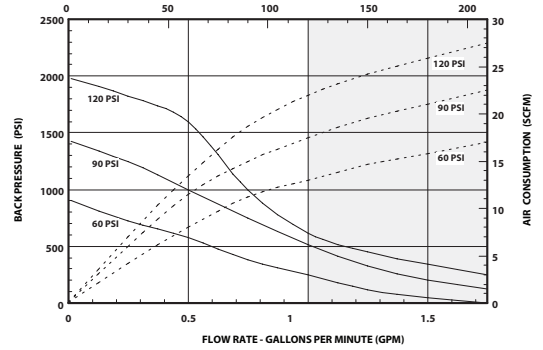
**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

## Pump Specifications

Ratio	22:1
Stroke (double acting)	3" (7.62 cm)
Material Inlet	Follower Plate Mounted
Material Outlet	1/2" NPT(F)
Air Inlet (female)	1/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 -150 (2.1 - 10.3)
Fluid Pressure Range psi (bar)	660 - 3,300 (45.4 - 227.6)
Max Cycles/Minute	120
Displacement/Cycle cu in (cm3)	1.9 (31.1)
Cycles/gal (L)	121.6 (32.1)
Flow @ 60 Cycles gpm (L/min)	.5 (1.9)
Noise Level @ 100 psi dBA	85
Weight* lb (kg)	NM2322F-11-P43 29 (13.2) NM2322F-11-P48 29 (13.2) NM2322F-11-P71 33 (15.0)

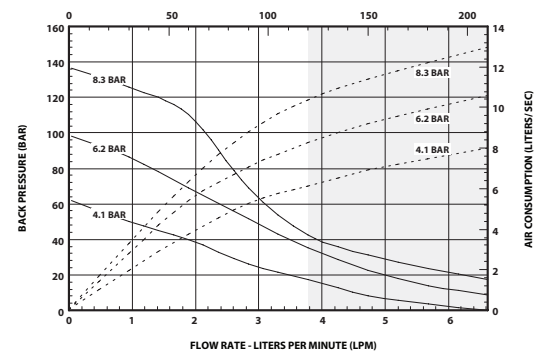
\*Estimated weight. Contact Technical Support for exact weight.

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



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

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



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

DIMENSIONS	A in (mm)	B in (mm)	C in (mm)
NM2322E-11-P4X	33-23/32" (856.1)	24-15/32" (620.8)	14-3/16" (360.5)
NM2322E-71-P4X	42-5/8" (1082.6)	33-11/32" (846.9)	14-3/16" (360.5)
NM2322F-11-P4X	33-23/32" (856.1)	24-15/32" (620.8)	14-3/16" (360.5)
NM2322F-71-P4X	42-5/8" (1082.6)	33-11/32" (846.9)	14-3/16" (360.5)

Pump Model	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Model Material - Stainless Steel</b>						
NM2322F-11-P43	17-4, Stainless*	UHMW-PE PTFE Staggered	UHMW-PE with standard plunger	67101-P43	C	637291-P43
NM2322F-11-P48	17-4, Stainless*	UHMW-PE PTFE Staggered	UHMW-PE with alternative piston**	67101-P48	C	637291-P48
NM2322F-71-P43	17-4, Stainless*	UHMW-PE PTFE Staggered	UHMW-PE with standard plunger	67101-P43	C	637291-P43

\*Hard-chrome plated \*\* Better for fluids containing filler material

## Recommended Accessories

<b>62274</b> Air Line Oil	<b>66334-B</b> Wet-Sol Packing Lubricant	<b>P39124-600</b> Piggyback Filter/Regulator	<b>637316</b> Universal Air Motor Service Kit	<b>637134</b> Adapter	<b>635040</b> ARO Stop Valve

# NM2322E/F Packages

**NP322L01-1**  
Portable Lift ONLY  
– Not a Ram



Packages						
Model No.	Package Type	Pump Model	Ram Model	Follower	Follower Seal Description	Material
NP322L01-1	5-Gallon Pail, Cart Mount	NM2322E-11-P43	67075-B	67486-1	290mm Single Lip, Polyethylene / Urethane	Carbon steel
NP322L02-1	5-Gallon Pail, Cart Mount	NM2322F-11-P43	67075-B	67487-1	290mm Single Lip, PTFE Coated Nitrile	Stainless steel
NP322R03-1	55-Gallon Drum, Two-Post Ram	NM2322E-11-P43	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
NP322R03-2	55-Gallon Drum, Two-Post Ram	NM2322F-11-P43	RM552S-C	66516-6	Double Lip, Polyurethane	Teflon-coated Aluminum
NP322EP43R7-10	5-Gallon Drum, Single-Post Ram	NM2322E-11-P43	RM051S-C-B	67486-1	290mm Single Lip, Polyethylene / Urethane	Carbon steel
NP322FP43R7-13	5-Gallon Drum, Single-Post Ram	NM2322F-11-P43	RM051S-C-B	67487-1	290mm Single Lip, PTFE Coated Nitrile	Stainless steel
NP322EP43R8-10	5-Gallon Drum, Two-Post Ram	NM2322E-11-P43	RM052S-C	67486-1	290mm Single Lip, Polyethylene / Urethane	Carbon steel
NP322FP43R8-13	5-Gallon Drum, Two-Post Ram	NM2322F-11-P43	RM052S-C	67487-1	290mm Single Lip, PTFE Coated Nitrile	Stainless steel

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### Extrusion Gun Nozzle Kits

**66541-6** Orifice .063" (1.63 mm), **66541-9** Orifice .093" (2.36 mm),  
**66541-12** 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)



### 3/8" 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 400 – 1,250 psi (28 – 86 bar) / 5,000 psi (345 bar) max. inlet / carbon steel  
**651780-B3R-B** Regulated 400 – 1,250 psi (28 – 86 bar) / 5,000 psi (345 bar) max. inlet / stainless steel



### Reducer Bushings

**Connects Pump to 3/8- or 1/2-inch hoses**

**Y45-306-T** 1/2" NPT to 3/8" NPT

**Y45-312-T** 1" NPT to 1/2" NPT

**97141** 3/4" NPT to 1/2" NPT

## Other Accessories & Repair Kits

62274	Air Line Oil
96916	Standard Air Motor Muffler
66333-B	Wet-Sol (1 Quart)
66353-1	Stabilizing Bracket
637316	Air Motor Service Kit
637465	5 Gallon Single Post Ram Repair Kit
637472	55 Gallon Two Post Ram Repair Kit (RM552S-X / RM552H-X)
67480	55 Gallon Two Post Ram Cross Over Kit
67481	5 Gallon Two Post Ram Cross Over Kit
67482	5 Gallon Single Post Ram Cross Over Kit
67500	5 Gallon Two Post Ram Low Level Cut-Off Kit
67502	5 Gallon Single Post Ram Low Level Cut-Off Kit
67501	55 Gallon Two Post Ram Low Level Cut-Off Kit
67503	55 Gallon Drum Hold Down Kit
67134	Adapter to a 55 Gallon follower plate or 65138 floor stand



23:1  
4-1/4"

**AFX  
Series**

# AF0423 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

## Pump Specifications

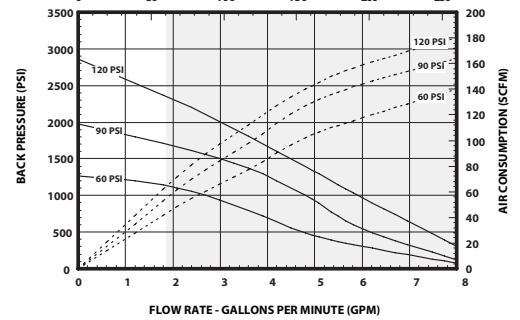
Ratio	23:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30 -150 (2.1-10.3)
Fluid Pressure Range psi (bar)	690-3690 (47.6-254.5)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	6.9 (113.0)
Cycles/gal (L)	33.1 (8.8)
Flow @ 60 Cycles gpm (L/min)	1.8 (6.9)
Noise Level @ 60 psi dBA	86.5
Weight* lb (kg)	63.7 (28.9)
Container Suitability	Remote Mounting

\*Estimated weight. Contact Technical Support for exact weight.

