



SACEMI®

ELETTROPOMPE

ELECTRIC-PUMPS



SACEMI - GAMAR s.r.l.

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General catalogue ***Electric pumps***



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The descriptions and illustrations reported in this catalogue are not binding.

The manufacturer reserves the right, to make, at any time, without being committed to updating this catalogue immediately, all the changes to the product that it considers useful for its improvement.

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DECLARATION OF CONFORMITY
In accordance with allied II A of the Machine Directive 89/392/CEE and following amendments

The undersigned manufacturer:
SACEMI-GAMAR S.R.L.

Via Pacinotti, 2 - 30020 NOVENTA DI PIAVE (VE) ITALY

declares under his own responsibility that:

electrical pumps brand  **Sacemi®**

type: AP-AU-EPC- IMM-MP-MPC-PPI-SP – SPV – SQ – TR
suitable for pumping liquids not aggressive and not flammable.
are conform to the exigencies of the following:

A) Community Directive:

- **Machine Directive (MSD) 89/392/CEE and following amendments:**
91/368/CEE – 93/44/CEE – 93/68/CEE – 98/37/CEE
(transposed on the Italian National Legislative System with D.P.R. N° 459/96)
- **Low Tension Directive (LVD) 73/23/CEE and following amendment: 93/68/CEE**
(transposed on the Italian National Legislative System with the D.Lgs. N° 626/96)
- **Electromagnetic Compatibility Directive (EMC) 89/336/CEE and following amendments:**
92/31/CEE – 93/68/CEE – 93/97/CEE
(transposed on the Italian National Legislative System with D.Lgs. N° 615/96)

B) Harmonized standards:

- EN – 292 – 1 (Safety of the machinery – Terminology, base methodological)
- EN – 292 – 2 (Safety of the machinery – Technical principles specifications)
- EN – 294 (Safety of the machinery – Safety distances to prevent thereaching of dangerous zone)
- EN – 60204 – 1 (Safety of the machinery – Electrical equipment of the machine – General rules)
- EN – 563 (Safety of the machinery – Temperature of the contact surface)
- EN – 60034 – 1 (Electrical Rotating Machine – Nominal characteristics and working)
- EN – 60034 – 5 (Classification of the protection degree of the covering of the elctrical rotating machines)
- EN – 5081 – 1 (Electromagnetic compatibility – emission) – Electrical pumps with three phase motor
- EN – 5081 – 2 (Electromagnetic compatibility – emission) – Electrical pumps with single phase motor

C) Technical standards and rules:

- CNR – UNI 10011 – 88 (Stainless steel construction – Instruction for the calculation, execution and maintenance)

Declares also that:

in accordance with allied III of the Machine Directive 89/392/CEE and following amendments
- Marking “CE” is put on the electrical pump.

SACEMI-GAMAR s.r.l.
Board director
Augusto Gardiman

Noventa Di Piave, 2ND October 2009

DECLARATION OF CONFORMITY In accordance with European Directive RoHS
2002/95/CE del 27-01-2003.

The undersigned manufacturer:

SACEMI – GAMAR S.R.L.

Via Pacinotti, 2 - 30020 NOVENTA DI PIAVE (VE) ITALY

declares under his own responsibility

that all the components concerning the electrical pumps type:
AP – AU – EPC - IMM – MP-MPC–PPI-SP – SPV – SQ – TR
are conform to the exigencies of the Community Directive 2002/95/CE of the European Parliament and of
the Council of 27 January 2003.

SACEMI-GAMAR s.r.l.
Board director
Augusto Gardiman

Noventa di Piave, 2ND October 2009



The production program of **SACEMI-GAMAR** includes a vast range of low and medium pressure electric plunger pumps in many different models, with steel, cast iron, aluminium, brass or plastic plunger designed for industrial applications and mainly for use in cooling, lubrication, washing and air-conditioning plants and anywhere where efficient water-oil emulsions and pure cutting oils are needed, with flow rates reaching 1,200 litres/min. and head of up to 100 metres.

In particular, plunger pumps are designed from the point of view of reliability, reasonable running costs, user safety and total elimination of risks of the pumped liquids overflowing or leaking.

The electric pumps are fitted with 2-pole electric motors, with cage rotor, closed construction, with structure in pressure-cast aluminium alloy, with a vertical axis, cooled by external ventilation with class F (class H on request) winding and level IP 55 protection in compliance with IEC 34-5 standards.

The electric pumps can be supplied with motor both in the three-phase and mono-phase version and on request, with special voltages and frequencies and thermal protection for heavy duty.

The terminal board cover, fitted with cable clamps in compliance with international provisions, can be orientated over 360° and, on request, can be supplied in pressure-cast aluminium alloy or with incorporated switch.

Rigid radial, double screen, pre-lubricated ball bearings are used, produced by the main European manufacturers.

The pump body can be made in steel, pressure-cast aluminium, cast-iron, brass or plastic.

The pump impeller is keyed onto the prolonged motor shaft.

CHOOSE TABLE

Type	Application	Delivery pressure	Pollution	Type of fluid	Body pump - construction features				Pages
					Depth of immersion mm.	Body pump	House impeller	Impeller	
IMM 40 A	Sawing- drilling	0 - 0,2 bar	***	Oil - emulsions	80 - 120 - 150 180	PBT	PBT	open Nylon	10-11
IMM 50 A	Sawing- drilling- milling cooling	0 - 0,2 bar	***	Oil - emulsions	80 - 120 - 150 180	PBT	PBT	open Nylon	
IMM 63 A	Turning- filtration - milling grinding - glass working	0 - 0,6 bar	***	Oil - emulsions	150 - 200 - 250 300	Aluminium	Nylon	open Nylon	12-13
IMM 63 B	Turning- filtration - milling grinding - glass working	0 - 0,8 bar	***	Oil - emulsions alkaline solution	150 - 200 - 250 300	Aluminium	Nylon	open Nylon	14-15
IMM 71 A	Turning- filtration - milling grinding - glass working	0 - 1,2 bar	***	Oil - emulsions alkaline solution	200 - 250 - 325 440	Aluminium	Aluminium	open OT 58	
IMM 71 B	Turning- filtration - milling grinding - glass working	0 - 1,4 bar	***	Oil - emulsions alkaline solution	200 - 250 - 325 440	Aluminium	Aluminium	open OT 58	16-17
IMM 80 A	Turning- filtration - milling grinding - glass working	0 - 1,4 bar	***	Oil - emulsions alkaline solution	200 - 250 - 300 350 - 530	Aluminium	Aluminium	open OT 58	
IMM 80 B	Turning- filtration - milling grinding - glass working	0 - 1,6 bar	***	Oil - emulsions alkaline solution	200 - 250 - 300 350 - 530	Aluminium	Aluminium	open OT 58	18-19
IMM 90 A	Turning- filtration - milling painting tools	0 - 1 bar	****	Oil - emulsions waste paint water	350 - 450 - 600 800	carbon steel	cast iron G20	open cast iron G20	
IMM 90 B	Turning- filtration - milling painting tools	0 - 1,4 bar	****	Oil - emulsions waste paint water	350 - 450 - 600 800	carbon steel	cast iron G20	open cast iron G20	
IMM 100 B	Turning- filtration - milling painting tools	0 - 1,8 bar	****	Oil - emulsions waste paint water	350 - 450 - 600 800	carbon steel	cast iron G20	open cast iron G20	
SPV 12	Turning- filtration - milling cooling - glass working	0 - 0,4 bar	***	Oil - emulsions	90 - 120 - 170 220 - 270 - 350	PBT	PBT	open PBT	20-21
SPV 18	Turning- filtration - milling cooling - glass working	0 - 0,5 bar	***	Oil - emulsions	90 - 120 - 170 220 - 270 - 350	PBT	PBT	open PBT	
SPV 25	Turning- filtration - milling printing - glass working	0 - 0,5 bar	***	Oil - emulsions glycol	90 - 120 - 170 220 - 270 - 350	PBT	PBT	open PBT	22-23
SPV 33	Turning- filtration - milling printing - glass working	0 - 0,6 bar	***	Oil - emulsions glycol	90 - 120 - 170 220 - 270 - 350	PBT	PBT	open PBT	
SPV 50	Turning- filtration - milling printing - glass working	0 - 1,2 bar	***	Oil - emulsions glycol	200 - 270 - 350 440 - 550	PP	PP	open PBT	24-25
SPV 75	Turning- filtration - milling printing - glass working	0 - 1,4 bar	***	Oil - emulsions glycol	200 - 270 - 350 440 - 550	PP	PP	open PBT	
SPV 100	Turning- filtration - milling printing - glass working	0 - 1,4 bar	***	Oil - emulsions alkaline solution	200 - 270 - 350 440 - 550	PP	PP	open PBT	26-27
SPV 150	Turning- filtration - milling printing - glass working	0 - 1,5 bar	***	Oil - emulsions alkaline solution	200 - 270 - 350 440 - 550	PP	PP	open PBT	
SP 12	Milling - turning - drilling	0 - 0,4 bar	***	Oil - emulsions	90 - 120 - 170 220 - 270 - 350	cast iron G20	PBT	open PBT	28-29
SP 18	Milling - turning - drilling	0 - 0,5 bar	***	Oil - emulsions	90 - 120 - 170 220 - 270 - 350	cast iron G20	PBT	open PBT	
SP 25	Milling - turning - drilling grinding- filtration	0 - 0,5 bar	***	Oil - emulsions	90 - 120 - 170 220 - 270 - 350	cast iron G20	PBT	open PBT	30-31
SP 33	Milling - turning - drilling grinding- filtration	0 - 0,6 bar	***	Oil - emulsions	90 - 120 - 170 220 - 270 - 350	cast iron G20	PBT	open PBT	
SP 50	Milling - turning - drilling grinding- filtration	0 - 1,2 bar	***	Oil - emulsions alkaline solution	200 - 270 - 350 440 - 550	cast iron G20	PBT	open PBT°	32-33
SP 75	Milling - turning - drilling grinding- filtration	0 - 1,2 bar	***	Oil - emulsions alkaline solution	200 - 270 - 350 440 - 550	cast iron G20	PBT	open PBT°	
SP 100	Milling - turning - drilling grinding- filtration	0 - 1,2 bar	***	Oil - emulsions alkaline solution	200 - 270 - 350 440 - 550	cast iron G20	PBT	open PBT°	34-35
SP 150	Milling - turning - drilling grinding- filtration	0 - 1,5 bar	***	Oil - emulsions alkaline solution	200 - 270 - 350 440 - 550	cast iron G20	PBT	open PBT°	
AU 56	Recycling - sucking	0 - 1 bar	*	Oil - emulsions	_____	Aluminium	cast iron G20	OT 58	38-39
AU 63	Recycling - sucking	0 - 1 bar	*	Oil - emulsions	_____	Aluminium	cast iron G20	OT 58	
TR 71 A	Recycling- trasfering	0 - 1 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	40-41
TR 71 B	Recycling- trasfering	0 - 1,3 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	
TR 80 A	Recycling- trasfering	0 - 1,6 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	
TR 80 B	Recycling- trasfering	0 - 1,6 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	

* max 0,03 mm ** max 1-2 mm *** max 2-3 mm **** max 3-4 mm

(\$) Upon inquiry: open impeller

CHOOSE TABLE

Type	Application	Delivery pressure	Pollution	Type of fluid	Body pump - construction features				Pages
					Depth of immersion mm.	Body pump	House impeller	Impeller	
SQ 56	Milling- turning - drilling surface treatment	0 - 0,3 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open Nylon	36-37
SQ 63	Milling- turning - drilling surface treatment	0 - 0,4 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open Nylon	
SQ 71 A	Milling- turning - drilling surface treatment	0 - 1,2 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	
SQ 71 B	Milling- turning - drilling surface treatment	0 - 1,3 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	
SQ 80 A	Milling- turning - drilling surface treatment	0 - 1,6 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	
SQ 80 B	Milling- turning - drilling surface treatment	0 - 1,8 bar	***	Oil - emulsions alkaline solution	_____	_____	cast iron G20	open OT 58	

AP 80 B	Turning- filtration grinding - surface treatment	1 - 2,2 bar	**	Oil - emulsions alkaline solution	320 450-610-860	cast iron G20 carbon steel	cast iron G20	closed (\$) cast iron G20	42-44
AP 90 A	Turning- filtration grinding - surface treatment	1 - 3 bar	**	Oil - emulsions alkaline solution	320 450-610-860	cast iron G20 carbon steel	cast iron G20	closed (\$) cast iron G20	
AP 90 B	Turning- filtration grinding - surface treatment	1 - 3 bar	**	Oil - emulsions alkaline solution	320 450-610-860	cast iron G20 carbon steel	cast iron G20	closed (\$) cast iron G20	43-44
AP 100 A	Turning- filtration grinding - surface treatment	1 - 3,6 bar	**	Oil - emulsions alkaline solution	320 450-610-860	cast iron G20 carbon steel	cast iron G20	closed (\$) cast iron G20	
AP 112 A	Turning- filtration grinding - surface treatment	1 - 3,4 bar	**	Oil - emulsions alkaline solution	320 450-610-860	cast iron G20 carbon steel	cast iron G20	closed (\$) cast iron G20	43-44
AP 112 B	Turning- filtration grinding - surface treatment	1 - 3,4 bar	**	Oil - emulsions alkaline solution	320 450-610-860	cast iron G20 carbon steel	cast iron G20	closed (\$) cast iron G20	

