Technical data sheet

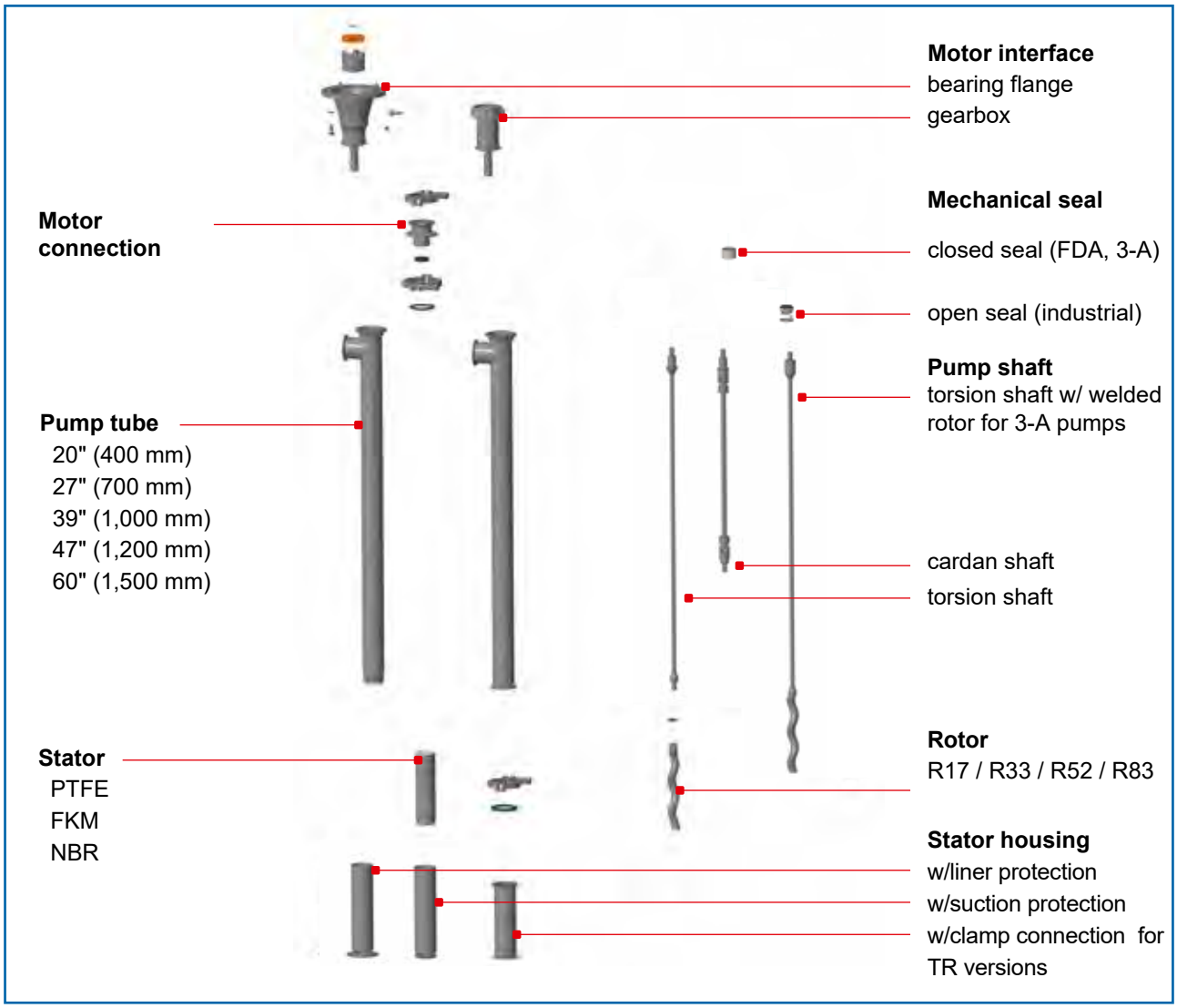
VISCOPOWER progressive cavity pumps

FLUX
More than just pumps



Advantages & features:

- Quick and easy to disassemble & clean
- Flow rates to 21.9 GPM (83 l/min)
- Pressures to 217 PSIG (15 bar)
- Viscosities to 100,000 cPs - and more when used with a VISCOFLUX Lite or Mobile S drum unloading system
- Hygienic models available in 3-A Certified, FDA CFR 21 Part 177.1550 and FOOD EC 1935/2004
- Modular design with only a few spare parts
- Heavy-duty pump shaft
- Simple mechanical seal designs
- Single pump tube size with interchangeable rotor/stator combinations



Components
VISCOPOWER progressive cavity pumps

Motor connection

F 570: gearbox version

i = 16 gearbox
- two stage gearbox
- for use with air motors, commutator motors or brushless motors
- for liquids up to max. 50,000 cPs (depending on motor & liquid properties)
- lightweight – perfect for portable use

i = 7 gearbox
- single stage gearbox
- for high-speed asynchronous motors
- for liquids up to 80,000 cPs
- with locking pin to prevent the motor from rotating due to vibrations



F 580: bearing flange version

- can be used with 8-pole motors, spur gear motors, & compressed air motors
- for thin to highly viscous, pasty liquids up to 100,000 cPs
- heavy duty construction
- for horizontal use and fixed installations
- for use in combination with VISCOFLUX mobile S drum unloading systems for products that are over 100,000 cPs (ie. petrolatum, tomato paste, etc.)
- available with speed sensor option for non-contact flow measurement



Pump tube

material	Stainless steel (1.4404)
outer diameter	2.08" (53 mm)
outlet connection	2“ Tri-clamp
immersion depth	16", 27", 39", 47", 60" (400, 700, 1000, 1200, 1500mm)
stator housing connection type	• Threaded Rd 51 x 1/8 LH for vertical use in containers (drums, totes, IBCs, etc.) • 2“ clamp connection for horizontal use, installation outside a container or in conjunction w/ VISCOFLUX mobile S drum unloading system.



