

Technical data

Pump name (*See Product description)EVM45 2-1F6/11

Customer	Date 2024-07-01	Company
Contact	Item no.	Issued by
Phone	Project	Phone
E-mail	Project ID Project redenumit 2024-07-01 19:11:00	E-mail

Requested data

1	Pump type	VERTICAL MULTISTAGE PUMPS	Fluid	Water
2	Number of pumps / Reserve	1 / 0	Liquid temperature °C	20
3	Flow m³/h		Kin. viscosity mm²/s	1.005
4	Head m		Vapour pressure bar	0.0234
5	Geodetic head m		PH value	
6	Inlet pressure (pin) bar	0	Density kg/m³	998.3
7	Available system NPSH		Solids Weight %	0
8	Ambient temperature °C	20		

Pump

9	Pump name	(*See Product description)EVM45 2-1F6/11	Frequency Hz	60
10	Design	VERTICAL MULTISTAGE PUMPS	Installation type	Round flange
11	Manufacturer	EBARA	Impeller Diameter	Max. mm -
12	Speed rpm	3520		Designed mm
13	No. of Stage	2		Min. mm -
14	Connection Suction side		Flow	Operating m³/h
15	Connection Discharge side			Max- m³/h 66
16	Max Working Pressure bar	16		Min- m³/h 27
17	Shut-off head bar	6.93	Head	Operating m
18	Total weight kg	See the table of "Dimensions".		- (Qmax.) m 38.7
19	Shaft power kW			- (Qmin.) m 65.4
20			Max. Shaft Power at max. impeller kW	10.42
21	Required pump NPSH m		Efficiency %	

Materials

22	Impeller	AISI 304		
23	Intermediate casing	AISI 304		
24	Bottom casing	ASTMCF8		
25	Shaft	AISI 316L		
26				
27				

Motor

28	Manufacturer	ETM	Insulation class	F
29	Type	TEFC_EVM45 2-1F6/11_380_Three Phase	Phases	3~
30	Specific design	IE3 / 60 Hz / Pole pairs 1	Frame size	160
31	Rated power kW	11	Weight kg	62.5
32	Number of poles	2	Electric voltage V	380
33	Speed rpm	3535	Electric current A	20.3
34	Degree of protection	IP 55		
35				