MP 63 C	Turning- filtration grinding	0 - 1,6 bar	***	Oil - emulsions	180 - 230 - 280 330	Aluminium	Aluminium	open OT 58	45-46
MP 71 A	Turning- filtration grinding	0 - 1,9 bar	***	Oil - emulsions	180 - 230 - 280 330	Aluminium	Aluminium	open OT 58	
MP 71 B	Turning- filtration grinding	0 - 2,3 bar	***	Oil - emulsions	210 - 260 - 310 360	Aluminium	Aluminium	open OT 58	47-48
MP 80 C	Turning- filtration grinding	0 - 3,1 bar	***	Oil - emulsions	230 - 280 - 355 470	Aluminium	Aluminium	open OT 58	
MP 90 B	Turning- filtration grinding	0 - 4,9 bar	***	Oil - emulsions	265 - 315 - 390 505	Aluminium	Aluminium	open OT 58	47-48
MP 100 B	Turning- filtration grinding	0 - 6 bar	***	Oil - emulsions	265 - 315 - 365 415 - 595	Aluminium	Aluminium	open cast iron G20	

MPC 80 B	Turning- filtration grinding	0 - 2,5 bar	**	Oil - emulsions	210 - 260 335 - 450	Aluminium	Aluminium	closed OT 58	49-50
MPC 80 C	Turning- filtration grinding	0 - 4,5 bar	**	Oil - emulsions	240 - 290 365 - 480	Aluminium	Aluminium	closed OT 58	
MPC 90 B	Turning- filtration grinding	0 - 6,2 bar	**	Oil - emulsions	260 - 310 385 - 500	Aluminium	Aluminium	closed OT 58	
MPC 90 C	Turning- filtration grinding	0 - 8,3 bar	**	Oil - emulsions	290 - 340 415 - 530	Aluminium	Aluminium	closed OT 58	
MPC 100 B	Turning- filtration grinding	0 - 9,8 bar	**	Oil - emulsions	280 - 330 - 380 430 - 610	Aluminium	Aluminium	closed OT 58	

EPC 63 C	Boring - drilling cooling	0 - 3 bar	*	Oil - emulsions glycol	100 - 130 - 180 230 - 280 - 360	cast iron G20	cast iron G20	peripheral OT 58	51-52
EPC 71 B	Boring - drilling cooling	0 - 4 bar	*	Oil - emulsions glycol	100 - 130 - 180 230 - 280 - 360	cast iron G20	cast iron G20	peripheral OT 58	
EPC 80 B	Boring - drilling cooling	0 - 6 bar	*	Oil - emulsions glycol	100 - 130 - 180 230 - 280 - 360	cast iron G20	cast iron G20	peripheral OT 58	53-54
EPC 80 C	Boring - drilling cooling	0 - 9 bar	*	Oil - emulsions glycol	115 - 145 - 195 245 - 295 - 375	cast iron G20	cast iron G20	peripheral OT 58	
EPC 90 B	Boring - drilling cooling	0 - 13 bar	*	Oil - emulsions glycol	140 - 170 - 220 270 - 320 - 400	cast iron G20	cast iron G20	peripheral OT 58	

PPI 63 C	Heat regulation	0 - 3 bar	*	Diathermic oil	195	OT 58	OT 58	peripheral OT 58	55-56
PPI 71 B	Heat regulation	0 - 4 bar	*	Diathermic oil	200	OT 58	OT 58	peripheral OT 58	

* max 0,03 mm ** max 1-2 mm *** max 2-3 mm **** max 3-4 mm

(\$) Upon inquiry: open impeller

Table hydraulic features - standard execution - 2.800 1/min. - hz. 50 or hz. 60

		PSI - pressure														
		0,0	1,4	2,9	4,3	5,8	7,2	8,7	10,1	11,6	13,0	14,5	17,4	20,3	23,2	26,1
		H = Delivery head-feet														
		0,0	3,3	6,6	9,8	13,1	16,4	19,7	23,0	26,2	29,5	32,8	39,4	45,9	52,5	59,0
PAGES	TYPE	kw. In. P 1	kw nom. P 2	impeller	Q = Volumetric delivery US gallon/min.											
10-11	IMM 40 A	0,08	0,03	open	3,4	2,6	1,3									
	IMM 50 A	0,11	0,06	open	5,8	4,2	2,1									
12-13	IMM 63 A	0,30	0,18	open	25,9	21,9	17,4	14,8	11,1	5,8	0,5					
	IMM 63 B	0,40	0,25	open	27,7	25,1	22,7	20,3	18,0	15,1	11,1	7,1	1,6			
14-15	IMM 71 A	0,53	0,37	open	52,3	49,4	46,5	44,1	41,5	38,0	35,1	31,2	28,0	23,8	18,5	9,8
	IMM 71 B	0,78	0,55	open	56,8	53,9	52,3	49,4	47,0	44,9	42,0	39,1	35,9	32,2	28,8	20,3
16-17	IMM 80 A	1,15	0,75	open	74,8	71,3	67,4	64,5	60,0	56,3	52,3	47,3	42,5	38,0	32,8	20,3
	IMM 80 B	1,47	1,10	open	102,5	101,2	97,2	94,3	91,1	87,7	84,0	80,3	76,4	72,1	67,1	59,2
18-19	IMM 90 A	1,85	1,50	open	164,9	159,0	149,3	140,0	132,9	124,4	110,7	94,6	70,0	29,3	4,8	0,0
	IMM 90 B	2,80	2,20	open	223,5	219,3	209,5	200,3	191,3	180,4	170,4	160,1	149,8	138,4	125,8	102,2
	IMM 100 B	4,80	4,00	open	317,0	306,5	295,9	285,3	277,4	269,5	257,6	247,0	236,7	224,6	211,9	187,1

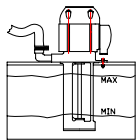
		PSI - pressure														
		0,0	1,4	2,9	4,3	5,8	7,2	8,7	10,1	11,6	13,0	14,5	17,4	20,3	23,2	
		H = Delivery head-feet														
		0,0	3,3	6,6	9,8	13,1	16,4	19,7	23,0	26,2	29,5	32,8	39,4	45,9	52,5	
PAGES	TYPE	kw. In. P 1	kw nom. P 2	impeller	Q = Volumetric delivery US gallon/min.											
20-21	SPV 12	0,15	0,09	open	14,8	11,9	8,7	5,3	1,6							
	SPV 18	0,16	0,12	open	17,2	14,8	12,2	9,0	5,5	1,1						
22-23	SPV 25	0,30	0,18	open	19,0	17,4	15,1	11,9	8,5	5,3						
	SPV 33	0,40	0,25	open	21,1	18,5	16,1	13,2	10,8	6,9	1,3					
24-25	SPV 50	0,53	0,37	open	56,8	55,5	52,8	48,3	43,6	39,4	34,1	28,0	23,5	17,7	11,1	0,5
	SPV 75	0,78	0,55	open	63,4	60,8	57,3	53,1	48,1	43,1	38,8	33,8	28,5	23,5	16,6	7,9
26-27	SPV 100	1,15	0,75	open	70,0	66,1	63,1	59,2	55,5	51,3	46,5	41,5	37,3	31,4	25,6	16,4
	SPV 150	1,47	1,10	open	75,3	72,1	67,9	64,2	60,0	55,7	51,5	46,5	41,5	36,7	29,3	23,8
28-29	SP 12	0,15	0,09	open	14,8	11,9	8,7	5,3	1,6							
	SP 18	0,16	0,12	open	17,2	14,8	12,2	9,0	5,5	1,1						
30-31	SP 25	0,30	0,18	open	19,0	17,4	15,1	11,9	8,5	5,3						
	SP 33	0,40	0,25	open	21,1	18,5	16,1	13,2	10,8	6,9	1,3					
32-33	SP 50	0,53	0,37	open	70,0	66,1	61,8	56,0	50,2	43,9	39,1	33,8	26,7	20,3	11,9	
	SP 75	0,78	0,55	open	76,6	72,7	68,4	64,5	57,9	52,6	47,3	39,9	33,6	26,4	14,8	
34-35	SP 100	1,15	0,75	open	83,2	79,3	74,2	68,4	64,2	57,9	51,8	44,6	38,8	30,9	23,8	6,1
	SP 150	1,47	1,10	open	92,5	88,8	83,5	79,5	73,7	68,7	63,7	57,1	51,3	42,5	34,6	13,7

		PSI - pressure													
		0,0	1,4	2,9	4,3	5,8	7,2	8,7	10,1	11,6	13,0	14,5			
		H = Delivery head-feet													
		0,0	3,3	6,6	9,8	13,1	16,4	19,7	23,0	26,2	29,5	32,8			
PAGES	TYPE	kw. In. P 1	kw nom. P 2	impeller	Q = Volumetric delivery US gallon/min.										
38-39	AU 56	0,16	0,12	periph.	2,6	2,1	1,8	1,6	1,3	1,1	0,8	0,5	0,3		
	AU 63	0,30	0,18	periph.	3,4	2,9	2,6	2,4	2,1	1,8	1,6	1,3	1,1	0,8	0,5

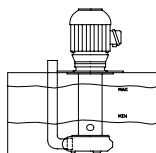
		PSI - pressure														
		0,0	1,4	2,9	4,3	5,8	7,2	8,7	10,1	11,6	13,0	14,5	17,4	20,3		
		H = Delivery head-feet														
		0,0	3,3	6,6	9,8	13,1	16,4	19,7	23,0	26,2	29,5	32,8	39,4	45,9		
PAGES	TYPE	kw. In. P 1	kw nom. P 2	impeller	Q = Volumetric delivery US gallon/min.											
40-41	TR 71 A	0,53	0,37	open	50,2	47,6	44,6	41,7	39,4	36,7	33,6	30,1	25,6	21,4	15,1	
	TR 71 B	0,78	0,55	open	58,1	50,5	48,3	45,2	43,1	40,2	37,5	34,6	31,2	27,7	23,5	10,8
	TR 80 A	1,15	0,75	open	63,4	58,1	55,7	51,0	47,6	44,1	41,2	37,3	33,6	30,6	27,7	16,4
	TR 80 B	1,47	1,10	open	68,7	63,9	59,2	55,0	49,9	46,0	43,6	41,2	38,6	36,5	32,8	25,4

		PSI - pressure														
		0,0	1,4	2,9	4,3	5,8	7,2	8,7	10,1	11,6	13,0	14,5	17,4	20,3		
		H = Delivery head-feet														
		0,0	3,3	6,6	9,8	13,1	16,4	19,7	23,0	26,2	29,5	32,8	39,4	45,9		
PAGES	TYPE	kw. In. P 1	kw nom. P 2	impeller	Q = Volumetric delivery US gallon/min.											
36-37	SQ 56	0,16	0,12	open	15,9	12,7	9,2	7,1	2,9							
	SQ 63	0,30	0,18	open	21,1	18,2	14,3	10,8	7,1							
	SQ 71 A	0,53	0,37	open	68,7	66,3	63,7	60,5	57,6	54,7	48,9	41,7	35,4	26,2	13,7	
	SQ 71 B	0,78	0,55	open	79,3	76,4	73,2	69,7	66,3	62,1	56,3	50,2	44,1	37,3	29,9	
	SQ 80 A	1,15	0,75	open	89,8	86,1	81,9	77,4	72,4	67,4	62,9	57,6	51,5	45,2	39,6	22,5
	SQ 80 B	1,47	1,10	open	100,4	97,2	93,5	89,8	86,1	81,1	77,4	72,4	67,9	63,7	57,6	43,1

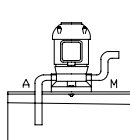
TYPE IMM - SP - SPV



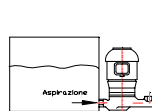
TYPE IMM 90 - 100



TYPE AU



TYPE TR



TYPE SQ

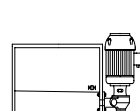


Table hydraulic features - standard execution - 2.800 1/min. - hz. 50 or hz. 60

		PSI - pressure		Q = Volumetric delivery																
		H = Delivery head-feet		US gallon/min.																
		0,0	2,9	5,8	8,7	11,6	14,5	17,4	20,3	23,2	26,1	29,0	31,9	34,8	37,6	40,5	43,4	46,3	49,2	
PAGES	TYPE	kw. In. P 1	kW nom. P 2	impeller																
42-44	AP 80 B	2,19	1,50	closed																
	AP 90 A	2,70	1,85	closed																
	AP 90 B	3,60	2,60	closed																
43-44	AP 100 A	4,80	4,00	closed																
	AP 112 A	5,50	4,00	closed																
	AP 112 B	6,00	5,50	closed																
42-44	AP 80 B	2,19	1,50	open																
	AP 90 A	2,70	1,85	open																
	AP 90 B	3,60	2,60	open																
43-44	AP 100 A	4,80	4,00	open																
	AP 112 A	5,50	4,00	open																
	AP 112 B	6,00	5,50	open																

