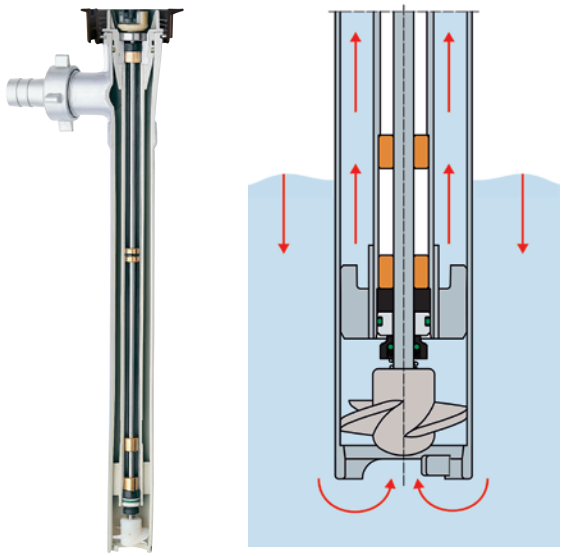
Technical Data Sheet

Drum pumps F/FP 430

More than just pumps

Drum pumps F/FP 430



Advantages/characteristics:

- With mechanical seal for interior seal
- Compared to sealless pump increased service life with abrasive media
- Ideal for frequent media changes, curing media, quick drying media, crystallising media
- Can be easily dismantled into two parts for cleaning
- With metal core reinforced inner tube on plastic versions, prevents leakage and unnecessary wearout of the mechanical seal at all application temperature areas
- Operation against closed valve is possible (hand nozzle, ball valve, etc.), up to indicated max. operating temperature

Technical data/type	F 430 PP	F 430 PVDF	F 430 S	FP 430 Ex S FOOD	F 430 HC	F 430 Al
Seal type	Mechanical seal					
Version	With impeller for max. flow rate, with mixed half axial impeller for max. delivery head (Z-version)					
Pressure-side connection	Thread G 1¼ A			Clamp 1½"	Thread G 1¼ A	
Materials						
Pump	Polypropylene	Polyvinylidene fluoride	Stainless steel 316 Ti		Hastelloy C	Aluminium
O-ring[2]	EPDM, FKM	FKM, FFKM	EPDM, FKM, FFKM	FKM	FFKM	NBR
Mechanical seal	Oxide ceramics, PTFE/coal					
Shaft	Hastelloy C		Stainless steel 316 Ti		Hastelloy C	Stainless steel
Impeller	ETFE			Stainless steel	ETFE	
Dimensions						
Outer tube diameter / Impeller diameter (mm)	40/33 40/33 Z 50/38 50/43 Z		41/38 41/37 Z 50/45 Z	41/38	40/38	41/38 41/37 Z 50/38
Standard immersion depth (mm)	700, 1 000, 1 200					
Other immersion depths / special lengths (mm)[3]	200 - 3 000					200 - 2 000
Operating range						
Container	Drums, IBCs, tanks, canisters, hobbocks, mixing containers etc.					
Media temperature (°C)	0 to +50	0 to +80	0 to +100		0 to +120	0 to +80
Media temperature ex-application (°C)	-	-	0 to +40			-
Ambient temperature (°C)	0 to +40		-20 to +40			
Weight Ø 40/41, ID 1 000 mm (kg)	1.4	1.7	3.0	3.0	3.0	1.5
Weight Ø 50, ID 700/1 000/1 200 mm (kg)	1.5	2.1	4.5			1.8
Certificates						
Ex-identification	None	None	II 1/2 G IIB T4			None
Food approvals	None	None	None	(EG) 935/2004 FDA CFR 21	None	None
Silicone-free version	On request					