## DIMENSIONS

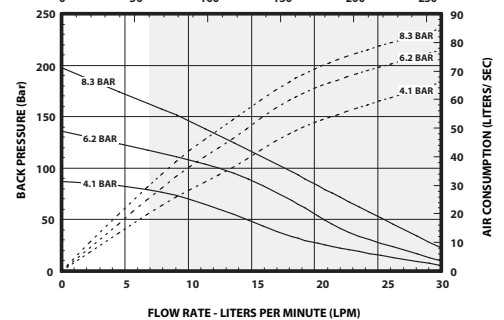
A <sup>1</sup> in (mm)	54.01 (1371.83)
B in (mm)	30.74 (780.69)
C in (mm)	17.74 (450.49)

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



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

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



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

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Material - Carbon Steel, Nickel Plated</b>						
AF0423S11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66266-C43-B	A	637074-C43-B
AF0423S11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66266-343-B	A	637074-343-B
AF0423S11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66266-G43-B	A	637074-G43-B
AF0423S11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	66266-R43-B	A	637074-R43-B
<b>Lower Pump Material - Stainless Steel Steel, (AF0423TXXXXXX)</b>						
AF0423T11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	1380T11FF47	A	K1380T11FF00
AF0423T11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	1380T11KK47	A	K1380T11KK00
AF0423T11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	1380T11RK47	A	K1380T11RK00
AF0423T11SS47	17-4 Stainless Steel w/Hard Chrome	Virgin PTFE	Virgin PTFE	1380T11SS47	A	K1380T11SS00

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

# 23:1 Ratio Pump Packages



**SPX Series  
Single Post Ram**

**5**  
GALLON



**TPX Series  
Two Post Ram**

**5**  
GALLON



**TPX Series  
Two Post Ram**

**55**  
GALLON

Packages						
Model No.	Package Type	Pump Model	Ram Model	Follower	Follower Seal Description	Material
<b>Carbon Steel Packages</b>						
SP0423S21FF47E32	5 Gallon Single Post Ram	AF0423S11FF47	RM051S-C-B	67485-1	Single Lip, Polyethylene/ Urethane	Carbon Steel, Electroless Nickel Coating
TP0423S21FF47E32	5 Gallon Two Post Ram	AF0423S11FF47	RM051S-C-B	67485-1	Single Lip, Polyethylene/ Urethane	Carbon Steel, Electroless Nickel Coating
TP0423S51FF47AA2	55 Gallon Two Post Ram	AF0423S11FF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0423S51HH47AA2	55 Gallon Two Post Ram	AF0423S11HH47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0423S51RK47AA2	55 Gallon Two Post Ram	AF0423S11RK47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
<b>Stainless Steel Packages</b>						
SP0423T21KK47S22	5 Gallon Single Post Ram	AF0412T11KK47	RM051S-C-B	67536-1	Single Lip, Polyurethane	Stainless Steel
SP0423T21KK47TU2	5 Gallon Single Post Ram	AF0412T11KK47	RM051S-C-B	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0423T21KK47S22	5 Gallon Two Post Ram	AF0412T11KK47	RM052S-C	67536-1	Single Lip, Polyurethane	Stainless Steel
TP0423T21KK47TU2	5 Gallon Two Post Ram	AF0412T11KK47	RM052S-C	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0412T51KK47TK2	55 Gallon Two Post Ram	AF0412T11KK47	RM552S-C	67527-1	Double Tube, EPR	Screen - Aluminum w/PTFE Coating
TP0412T51KK47TL2	55 Gallon Two Post Ram	AF0412T11KK47	RM552S-C	67527-2	Double Tube, FDA Neoprene	Screen - Aluminum w/PTFE Coating

## Recommended Accessories



**67445-1**  
Muffler Kit



**66334-B**  
Wet-Sol Packing  
Lubricant



**23644-400**  
ARO-Stop  
Valve



**65138**  
Floor Mount



**67442**  
Ball Valve  
Regulator



**637489**  
Universal Air Motor  
Service Kit

23:1

6"

AFX  
Series

## AF0623 Series Pumps



(Model shown w/ball valve regulator)

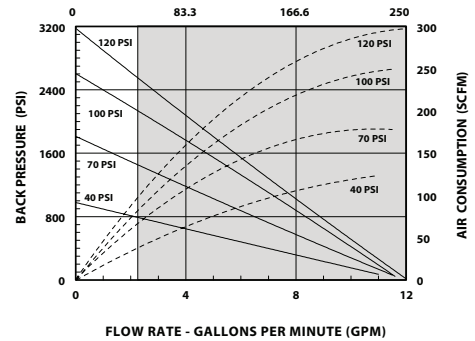
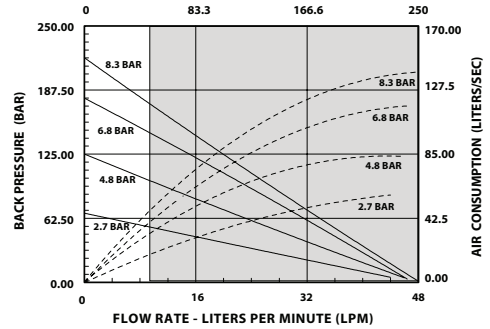
**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants**Pump Specifications**

Ratio	23:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30-150 (2.1-10.2)
Fluid Pressure Range psi (bar)	690-4215 (47.6-290.7)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm <sup>3</sup> )	12.5 (204.8)
Cycles/gal (L)	18.5 (4.8)
Flow @ 60 Cycles gpm (L/min)	3.2 (12.3)
Noise Level @ 60 psi dBA	84.7
Weight* lb (kg)	67.3 (30.5)
Container Suitability	Remote Mounting

\* Estimated weight. Contact Technical Support for exact weight.

