

FLUX PUMPS CORPORATION

**FLUX**

DRUM AND CONTAINER PUMPS

SINCE 1954

[www.flux-pumps.com](http://www.flux-pumps.com)



## SEALLESS TUBESETS

POLYPROPYLENE • STAINLESS STEEL • PVDF



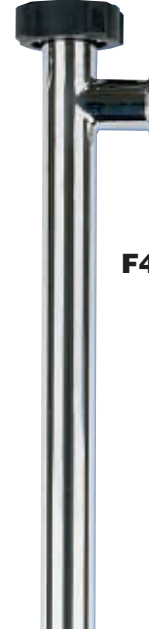
**F424 PT**



**F424 ST**



**F424 PVDF**



**F427S3A**



Model #	Wetted Parts	Lengths	Max: Dia:	Hose Conn: Size
F424 PT 41/36	Polypropylene, Viton®, PTFE, Carbon, Tefzel and Hastelloy C.	27, 39, 47 & 60"	1 <sup>19</sup> / <sub>32</sub> " (41mm)	<sup>3</sup> / <sub>4</sub> , 1 or 1 <sup>1</sup> / <sub>4</sub> "
F424 PT 41/35z		"	"	"
F424 PT 50/38		39, 47 & 60"	2" (50mm)	1 or 1 <sup>1</sup> / <sub>4</sub> "
F424 PT 50/43z		"	"	"
F427 S3A 43/38	316 Stainless/PTFE	27, 39 & 47"	1 <sup>11</sup> / <sub>16</sub> " (43mm)	1 <sup>1</sup> / <sub>2</sub> " Triclamp*
F424 ST 43/38	Stainless steel, (316Ti) Viton®, Carbon, PTFE, Tefzel	27, 39, 47 & 60"	1 <sup>11</sup> / <sub>16</sub> " (43mm)	1 or 1 <sup>1</sup> / <sub>4</sub> "
F424 ST 43/37z		"	"	"
F424 ST 50/46		39 & 47"	2" (50mm)	"
F424 ST 50/45z		"	"	"
F424 PVDF 41/36	PVDF, Viton®, Carbon, PTFE, Hastelloy C. and Tefzel	27, 39, 47 & 60"	1 <sup>19</sup> / <sub>32</sub> " (41mm)	<sup>3</sup> / <sub>4</sub> , 1 or 1 <sup>1</sup> / <sub>4</sub> "
F424 PVDF 41/35z		"	"	"
F424 PVDF 50/38		39 & 47"	2" (50mm)	1 or 1 <sup>1</sup> / <sub>4</sub> "
F424 PVDF 50/43z		"	"	"

\* Sanitary Pumps also available for high viscosity applications

\*\* "Z" Designation tubesets are for high head applications. 50mm (2") Dia; tubesets are for higher flow rates. Special length tubesets are available, call for details. PT or PP—Polypropylene. PVDF—Polyvinylidenfluoride. S—Stainless Steel. T—Tefzel.

**ALL MOTORS AND TUBESETS ARE INTERCHANGEABLE.**



# MECHANICAL SEAL TUBESETS

POLYPROPYLENE • STAINLESS STEEL • PVDF • ALUMINUM ALLOY & HASTELLOY



**F430 PP**



**F430 ST**



**F430 PVDF**



**F430 AL  
F430 HC**

Model #	Wetted Parts	Lengths	Max: Dia:	Hose Conn: Size
F430 PP 40/33	Polypropylene, Viton®, Carbon, Tefzel, Ceramic Hastelloy C and PTFE	27, 39, 47 & 60"	1 <sup>9</sup> / <sub>16</sub> " (40mm)	3/4, 1 or 1 <sup>1</sup> / <sub>4</sub> "
F430 PP 40/33z		"	"	"
F430 PP 50/38		"	2" (50mm)	"
F430 PP 50/43z		"	"	"
F430 ST 41/38	Stainless steel, (316Ti) Viton®, Carbon, PTFE, Ceramic and Tefzel	27, 39, 47 & 60"	1 <sup>19</sup> / <sub>32</sub> " (41mm)	1 or 1 <sup>1</sup> / <sub>4</sub> "
F430 ST 41/37z		"	"	"
F430 ST 50/38		"	2" (50mm)	"
F430 ST 50/43z		"	"	"
F430 PVDF 40/33	PVDF, Viton®, Carbon, PTFE, Ceramic, Hastelloy C and Tefzel	27, 39, 47 & 60"	1 <sup>9</sup> / <sub>16</sub> " (40mm)	3/4, 1 or 1 <sup>1</sup> / <sub>4</sub> "
F430 PVDF 40/33z		"	"	"
F430 PVDF 50/38		"	2" (50mm)	"
F430 PVDF 50/43z		"	"	"
F430 AL 41/38	Aluminum Alloy, Ceramic, Stainless steel, Carbon, Buna N, PTFE and Tefzel	27, 39, 47 & 60"	1 <sup>19</sup> / <sub>32</sub> " (41mm)	1 or 1 <sup>1</sup> / <sub>4</sub> "
F430 AL 41/37z		"	"	"
F430 AL 50/38		27, 39, 47"	2" (50mm)	"
F430 HC 40/38	Viton®, Ceramic, Carbon, Hastelloy C, PTFE and Tefzel	39, 47"	1 <sup>9</sup> / <sub>16</sub> " (40mm)	1"

\*\* "Z" Designation tubesets are for high head applications. 50mm (2") Dia; tubesets are for higher flow rates. Special length tubesets are available, call for details. AL—Aluminum Alloy. P or PP—Polypropylene. PVDF—Polyvinylidenfluoride. S—Stainless Steel. T—Tefzel.