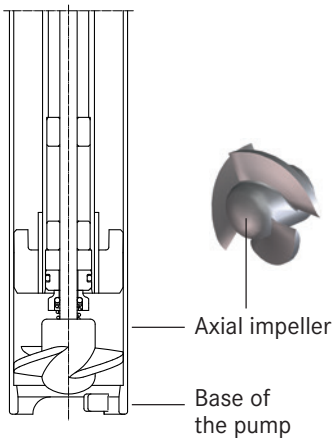
Performance data[1]	**Impeller**	**Half axial impeller (Z-version)**
Flow rate max. l/min.	240	120
Delivery head max. mwc	12	28
Viscosity max. mPas	1 000	1 200

1) Depending on pump version, media and motor 2) Other materials available on request 3) In gradations of 100 mm

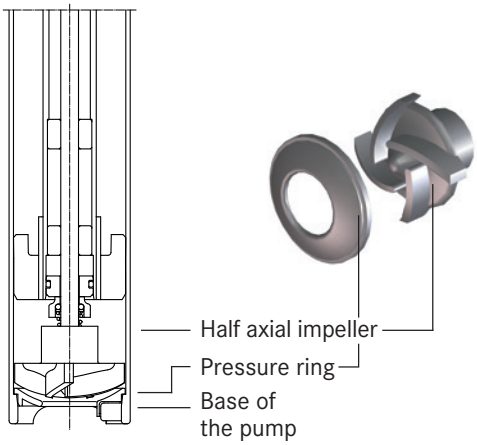
Design, assembly example and dimensions

Drum pumps F/FP 430

Design:

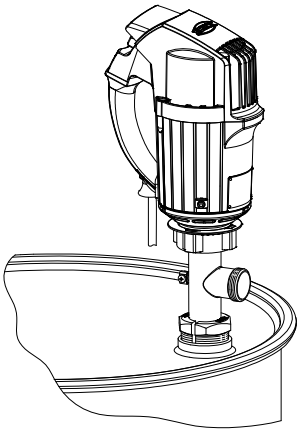


F/FP 430 with mechanical seal and impeller



F/FP 430 with mechanical seal and half axial impeller (Z-version)

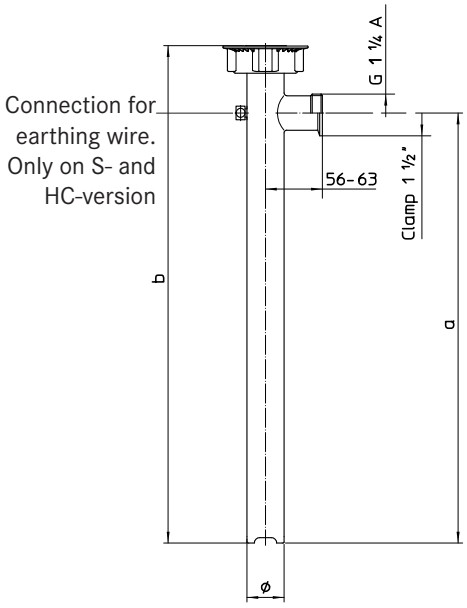
Assembly example:



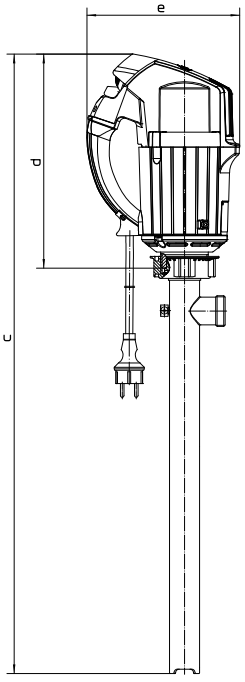
F/FP 430 with compression gland joint mounted in a drum with bunghole

Dimensions:

Drum pump F/FP 430



Drum pump with motor



Standard immersion depth (ID)

Ø (mm)	ID (mm)	a (mm)	b (mm)
40/41 or 50	700	706	780
	1 000	1 006	1 080
	1 200	1 206	1 280