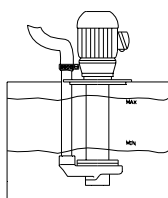
		PSI - pressure		Q = Volumetric delivery																
		H = Delivery head-feet		US gallon/min.																
		0,0	5,8	11,6	17,4	23,2	29,0	34,8	40,5	46,3	52,1	57,9	63,7	72,4	79,6					
PAGES	TYPE	kw. In. P 1	kW nom. P 2	impeller																
45-46	MP 63 C	0,54	0,37	open	25,1	21,4	17,2	12,4	6,3											
	MP 71 A	0,70	0,55	open	30,6	25,9	20,6	14,8	6,9											
	MP 71 B	0,95	0,75	open	31,7	30,4	24,8	19,3	14,8	10,3	5,3									
47-48	MP 80 C	2,20	1,50	open	66,1	59,7	52,8	44,9	37,0	28,0	17,7	1,3								
	MP 90 B	3,60	2,60	open	76,6	73,7	69,2	65,5	60,8	55,5	50,2	43,9	37,0	30,4	23,5	13,2				
	MP 100 B	5,70	4,00	open	90,6	87,2	84,0	80,6	76,4	70,8	66,1	59,4	51,5	43,6	37,3	26,7	12,2	3,4		

		PSI - pressure		Q = Volumetric delivery																				
		H = Delivery head-feet		US gallon/min.																				
		0,0	7,2	14,5	21,7	29,0	36,2	43,4	50,7	57,9	65,2	72,4	79,6	86,9	94,1	101,4	108,6	115,8	123,1	130,3	137,6	144,8		
PAGES	TYPE	kw. In. P 1	kW nom. P 2	impeller																				
49-50	MPC 80 B	1,50	1,10	closed	30,6	25,9	21,9	17,2	12,2	0,8														
	MPC 80 C	2,00	1,50	closed	38,3	36,7	35,4	33,6	31,2	27,7	23,8	18,2	12,9	0,5										
	MPC 90 B	3,10	2,20	closed	39,6	39,1	38,3	37,0	35,7	33,6	31,7	29,1	26,2	21,1	18,8	14,0	9,5	1,3						
	MPC 90 C	3,70	2,50	closed	42,8	40,7	40,2	39,6	39,4	38,6	38,0	36,2	34,6	32,5	30,6	28,0	25,4	23,0	19,6	14,8	10,0	0,8		
	MPC 100 B	5,60	4,00	closed	42,8	42,3	41,7	41,2	40,7	40,2	39,4	38,3	36,7	35,7	33,6	32,5	30,9	29,6	26,7	24,0	20,9	13,2	10,0	6,9

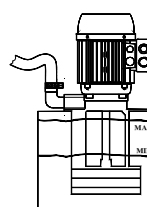
		PSI - pressure		Q = Volumetric delivery																				
		H = Delivery head-feet		US gallon/min.																				
		0,0	7,2	14,5	21,7	29,0	36,2	43,4	50,7	57,9	65,2	72,4	79,6	86,9	94,1	101,4	108,6	115,8	123,1	130,3	137,6	144,8		
PAGES	TYPE	kw. In. P 1	kW nom. P 2	impeller																				
51-52	EPC 63 C	0,54	0,37	periph.	10,6	9,2	7,7	6,1	4,8	3,2	1,6													
	EPC 71 B	1,10	0,75	periph.	14,5	13,2	11,4	9,8	8,5	6,6	5,0	3,4	1,8											
53-54	EPC 80 B	1,70	1,20	periph.	18,5	17,2	15,6	14,3	12,9	11,4	10,0	8,7	7,1	5,8	4,5	1,6								
	EPC 80 C	2,60	1,80	periph.	18,5	17,7	16,6	15,9	14,8	14,0	12,9	12,2	11,4	10,0	9,2	7,4	6,3	5,5	3,7	1,8				
	EPC 90 B	3,00	2,20	periph.	21,1	19,8	18,8	18,0	17,2	16,4	15,6	14,8	14,3	13,5	12,7	11,4	10,6	10,0	8,5	7,1	5,5	4,0	2,4	0,5

		PSI - pressure		Q = Volumetric delivery											
		H = Delivery head-feet		US gallon/min.											
		0,0	7,2	14,5	21,7	29,0	36,2	43,4	50,7	57,9					
PAGES	TYPE	kw. In. P 1	kW nom. P 2	impeller											
55-56	PPI 63 C	0,54	0,37	periph.	10,6	9,2	7,7	6,1	4,8	3,2	1,6				
	PPI 71 B	1,10	0,75	periph.	14,5	13,2	11,4	9,8	8,5	6,6	5,0	3,4	1,8		

TYPE AP

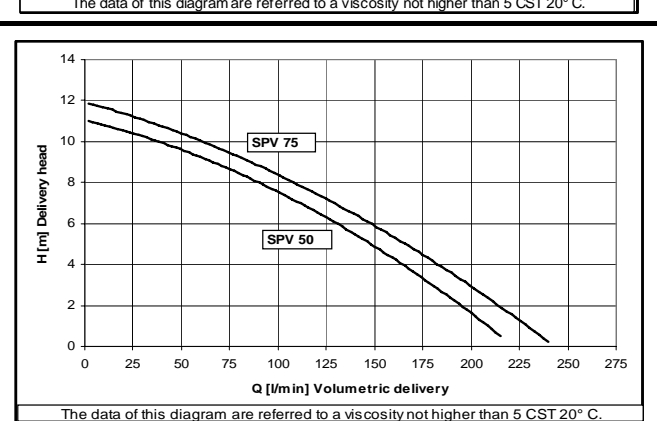
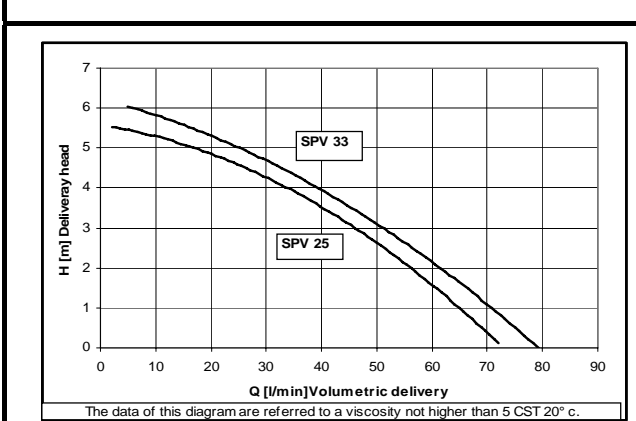
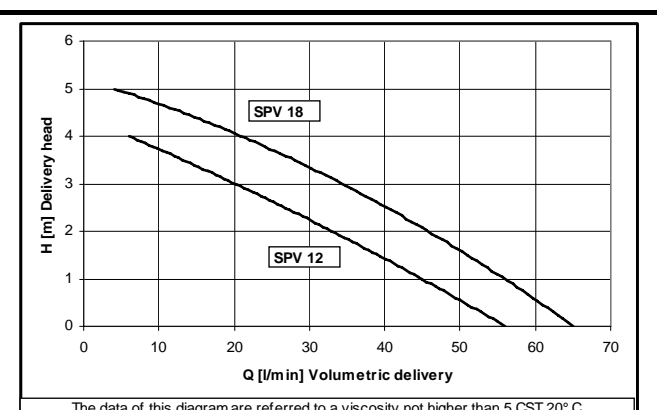
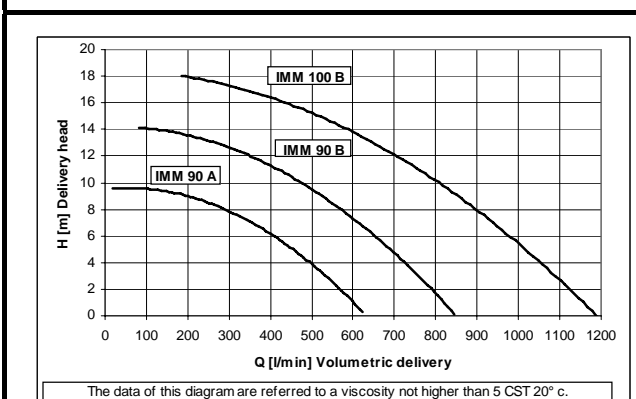
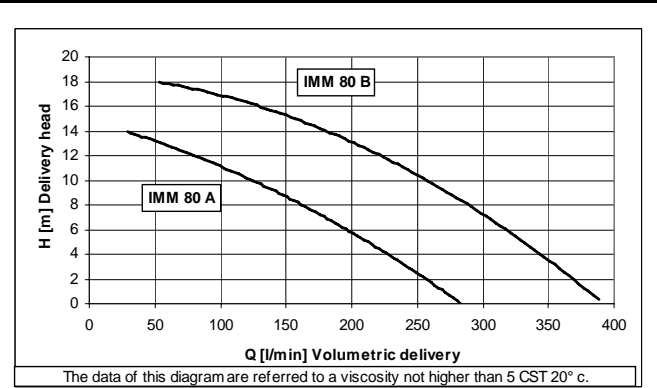
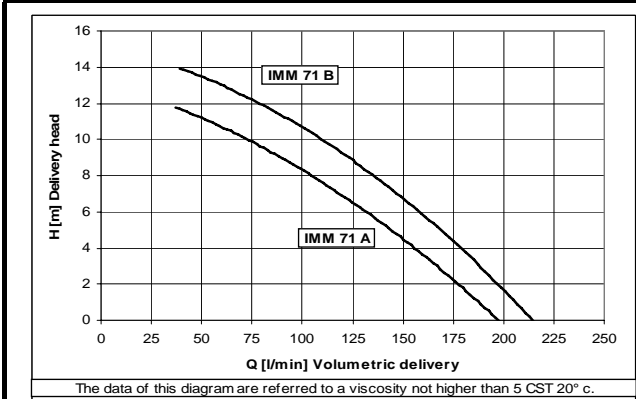
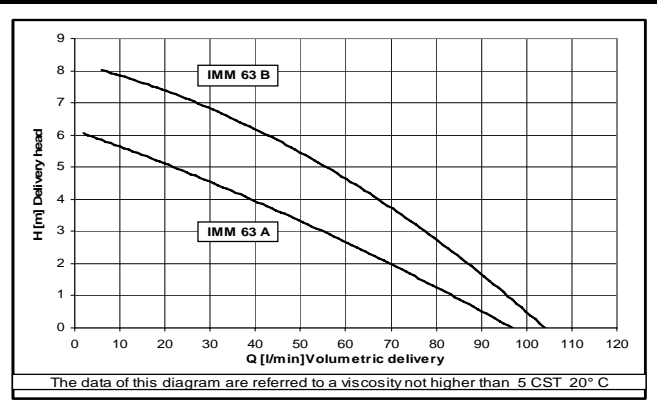
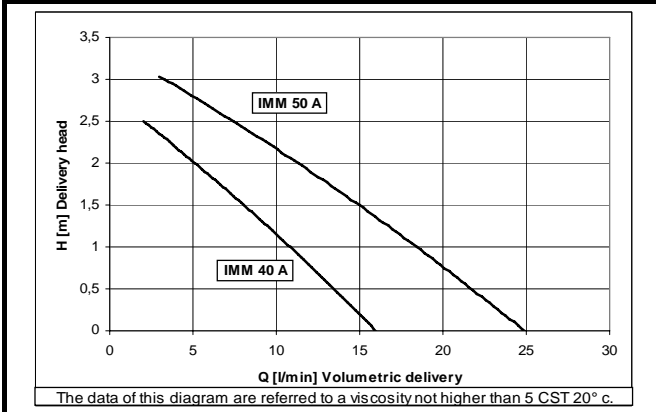