**ALL MOTORS AND TUBESETS ARE INTERCHANGEABLE.**



# PUMP MOTORS

Polypropylene Tubesets

**F460-1 EX**

**F458-1 TEFC**

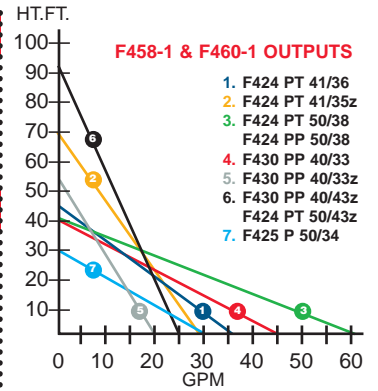


## F460-1 EX

RPM: 9,500. WT: 13 lbs. Heavy duty motor suitable for hazardous areas that do not require a UL rating. Built-in overload protection switch. Available in 120v or 230v AC, Max. Visc: 900 cP.

## F458-1 TEFC

RPM: 9,500. WT: 13 lbs. Totally enclosed fan-cooled. Heavy duty motor suitable for corrosive environments. Corrosion resistant coating. Splash-proof. Built-in overload protection switch. Available in 120v or 230v AC, Max. Visc: 900cP



**F410 EX. UL**

**F458 TEFC**

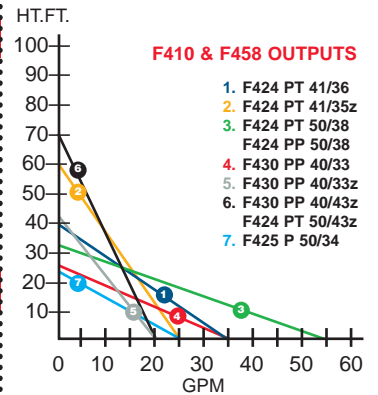


## F410 EX. UL

#E67399. class 1. Grp. C&D. RPM: 9,000, WT: 12.5 lbs. (230v available not UL listed) corrosion resistant coating. Will handle flammable liquids up to 450 cP. 410w. Commutator motor available in 115v. Has built-in overload switch with manual reset for safety to avoid danger of automatic restarting.

## F458 TEFC

RPM 8,500. WT: 11 lbs. Totally enclosed fan-cooled. Suitable for corrosive environments. Corrosion resistant coating. Splash-proof. Built-in overload protection switch. Available in 120v or 230v AC, Max. Visc: 800cP



**F416 AIR MOTOR**

**F416-1 AIR MOTOR**

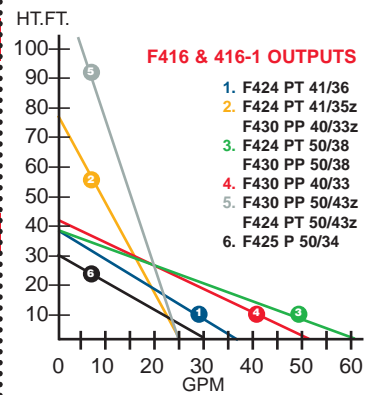


## F416 AIR MOTOR

WT: 3.5 lbs. Compressed air motor. Output 450w at operating pressure of 85 PSI. Air consumption 17 CFM. Built-in operating valve may be set for continuous or intermittent operation. Suitable for hazardous duty. Max. Visc: 1200cP. Muffler included.

## F416-1 AIR MOTOR

Wt: 2 lbs. Compressed air motor with 450w output at operating pressure of 85 PSI. Air consumption 17 CFM. Has connection for exhaust air hose or muffler. This motor is suitable for hazardous duty. Max. Visc: 1200cP. Muffler included.



**F417**

**F417 EL**

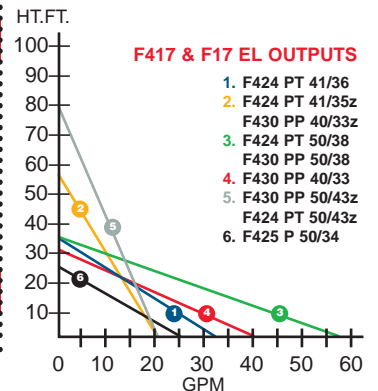


## F417

120v CSA listed. RPM: 8,500. WT: 5.5 lbs. Double insulated, splash-proof, commutator motor has built-in overload switch with manual reset for safety to avoid danger of automatic restarting. This motor has downdraft ventilation to stop fumes from entering motor while operating. Available in 120v or 230v AC, input 420w. Max. Visc: 600cP