Remarks

Performance curve

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Requested data

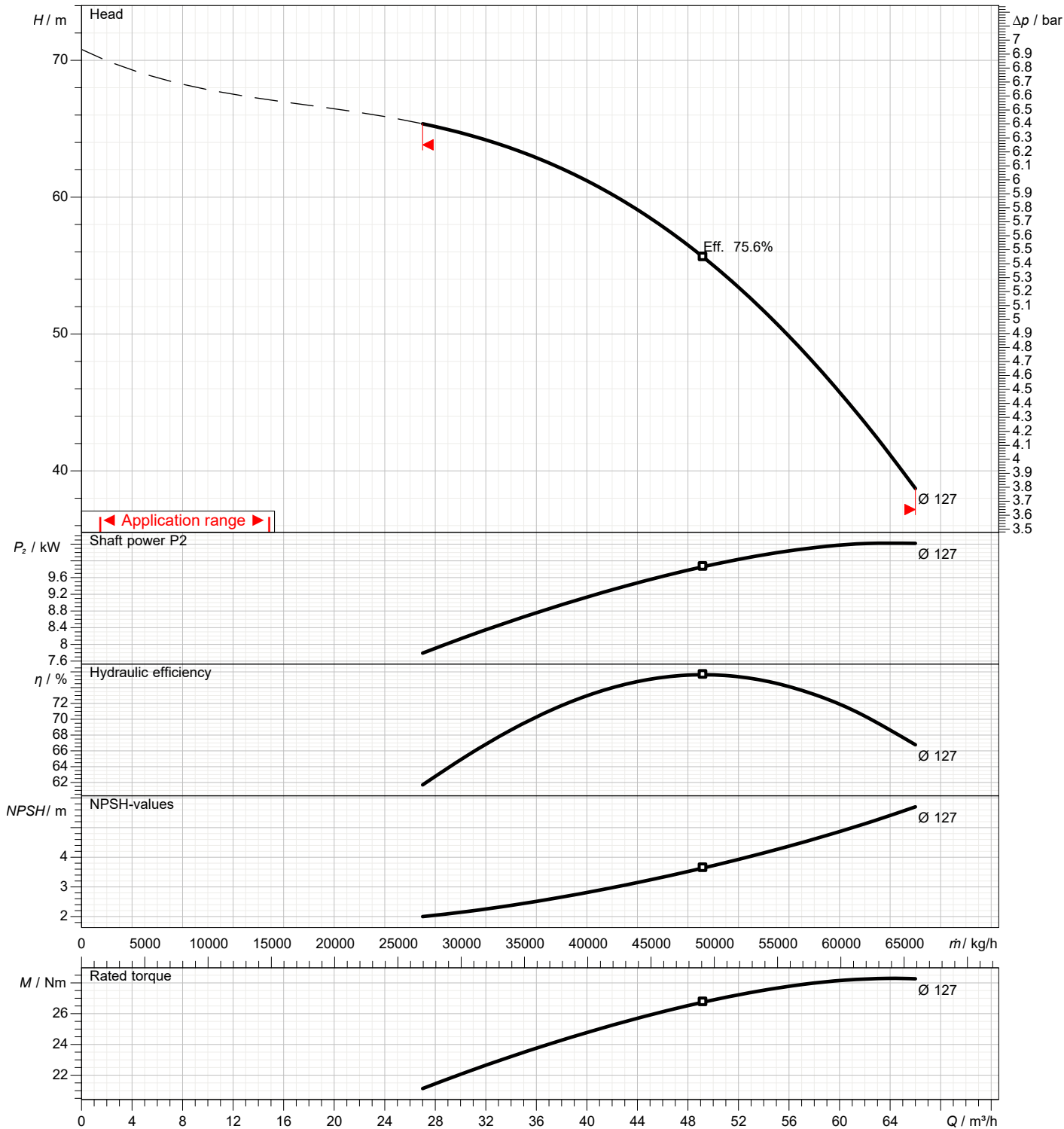
1	Flow	m³/h	
2	Head	m	
3	Geodetic head	m	

Pump

Operating flow	m³/h		Impeller Diameter Designed	mm	
Operating head	m		Frequency	Hz	60
			Speed	rpm	3520