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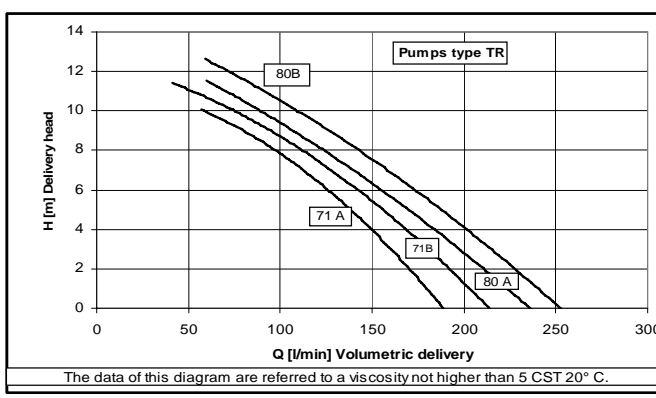
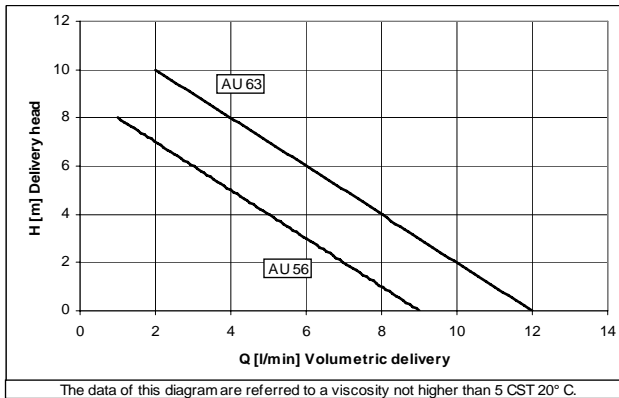
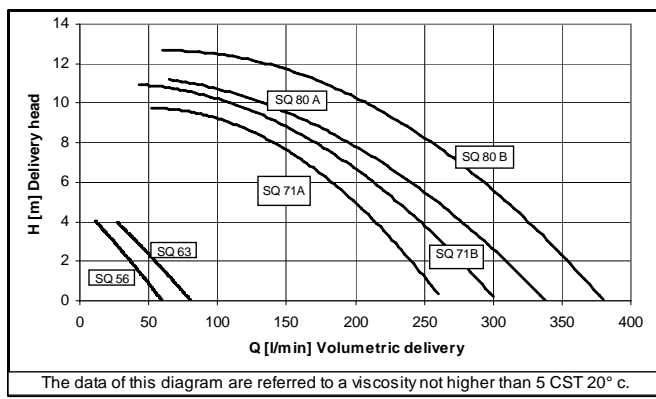
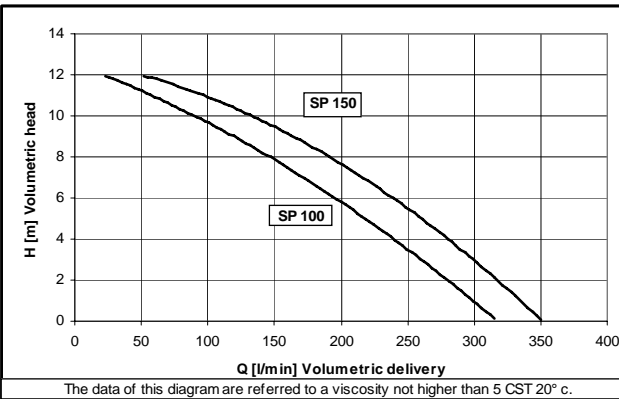
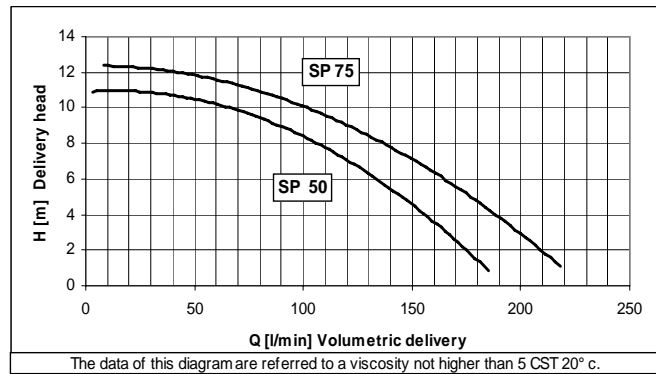
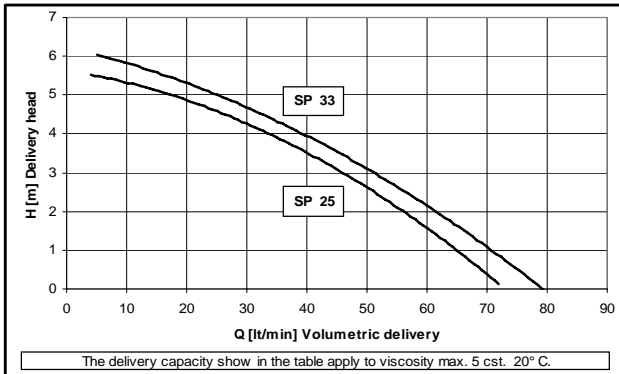
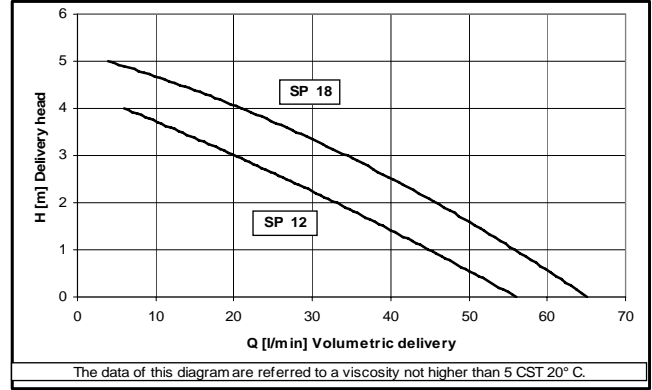
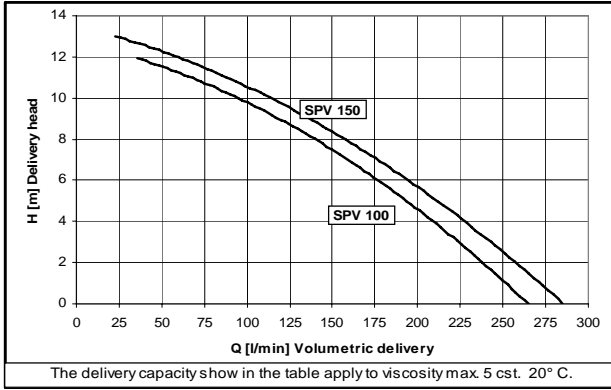
Pumps – performances curves

Standard execution = 2.800 1/min.



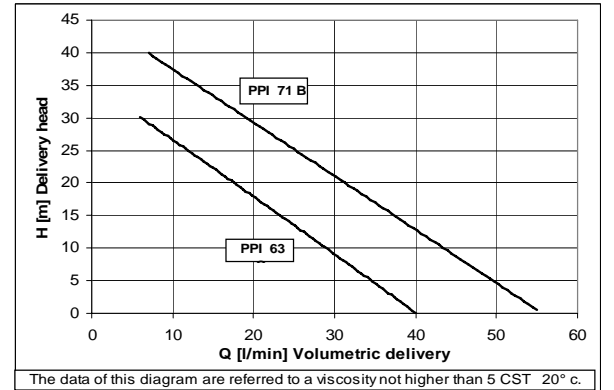
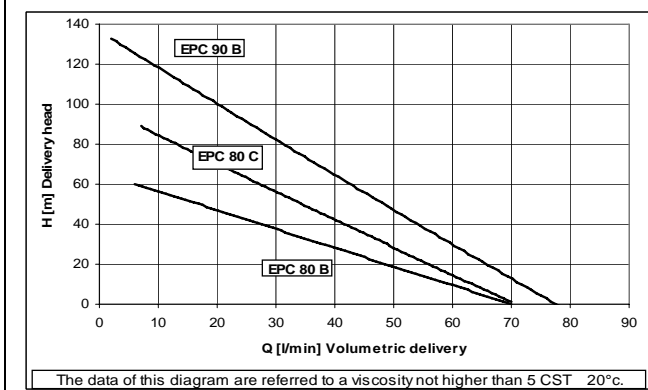
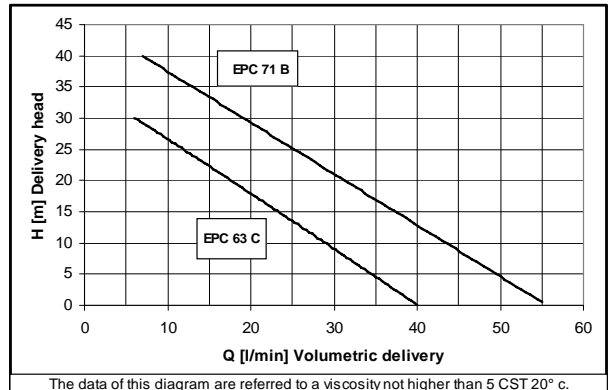
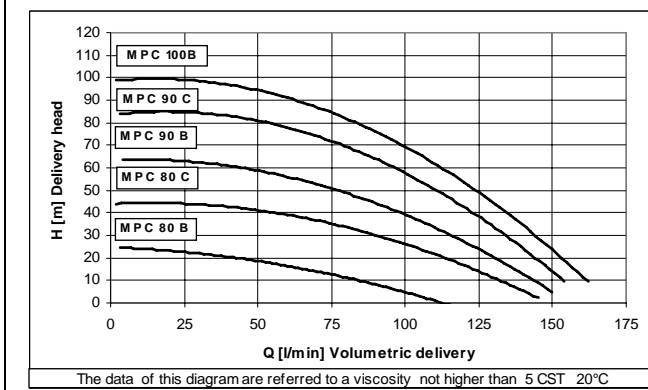
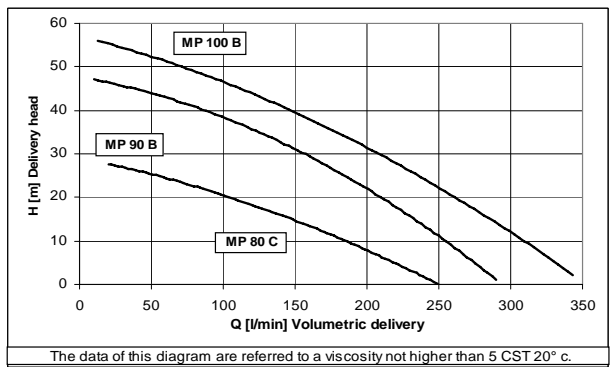
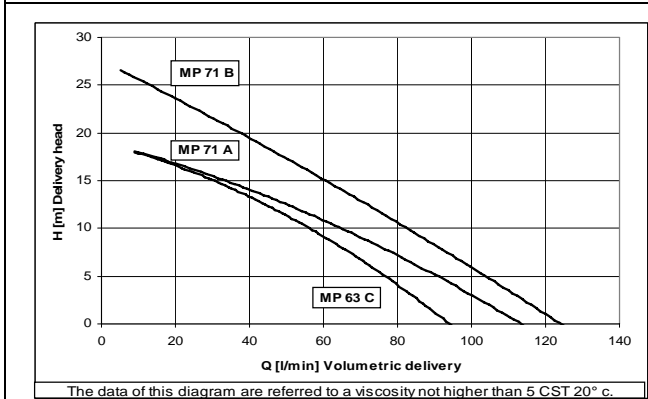
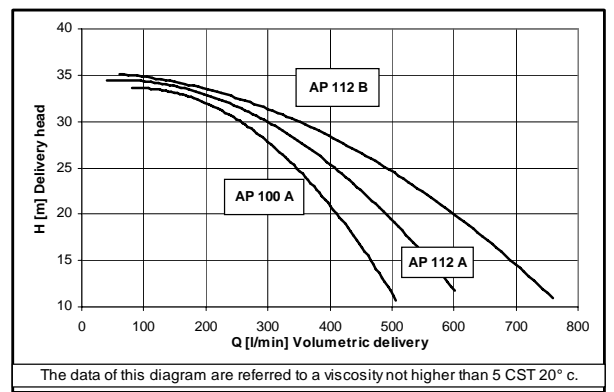
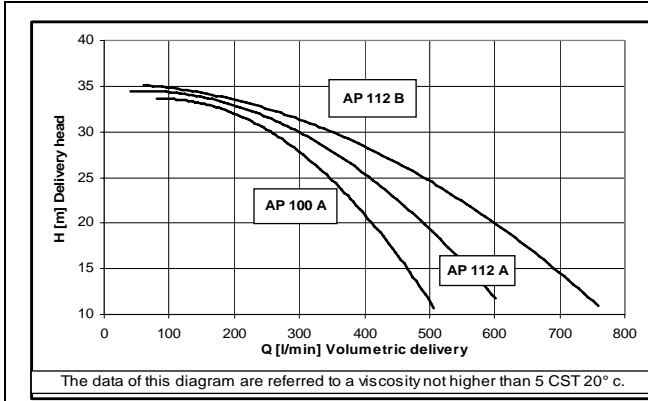
Pumps – performances curves

Standard execution = 2.800 1/min.



Pumps – performances curves

Standard execution = 2.800 1/min.



Immersion pumps

Type IMM 40-50



Usages:

These pumps are suitable for transferring clean liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller, scroll and pump body in PBT, allow the pumps to be used with water, emulsions and oily substances with a maximum viscosity of 3° Engler (21 CST).

The temperature of the liquid must not exceed 70° C.

They are usually used on:

Machine tools (milling machines – lathes –drills)

Glass-processing machines (TRI version)

Air-conditioning systems.