**DIMENSIONS**

A <sup>1</sup> in (mm)	54.01 (1371.83)
B in (mm)	30.74 (780.69)
C in (mm)	17.74 (450.49)

<sup>1</sup> For models without ball valve regulator subtract 2.08 in (52.83 mm)PERFORMANCE BASED ON 30wt OIL (100cSt) AT 40° C TEMPERATURE  
CYCLE PER MINUTE (CPM)PERFORMANCE BASED ON 30wt OIL (100cSt) AT 40° C TEMPERATURE  
CYCLE PER MINUTE (CPM)

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Material - Carbon Steel, Nickel Plated</b>						
AF0623S11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66243-C43-B	A	637071-C43-B
AF0623S11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66243-343-B	A	637071-343-B
AF0623S11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66243-C43-B	A	637071-C43-B
AF0623S11HHD7***	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66243-C93-B	A	637071-C93-B
AF0623S11CF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66243-P43-B	A	637071-P43-B
AF0623S11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	66243-R43-B	A	637071-R43-B
<b>Lower Pump Material - Stainless Steel, (AF0623TXXXXXX)</b>						
AF0623T11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	1756T11FF47	A	K1756T11FF00
AF0623T11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	1756T11KK47	A	K1756T11KK00
AF0623T11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	1756T11RK47	A	K1756T11RK00
AF0623T11SS47	17-4 Stainless Steel w/Hard Chrome	Virgin PTFE	Virgin PTFE	1756T11SS47	A	K1756T11SS00

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

\*\*\* High Capacity Solvent Cup w/Multiple Wave Spring

# 23:1 Ratio Pump Packages



SPX Series  
Single Post Ram

5  
GALLON



TPX Series  
Two Post Ram

5  
GALLON



TPX Series  
Two Post Ram

55  
GALLON

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
<b>Carbon Steel Packages</b>						
SP0623S21FF47E32	5 Gallon Single Post Ram	AF0623S11FF47	RM051S-C-B	67485-1	Single Lip, Polyethylene/Urethane	Carbon Steel, Electroless Nickel Coating
SP0623S21RK47EC2	5 Gallon Single Post Ram	AF0623S11RK47	RM051S-C-B	66732	Double Lip, Nitrile	Carbon Steel, Electroless Nickel Coating
TP0623S21FF47E32	5 Gallon Two Post Ram	AF0623S11FF47	RM052S-C	67485-1	Single Lip, Polyethylene/Urethane	Carbon Steel, Electroless Nickel Coating
TP0623S51FF47AA2	55 Gallon Two Post Ram	AF0623S11FF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0623S51FF47AN2	55 Gallon Two Post Ram	AF0623S11FF47	RM552S-C	67195-2	Double Tube, EPR	Aluminum
TP0623S51HH47AA2	55 Gallon Two Post Ram	AF0623S11HH47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0623S51GF47AA2	55 Gallon Two Post Ram	AF0623S11GF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
<b>Stainless Steel Packages</b>						
SP0623T21KK47S22	5 Gallon Single Post Ram	AF0623T11KK47	RM051S-C-B	67536-1	Single Lip, Polyurethane	Stainless Steel
SP0623T21KK47TU2	5 Gallon Single Post Ram	AF0623T11KK47	RM051S-C-B	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0623T21KK47S22	5 Gallon Two Post Ram	AF0623T11KK47	RM052S-C	67536-1	Single Lip, Polyurethane	Stainless Steel
TP0623T21KK47TU2	5 Gallon Two Post Ram	AF0623T11KK47	RM052S-C	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0623T51KK47TK2	55 Gallon Two Post Ram	AF0623T11KK47	RM552S-C	67527-1	Double Tube, EPR	Screen - Aluminum w/PTFE Coating
TP0623T51KK47TL2	55 Gallon Two Post Ram	AF0623T11KK47	RM552S-C	67527-2	Double Tube, FDA Neoprene	Screen - Aluminum w/PTFE Coating

## Recommended Accessories



67445-2  
Muffler Kit



66334-B  
Wet-Sol Packing  
Lubricant



23644-400  
ARO-Stop  
Valve



65138  
Floor Mount



67442  
Ball Valve  
Regulator



637489  
Universal Air Motor  
Service Kit

28:1

8"

AFX  
Series

## AF0828 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics,  
Heavy Lubricants, Sealants

### Pump Specifications

Ratio	28:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1-1/4" NPT(F)
Air Inlet (female)	3/4" 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 (cm <sup>3</sup> )	20.0 (327.8)
Cycles/gal (L)	11.55 (3.0)
Flow @ 70 Cycles gpm (L/min)	6.1 (22.9)
Noise Level @ 60 psi dBA	86.8
Weight* lb (kg)	140 (63.5)
Container Suitability	Remote Mounting

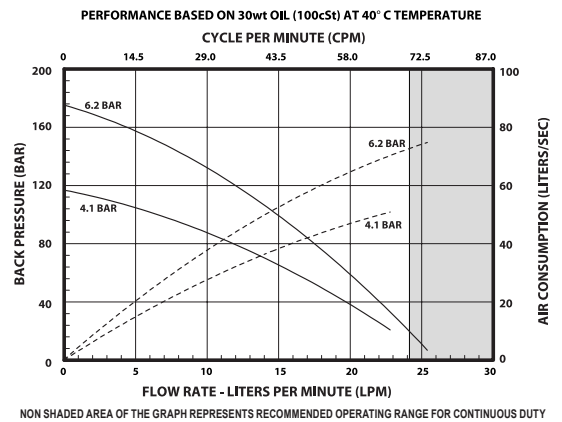
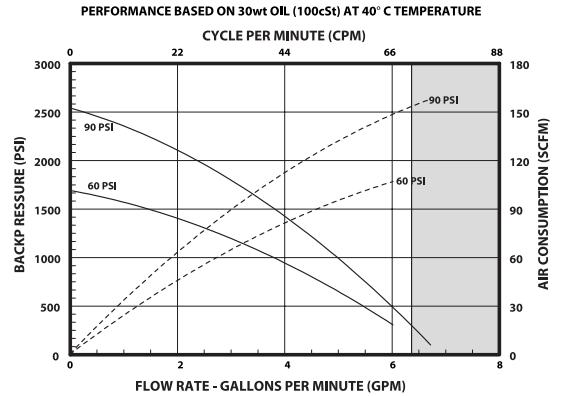
\*Estimated weight. Contact Technical Support for exact weight.

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

### DIMENSIONS

A <sup>1</sup> in (mm)	53.46 (1357.88)
B in (mm)	30.41 (772.29)
C in (mm)	19.25 (488.95)

<sup>1</sup> 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 - Carbon Steel, Nickel Plated					
AF0828S11FF47	17-4 Stainless Steel, w/Hard Chrome	UHMW-PE	UHMW-PE	67300-C4D	637348-C4D
AF0828S11PF17	17-4 Stainless Steel, w/Hard Chrome	Polyurethane	UHMW-PE	67300-J3D	637348-J3D

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

### Recommended Accessories



67445-3  
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

# 28:1 Ratio Pump Packages



TPX Series  
Two Post Ram

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
TP0828S51FF47AA2	55 Gallon Two Post Ram	AF0828S11FF47	RM552S-C	66517-1	Double Lip, Polyurethane	Aluminum

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### 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-C1R-B** Regulated 750 – 5,000 psi (52 – 345 bar) / 6,000 psi (414 bar) max. inlet / carbon steel

## 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
637472	55 Gallon Two Post Ram Repair Kit (RM552S-X / RM552H-X)
67480	55 Gallon Two Post Ram Cross Over Kit
67501	55 Gallon Two Post Ram Low Level Cut-Off Kit
67503	55 Gallon Drum Hold Down Kit

30:1

12"