## F417 EL

As above, but fitted with RPM controller

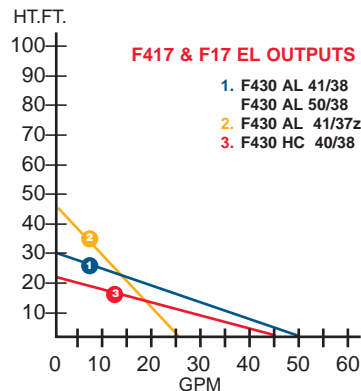
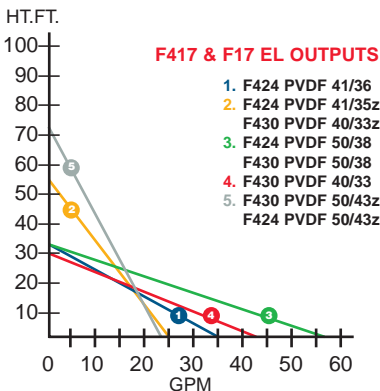
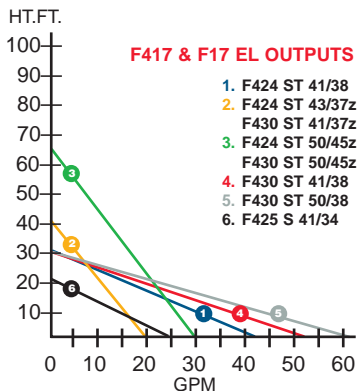
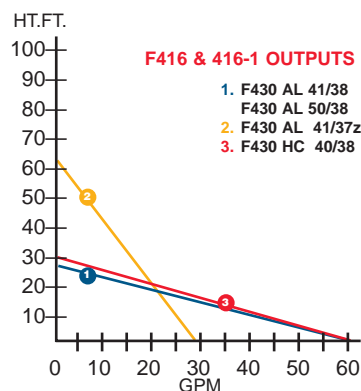
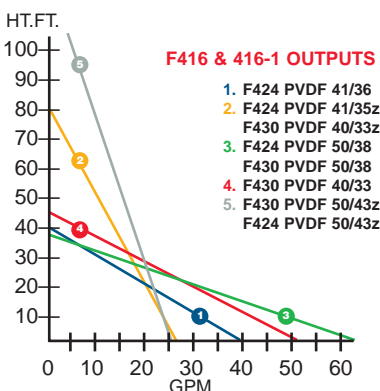
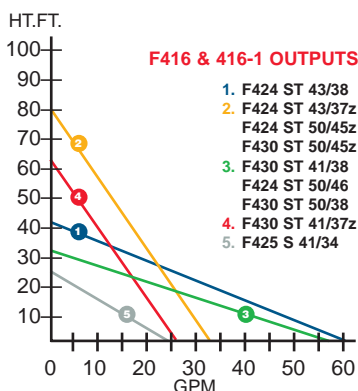
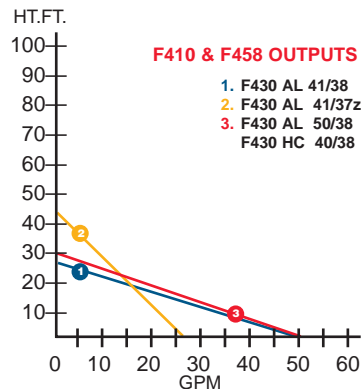
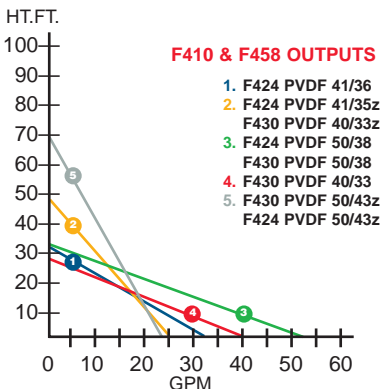
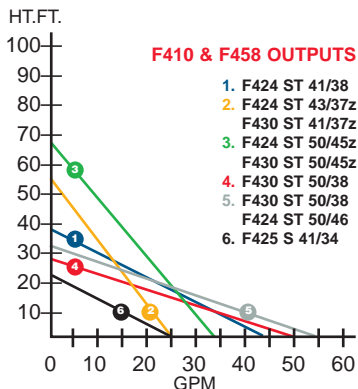
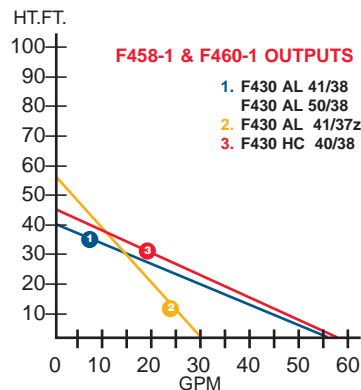
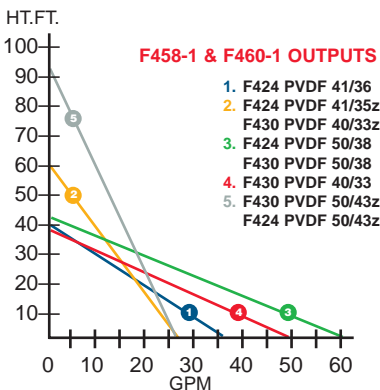
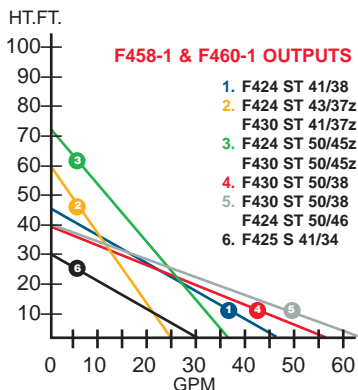


ALL ELECTRIC MOTORS FITTED WITH 16 FT. POWER CORD.