Other immersion depths (ID)

a = ID + 6 and b = ID + 80

F/FP 430 with motor

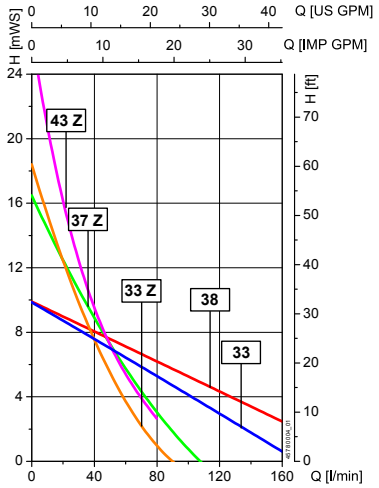
Motor type	c (mm)	d (mm)	e (mm)
FEM 4070	b + d - 16	207	186
F 457 (EL)		225	217
F 458 (-1, EL)		292	209
F 460 Ex (-1, EL)		292	209
FBM 4000 Ex		292	209
F 416 Ex		119	230
F 416-1 Ex		101	120
F 416-2 Ex		101	120

Performance diagrams[1)]

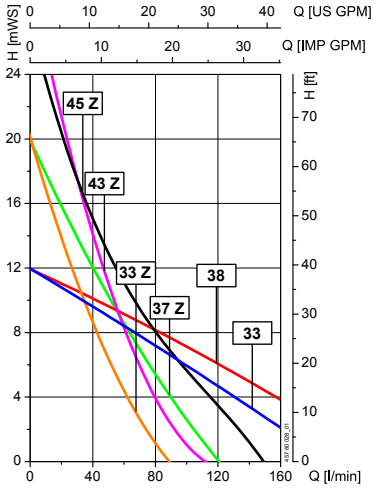
Drum pumps F/FP 430

The following performance diagrams apply to the indicated motors and impellers (33, 38, 33 Z, 37 Z, 43 Z and 45 Z), for all pump materials respectively.