**AFX**  
**Series**

# AF1230 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

## Pump Specifications

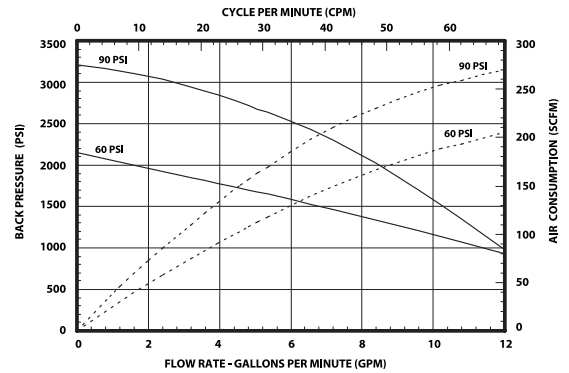
Ratio	30:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Bolted Flange
Material Outlet	1-1/2" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	900 - 3250 (62.1 - 224.1)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	40.4 (662.0)
Cycles/gal (L)	5.7 (1.5)
Flow @ 70 Cycles gpm (L/min)	12.2 (46.3)
Noise Level @ 60 psi dBA	93
Weight lb (kg)	78 (35.42)
Container Suitability	Remote Mounting

### DIMENSIONS

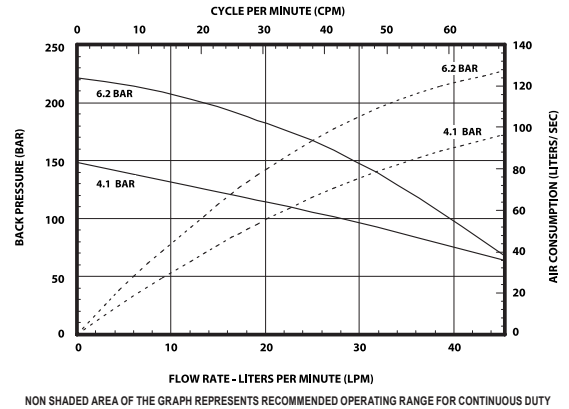
A <sup>1</sup> in (mm)	54.43 (1382.47)
B in (mm)	31.34 (796.11)
C in (mm)	19.94 (506.40)

<sup>1</sup> For models without ball valve regulator subtract 2.08 in (52.83 mm)

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



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



Pump Model*	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Model Material - Carbon Steel, Nickel Plated</b>						
AF1230S11FF44	Carbon Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66236-C4E-B	B	637128-C44-B
AF1230S11HF44	Carbon Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE	66236-F4E-B	B	637128-F44-B
AF1230S11PF14	Carbon Steel w/Hard Chrome	Polyurethane	UHMW-PE	66236-J3E-B	B	637128-J34-B

\*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 Mount



67442  
Ball Valve  
Regulator



637489  
Universal Air Motor  
Service Kit

43:1  
4-1/4"

**AFX  
Series**

# AF0443 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics, Heavy Lubricants, Sealants

## Pump Specifications

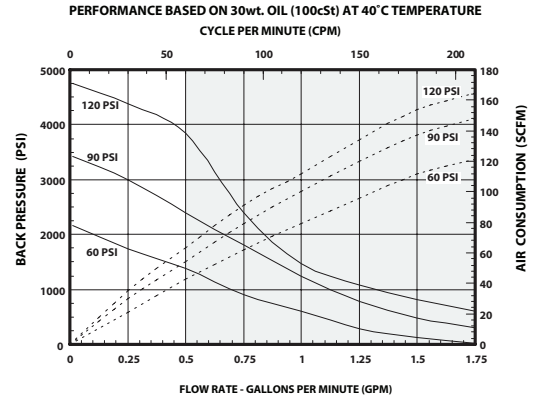
Ratio	43:1
Stroke (double acting)	4" (10.2 cm)
Material Inlet	Follower Plate Mounted
Material Outlet	1/2" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30-150 (2.1-10.3)
Fluid Pressure Range psi (bar)	1308-6549 (90.2-451.7)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	2.85 (46.7)
Cycles/gal (L)	81 (21.7)
Flow @ 60 Cycles gpm (L/min)	0.74 (2.8)
Noise Level @ 60 psi dBA	86.5
Weight* lb (kg)	44 (20)
Container Suitability	5 Gallon (35 lbs)

\*Estimated weight. Contact Technical Support for exact weight.

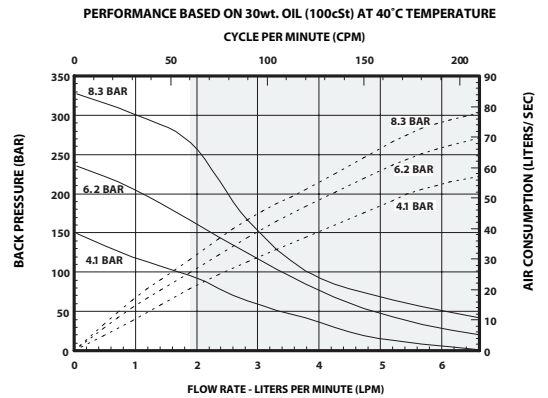
### DIMENSIONS

	Standard	Ext. Tie Rods
A <sup>1</sup> in (mm)	42.09 (1069.09)	50.99 (1295.15)
B in (mm)	24.44 (620.83)	33.34 (846.89)
C in (mm)	14.19 (360.48)	14.19 (360.48)

<sup>1</sup> 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	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Material - 300 Series Stainless Steel</b>						
AF0443T21GN47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE Glass Filled PTFE (Staggered)	UHMW-PE, Hydraulic Gland Type	67101-P43	C	637291-P43
AF0443T21GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE Glass Filled PTFE (Staggered)	UHMW-PE	67101-P48	C	637291-P48
<b>Lower Pump Material - Carbon Steel, Nickel-Plated</b>						
AF0443S21GN47	Carbon Steel	UHMW-PE Glass Filled PTFE (Staggered)	UHMW-PE, Hydraulic Gland Type	67100-P43	C	637290-P43
AF0443S21GF47	Carbon Steel	UHMW-PE Glass Filled PTFE (Staggered)	UHMW-PE	67100-P48	C	637290-P48
AF0443S71GN47***	Carbon Steel	UHMW-PE Glass Filled PTFE (Staggered)	UHMW-PE, Hydraulic Gland Type	67100-P43	C	637290-P43

\*\* Add "-1" to Model No. for Ball Valve Regulator  
\*\*\* With Extended Tie Rods

## Recommended Accessories

67445-1 Muffler Kit	66334-B Wet-Sol Packing Lubricant	23644-400 ARO-Stop Valve	67134 Floor/Mount Plate Adapter	67442 Ball Valve Regulator	637489 Universal Air Motor Service Kit