They should usually be installed at on a tank, with a capacity in proportion to the flow rate, at about 2 – 3 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office

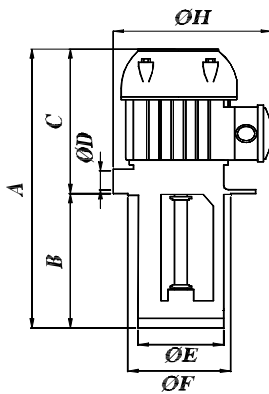
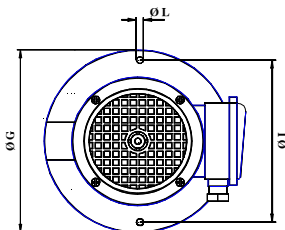


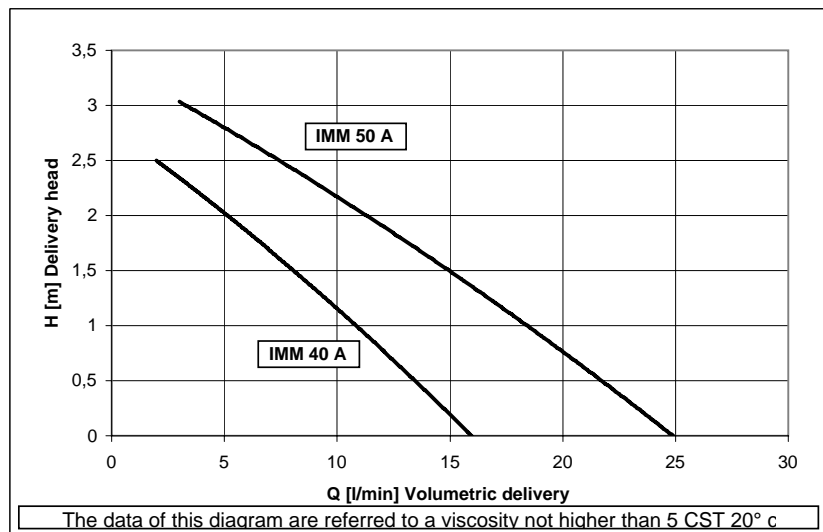
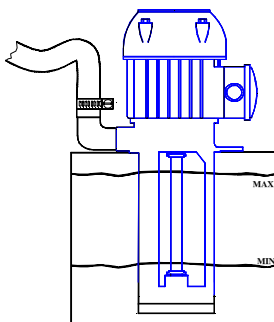
Table of dimensions and weights

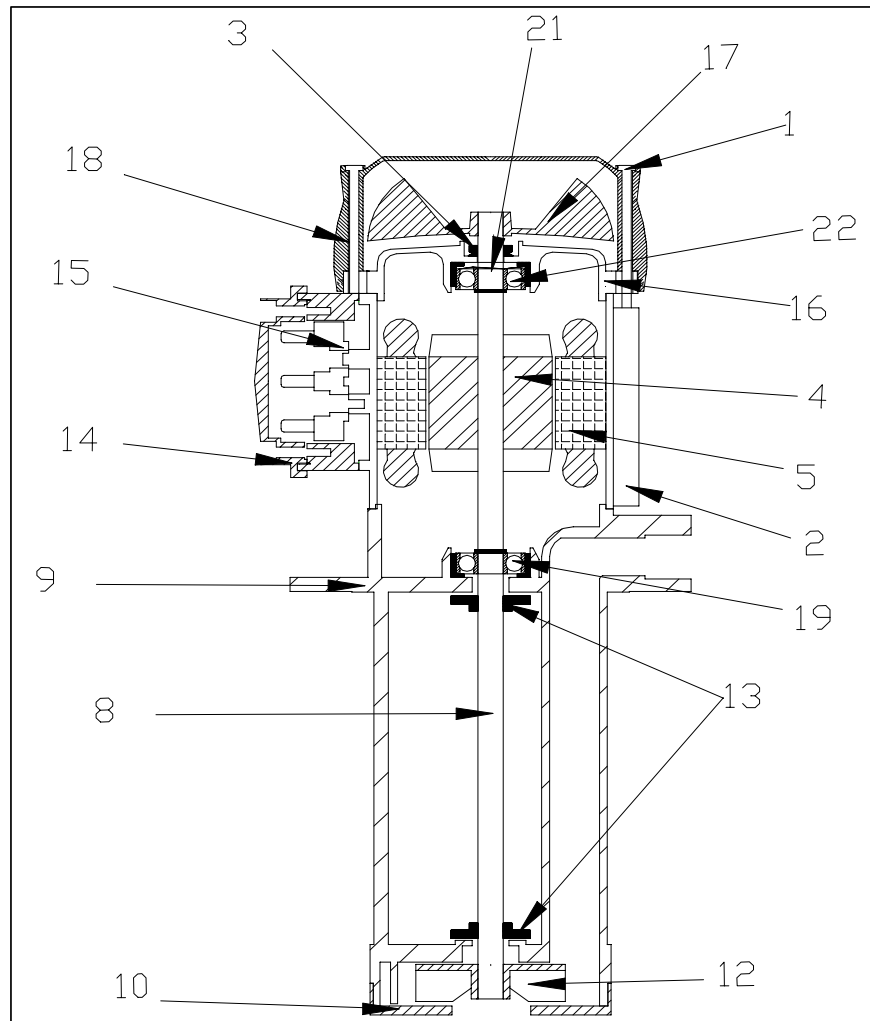
TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
IMM 40	224	80	144	3/8"	78	90	130	140	114	7 N. 2	1,8
	264	120									1,83
	294	150									1,85
	324	180									1,88
IMM 50	224	80	144	3/8"	78	90	130	140	114	7 N. 2	1,8
	264	120									1,83
	294	150									1,85
	324	180									1,88



Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60		
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480
IMM 40	0,08	0,4/0,23	0,35/0,21	0,48/0,28	0,43/0,25	0,4/0,23
IMM 50	0,11	0,52/0,3	0,4/0,23	0,6/0,35	0,56/0,32	0,52/0,3





Type	IMM 40 A	IMM 50 A
Components	Materials	Materials
1 Rod	Steel	Steel
2 Frame	Aluminium	Aluminium
3 V-Ring \varnothing 8	NBR	NBR
4 Rotor		
5 Stator		
8 Shaft	Steel C 40**	Steel C 40**
9 Pump body	PBT	PBT
10 House impeller	PBT	PBT
12 Impeller	Nylon	Nylon
13 Rubber washer	PBT	PBT
14 Terminal box	Nylon	Nylon
15 Terminal block	mm. 40x25 6P	mm. 40x25 6P
16 Non-drive end shield	Nylon	Nylon
17 Fan	Nylon	Nylon
18 Fan cover	Nylon	Nylon
19 Drive end shield	608 2RS	608 2RS
21 Spring ring	\varnothing 22	\varnothing 22
22 Bearing	608 2RS	608 2RS

On request

**

Aisi 316



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the nylon impeller and scroll and the aluminium pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 90° C.

They are usually used on:

- Machine tools** (milling machines – lathes - drills)
- Glass processing machines** (TRI version)
- Surface treatment systems** (version in cast iron)*
- Filtration systems**
- Air-conditioning systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 4 – 5 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

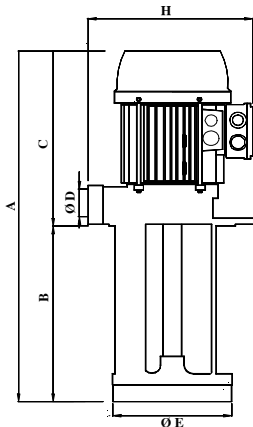


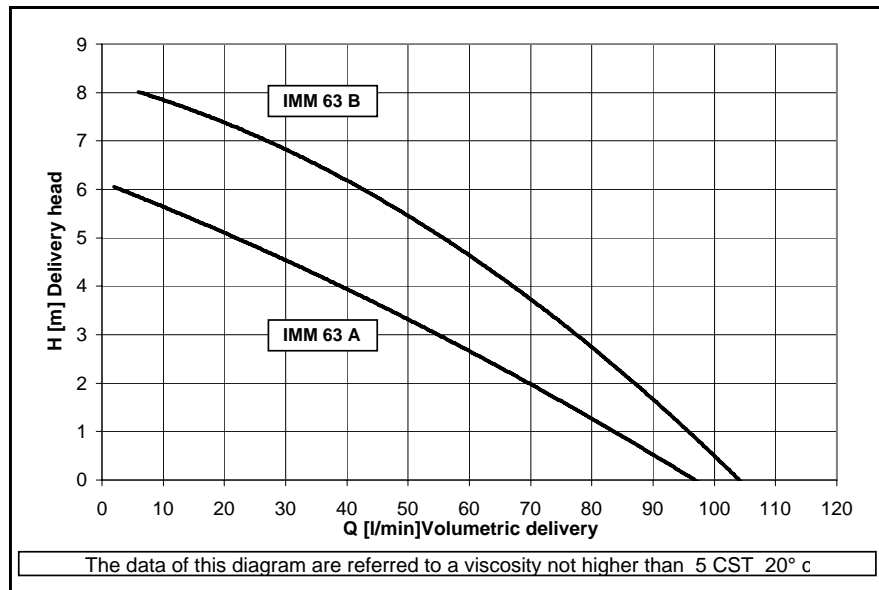
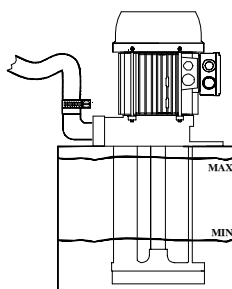
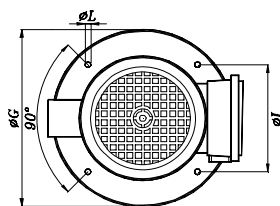
Table of dimensions and weights

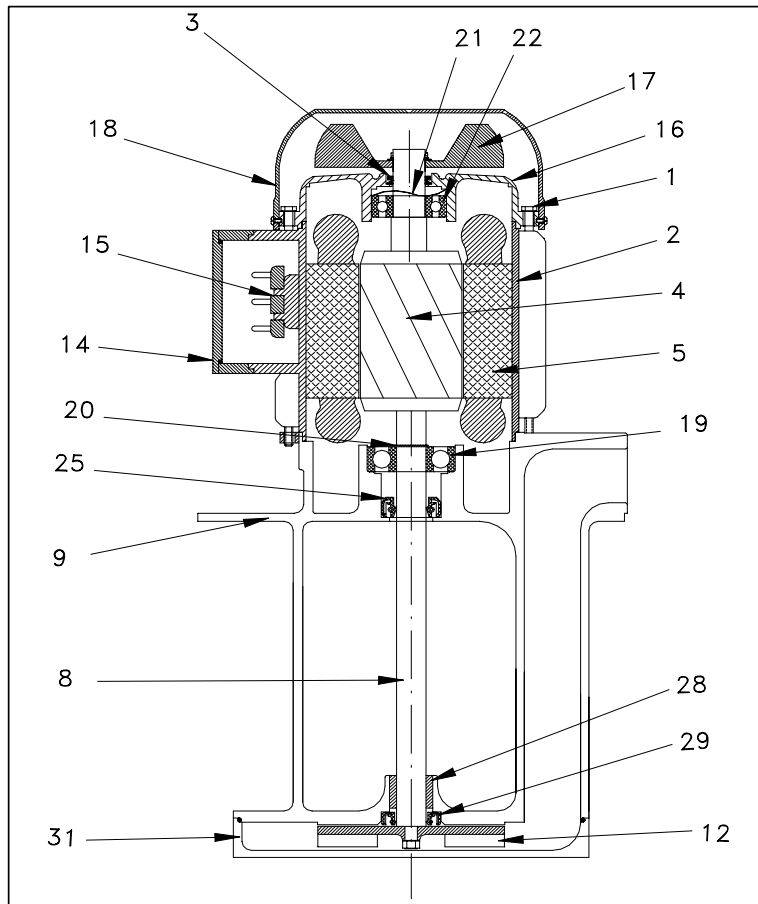
TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
IMM 63 A	355	150 T	205	3/4"	128	-	180	190	150	9 N. 4	5,00
	405	200 T									5,15
	455	250 T									5,30
	505	300* T									5,45
IMM 63 B	355	150 T	205	3/4"	128	-	180	190	150	9 N. 4	5,50
	405	200 T									5,70
	455	250 T									5,90
	505	300* T									6,05

On request: T = execution TRI * = cast iron pump body

Electrical features

Type	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
IMM 63 A	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45
IMM 63 B	0,40	1,6/0,9	1,2/0,7	1,9/1,1	1,73/1,0	1,6/0,9	1,2/0,7





Type	IMM 63A	Type	IMM 63B
Components	Materials	Components	Materials
1 Rod	Steel	1 Rod	Steel
2 Frame	Aluminium	2 Frame	Aluminium
3 V-Ring Ø 16	NBR	3 V-Ring Ø 16	NBR
4 Rotor		4 Rotor	
5 Stator		5 Stator	
8 Shaft	Steel C 40**	8 Shaft	Steel C 40**
9 Pump body	Aluminium*	9 Pump body	Aluminium *
12 Impeller	Nylon	12 Impeller	Nylon
14 Terminal box	Nylon	14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P	15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium	16 Non-drive end shield	Aluminium
17 Fan	Nylon	17 Fan	Nylon
18 Fan cover	Nylon***	18 Fan cover	Nylon***
19 Bearing	6203 ZZ	19 Bearing	6203 ZZ
20 Retaining ring	ø 17	20 Retaining ring	ø 17
21 Spring ring	ø 35	21 Spring ring	ø 35
22 Bearing	6202 ZZ	22 Bearing	6202 ZZ
25 Sealing ring	NBR 17X30X7	25 Sealing ring	NBR 17X30X7
28 Bronze bearing	19X17X15	28 Bronze bearing	19X17X15
29 Sealing ring	NBR 17X25X4	29 Sealing ring	NBR 17X25X4
31 House impeller	Nylon	31 House impeller	Nylon

On request

*	Cast iron G20 - only length mm. 300
**	Aisi 420
***	Sheet



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the brass impeller, the scroll and the aluminium pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST).

The temperature of the liquid must not exceed 90° C.