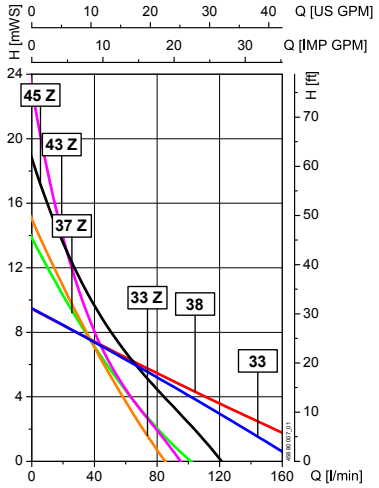
FEM 4070



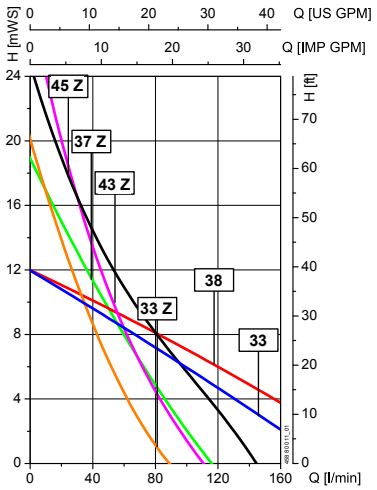
F 457 / F 457 EL



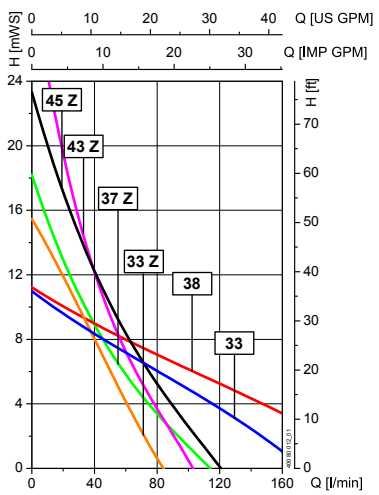
F 458, F 458 EL, F 460 Ex, F 460 Ex EL



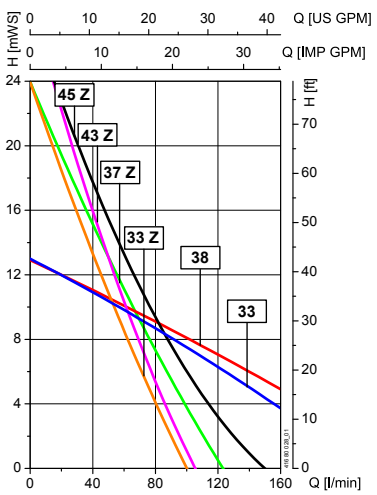
F 458-1 / F 460-1 Ex



FBM 4000 Ex



F 416 Ex, F 416-1 Ex, F 416-2 Ex (6 bar)



1) Determined with water at 20 °C, measured values ± 10 % maximum flow rate with open discharge outlet

Part numbers

Drum pumps F/FP 430

More than just pumps

Standard immersion depths

Type	Material			Diameter (mm)		Part no.		
	Pump	Shaft in contact with medium	O-ring	Ø outer tube	Ø impeller	700 mm	1 000 mm	1 200 mm
F 430 Connection thread G 1¼ A	PP	HC	FKM	40	33	10-430 40 107	10-430 40 110	10-430 40 112
			EPDM				10-430 48 110	10-430 48 112
			FKM	40	33 Z	10-430 40 407	10-430 40 410	10-430 40 412
			FKM	50	38	10-430 40 307	10-430 40 310	10-430 40 312
			FKM	50	43 Z	10-430 40 207	10-430 40 210	10-430 40 212
	PVDF	HC	FKM	40	33	10-430 60 107	10-430 60 110	10-430 60 112
			FFKM				10-430 69 110	10-430 69 112
			FKM	40	33 Z	10-430 60 407	10-430 60 410	10-430 60 412
			FKM	50	38	10-430 60 307	10-430 60 310	10-430 60 312
			FKM	50	43 Z	10-430 60 207	10-430 60 210	10-430 60 212
	Al	S	NBR	41	38	10-430 10 107	10-430 10 110	10-430 10 112
			NBR	41	37 Z	10-430 10 407	10-430 10 410	10-430 10 412
			NBR	50	38	10-430 10 307	10-430 10 310	10-430 10 312
	HC	HC	FFKM	40	38	10-430 30 107	10-430 30 110	10-430 30 112
	S	S	FKM	41	38	10-430 20 107	10-430 20 110	10-430 20 112
			EPDM				10-430 28 110	10-430 28 112
			FFKM				10-430 29 110	10-430 29 112
			FKM	41	37 Z	10-430 20 407	10-430 20 410	10-430 20 412
			FKM	50	45 Z	10-430 20 207	10-430 20 210	10-430 20 212
FP 430 Ex FOOD Connection thread clamp 1½“	S	S	FKM	41	38	10-430 20 507	10-430 20 510	10-430 20 512

Special lengths

Type	Material			Diameter (mm)		Part no.		
	Pump	Shaft in contact with medium	O-ring	Ø outer tube	Ø impeller	500 mm	1 500 mm	1 800 mm
F 430 Connection thread G 1¼ A	PP	HC	FKM	40	33	10-430 40 105	10-430 40 115	10-430 40 118
			FKM	40	33 Z	10-430 40 405	10-430 40 415	10-430 40 418
			FKM	50	38	10-430 40 305	10-430 40 315	10-430 40 318
			FKM	50	43 Z	10-430 40 205	10-430 40 215	10-430 40 218
	PVDF	HC	FKM	40	33	10-430 60 105	10-430 60 115	10-430 60 118
			FKM	40	33 Z	10-430 60 405	10-430 60 415	10-430 60 418
			FKM	50	38	10-430 60 305	10-430 60 315	10-430 60 318
			FKM	50	43 Z	10-430 60 205	10-430 60 215	10-430 60 218
	Al	S	NBR	41	38	10-430 10 105	10-430 10 115	10-430 10 118
			NBR	41	37 Z	10-430 10 405	10-430 10 415	10-430 10 418
	S	S	FKM	41	38	10-430 20 105	10-430 20 115	10-430 20 118
			FKM	41	37 Z	10-430 20 405	10-430 20 415	10-430 20 418
			FKM	50	45 Z	10-430 20 205	10-430 20 215	10-430 20 218