Stator housing

Stator housing with suction protection
connected to pump tube by Rd 51 x 1/8 LH thread



Stator housing with inliner suction protection
connection to pump tube by Rd 51 x 1/8 LH thread



Stator housing for TR & horizontally mounted pumps
connection to pump tube by 2" tri-clamp



Components
VISCOPOWER progressive cavity pumps

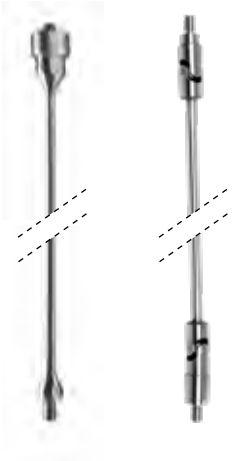
Mechanical seal
Seal faces made of silicon carbide, spring made of stainless steel

	Open mechanical seal	Closed mechanical seal
elastomer	FKM	FKM or FFKM
max pressure	145 PSIG (10 bar)	217.5 PSIG (15 bar)
use / application	for industrial applications	for hygienic applications
approvals	–	3A FDA



Seal elastomers (O-rings)

	FKM	NBR	FFKM
characteristics	general good chemical resistance	for mineral oils	for highest chemical resistance
approvals	3A FDA	–	FDA



Pump shaft

	Torsion shaft	Cardan shaft
for pumps with immersion depths	27" (700 mm)* 39" (1,000 mm) 47" (1,200 mm) 60" (1,500 mm)	16" (400 mm) 27" (700 mm)**

**suitable for up to 4 Nm* **suitable for over 4 Nm*

Rotor & stator geometry

	R17	R33	R52	R83
flow rate [GPM] at 900 rpm	3.96	7.92	12.41	19.89
flow rate [l/min] at 900 rpm	15	30	47	75
nominal volume per rotation [gal]	.0044	.0087	.0137	.0219
nominal volume per rotation [ml]	17	33	52	83



Stator materials

	PTFE	NBR white	FKM
characteristics	excellent chemical resistance, ideal for general chemical, food, pharmaceutical and cosmetic products	for fuels, mineral oils, greases, vegetable and animal fats and oils, diluted acids, bases and salt solutions	very good chemical resistance
approvals	3A FDA	FDA	–



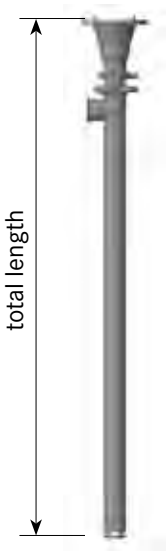
PTFE NBR white FKM

Dimensions

VISCOPOWER progressive cavity pumps

Pump tube

outer diameter pump tube	length stator housing	outlet connection
2.08" (53 mm)	w/thread conn: 8.8" (224 mm) w/clamp conn: 8.4" (214 mm)	2“ (DN50) Tri-Clamp (acc. to DIN 32676)



Total lengths (*1" = 25.4mm*)

immersion depth	gearbox variant F 570 i =16	gearbox variant F 570 i =7	motor flange variant F 580
20" (400 mm)	610.3 mm (TR - clamp)	590.3 mm (TR – clamp)	638 mm (TR – clamp)
27" (700 mm)	920.3 mm	900.2 mm	948 mm
39" (1,000 mm)	1,220.3 mm	1,200.3 mm	1,248 mm
47" (1,200 mm)	1,420.3 mm	1,4003 mm	1,448 mm
60" (1,500 mm)	1,720.3 mm	1,700.3 mm	1,748 mm

Discharge Adapters

Includes adapter, PTFE gasket & clamp fitting

	part no.
2" Tri-clamp x 1" Hose barb	24-00002049
2" Tri-clamp x 1 ½" Hose barb	24-00002050
2" Tri-clamp x 2" Hose barb	24-00002051
2" Tri-clamp x 1" NPT Male	24-00002046
2" Tri-clamp x 1 ½" NPT Male	24-00002047
2" Tri-clamp x 2" NPT Male	24-00002048
2" Tri-clamp x 1 ½" Tri-clamp	24-00002053
2" Tri-clamp x 3" Tri-clamp	24-00002054
2" Tri-clamp fitting (clamp only)	24-00000293
2" PTFE Tri-clamp gasket (gasket only)	24-00001429



Flow rates *(estimates in GPM; actual performance depends on a variety of factors)*

F580 Models with bearing flange

Viscosity (cPs)	R17	R33	R52
1,000	4.2	10	12
3,000	3.9	8	10
10,000	2.8	6 - 7	8
20,000	2.5	4.5	6
30,000	2.2	4	5.5
40,000	1.7	3	4
50,000	1.1	2.5	3.5
60,000	0.8	1.8	2.8
70,000	0.7	1.6	2.5
80,000 - 100,000	0.6	1.4	1.7

F570 Models with gearbox

Viscosity (cPs)	R17	R33	R52
1,000	4.2	9	11
3,000	3.9	7	9
10,000	2.8	5	6.5
20,000	2.5	4.5	6
30,000	2.2	4	5.5
40,000	1.7	3	4
50,000	1.1	2.5	3.5

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