# 43:1 Ratio Pump Packages



CLX Series  
Cart Lift

5  
GALLON



SPX Series  
Single Post Ram

5  
GALLON



TPX Series  
Two Post Ram

5  
GALLON

Packages						
Model No.	Package Type	Pump Model	Cart/Lift Model	Follower	Follower Seal Description	Material
CL0443S21GN47E31	Cart Mount w/Lift	AF0443S21GN47-1	67075-B	67486-1	Single Lip, Polyethylene/Urethane	Carbon Steel, Electroless Nickel Coating
CL0443T21GN47S31	Cart Mount w/Lift	AF0443T21GN47-1	67075-B	67487-1	Single Lip, Polyethylene/Urethane	Stainless Steel
Model No.	Package Type	Pump Model	Ram Model	Follower	Follower Seal Description	Material
SP0443S21GN47E52	5 Gallon Single Post Ram	AF0443S21GN47	RM051S-C-B	67486-3	Single Lip, Nitrile/Polyethylene	Carbon Steel, Electroless Nickel Coating
SP0443T21GN47S22	5 Gallon Single Post Ram	AF0443T21GN47	RM051S-C-B	67487-1	Single Lip, Urethane/Polyethylene	Stainless Steel
TP0443S21GN47E52	5 Gallon Two Post Ram	AF0443S21GN47	RM052S-C	67486-3	Single Lip, Nitrile/Polyethylene	Carbon Steel, Electroless Nickel Coating
TP0443T21GN47S22	5 Gallon Two Post Ram	AF0443T21GN47	RM052S-C	67487-1	Single Lip, Urethane/Polyethylene	Stainless Steel
TP0443S21GN47E32	5 Gallon Two Post Ram	AF0443S21GN47	RM052S-C	67486-1	Single Lip, Urethane/Polyethylene	Carbon Steel, Electroless Nickel Coating

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### 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
637465	5 Gallon Single Post Ram Repair Kit
637466	5 Gallon Two Post Ram Repair Kit
67481	5 Gallon Two Post Ram Cross Over Kit
67482	5 Gallon Single Post Ram Cross Over Kit
67500	5 Gallon Two Post Ram Low Level Cut-Off Kit
67502	5 Gallon Single Post Ram Low Level Cut-Off Kit

44:1

8"

AFX  
Series

## AF0844 Series Pumps



(Model shown w/ball valve regulator)

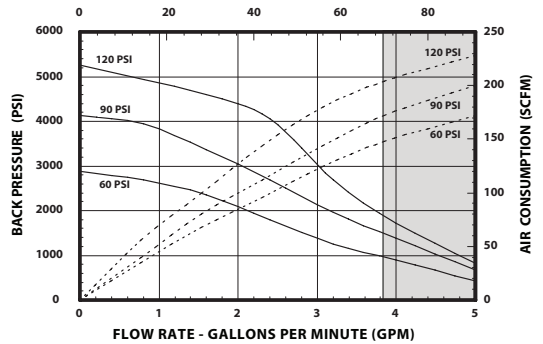
**Materials:** Caulking, Inks, Mastics,  
Heavy Lubricants, Sealants**Pump Specifications**

Ratio	44:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 120 (2.1 - 8.3)
Fluid Pressure Range psi (bar)	1320 - 5964 (91.0 - 411.3)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	12.5 (204.8)
Cycles/gal (L)	18.5 (4.8)
Flow @ 70 Cycles gpm (L/min)	3.8 (14.3)
Noise Level @ 60 psi dBA	86.8
Weight* lb (kg)	89 (40.4)
Container Suitability	Remote Mounting

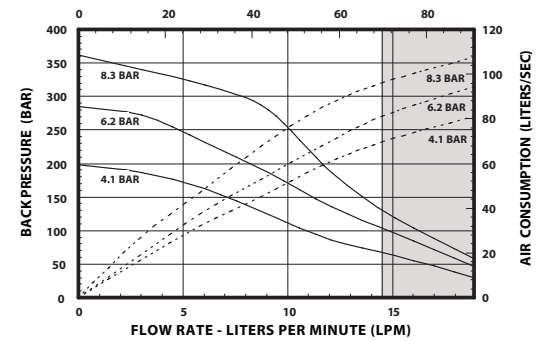
\*Estimated weight. Contact Technical Support for exact weight.

**DIMENSIONS**

A <sup>1</sup> in (mm)	50.60 (1285.32)
B in (mm)	30.74 (780.8)
C in (mm)	17.74 (450.49)

<sup>1</sup> For models without ball valve regulator subtract 2.08 in (52.83 mm)**PERFORMANCE BASED ON 30wt OIL (100cSt) AT 40° C TEMPERATURE**  
CYCLE PER MINUTE (CPM)

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

**PERFORMANCE BASED ON 30wt OIL (100cSt) AT 40° C TEMPERATURE**  
CYCLE PER MINUTE (CPM)

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

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Model Material - Carbon Steel, Nickel-Plated</b>						
AF0844S11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66243-C4D-B	A	637071-C43-B
AF0844S11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66243-G4D-B	A	637071-G43-B
AF0844S11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	66243-R4D-B	A	637071-R43-B
<b>Lower Pump Model Material - Stainless Steel,(AF0844TXXXXXX)</b>						
AF0844T11FF4G	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	1756T11FF4G	A	K1756T11FF00
AF0844T11KK4G	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	1756T11KK4G	A	K1756T11KK00
AF0844T11RK4G	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	1756T11RK4G	A	K1756T11RK00
AF0844T11SS4G	17-4 Stainless Steel w/Hard Chrome	Virgin PTFE	Virgin PTFE	1756T11SS4G	A	K1756T11SS00

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

# 44:1 Ratio Pump Packages



TPX Series  
Two Post Ram

5  
GALLON



TPX Series  
Two Post Ram

55  
GALLON



HDX Series  
Heavy Duty  
Two Post Ram

55  
GALLON

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
<b>Carbon Steel Packages</b>						
TP0844S21FF47E32	5 Gallon Two Post Ram	AF0844S11FF47	RM052S-C	67485-1	Single Lip, Polyurethane/Urethane	Carbon Steel, Electroless Nickel Coating
TP0844S11FF47AA2	55 Gallon Two Post Ram	AF0844S11FF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0844S51FF47AN2	55 Gallon Two Post Ram	AF0844S11FF47	RM552S-C	67195-2	Double Tube, EPR	Aluminum
TP0844S51HH47AA2	55 Gallon Two Post Ram	AF0844S11HH47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0844S51HH47AC2	55 Gallon Two Post Ram	AF0844S11HH47	RM552S-C	66516	Double Lip, Nitrile	Aluminum
TP0844S51RK47AA2	55 Gallon Two Post Ram	AF0844S11RK47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0844S51RK47AC2	55 Gallon Two Post Ram	AF0844S11RK47	RM552S-C	66516	Double Lip, Nitrile	Aluminum
TP0844S51RK47TA2	55 Gallon Two Post Ram	AF0844S11RK47	RM552S-C	66516-6	Double Lip, Polyurethane	Aluminum w/PTFE Coating
HD0844S51FF47AN2	55 Gallon Heavy Duty Two Post Ram	AF0844S11FF47	RM552H-C	67195-2	Double Tube, EPR	Aluminum
<b>Stainless Steel Packages</b>						
TP0844T21KK4GS22	5 Gallon Two Post Ram	AF0844T11KK4G	RM052S-C	67536-1	Single Lip, Polyurethane	Stainless Steel
TP0844T21KK4GTU2	5 Gallon Two Post Ram	AF0844T11KK4G	RM052S-C	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0844T51KK4GKT2	55 Gallon Two Post Ram	AF0844T11KK4G	RM552S-C	67527-1	Double Tube, EPR	Screen - Aluminum w/PTFE Coating
TP0844T51KK4GTL2	55 Gallon Two Post Ram	AF0844T11KK4G	RM552S-C	67527-2	Double Tube, FDA Neoprene	Screen - Aluminum w/PTFE Coating