Stainless Steel Tubesets

PVDF Tubesets

HC & Aluminum Alloy Tubesets





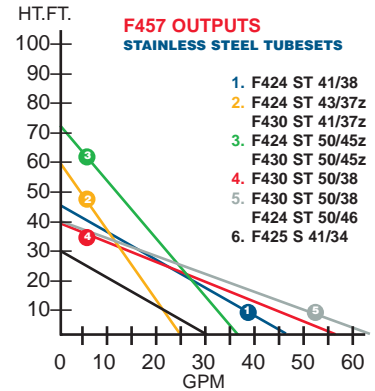
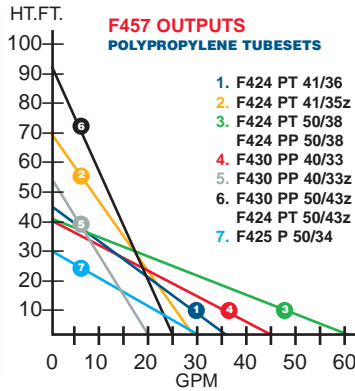
# PUMP MOTORS (CONTINUED)



## F457 and F457EL

**F457:** RPM: 9,500. WT: 9 lbs  
Heavy duty, splash proof, double insulated motor has built-in overload switch with manual reset to eliminate accidental restarting. Available in both 120 and 220 volts. Max. Visc. 900cp.

**F457EL:** As above, but fitted with RPM controller.



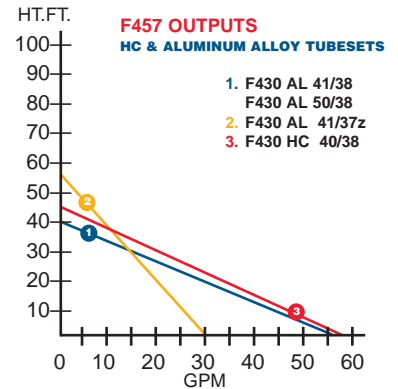
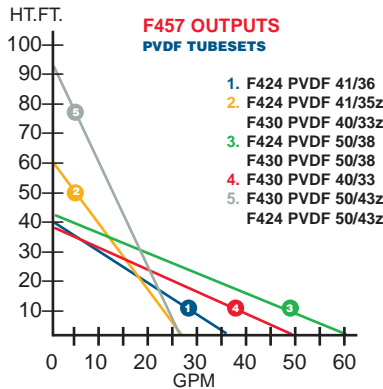
Also Available



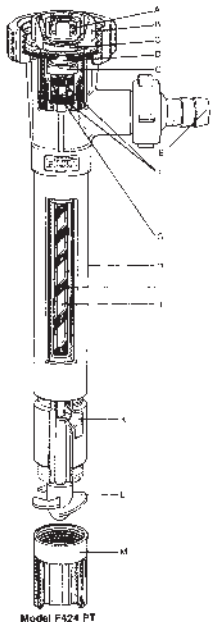
F400

G11A

E3PH



## "THE INSIDE STORY"



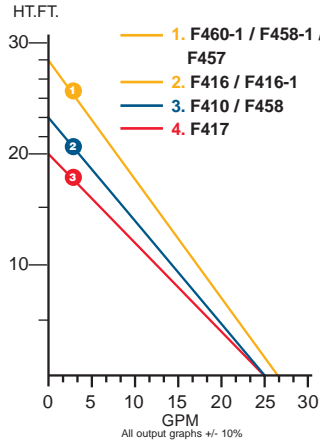
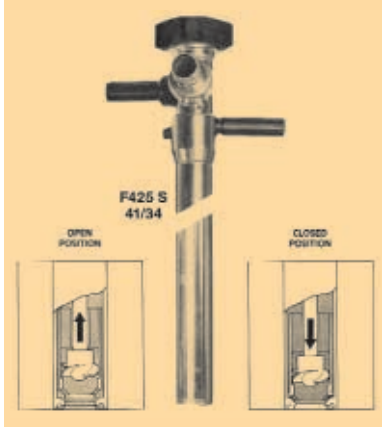
- A.** Recessing the coupling in the top of the pump helps keep it out of harms way when the pump and motor are separated.
- B.** The removable inner tube assembly gives quick and easy access to the inner workings of the pump.
- C.** There are two heavy duty sealed ball bearings supporting the impeller shaft.
- D.** Spacer between the bearings helps dissipate heat.
- E.** Hose connections are available in  $\frac{3}{4}$ ", 1" and  $1\frac{1}{4}$ " sizes.
- F.** Two heavy duty Viton® radial shaft seals provide protection for the bearings.
- G.** The steel bearing and seal cup is molded into the inner pump tube assembly.
- H.** Pump tubes are available in polypropylene, PVDF, 316 stainless steel, Hastelloy C and aluminum.
- I.** This spiral bearing is designed to allow product to drain out of the tube and eliminate shaft wear.
- J.** Impeller shafts are made from Hastelloy C. (F424P / PVDF), a material chosen for its high strength and chemical resistance. Identical threads on either end of the drive shaft allow it to be inverted for longer life.
- K.** The lower bearing housing with its carbon insert and drain vent is replaceable. A Teflon bearing insert is also available.
- L.** A choice of high lift or high volume impeller of heavy duty Tefzel is available to suit particular applications.
- M.** The foot piece, which takes the most abuse of all the parts of the pump, is independently replaceable...

Model F424 PT



## LIQUID SAVER PUMP MODEL F425

- No loss liquid due to integrated backflow stop.
- For thin, neutral, corrosive and flammable liquids, viscosities to 500 cp.
- Pump tubesets in stainless steel (S) or in polypropylene (P).
- Delivery rate up to 26 GPM.
- Liquid remaining in drum is less than 3 oz. when drum is tilted.
- No more environmental contamination, easy to service.
- An easy to operate and handy pump.



### OPERATION AND FUNCTION OF FLUX PUMP TUBESET—F425

When emptying a drum or container, the liquid which remains in the pump tubeset or hose being used with a Flux hand nozzle will always remain under the control of the operator. The pump tubeset—model F425—is equipped with an integrated back-flow stop in the lower part of the pump housing, which is operated manually by turning an adjustable lever 90 degrees to a locked position. As soon as the drum or container is completely empty and no more liquid is being discharged, the integrated back-flow stop **MUST** be closed with the motor still running. (In that way, any back-flow of the liquid is prevented and ensures that the drum or container is emptied to its maximum.)