Special lengths

Type	Material			Diameter (mm)		Part no.		
	Pump	Shaft in contact with medium	O-ring	Ø outer tube	Ø impeller	2 000 mm	2 500 mm	3 000 mm
F 430 Connection thread G 1¼ A	PP	HC	FKM	40	33	10-430 40 120		
			FKM	40	33 Z	10-430 40 420		
			FKM	50	38	10-430 40 320	10-430 40 325	10-430 40 330
			FKM	50	43 Z	10-430 40 220	10-430 40 225	10-430 40 230
	PVDF	HC	FKM	40	33	10-430 60 120		
			FKM	40	33 Z	10-430 60 420		
			FKM	50	38	10-430 60 320	10-430 60 325	10-430 60 330
			FKM	50	43 Z	10-430 60 220	10-430 60 225	10-430 60 230
	Al	S	NBR	41	38	10-430 10 120		
			NBR	41	37 Z	10-430 10 420		
	S	S	FKM	41	38	10-430 20 120	10-430 20 125	10-430 20 130
			FKM	41	37 Z	10-430 20 420	10-430 20 425	10-430 20 430
			FKM	50	45 Z	10-430 20 220	10-430 20 225	10-430 20 230

Other immersion depths/other O-rings/other connections on request

Hose connections with union nut G 1¼ for standard version

Material		Size			
Connection	Union nut	DN 13	DN 19	DN 25	DN 32
Polypropylene (PP)	PP	10-959 04 081	10-959 04 053	10-959 04 052	10-959 04 054
Polyvinylidene fluoride (PVDF)	PVDF	10-959 04 082	10-959 04 101	10-959 04 102	10-959 04 103
Aluminium (Al)	Brass nickel-plated		10-959 04 050	10-959 04 039	10-959 04 040
Hastelloy C (HC)	S			10-959 04 043	10-959 04 044
Stainless steel (S) 316 Ti	Brass nickel-plated		10-959 04 061	10-959 04 041	10-959 04 042
Stainless steel (S) 316 Ti	S		10-959 04 062	10-959 04 063	10-959 04 064

Hose connections with clamp 1½“ for FOOD-version

Material		Size	
Connection	Seal	DN 19	DN 25
Stainless steel (S) 316 Ti	FKM	10-959 04 171	10-959 04 169
	NBR	10-959 04 172	10-959 04 170

Pump kits

Drum pumps F/FP 430

Pre-configured kits consist of:

1 Motor with cable and plug
2 Pump with mechanical seal
3 Hose line
4 Hand nozzle
5 Compression gland

Also for ex-applications

Pump kit	**For universal application**			
Examples of media	Solvents (acetone), alcohols (ethanol, methanol, isopropyl alcohol) corrosion inhibitors, anti-foaming agent			
Flow rate max. (l/min.)	50[1] (240)[2]		50[1] (200)[2]	
Delivery head max. (mwc)	13[2]		9.5[2]	
Temperature max. (°C)	100 (with ex-applications max. 40)			
Viscosity (mPas)	800[2]		600[2]	
Pump	**F 430 S-41/38**			
Pump material	Stainless steel 316 Ti			
O-ring material	FKM			
Immersion depth (mm)	1 000	1 200	1 000	1 200
Ex-identification	Ex II 1/2 G IIB T4			
Motor	**F 416 Ex**		**F 460 Ex**	
Technical data	470 watt at 6 bar		230 V, 50 Hz, 460 watt	
Rpm setting	Optional		No	
Low-voltage protection	-		Yes	
Protection class	-		IP 55	
Connection cable length (m)	2		5	
Plug type			Safety plug	
Ex-identification	Ex II 2 G cp IIC T6		Ex II 2 G EEX de IIC T6	
Hose line	Universal, DN 21			
Length (m)	2, integrated electrically conductive			
Hose mounting	Hose fittings, stainless steel			
Hand nozzle	Stainless steel, PTFE/FEP			
Compression gland	PP, conductive			
Connection thread	G2			
Weight (kg)	7.6	8.1	11.1	11.6
Part no.	10-416 20 010	10-416 20 012	10-460 20 010	10-460 20 012