## Recommended Accessories



67445-3  
Muffler Kit



66334-B  
Wet-Sol Packing  
Lubricant



635043  
ARO-Stop  
Valve



65138  
Floor Mount



67442  
Ball Valve  
Regulator



637489  
Universal Air Motor  
Service Kit

44:1

10"

**AFX**  
**Series**

# AF1044 Series Pumps



(Model shown w/ ball valve regulator)

**Materials:** Caulking, Inks, Mastics,  
Heavy Lubricants, Sealants

## Pump Specifications

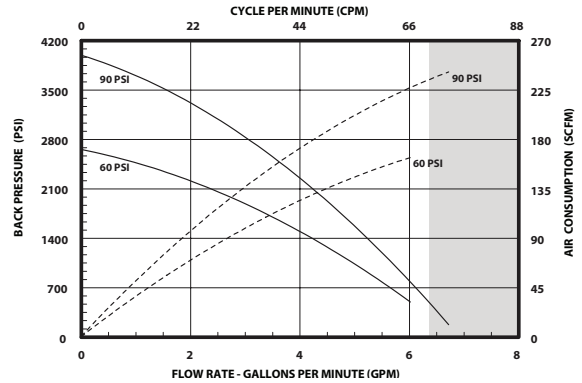
Ratio	44:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1-1/4" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	1320 - 3960 (91.0 - 273.1)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	20.0 (327.8)
Cycles/gal (L)	11.5 (3.0)
Flow @ 70 Cycles gpm (L/min)	6.1 (22.9)
Noise Level @ 60 psi dBA	89.8
Weight lb (kg)	64 (29.06)
Container Suitability	Remote Mounting

### DIMENSIONS

A <sup>1</sup> in (mm)	53.43 (1357.12)
B in (mm)	30.38 (771.53)
C in (mm)	19.25 (488.95)

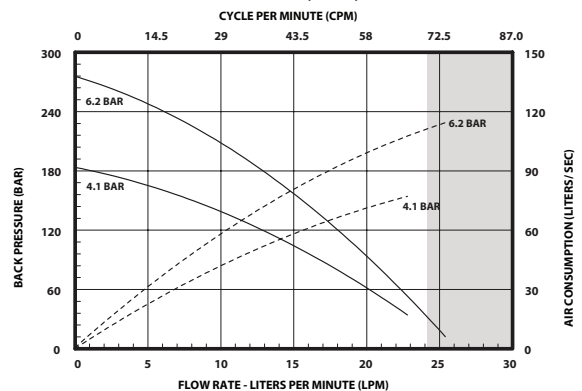
<sup>1</sup> For models without ball valve regulator subtract 2.08 in (52.83 mm)

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



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

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

Pump Model*	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Model Material - Carbon Steel, Nickel Plated</b>						
AF1044S11FF47	17-4 Stainless Steel, w/Hard Chrome	UHMW-PE	UHMW-PE	67300-C4D	B	637348-C4D
AF1044S11PF17	17-4 Stainless Steel, w/Hard Chrome	Polyurethane	UHMW-PE	67300-J3D	B	637348-J3D

\*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



65138  
Floor Mount



67442  
Ball Valve  
Regulator



637489  
Universal Air Motor  
Service Kit

# 44:1 Ratio Pump Packages



TPX Series  
Two Post Ram

**55**  
GALLON

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
TP1044S51FF47AM2	55 Gallon Two Post Ram	AF1044S11FF47	RM552S-C	67196-1	Double Tube, Neoprene	Aluminum
TP1044S51FF47AC2	55 Gallon Two Post Ram	AF1044S11FF47	RM552S-C	66517	Double Lip, Nitrile	Aluminum
HD1044S51FF47AN2	55 Gallon Heavy Duty Two Post Ram	AF1044S11FF47	RM552H-C	67196-2	Double Tube, EPR	Aluminum

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### 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-C1R-B** Regulated 750 – 5,000 psi (52 – 345 bar) / 6,000 psi (414 bar) max. inlet / carbon 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
637472	55 Gallon Two Post Ram Repair Kit (RM552S-X / RM552H-X)
67480	55 Gallon Two Post Ram Cross Over Kit
67501	55 Gallon Two Post Ram Low Level Cutt-Off Kit
67503	55 Gallon Drum Hold Down Kit
67504	Heavy Duty (HD) 55 Gallon Drum Hold Down Kit (used with RM552H-C)

46:1

6"

AFX  
Series

## AF0646 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics,  
Heavy Lubricants, Sealants

### Pump Specifications

Ratio	46:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
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)	1380 - 7485 (95.1-516.2)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm3)	6.97 (114)
Cycles/gal (L)	33.1 (8.8)
Flow @ 60 Cycles gpm (L/min)	1.8 (6.9)
Noise Level @ 60 psi dBA	84.7
Weight* lb (kg)	67 (30.4)
Container Suitability	Remote Mounting

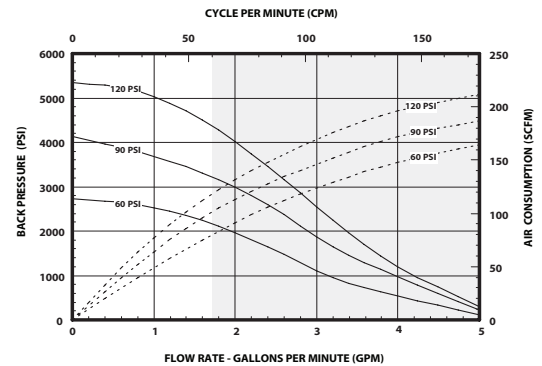
\*Estimated weight. Contact Technical Support for exact weight.

#### DIMENSIONS

A <sup>1</sup> in (mm)	54.01 (1371.83)
B in (mm)	30.74 (780.69)
C in (mm)	17.74 (450.49)

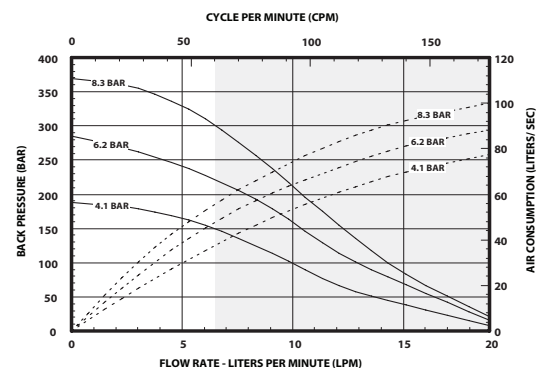
<sup>1</sup>For models without ball valve regulator subtract 2.08 in (52.83 mm)

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



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

#### PERFORMANCE BASED ON 30wt. OIL (100cSt) 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	Lower Pump Mounting Footprint	Pump Service Kit
<b>Lower Pump Material - Carbon Steel, Nickel-Plated</b>						
AF0646S11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	66266-C43-B	A	637074-C43-B
AF0646S11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Glass Filled PTFE (Staggered)	UHMW-PE	66266-P43-B	A	637074-P43-B
AF0646S11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	66266-343-B	A	637074-343-B
AF0646S11HH47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Leather (Staggered)	UHMW-PE/Leather (Staggered)	66266-G43-B	A	637074-G43-B
AF0646S11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	66266-R43-B	A	637074-R43-B
<b>Lower Pump Material - Stainless Steel, (AF0646TXXXXXX)</b>						
AF0646T11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	1380T11FF47	A	K1380T11FF00
AF0646T11KK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE	Glass Filled PTFE	1380T11KK47	A	K1380T11KK00
AF0646T11RK47	17-4 Stainless Steel w/Hard Chrome	Glass Filled PTFE/UHMW-PE (Staggered)	Glass Filled PTFE	1380T11RK47	A	K1380T11RK00
AF0646T11SS47	17-4 Stainless Steel w/Hard Chrome	Virgin PTFE	Virgin PTFE	1380T11SS47	A	K1380T11SS00