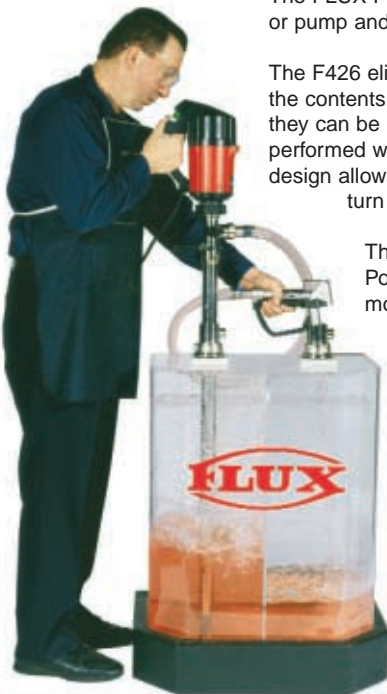
### ADVANTAGES OF FLUX TUBESET F425

- Drums and containers can be emptied in vertical position up to one (1) pint and in tilted position up to 3 oz. residual quantity.
- By closing the back-flow stop at the bottom of the tubeset, the liquid in the pump and transfer hose cannot flow back into the drum or container.
- Pump tubeset F425 S in stainless steel has an outer diameter of only 1<sup>19</sup>/<sub>32</sub>" over the total effective immersion length, F425 P outer diameter is 2".
- No loss of liquid or environmental problems with remaining liquid in drums and containers. No contamination of environment due to leaking liquid.
- Easy to operate, easy to dismantle and service with cleaning a simple operation.

## THREE OPERATIONS

### PUMP-N-MIXER

#### Mixing Only, Pumping Only or Mixing & Pumping Simultaneously



The FLUX Pump-N-Mixer allows you to either pump, mix, or pump and mix simultaneously.

The F426 eliminates the need for a separate drum mixer when the contents of the container must be thoroughly mixed before they can be pumped out. Both mixing and pumping can be performed with the same unit. the FLUX unique lever action design allows the user to perform several functions with the turn of a lever.

This unit is available in Stainless Steel and also Polypropylene, and can be used with any of the FLUX motors listed on pages 4-6 of this brochure subject to application.

Available Lengths: Max. Flow up to 45 GPM  
 S 39, 47 & 60" Max. Head up to 25 Ft.  
 P 39 & 47"

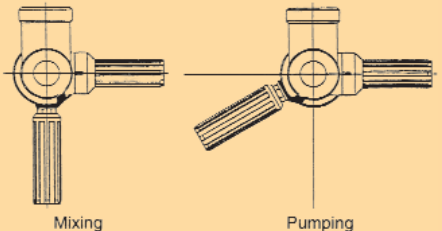
**Note:** When using the drum pump as a mixing pump there is a risk—as in all circulation operations with electrically non-conductive liquids—that the circulated liquid (especially when it contains a high percentage of non-dissolved solid or liquid particles in suspension) will be charged electrostatically.

Please make sure that any ignition risk will be eliminated before commencing mixing operation.

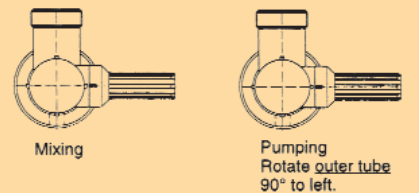
### WHEN PUMPING FLAMMABLE LIQUIDS

Types of motors to be used with F426 S  
 F460-1 Ex. F410 Ex. F416 Ex. F416-1 Ex.  
 F460 Ex.

Lever operation positions for F426 S

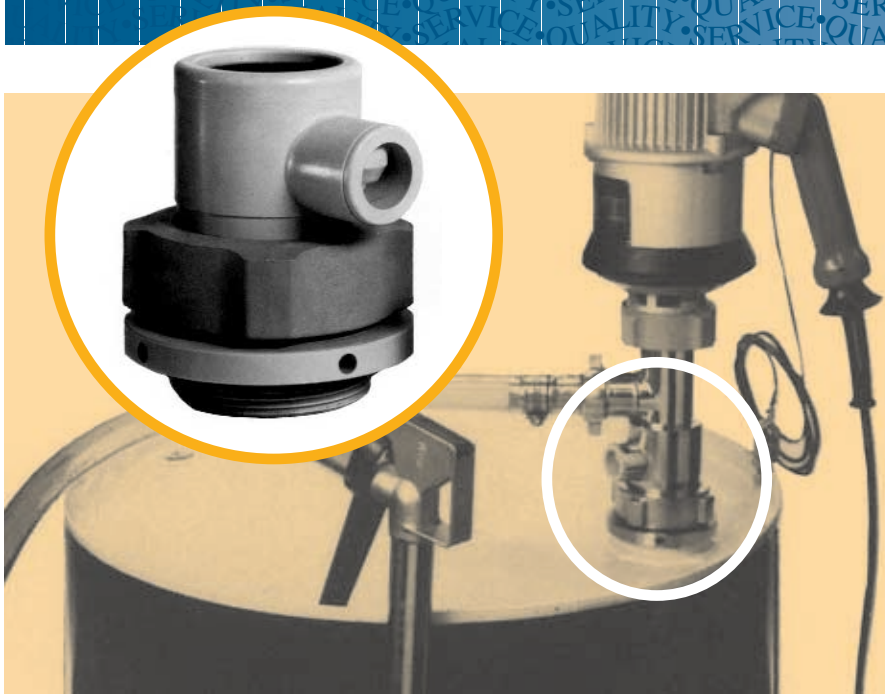


Lever Operation position for F426 P





## FUME GLANDS SS, PP & BRASS



This Fume Gland when used in conjunction with a Flux Drum Pump and hand nozzle will NOT allow fumes from the liquid in the drum to vent out when the pump is switched off and left in position in the drum.