They are usually used on:

- Machine tools** (milling machines – lathes - drills)
- Glass processing machines** (TRI version)
- Surface treatment systems** (version in cast iron)*
- Filtration systems**
- Air-conditioning systems.**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 4 – 5 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

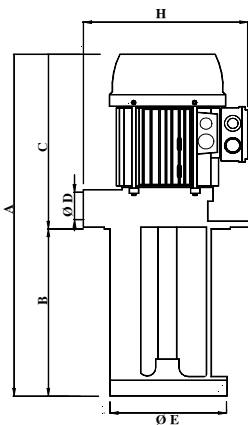
In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

Table of dimensions and weights

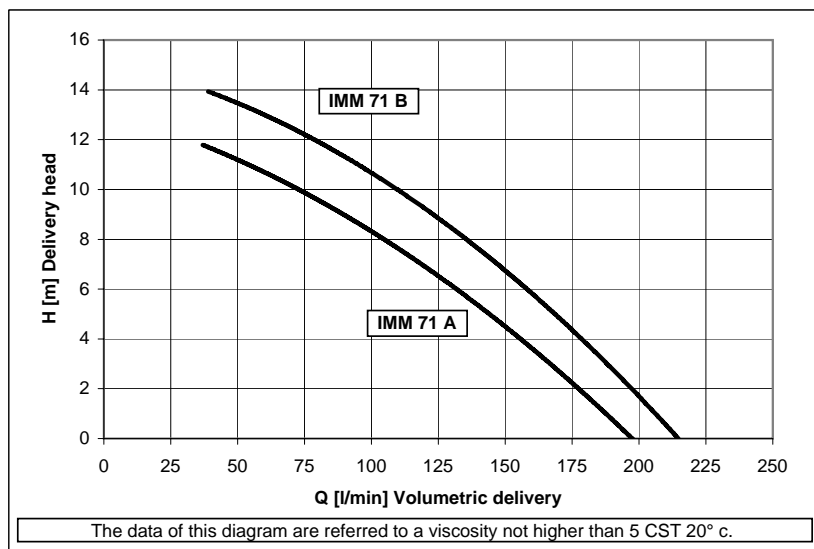
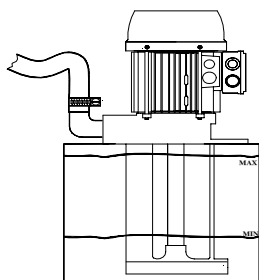
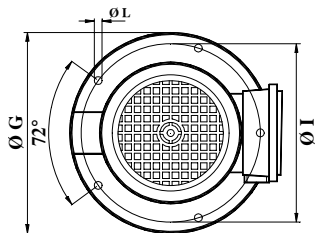
TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
IMM 71 A	440	200 T	240	1"	190	-	230	225	204	9 N. 5	9,35
	490	250 T									9,75
	565	325* T									10,05
	680	440									11,30
IMM 71 B	440	200 T	240	1"	190	-	230	225	204	9 N. 5	10,25
	490	250 T									10,60
	565	325* T									10,90
	680	440									12,20

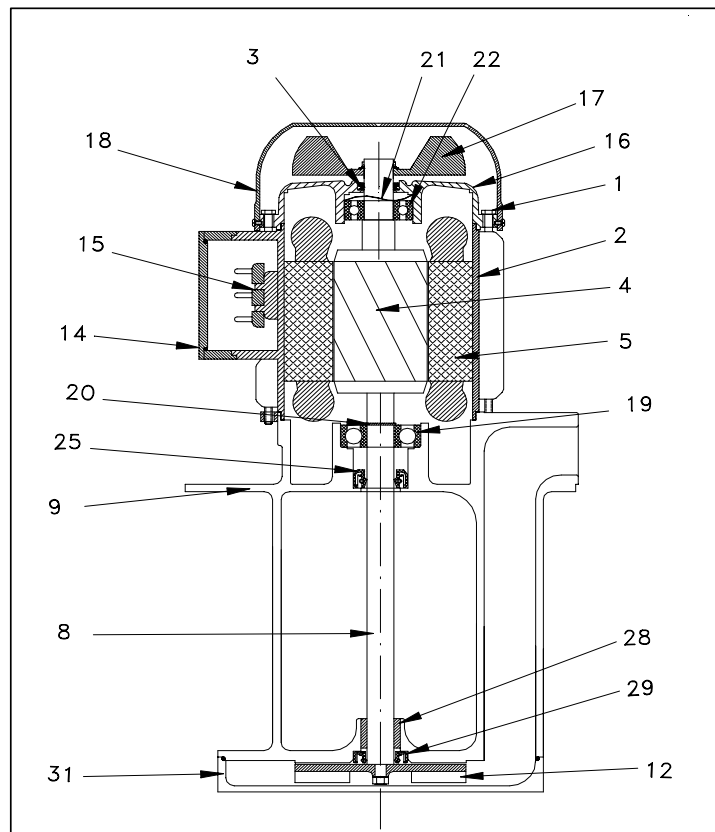
On request: T = execution TRI * = cast iron pump body



Electrical features

Type	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
IMM 71 A	0,53	2,7/1,6	2,1/1,2	3,2/1,8	3,1/1,8	2,7/1,6	2,3/1,3
IMM 71 B	0,78	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6





Type IMM 71 A

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring \varnothing 16	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Aluminium*
12 Impeller	Brass 58*
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6204 ZZ
21 Spring ring	\varnothing 40
22 Bearing	6203 ZZ
25 Sealing ring	NBR 20X35X7
28 Bronze bearing	23X20X20
29 Sealing ring	NBR 20X32X7
31 House impeller	Aluminium*
41 O-Ring	NBR 180X2

Type IMM 71 B

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring \varnothing 16	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Aluminium*
12 Impeller	Brass 58*
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6204 ZZ
21 Spring ring	\varnothing 40
22 Bearing	6203 ZZ
25 Sealing ring	NBR 20X35X7
28 Bronze bearing	23X20X20
29 Sealing ring	NBR 20X32X7
31 House impeller	Aluminium*
41 O-Ring	NBR 180X2

On request

*	Cast iron G20 - only length mm. 325
**	Aisi 420
***	Sheet

Immersion pumps

Type IMM 80



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the brass impeller, the scroll and the aluminium pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 90° C.

They are usually used on:

- **Machine tools** (milling machines – lathes - drills)
- **Glass processing machines** (TRI version)
- **Surface treatment systems** (version in cast iron)*
- **Filtration systems**
- **Air-conditioning systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 4 – 5 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

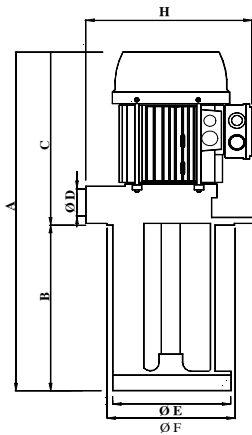
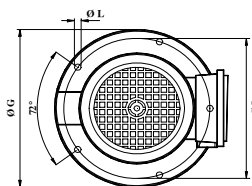


Table of dimensions and weights

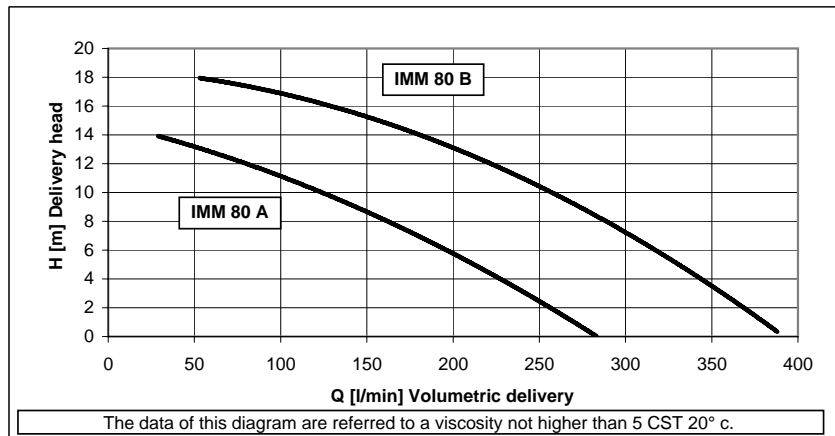
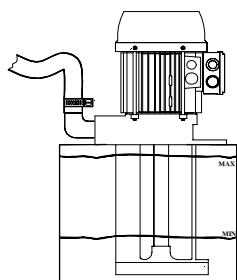
TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
IMM 80 A	485	200* T	285	1 1/4"	202	220	250	260	235	9	10,95
	535	250* T									12,75
	585	300* T									14,55
	635	350* T									16,35
	815	530									18,00
IMM 80 B	485	200* T	285	1 1/4"	202	220	250	260	235	9	14,15
	535	250* T									14,55
	585	300* T									14,95
	635	350* T									15,35
	815	530									18,25

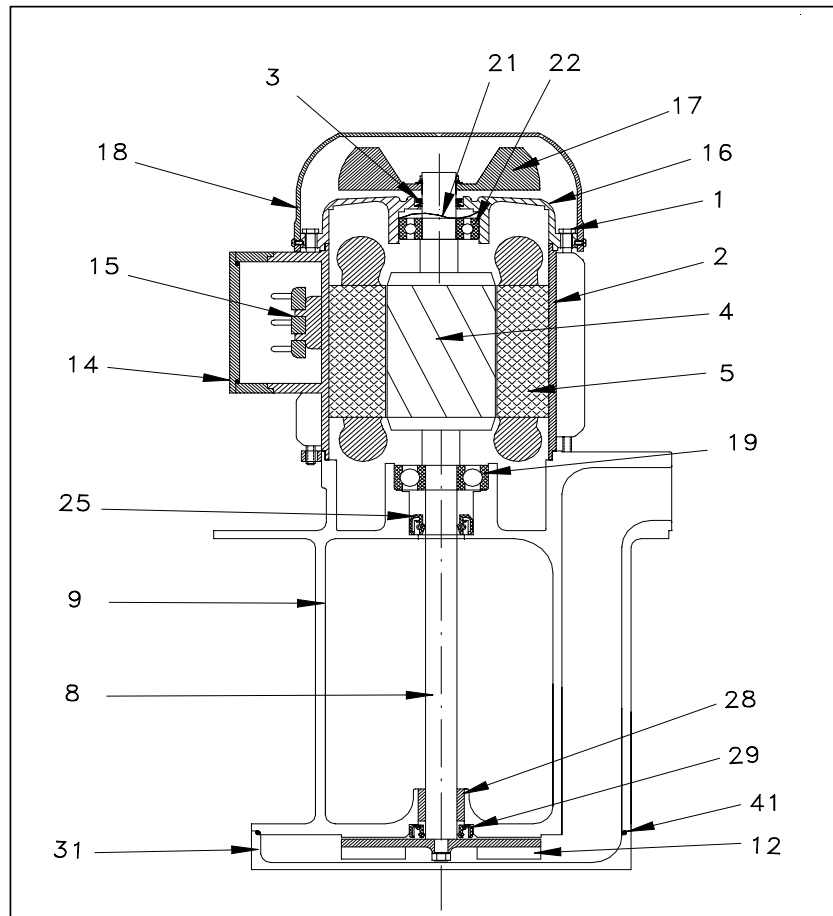
On request: T = execution TRI * = cast iron pump body



Electrical features

Type	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
IMM 80 A	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6
IMM 80 B	1,47	4,8/2,8	3,8/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3





Type IMM 80A

Type IMM 80B

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring ø 20	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Aluminium*
12 Impeller	Brass 58*
14 Terminal box	Nylon
15 Terminal block	mm. 50x32 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6205 ZZ
21 Spring ring	ø 47
22 Bearing	6204 ZZ
25 Sealing ring	NBR 25X40X7
28 Bronze bearing	23X20X20
29 Sealing ring	NBR 20X32X7
31 House impeller	Aluminium*
41 OR ring	NBR 180X2

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring ø 20	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Aluminium*
12 Impeller	Brass 58*
14 Terminal box	Nylon
15 Terminal block	mm. 50x32 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6205 ZZ
21 Spring ring	ø 47
22 Bearing	6204 ZZ
25 Sealing ring	NBR 25X40X7
28 Bronze bearing	23X20X20
29 Sealing ring	NBR 20X32X7
31 House impeller	Aluminium*
41 OR ring	NBR 180X2

On request

*	Cast iron G20 - only length mm. 250-300-350
**	Aisi 420
***	Sheet

Immersion pumps

Type IMM 90 - 100



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 3-4 mm. The hydraulic components, namely the cast iron impeller and scroll and the steel pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 90° C.