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



# 46:1 Ratio Pump Packages



SPX Series  
Single Post Ram



TPX Series  
Two Post Ram



FMX Series  
Floor Mount



Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Follower Plate Material
<b>Carbon Steel Packages</b>						
SP0646S21FF47E32	5 Gallon Single Post Ram	AF0646S11FF47	RM051S-C-B	67485-1	Single Lip, Polyurethane/Urethane	Carbon Steel, Electroless Nickel Coating
TP0646S21FF47E32	5 Gallon Two Post Ram	AF0646S11FF47	RM052S-C	67485-1	Single Lip, Polyurethane/Urethane	Carbon Steel, Electroless Nickel Coating
TP0646S51FF47AA2	55 Gallon Two Post Ram	AF0646S11FF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0646S51GF47AA2	55 Gallon Two Post Ram	AF0646S11GF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0646S51KK47AA2	55 Gallon Two Post Ram	AF0646S11KK47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0646S51KK47TA2	55 Gallon Two Post Ram	AF0646S11KK47	RM552S-C	66516-6	Double Lip, Polyurethane	Aluminum w/PTFE Coating
TP0646S51HH47AA2	55 Gallon Two Post Ram	AF0646S11HH47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0646S51RK47AA2	55 Gallon Two Post Ram	AF0646S11RK47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
Model No.	Package Type	Pump Model	Floor Mount Kit	Ball Valve	Material Supply Hose	Material Hose w/Fittings
FM0646S11GF47001	Floor Mount	AF0646S11GF47-1	65138	67073	628088-7	628089-6
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Follower Plate Material
<b>Stainless Steel Packages</b>						
SP0646T21KK47S22	5 Gallon Single Post Ram	AF0646T11KK47	RM051S-C-B	67536-1	Single Lip, Polyurethane	Stainless Steel
SP0646T21KK47TU2	5 Gallon Single Post Ram	AF0646T11KK47	RM051S-C-B	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0646T21KK47S22	5 Gallon Two Post Ram	AF0646T11KK47	RM052S-C	67536-1	Single Lip, Polyurethane	Stainless Steel
TP0646T21KK47TU2	5 Gallon Two Post Ram	AF0646T11KK47	RM052S-C	67532-1	Single Tube, EPR	Aluminum w/PTFE Coating
TP0646T51KK47TK2	55 Gallon Two Post Ram	AF0646T11KK47	RM552S-C	67527-1	Double Tube, EPR	Screen - Aluminum w/PTFE Coating
TP0646T51KK47TL2	55 Gallon Two Post Ram	AF0646T11KK47	RM552S-C	67527-2	Double Tube, FDA Neoprene	Screen - Aluminum w/PTFE Coating

## Recommended Accessories



67445-2  
Muffler Kit



66334-B  
Wet-Sol Packing  
Lubricant



23644-400  
ARO-Stop  
Valve



65138  
Floor Mount



67442  
Ball Valve  
Regulator



637489  
Universal Air Motor  
Service Kit

65:1

6"

**AFX**  
**Series**

# AF0665 Series Pumps



(Model shown w/ball valve regulator)

**Materials:** Caulking, Inks, Mastics,  
Heavy Lubricants, Sealants

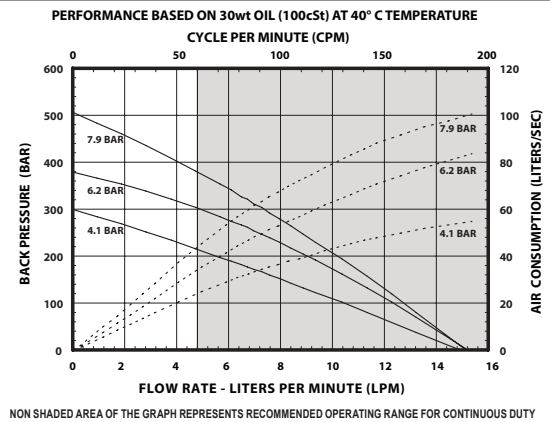
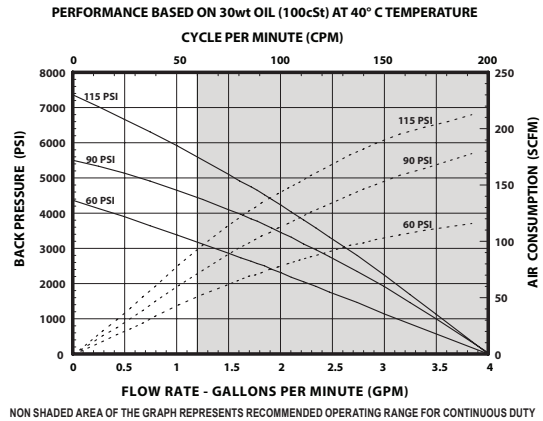
## Pump Specifications

Ratio	65:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	3/4" NPT(F)
Air Inlet (female)	1/2" NPT(F)
Air Inlet Pressure Range psi (bar)	30-115 (2.1-7.9)
Fluid Pressure Range psi (bar)	1950 - 7475 (134.5 - 515.5)
Max Cycles/Minute	60
Displacement/Cycle cu in (cm <sup>3</sup> )	5.2 (84.6)
Cycles/gal (L)	44.8 (11.9)
Flow @ 60 Cycles gpm (L/min)	1.3 (5.1)
Noise Level @ 60 psi dBA	84.7
Weight* lb (kg)	67 (30.4)
Container Suitability	Remote Mounting

\*Estimated weight. Contact Technical Support for exact weight.

### DIMENSIONS

A <sup>1</sup> in (mm)	54.01 (1371.83)
B in (mm)	30.74 (780.69)
C in (mm)	17.74 (450.49)

<sup>1</sup> For models without ball valve regulator subtract 2.08 in (52.83 mm)

Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
Lower Pump Material - Carbon Steel, Nickel-Plated						
AF0665S11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	67348-C43	A	637464-C43
AF0665S11GF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE/Mineral Filled PTFE (Staggered)	UHMW-PE	67348-P43	A	637464-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