The specially designed valve incorporated in the gland allows air to enter the drum when the pump is operating, then automatically closes on the completion of pumping, thereby eliminating fumes or odors from leaving the drum and polluting the atmosphere/workspace.

The Glands are available in STAINLESS STEEL, POLYPROPYLENE and BRASS.

The lower part of the Gland is interchangeable, this allows the Gland in Polypropylene to be used for both standard and buttress threaded drums. Specify required thread when ordering. Glands are available in sizes to fit both Sealless and Mechanical Seal Tubesets.

## ACCESSORIES

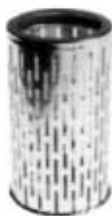
### Quick Action Hand Nozzle:



Available in:

- Brass
- Stainless Steel
- Polypropylene
- PVDF

### Suction Strainer



Mounted at bottom of tubeset to protect pump against coarse impurities.

Available in:

- Brass
- Stainless Steel
- Polypropylene
- PVDF

### Container Attachment Clamp



CL 109  
CL2 109

### Container Clip



CCN 105  
CCPP 106

### Wall Bracket



WB 101

### Ground Wire



GW 100

### Polypropylene Laboratory Pump

#### MODEL F303 PP COMPLETE

Pump Material	Polypropylene
Other Wetted Materials	Carbon, Viton®, Hastelloy C, Ceramic and PTFE
Impeller Material	Tefzel
Tubeset Diameter	1" (25mm) and 1 1/4" (32mm)
Tubeset Length	27" and 39"
Hose Connector Size	1/2" or 3/4"

This versatile, light-weight pump is for the transfer of acids and alkalis from glass carboys and similar containers. The pump will handle liquids up to 250 cP. Commutator motor of 160w, 120v and 220v has a built in overload switch with manual reset for safety. Output at 3 GPM at 10 ft. head. Fitted with 16 ft. cord and plug.



### Compression Glands

CG 102



Available in:

- Steel
- Polypropylene





MANUFACTURED IN SS, PP or ETFE

## LIQUID METER FMC

FOR UNIVERSAL APPLICATIONS. SUITABLE FOR ALL CORROSIVE AND NEUTRAL LIQUIDS



### PRODUCT PROFILE

Precise, reliable, versatile, accurate in measuring—these are the main features of the new generation of liquid meters type FM C.

Their field of application is either portable use with barrel and container pumps or stationary installation into pipeline systems to filling stations in connection with stationary pumps or under hydrostatic pressure. By using high-grade raw materials only, the liquid meters can be used with a great number of corrosive, flammable, thin as well as low viscosity liquids.

This measuring instrument, equipped with an easy-to-read 7-digit LCD display, may not be used only as a liquid meter, but also—in connection with an amplifier—as a presettable batch controller to actuate a magnetic valve or a pump.

### TECHNICAL DESCRIPTION

This new generation of liquid meters are of the well-proven nutating disc type where the flow of liquid passing through the measuring chamber causes the disc to nutate. This movement is converted to a rotary motion and a sensor unit transmits the impulses to a micro-computer integrated in the display system. The micro-computer immediately calculates the flowrate by the impulses received. The digital display shows all figures either in Liters, in Imperial gallons or in US gallons, depending on the program selected.

A built-in filter at the meter inlet prevents small solids from entering the measuring chamber. To achieve a high accuracy in measuring, the system always has to be completely filled with liquid (liquid-filled-system).

### SPECIAL ADVANTAGES

- Easy-to-read 13mm LCD display
- High Flowrate
- Low Pressure Loss
- High accuracy in measuring
- Easy handling
- Versatile in use
- Compact design
- Easy cleaning
- Increased safety by the control of flowrate
- Integral presettable batch controller

### TECHNICAL INFORMATION

Model:	Polypropylene	E.T.F.E.	Stainless Steel
Flowrate:	2.5–26.5 GPM		
Maximum Pressure:	57 PSI		85 PSI
Viscosity MAX:	1000 cP		
<b>WETTED PARTS</b>			
Housing:	PP	ETFE	SS
Measuring Chamber:	PPS (Ryton)	ETFE	PPS (Ryton)
O-Rings:	EPDM or Viton®		FEP
LCD Display:	7 Digit, Resettable, Totalizer; Resettable special procedure.		
Dimensions:	D: 5.5", H: 4.5", L: 9.1"		D: 5.5", H: 4.6", L: 7.9"
Weight:	2.4 Lbs. (1.1 kg)	3.1 Lbs. (1.4 kg)	3.7 Lbs. (1.7 kg)
Inlet & Outlet:	Inlet & Outlet Male 1 1/4"		1 1/2" in: 1 1/4" out
Threads:	Connecting pieces available in other sizes.		
Accuracy:	+/- 1%		
Temperature Max:	140°F at 28 PSI Max.		176°F
Accessories:	Amplifier & Control cable for Automatic Operation		



## POSITIVE DISPLACEMENT PUMP F55GS USES FLUX AIR OR ELECTRIC MOTORS



The Flux F55GS is a gear drive progressive cavity pump. The progressive cavity design produces a smooth flow of product with very little product degradation. The gear drive version allows the use of most Flux F400 series motors. This pump is capable of handling viscosities to 50,000 centipoise. Applications include, but are not limited to, polymers, resins, adhesives, and oils. Both pneumatic and electric motors are available.