Test standard: ISO 9906:2012 - Grade3B

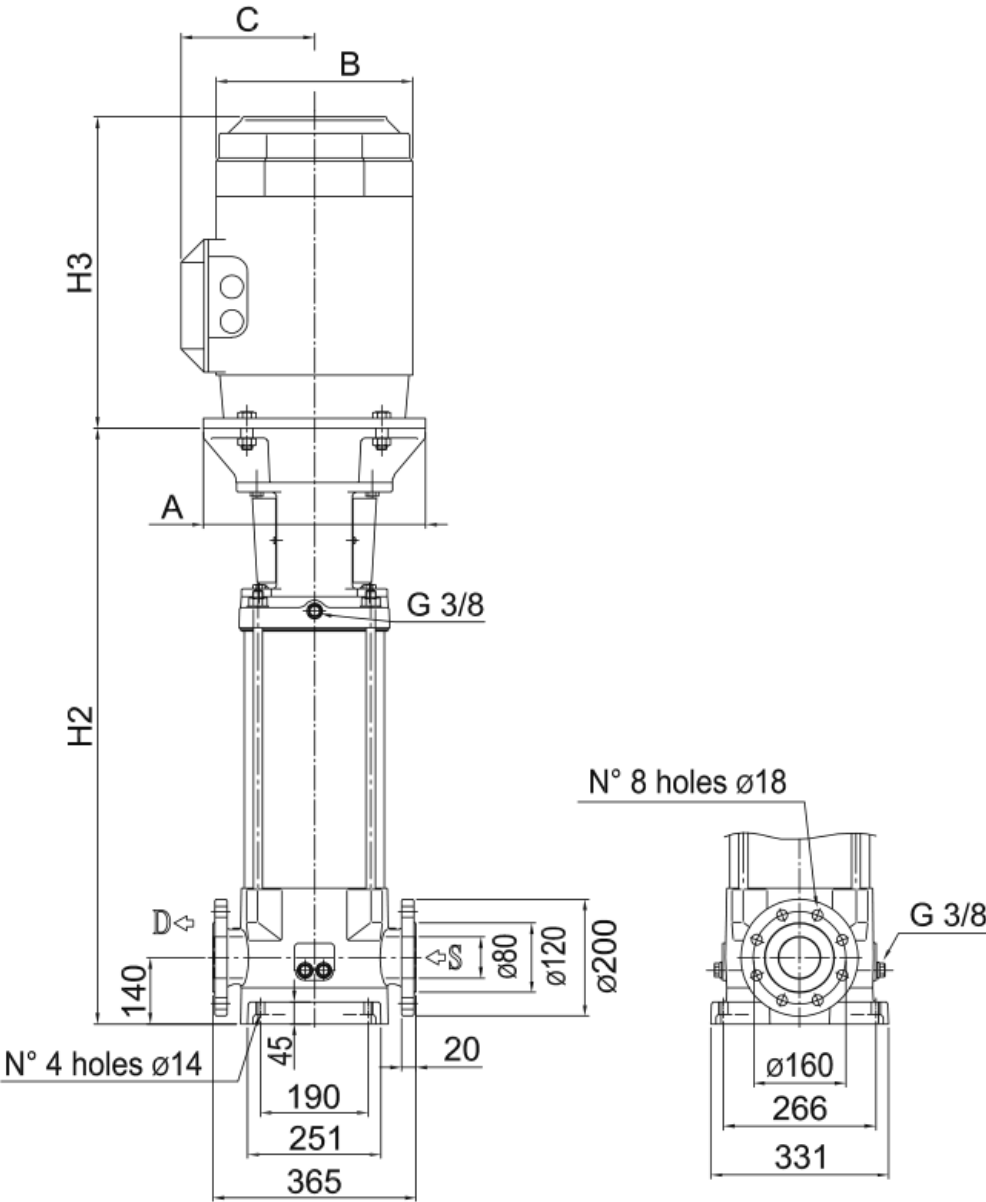
Water; 20°C; 998.3kg/m³; 1mm²/s



Dimensions

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Dimensions in mm							
1	A	350					
2	B	259					
3	C	180					
4	H2	749					
5	H3	440					
6	Weight P&M	[120].5 kg					
7							
8							
9							
10							
11							
12							
13							
14							
15							