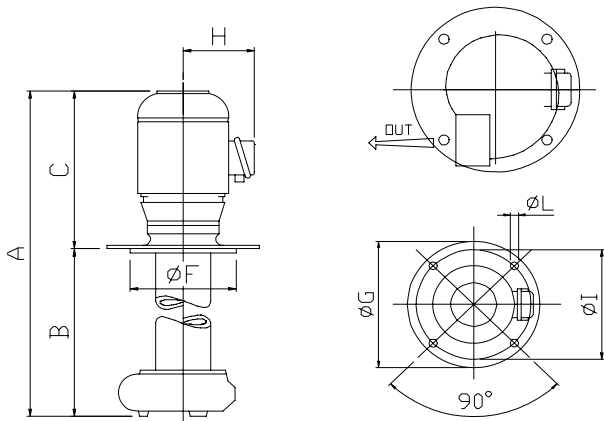
They are usually used with:

- Machine tools
- Glass processing machines
- Surface treatment systems
- Filtration systems
- Painting cabins

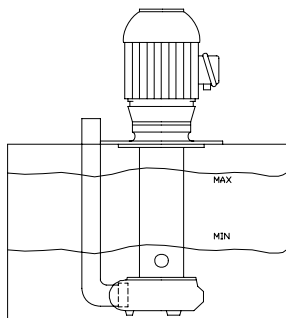
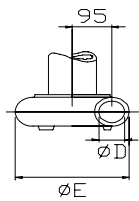
They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 7-8 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 5 - 6 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

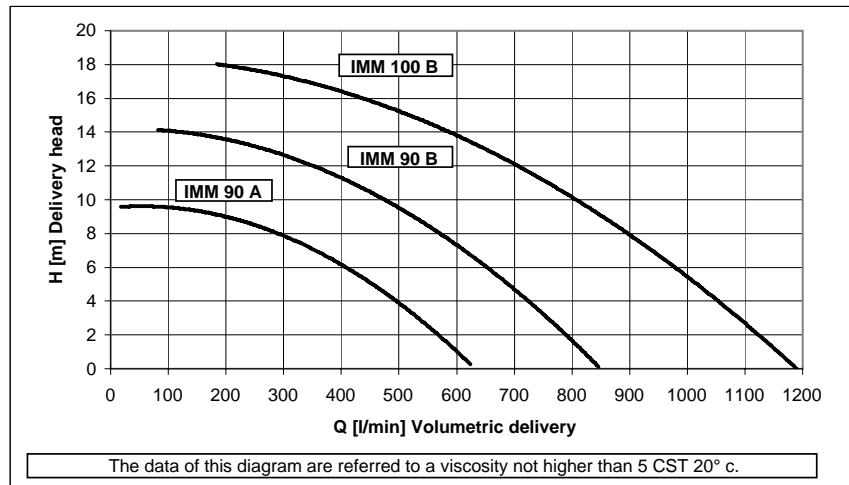
For other usages you are advised to consult our technical office.

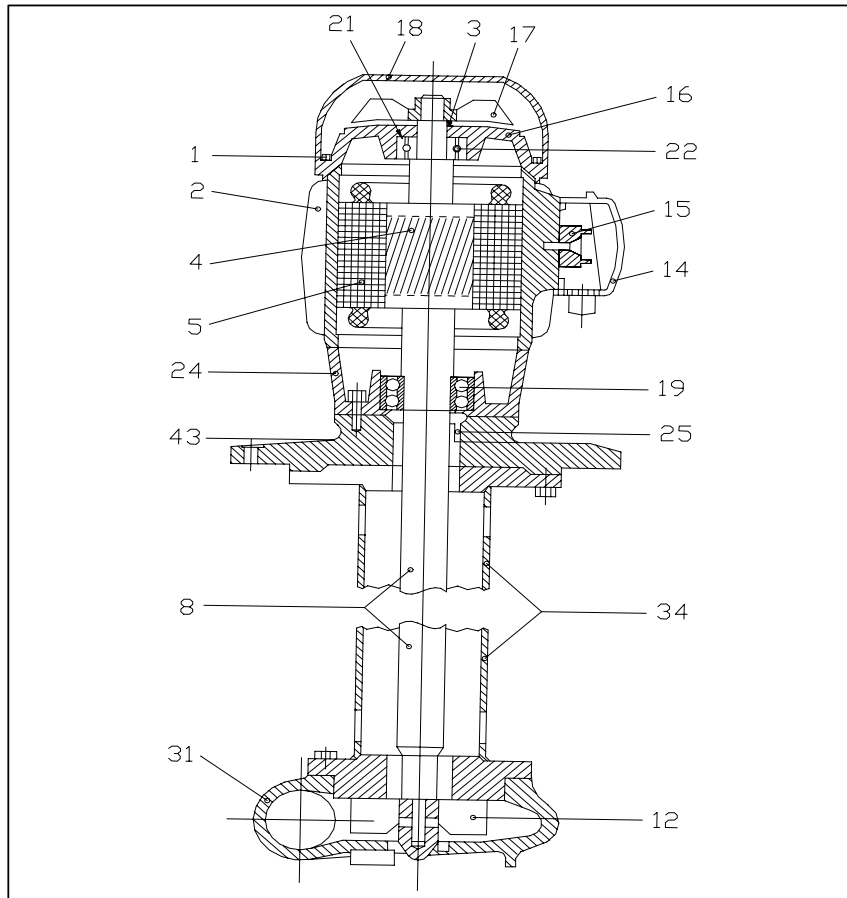


TYPE	A	B	Kg.	C	mm 345
	mm	mm		ØD	2 "
IMM 90 A	695	350	42,00	ØE	mm 235
	795	450	48,10	ØF	mm 240
	945	600	48,80	ØG	mm 300
	1145	800	50,00	H	mm 130
IMM 90 B	695	350	49,00	ØI	mm 270
	795	450	49,60	ØL	mm 13 - N. 4
	945	600	50,00		
	1145	800	51,50		
IMM 100 B	730	350	53,00	C	mm 380
	830	450	53,60	ØD	2- 1/2 "
	980	600	54,30	H	mm 145
	1180	800	55,50	Ø E-F-G-I-L= IMM 90	



Type	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
IMM 90 A	1,85	8,6/5,0	6,5/3,7	10,2/6,0	9,0/5,2	8,6/5	6,8/3,9
IMM 90 B	2,80	10,8/6,2	8,3/4,8	13,0/7,5	11/6,4	10,8/6,2	8,5/4,9
IMM 100 B	4,80	14,9/8,6	11,5/6,6	17,6/10,1	15,2/8,8	14/9/8,6	11,8/6,8





Materials

Components

1	Rod
2	Frame
3	V-Ring
4	Rotore
5	Stator
8	Shaft
12	Impeller
14	Terminal box
15	Terminal clock
16	Non-drive end shield
17	Fan
18	Fan coverù
19	Bearing
21	Spring ring
22	Bearing
24	Drive end shield
25	Sealing ring
31	House impeller
34	Tube
43	Support flange

IMM 90 A

Steel
Aluminium
NBR ø 25
Steel
Cast iron G20
Nylon
mm. 50x32 6P
Aluminium
Nylon
Nylon***
3207 ATN9 2RS
ø 52
6205 ZZ
Cast iron G20
NBR 35X62X10
Cast iron G20
Steel
Cast iron G20

IMM 90 B

Steel
Aluminium
NBR ø 25
Steel
Cast iron G20
Nylon
mm. 50x32 6P
Aluminium
Nylon
Nylon***
3207 ATN9 2RS
ø 52
6205 ZZ
Cast iron G20
NBR 35X62X10
Cast iron G20
Steel
Cast iron G20

IMM 100 B

Steel
Aluminium
NBR ø 30
Steel
Cast iron G20
Nylon
mm. 50x32 6P
Aluminium
Nylon
Nylon***
3207 ATN9 2RS
ø 62
6206 ZZ
Cast iron G20
NBR 35X62X10
Cast iron G20
Steel
Cast iron G20

On request

Sheet

Immersion pumps

Type SPV 12- 18



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller, scroll and pump body in PBT allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 70° C.

They are usually used on:-

- Machine tools** (milling machines – lathes - drills)
- Glass processing machines** (TRI version)
- Printing machines** (axis in AISI 420-304 – PBT on draught 270 mm.)
- Air-conditioning systems**
- Filtration systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3– 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office

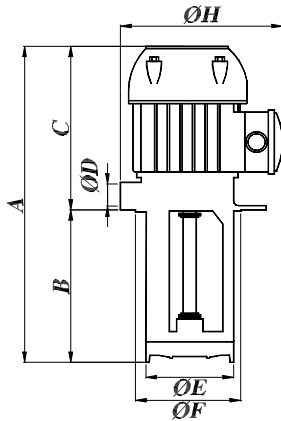


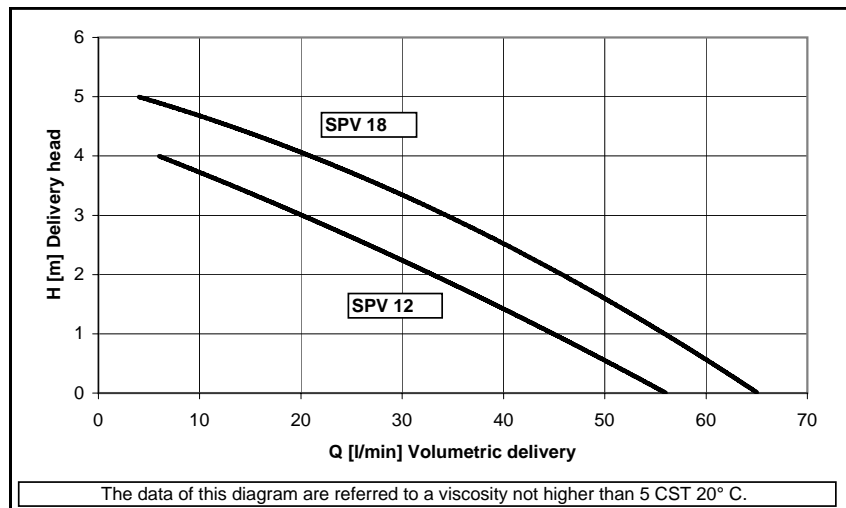
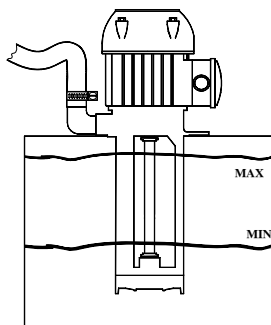
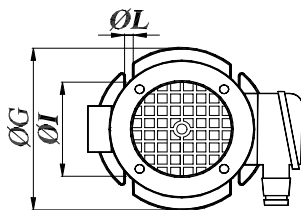
Table of dimensions and weights

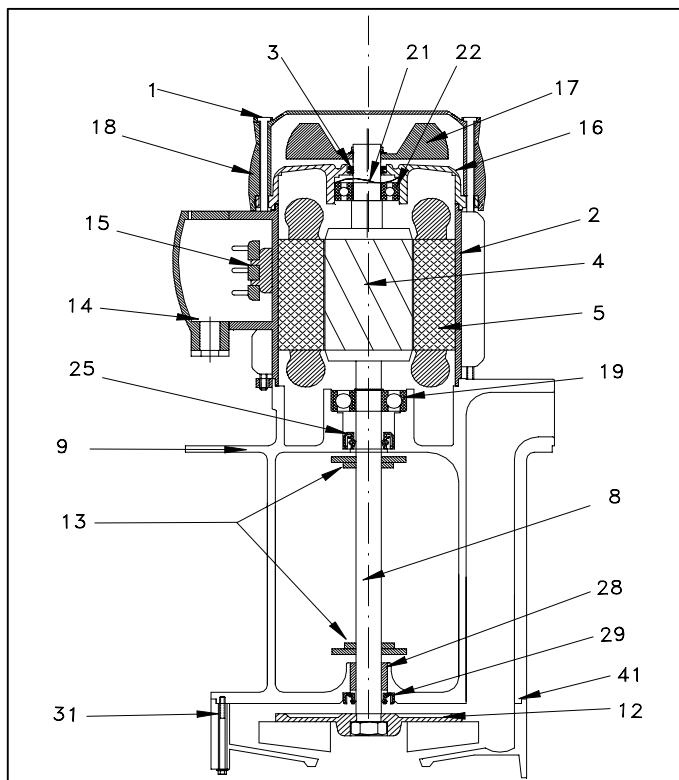
TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØI mm	Kg.
SPV 12	255	90 T	165	3/4"	98	100	130	151	115	7 N. 4	2,80
	285	120 T									2,87
	335	170 T									2,95
	385	220 T									3,05
	435	270 T									3,15
	515	350									3,30
SPV 18	255	90 T	165	3/4"	98	100	130	151	115	7 N. 4	2,85
	285	120 T									2,92
	335	170 T									3,00
	385	220 T									3,10
	435	270 T									3,20
	515	350									3,35

On request: T = execution TRI

Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SPV 12	0,15	0,55/0,32	0,53/0,30	0,84/0,50	0,57/0,33	0,55/0,32	0,55/0,32
SPV 18	0,16	0,9/0,55	0,7/0,4	1,1/0,64	0,98/0,57	0,9/0,55	0,74/0,42





Type	SPV 12	
Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring Ø 12	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	PBT
12	Impeller	PBT
13	Rubber washer	PBT
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon
19	Bearing	6201 ZZ
21	Spring ring	ø 32
22	Bearing	6201 ZZ
25	Sealing ring	NBR 12X22X5
28	Bronze bearing	14X12X10
29	Sealing ring	NBR 12X22X5
31	House impeller	PBT
41	OR 82,27X1,78	NBR

Type	SPV 18	
Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring Ø 12	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	PBT
12	Impeller	PBT
13	Rubber washer	PBT
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon
19	Bearing	6201 ZZ
21	Spring ring	ø 32
22	Bearing	6201 ZZ
25	Sealing ring	NBR 12X22X5
28	Bronze bearing	14X12X10
29	Sealing ring	NBR 12X22X5
31	House impeller	PBT
41	OR 82,27X1,78	NBR

Details 28-29 only on length mm. 220-270-350

On request

**

Aisi 420 - Aisi 316

Immersion pumps

Type SPV 25 - 33



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller, scroll and pump body in PBT allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 70° C.