Sanitary Versions Available



Motors	
	F410 EX UL & F458 TEFC F457, F460-1 EX, F458-1 TEFC, F416 & F416-1
Pump Tubeset Materials	
Outer Tube:	Stainless Steel 316 Ti.
Shaft:	Stainless Steel 316 Ti.
Eccentric Rotor:	Stainless Steel 316 Ti.
Stators Materials:	See listing on next page to the right
Immersion Depth:	27", 39" or 47"
Special:	60"
Outer Tube Diameter:	2" (50mm)
Eccentric Rotor Diameter:	7/8" (21mm)
Thread of Hose Connection:	R 1-1/2"
Hose Connection:	1", 1-1/4", or 1-1/2" (2" Special Order)
Weight of Pump: (Depending on the Motor Used).	14 to 28 lbs.

## POSITIVE DISPLACEMENT PUMP F550S



The Flux F550S is a direct drive progressive cavity pump. The progressive cavity design produces a smooth flow of product with very little product degradation. The direct drive version allows the use of higher horsepower motors enabling the pump to handle viscosities in excess of 100,000 centipoise. Applications include, but are not limited to, polymers, resins, adhesives, silicones and oils. Both pneumatic and electric motors are available.

Sanitary Versions Available



Type of Pump		F550S 50/21
Motors	Three Phase Motors	E3PH, 1.1 KW, 230/460, Rated 840 RPM.
	Compressed Air Motor	Regulated 750-1000 RPM. Power Output to 5 HP (Minimum Operating Pressure 30 PSI)
Pump Tube Set Materials	Outer Tube	Stainless steel (316TI)
	Shaft	Stainless steel (316TI)
	Eccentric Worm	Stainless steel (316TI)
	Stators	Materials see next page to the right
Immersion Depth of Pump Tube Set		27", 39" or 47"
	Special Lengths	60"
Outer Tube $\sigma$		2" (50mm)
Eccentric Worm $\sigma$		7/8" (21.4mm)
Thread of Hose Connection		R 1-1/2"
Hose Connection		1-1/4" or 1-1/2", (2" Special Order)
Weight of Pump complete depending on the power of the motor		48 - 74 Lbs.

## HIGH VISCOSITY LIQUID PUMP F520S



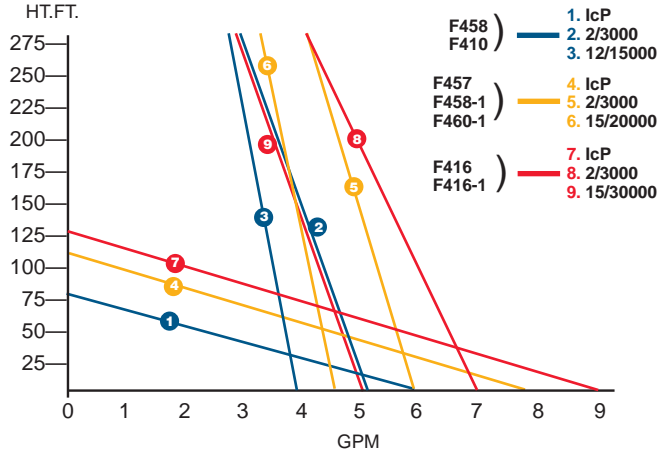
The F520S is a rotary screw pump. The pump is capable of handling fluids with viscosities to 25,000 centipoise. The rotary screw design produces a smooth non-pulsating flow making it an excellent choice for pumping oils. Both pneumatic and electric drives are available.

Sanitary Versions Available



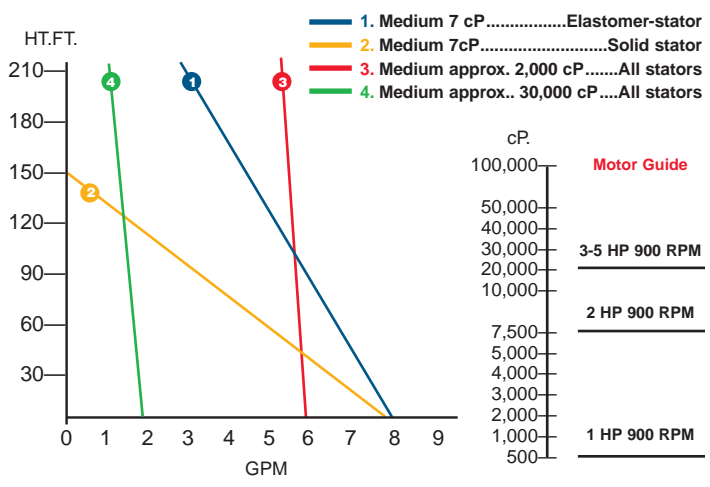
Type of Pump		F520S 50/45
Motors	Nema Three Phase Motors	143 TC 1.5 HP 145 TC 2.0 HP Rated 3600 RPM. Explosion Proof Models Available
	Compressed Air Motor	Regulated 750-3000 RPM. Power Output to 5 HP (Minimum Operating Pressure 30 PSI)
Pump Tube Set Materials	Outer Tube	Stainless steel (316TI)
	Delivery worm, drive shaft	Stainless steel (316TI)
Immersion Depth of Pump Tube Set		27", 39" or 47"
	Special Lengths	60"
Largest outer- $\sigma$ of Pump Tube Set		2" (50mm)
Outer Tube $\sigma$		2" (50mm)
Delivery Worm $\sigma$		1-3/4" (45mm)
Thread of Hose Connection		R 1-1/2"
Hose Connection		1-1/4" or 1-1/2", (2" Special Order)
Weight of Pump complete depending on the power of the motor		44 - 92 Lbs.