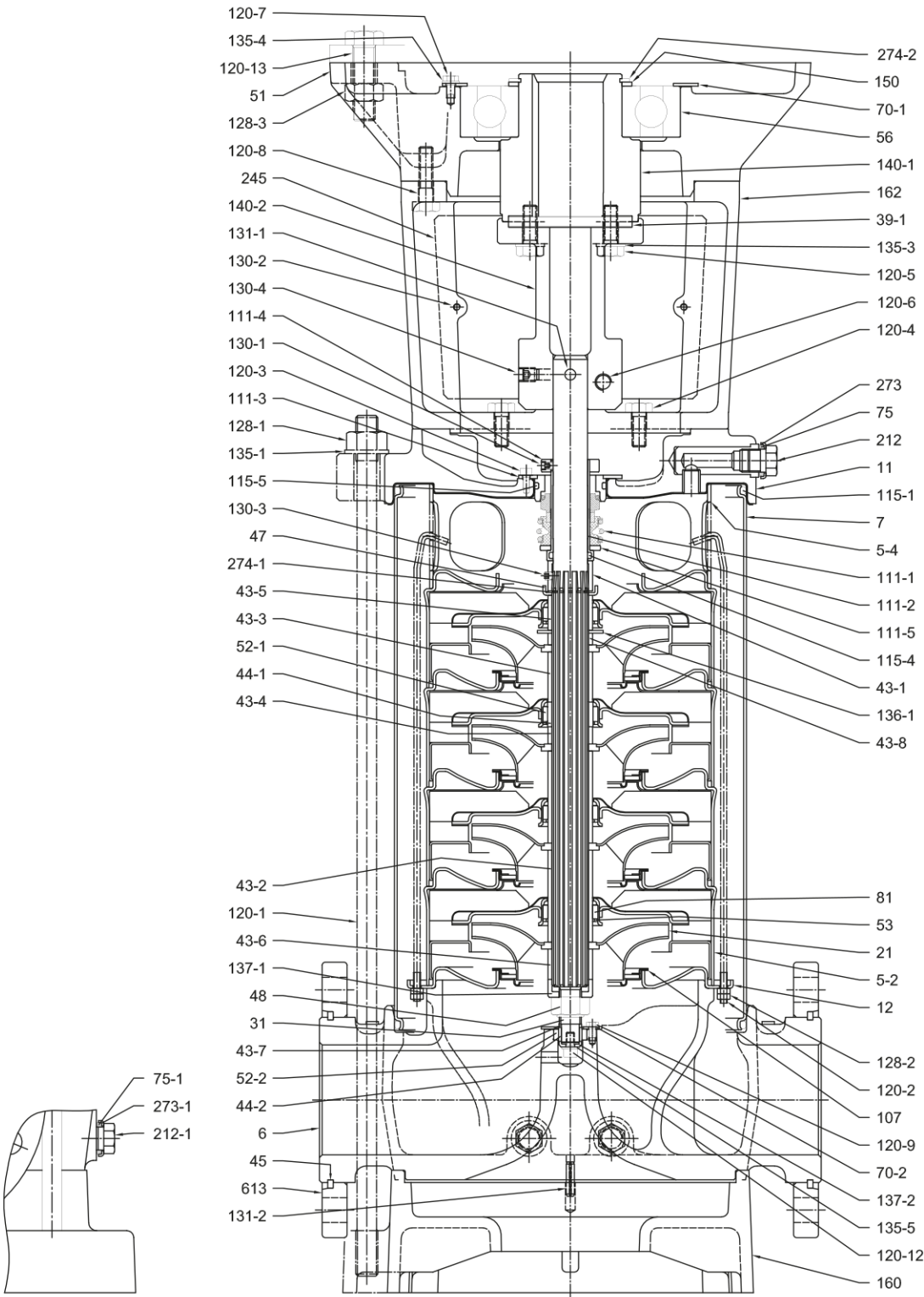
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Construction

Pump name

(*See Product description)EVM45 2-1F6/11

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Pump with single ball bearing

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Construction

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Phone		Project		Phone	
E-mail		Project ID	Proiect redenumit 2024-07-01 19:11:46	E-mail	