Operating range	**For acids and lyes**		**For concentrated acids**		**For mineral oil products**			
Examples of media	Boric acid, phosphoric acid, hydrochloric acid, sulphuric acid (up to 80 %)		Hydrobromic acid, chloric acid, hydrofluoric acid, nitric acid and sulphuric acid		Diesel, heating oil, hydraulic-, machine- and motor oil			
Flow rate max. (l/min.)	40[1] (165)[2]		40[1] (70)[2]		65[1] (215)[2]		80[1] (220)[2]	
Delivery head max. (mwc)	9.5[2]		9.5[2]		9.5		12	
Temperature max. (°C)	50		80		80			
Viscosity (mPas)	600[2]		600[2]		600[2]		800[2]	
Pump	**F 430 PP-40/33**		**F 430 PVDF-40/33**		**F 430 Al-41/38**			
Pump material	PP		PVDF		Aluminium			
O-ring material	FKM		FKM		NBR			
Immersion depth (mm)	1 000	1 200	1 000	1 200	1 000	1 200	1 000	1 200
Motor	**FEM 4070**		**F 458**		**FEM 4070**		**F 457**	
Technical data	230 V, 50 Hz, 500 watt		230 V, 50 Hz, 460 watt		230 V, 50 Hz, 500 watt		230 V, 50 Hz, 800 watt	
Rpm setting	Yes		No		Yes		No	
Low-voltage protection	Yes		Yes		Yes		Yes	
Protection class	IP 24		IP 55		IP 24		IP 24	
Connection cable length (m)	5		5		5		5	
Plug type	2-pole		Safety plug		2-pole		2-pole	
Hose line	PVC, DN 19		Chemical hose, DN 19		Mineral oil, DN 25			
Length (m)	2		2		2			
Hose mounting	2 hose clips		2 hose fittings		2 hose clips			
Hand nozzle	PP, FKM		PVDF, FKM		Aluminium, NBR			
Compression gland	PP, conductive		PP, conductive		PP, conductive			
Connection thread	G2		G2		G2			
Weight (kg)	5.1 (4.9)	5.3 (5.1)	8.9	9.2	6.4	6.7	7.8	8.1
Part no.	10-407 40 010	10-407 40 012	10-458 60 010	10-458 60 012	10-407 10 010	10-407 10 012	10-457 10 010	10-457 10 012