<b>Stators Available</b>	
<b>Elastomer Stators:</b>	
NBR – Buna – N. Black	
NBR – Buna – N. White	
FPM – Viton®	
<b>Solid Material Stators:</b>	
PTFE – Teflon	
<b>Accessories</b>	
Drum Compression Gland 2"	
Container Clamp.	
Flat Bottom Stator Housings for Bagged Containers.	

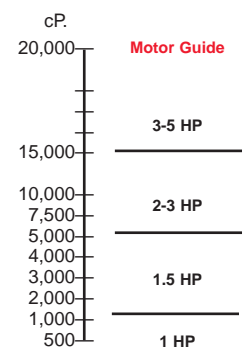
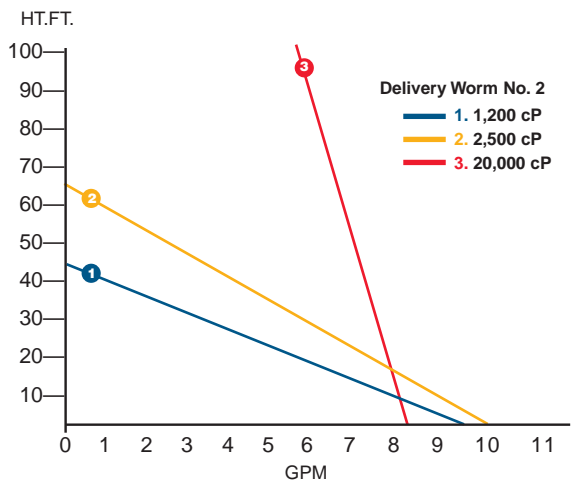


- 5 GPM
- Head To 275 Feet
- Max. Viscosity: 50,000cP
- Choice Of Stator Materials
- Choice Of Pump Length
- Easy Cleaning

<b>Stators Available</b>	
<b>Elastomer Stators:</b>	
NBR – Buna – N. Black	
NBR – Buna – N. White	
FPM – Viton®	
<b>Solid Material Stators:</b>	
PTFE – Teflon	
<b>Accessories</b>	
Drum Compression Gland 2"	
Container Clamp.	
Flat Bottom Stator Housings for Bagged Containers.	



- 8 GPM
- For Viscous, Pasty and Aerated Liquids
- For Liquids Containing Solids Or Fibers
- Max. Viscosity: 100,000cP
- Easy Cleaning



- For Medium Viscosity Liquids.
- Easy Dismantling Means Easy Cleaning.

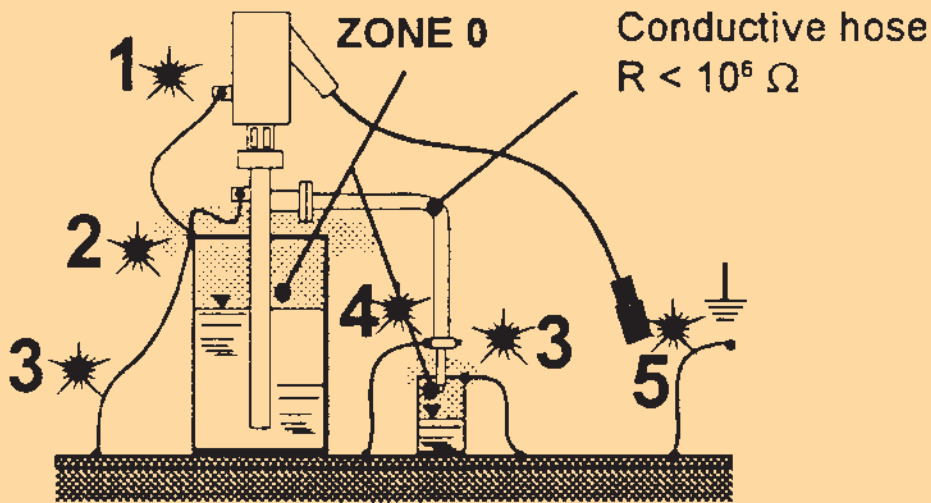
- ACCESSORIES**
- Earth wire cpl. with alligator clip, Approx. 6'0" long, essential when pumping in flammable areas.
  - Hose connections type S cpl., 1 1/4", 1 1/2" or 2"
  - Compression Gland M 64x4 and R2"



## SAFETY PROCEDURE

The high velocity flow of material through a pump may cause static electricity. All pumps and containers must be properly grounded and bonded to prevent static discharge and sparking which could cause electric shock, fire or explosion. Use only EX-UL or pneumatic motors in conjunction with metal pump tubes marked zone "O" when pumping flammable or explosive liquids or in a hazardous environment.

### Explosion Proof Motor



### LIMITED WARRANTY

Flux Pumps Corporation Warrants all pumps and motors it manufactures against defective material and workmanship, for a period of 3 months (90 days) from date of installation and /or 6 months (180 days) from date of sale, excluding normal wear.

This warranty does not cover claims arising from misapplication, modification, or damage caused by equipment abuse beyond our control.

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**FLUX PUMPS CORPORATION** DRUM AND CONTAINER PUMPS

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