N°	PART NAME	MATERIAL		DIMENSIONS	STANDARD
		EVM	EVML		
5-2	Intermediate casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
5-4	Discharge casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
6	Bottom casing	EN 1.4308 (ASTM CF8)	EN 1.4408 (ASTM CF8M)		
7	Outer casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
11	Casing cover	Cast iron + EN 1.4301 (AISI 304)	Cast iron + EN 1.4404 (AISI 316L)		
12	Suction cover	EN 1.1301 (AISI304)	EN 1.4404 (AISI 316L)		
21	Impeller	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
31	Shaft	EN 1.4404 (AISI 316L)			
39-1	Key	Carbon steel		12X8X90	UNI 6604
43-1	Shaft sleeve (mechanical seal)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-2	Shaft sleeve (intermediate)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-3	Shaft sleeve (bearing)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-4	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-5	Shaft sleeve (last stage)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-6	Shaft sleeve (adjustment)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-7	Shaft sleeve	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
43-8	Shaft sleeve (discharge-lower)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
44-1	Shaft sleeve bearing	Tungsten carbide			
44-2	Bearing sleeve (bottom bearing)	Tungsten carbide			
45	Flange holder	EN 1.402 (AISI 420)			
47	Ring holder	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
48	Impeller nut	A2-70 UNI 7323 with inox insert	A4-70 UNI 7323 with inox insert	M16	
51	Motor adapter	Cast iron EN-GJL-200-EN 1561			
52-1	Bearing	Tungsten carbide			
52-2	Bearing	Tungsten carbide			
53	Bush holder	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
56	Ball bearing	[1]			
70-1	Ring for bearing	EN 1.4301 (AISI 304)			
70-2	Ring for bearing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
75	O-Ring (plug)	EPDM	FPM		
75-1	O-Ring (plug)	EPDM	FPM		
81	Bush	PTFE			
107	Liner ring	PTFE /EN 1.4401 (AISI316)			
111-1	Mechanical seal	[2]			
111-2	Mechanical seal cartridge	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
111-3	Mechanical seal seat	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
111-4	Seal holder	Brass OT 58 UNI 5705	EN 1.4404 (AISI 316L)		
111-5	Adjusting ring	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)		
115-1	O-Ring (outer casing)	EPDM	FPM	D.240.66X5.34	
115-4	O-Ring (cartridge sleeve)	EPDM	FPM	D.24.99X3.53	
115-5	O-Ring (seal cover)	EPDM	FPM	D.44.04X3.53	
120-1	Tie Rod	Galvanized steel 6.8 strenght class ISO 898/1			
120-2	Tie Rod	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)		
120-3	Screw	A2-70 UNI 7323		M5X10	UNI 5931
120-4	Screw	Galvanized steel 8.8 strenght class ISO 898/1		M10X25	UNI 5739
120-5	Screw for coupling	Galvanized steel 8.8 strenght class ISO 898/1		M10X30	UNI 5739
120-6	Screw for coupling	Galvanized steel 8.8 strenght class ISO 898/1		M8X20	UNI 5931
120-7	Screw	Galvanized steel 8.8 strenght class ISO 898/1		M12X30	UNI 5931
120-8	Screw	Galvanized steel 8.8 strenght class ISO 898/1		M6X10	UNI 5739
120-9	Screw	Galvanized steel 8.8 strenght class ISO 898/1		M12X25	UNI 5739
120-12	Screw	Galvanized steel 8.8 strenght class ISO 898/1		M10X30	UNI 5739
120-13	Screw for motor	Galvanized steel 8.8 strenght class ISO 898/1		M5X8	UNI 5737
128-1	Nut for tie rod	Galvanized steel		M6X20	UNI 5931
128-2	Nut	Galvanized steel		M12X30	UNI 5739
128-3	Nut	Galvanized steel		M16X55	UNI 5737
130-1	Set screw	Galvanized steel		M16X65	UNI 5739
130-2	Screw for coupling guard	Carbon steel		M16	UNI 5588
130-3	Set screw	Carbon steel		M5	UNI 5588
130-4	Set screw	Carbon steel		M16	UNI 5588
131-1	Pin for shaft	Carbon steel		M6X8	UNI 5923
131-2	Elastic pin	Carbon steel		M5X6	UNI 7687
135-1	Washer	Galvanized steel		M6X6	UNI 5923
135-3	Washer	Galvanized steel		M10X10	UNI 5923
135-4	Washer	Plated carbon steel		6X25	UNI 6873
135-5	Washer	Galvanized steel		17X30X3	UNI 6592
136-1	Stopper ring	Galvanized steel		10.5X17.5X2.2	UNI 1751
137-1	Impeller spacer	EN 1.4301 (AISI 304)		6.4	
137-2	Shaft spacer	EN 1.4401 (AISI 316)			
140-1	Motor coupling	EN 1.4301 (AISI 304)			
140-2	Coupling (pump side)	EN 1.4401 (AISI 316)			
150	Spacer	EN 1.4301 (AISI 304)			
160	Base	EN 1.4404 (AISI 316L)			
162	Mator bracket	EN 1.4404 (AISI 316L)			
212	Plug	EN 1.4301 (AISI 304)			
212-1	Plug	EN 1.4401 (AISI 316)			
245	Coupling guard	EN 1.4301 (AISI 304)			
273	Plug washer	EN 1.4301 (AISI 304)			
273-1	Plug washer	EN 1.4404 (AISI 316L)			
274-1	C-type snap ring	EN 1.4301 (AISI 304)		D.26	UNI 7435
274-2	C-Typr snap ring	EN 1.4401 (AISI 316)		D.50	UNI 7435
613	Flange	Carbon steel TC80		D.65	UNI 7435
		Carbon steel		D.75	UNI 7535