1) In the kit with hose and hand nozzle

2) Only applies to pump without hand nozzle, without hose

Accessories

Drum pumps F/FP 430

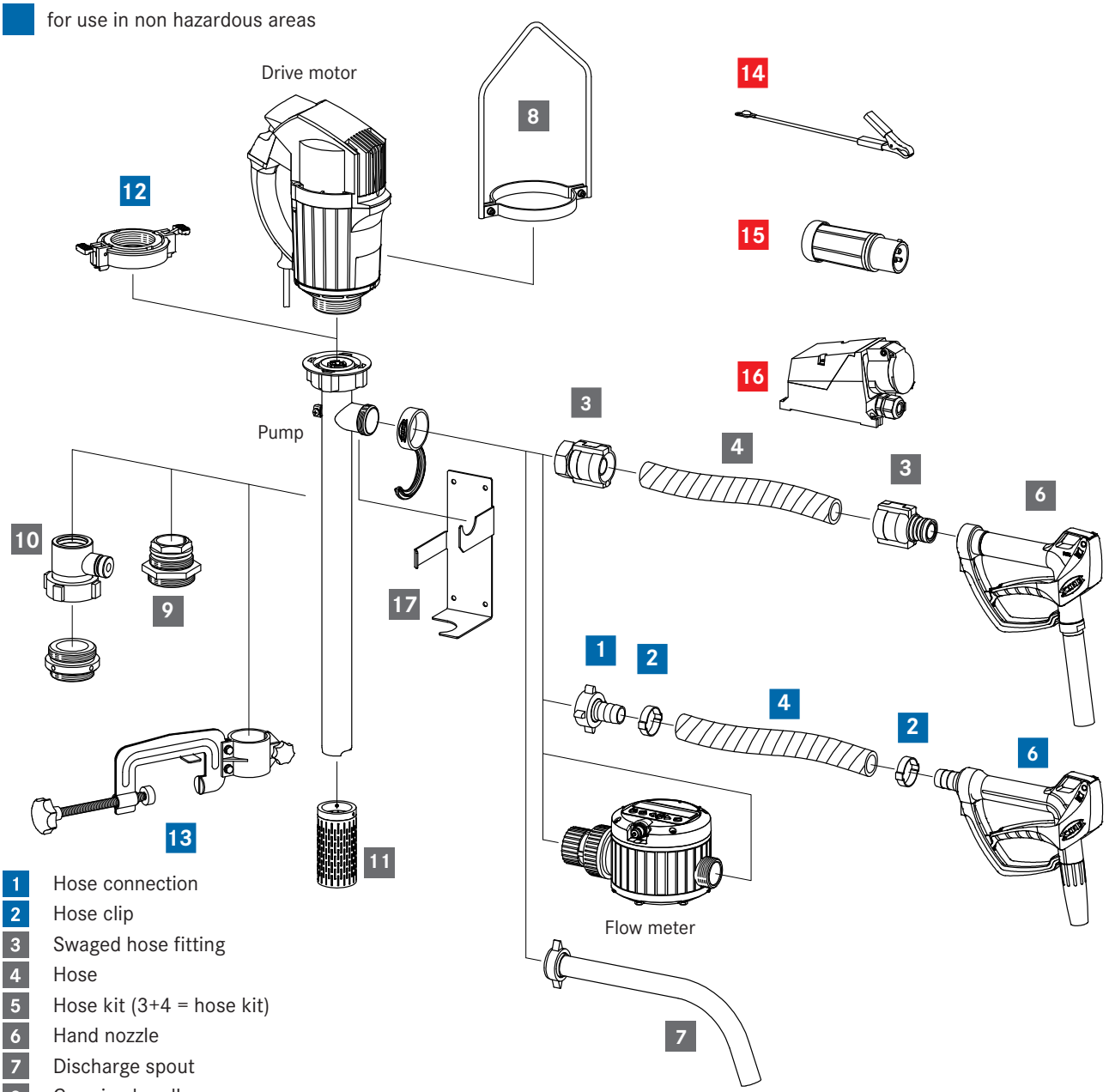
Accessories for drum pump F/FP 430

Compatible with drum pumps from the F/FP 430 series, we offer a wide selection of accessories, for example, compression glands, hoses, hand nozzles. More information can be found in the FLUX accessory brochure, in the price list or on our homepage: www.flux-pumps.com.

for use in hazardous areas

for use in hazardous and non hazardous areas

for use in non hazardous areas



1 Hose connection
2 Hose clip
3 Swaged hose fitting
4 Hose
5 Hose kit (3+4 = hose kit)
6 Hand nozzle
7 Discharge spout
8 Carrying handle
9 Compression gland
10 Fume gland
11 Suction strainer
12 Quick action coupling
13 Attachment clamp
14 Earth (ground) wire
15 Explosion-proof plug
16 Explosion-proof socket
17 Wall bracket

FLUX-GERÄTE GMBH
Talweg 12 · D-75433 Maulbronn
Tel +49 7043 101-0 · Fax +49 7043 101-444
info@flux-pumpen.de · www.flux-pumps.com

TD_FCP 1019 / 10-005 83 033 / 1-E printed in Germany