**65138**  
Floor Mount

**67442**  
Ball Valve  
Regulator

**637489**  
Universal Air Motor  
Service Kit



# AFX Series



SPX Series  
Single Post Ram



TPX Series  
Two Post Ram



TPX Series  
Two Post Ram



Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
SP0665S21FF47A72	5 Gallon Single Post Ram	AF0665S11FF47	RM051S-C-B	67347-2	Single Tube, EPR	Aluminum
SP0665S21FF47A82	5 Gallon Single Post Ram	AF0665S11FF47	RM051S-C-B	67347-1	Single Tube, Neoprene	Aluminum
SP0665S21FF47E32	5 Gallon Single Post Ram	AF0665S11FF47	RM051S-C-B	67485-1	Single Lip, Polyurethane/Urethane	Carbon Steel, Electroless Nickel Coating
SP0665S21FF47EA2	5 Gallon Single Post Ram	AF0665S11FF47	RM051S-C-B	66732-1	Double Lip, Polyurethane	Carbon Steel, Electroless Nickel Coating
TP0665S21FF47E32	5 Gallon Two Post Ram	AF0665S11FF47	RM052S-C	67485-1	Single Lip, Polyurethane/Urethane	Carbon Steel, Electroless Nickel Coating
TP0665S21FF47EA2	5 Gallon Two Post Ram	AF0665S11FF47	RM052S-C	66732-1	Double Lip, Polyurethane	Carbon Steel, Electroless Nickel Coating
TP0665S21FF47A72	5 Gallon Two Post Ram	AF0665S11FF47	RM052S-C	67347-2	Single Tube, EPR	Aluminum
TP0665S21FF47A82	5 Gallon Two Post Ram	AF0665S11FF47	RM052S-C	67347-1	Single Tube, Neoprene	Aluminum
TP0665S51FF47AA2	55 Gallon Two Post Ram	AF0665S11FF47	RM552S-C	66516-1	Double Lip, Polyurethane	Aluminum
TP0665S51FF47AC2	55 Gallon Two Post Ram	AF0665S11FF47	RM552S-C	66516	Double Lip, Nitrile	Aluminum
TP0665S51FF47AM2	55 Gallon Two Post Ram	AF0665S11FF47	RM552S-C	67195-1	Double Tube, Neoprene	Aluminum
TP0665S51FF47AN2	55 Gallon Two Post Ram	AF0665S11FF47	RM552S-C	67195-2	Double Tube, EPR	Aluminum
TP0665S51GF47AN2	55 Gallon Two Post Ram	AF0665S11GF47	RM552S-C	67195-2	Double Tube, EPR	Aluminum

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### 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
637465	5 Gallon Single Post Ram Repair Kit
637466	5 Gallon Two Post Ram Repair Kit
637472	55 Gallon Two Post Ram Repair Kit (RM552S-X / RM552H-X)
67480	55 Gallon Two Post Ram Cross Over Kit
67481	5 Gallon Two Post Ram Cross Over Kit
67482	5 Gallon Single Post Ram Cross Over Kit
67500	5 Gallon Two Post Ram Low Level Cut-Off Kit
67501	55 Gallon Two Post Ram Low Level Cut-Off Kit
67502	5 Gallon Single Post Ram Low Level Cut-Off Kit
67503	55 Gallon Drum Hold Down Kit

65:1

12"

**AFX**  
**Series**

# AF1265 Series Pumps



**Materials:** Caulking, Inks, Mastics,  
Heavy Lubricants, Sealants

## Pump Specifications

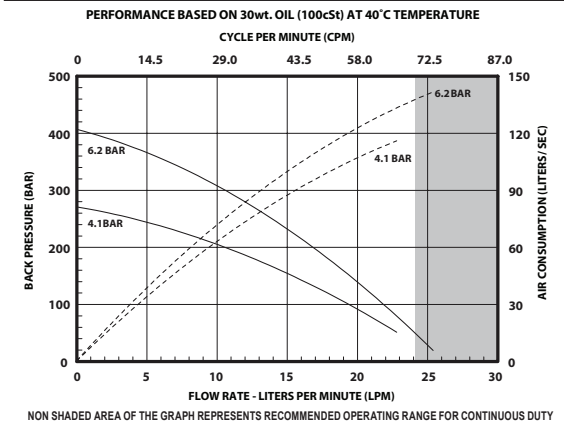
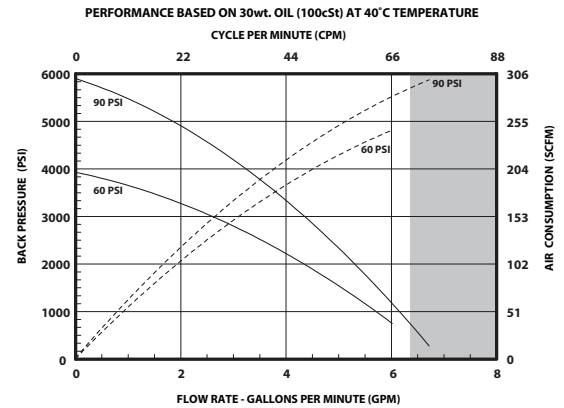
Ratio	65:1
Stroke (double acting)	6" (15.24 cm)
Material Inlet	Flange Mount
Material Outlet	1-1/4" NPT(F)
Air Inlet (female)	3/4" NPT(F)
Air Inlet Pressure Range psi (bar)	30 - 90 (2.1 - 6.2)
Fluid Pressure Range psi (bar)	1950 - 5850 (134.5 - 403.4)
Max Cycles/Minute	70
Displacement/Cycle cu in (cm3)	20.0 (327.8)
Cycles/gal (L)	11.5 (3.0)
Flow @ 70 Cycles gpm (L/min)	6.1 (22.9)
Noise Level @ 60 psi dBA	93
Weight* lb (kg)	165 (74.8)
Container Suitability	Remote Mounting

\*Estimated weight. Contact Technical Support for exact weight.

### DIMENSIONS

A <sup>1</sup> in (mm)	53.46 (1357.88)
B in (mm)	30.38 (771.65)
C in (mm)	19.25 (488.95)

<sup>1</sup>For models without ball valve regulator subtract 2.08 in (52.83 mm)



Pump Model**	Plunger Material	Upper Packings	Lower Packings	Lower Pump Model	Lower Pump Mounting Footprint	Pump Service Kit
Lower Pump Model Material - Carbon Steel, Nickel Plated						
AF1265S11PF17	17-4 Stainless Steel w/Hard Chrome	Polyurethane	UHMW-PE	67300-J3D	B	637348-J3D
AF1265S11FF47	17-4 Stainless Steel w/Hard Chrome	UHMW-PE	UHMW-PE	67300-C4D	B	637348-C4D

\*\*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 Mount	67442 Ball Valve Regulator	637489 Universal Air Motor Service Kit

# 65:1 Ratio Pump Packages



TPX Series  
Two Post Ram

**55**  
GALLON

Packages						
Model No.	Package Type	Pump Model	Ram/Lift Model	Follower	Follower Seal Description	Material
TP1265S51PF17AA2	55 Gallon Two Post Ram	AF1265S11PF17	RM552S-C	66517-1	Double Lip, Polyurethane	Aluminum
TP1265S51FF47AN2	55 Gallon Two Post Ram	AF1265S11FF47	RM552S-C	67196-2	Double Tube, EPR	Aluminum

## Recommended Accessories



### Extrusion Guns

**651500** For material over 200,000 cP 3/8" (F) inlet  
**651533** For low- to medium-viscosity fluids 1/4" NPS (M) inlet



### 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-C1R-B** Regulated 750 – 5,000 psi (52 – 345 bar) / 6,000 psi (414 bar) max. inlet / carbon 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
637472	55 Gallon Two Post Ram Repair Kit (RM552S-X / RM552H-X)
67480	55 Gallon Two Post Ram Cross Over Kit
67501	55 Gallon Two Post Ram Low Level Cut-Off Kit
67503	55 Gallon Drum Hold Down Kit

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