[1] See CONSTRUCTION 3
[2] See CONSTRUCTION 4

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Construction

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Pump Type	N°																												
	5-2	11	21	21-1	39-1	43-2	43-3	43-4	44-1	52-1	53	56	70-1	81	107	120-4	120-5	120-7	128-3	129	135-3	135-4	136	140	140-1	140-2	150	274-2	274-3
EVM(L)45 2-2F6/11	2	1	/	2	1	1	/	/	/	/	2	1	1	2	2	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 2-1F6/11	2	1	1	1	1	1	/	/	/	/	2	1	1	2	2	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 2-0F6/15	2	1	2	/	1	1	/	/	/	/	2	1	1	2	2	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 3-3F6/15	3	1	/	3	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 3-2F6/15	3	1	1	2	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 3-1F6/18.5	3	1	2	1	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 3-0F6/22	3	1	3	/	1	2	/	/	/	/	3	1	1	3	3	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 4-3F6/18.5	4	1	1	3	1	2	1	1	1	1	4	1	1	3	4	4	4	3	4	/	4	3	/	/	1	1	1	1	/
EVM(L)45 4-2F6/22	4	1	2	2	1	2	1	1	1	1	4	1	1	3	4	4	4	3	4	/	4	3	/	/	1	1	1	1	/

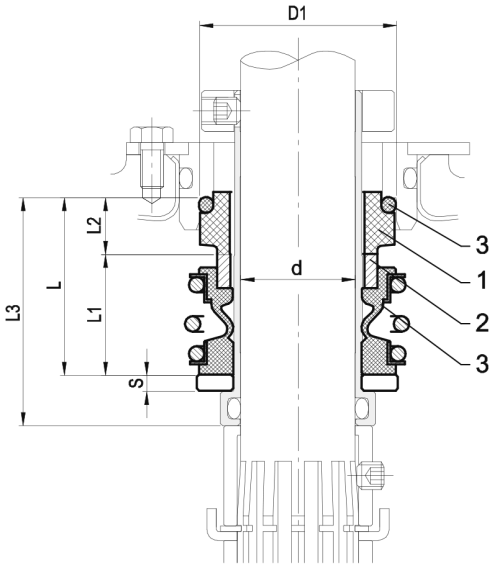
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Construction

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Size [mm]	Max operating pressure [bar]	d [mm]	D1 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	S [mm]	Material		
									1 Stationary Seal Ring	2 Rotary Seal Ring	3 Rubber
25	25	25	43	39	26.5	12.5	50	3.5	Carbon graphite	Silicon carbide	FPM