They are usually used on:

- Machine tools** (milling machines – lathes - drills)
- Glass processing machines** (TRI version)
- Printing machines** (axis in AISI 420-304 – PBT on draught 270 mm.)
- Air-conditioning systems**
- Filtration systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3– 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

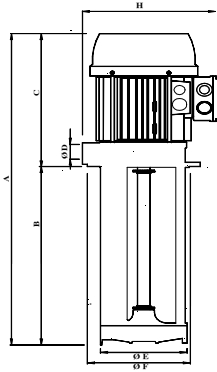


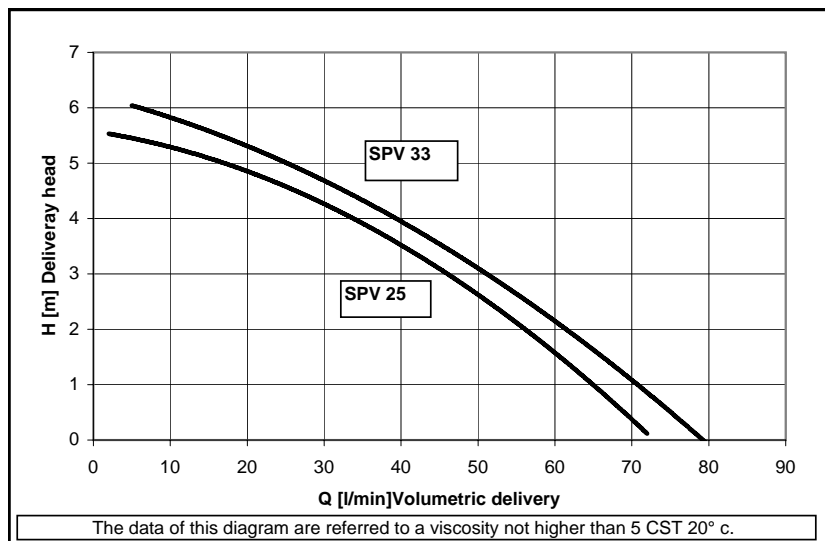
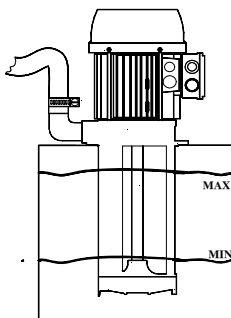
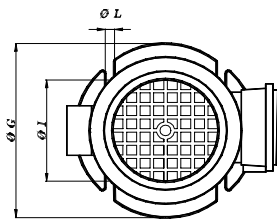
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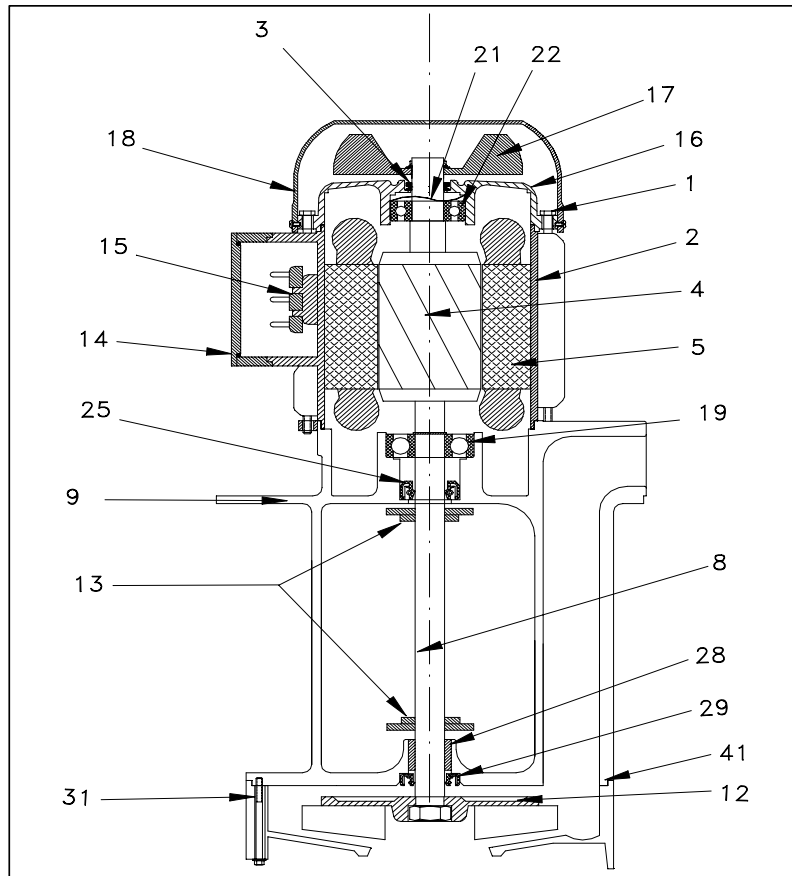
TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØI mm	Kg.
SPV 25	300	90 T	210	3/4"	98	100	130	170	115	7 N. 4	4,34
	330	120 T									4,40
	380	170 T									4,50
	430	220 T									4,60
	480	270 T									4,70
	560	350									4,85
SPV 33	300	90 T	210	3/4"	98	100	130	170	115	7 N. 4	4,84
	330	120 T									4,90
	380	170 T									5,00
	430	220 T									5,10
	480	270 T									5,20
	560	350									5,35

On request: T = execution TRI

Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SPV 25	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45
SPV 33	0,40	1,6/0,9	1,2/0,7	1,9/1,1	1,73/1,0	1,6/0,9	1,2/0,7





Type SPV 25

Type SPV 33

Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring Ø 16	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	Valox PBT
12	Impeller	Valox PBT
13	Rubber washer	Valox PBT
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6003 ZZ
21	Spring ring	ø 35
22	Bearing	6202 ZZ
25	Sealing ring	NBR 17X25X4
28	Bronze bearing	19X17X15
29	Sealing ring	NBR 17X25X4
31	House impeller	Valox PBT
41	OR 82,27X1,78	NBR

Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring Ø 16	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	Valox PBT
12	Impeller	Valox PBT
13	Rubber washer	Valox PBT
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6003 ZZ
21	Spring ring	ø 35
22	Bearing	6202 ZZ
25	Sealing ring	NBR 17X25X4
28	Bronze bearing	19X17X15
29	Sealing ring	NBR 17X25X4
31	House impeller	Valox PBT
41	OR 82,27X1,78	NBR

Details 28-29 only on length mm. 350

Details 28-29 only on length mm. 350

On request

On request

**	Aisi 420
***	Sheet

**	Aisi 420
***	Sheet

Immersion pumps

Type SPV 50 - 75



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller, scroll and pump body in PBT allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST).

The temperature of the liquid must not exceed 70° C.

They are usually used on:-

Machine tools (milling machines – lathes - drills)

Glass processing machines (TRI version)

Printing machines (axis in AISI 420-304 – PBT on draught 270 mm.)

Air-conditioning systems

Filtration systems

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3– 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

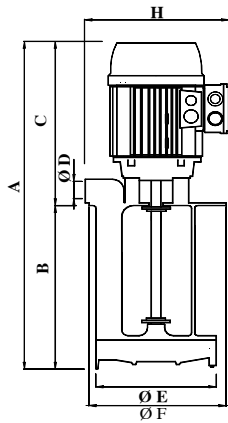


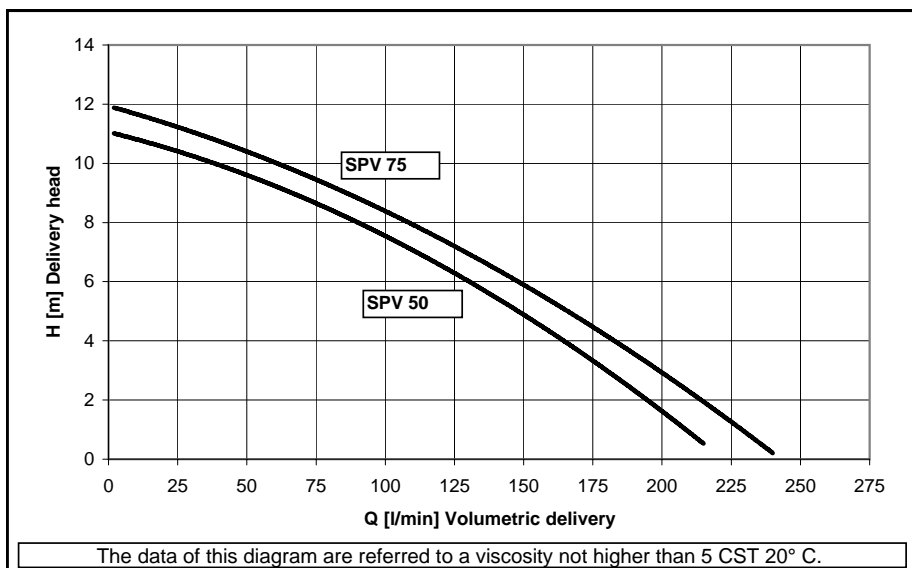
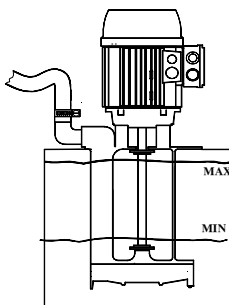
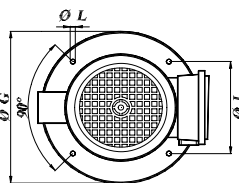
Table of dimensions and weights

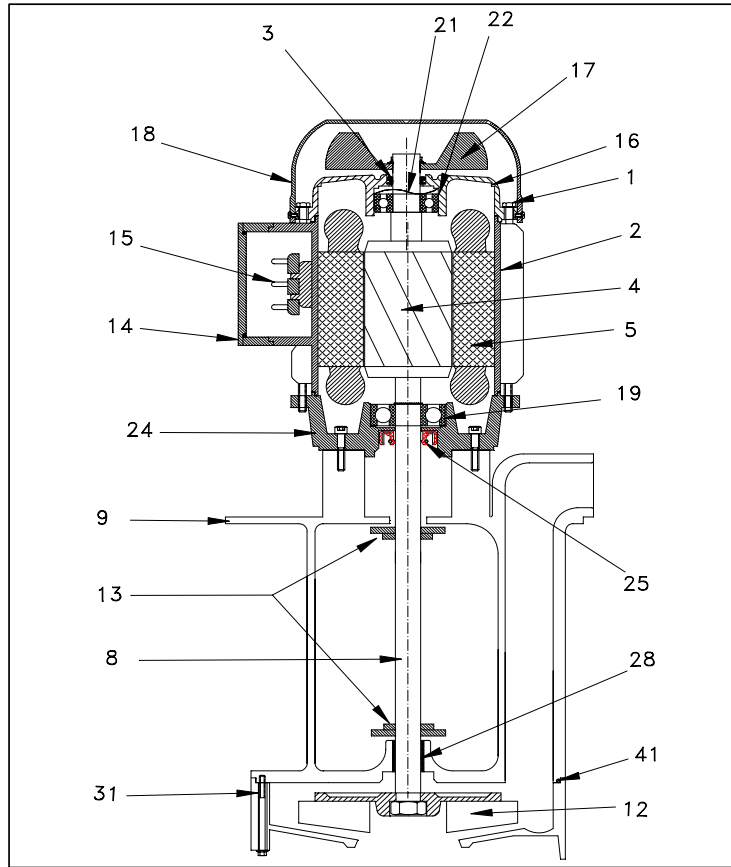
TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØI mm	Kg.
SPV 50	460	200 T	260	1 1/4"	138	140	180	215	160	9	7,75
	530	270 T									8,30
	610	350									8,95
	700	440									9,65
	810	550									10,50
SPV 75	460	200 T	260	1 1/4"	138	140	180	215	160	9	8,70
	530	270 T									9,25
	610	350									9,90
	700	440									10,60
	810	550									11,45

On request: T = execution TRI

Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SPV 50	0,53	2,4/1,4	1,94/1,12	3,0/1,68	2,6/1,5	2,4/1,4	2,0/1,17
SPV 75	0,78	3,3/1,9	2,5/1,4	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6





Type SPV 50

Type SPV 75

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring Ø 16	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel aisi 420**
9 Pump body	PBT
12 Impeller	PBT
13 Rubber washer	PBT
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6304 ZZ
21 Spring ring	ø 40
22 Bearing	6203 ZZ
24 Flange	Aluminium
25 Sealing ring	NBR 25x40x7
28 Bush	20x23x20 Plastic
31 House impeller	PBT
41 OR 101,34 x 1,78	NBR

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring Ø 16	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel aisi 420**
9 Pump body	PBT
12 Impeller	PBT
13 Rubber washer	PBT
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6304 ZZ
21 Spring ring	ø 40
22 Bearing	6203 ZZ
24 Flange	Aluminium
25 Sealing ring	NBR 25x40x7
28 Bush	20x23x20 Plastic
31 House impeller	PBT
41 OR 101,34 x 1,78	NBR

On request

**	On shaft length mm. 200-270-350 PBT covered
***	Sheet

Immersion pumps

Type SPV 100 - 150



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller, scroll and pump body in PBT allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 70° C.

They are usually used on:-

- Machine tools** (milling machines – lathes - drills)
- Glass processing machines** (TRI version)
- Printing machines** (axis in AISI 420-304 – PBT on draught 270 mm.)
- Air-conditioning systems**
- Filtration systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3– 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

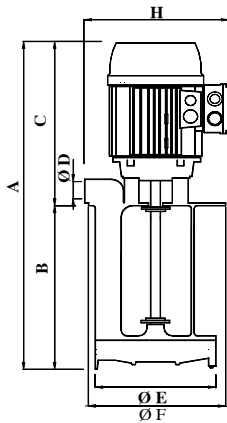


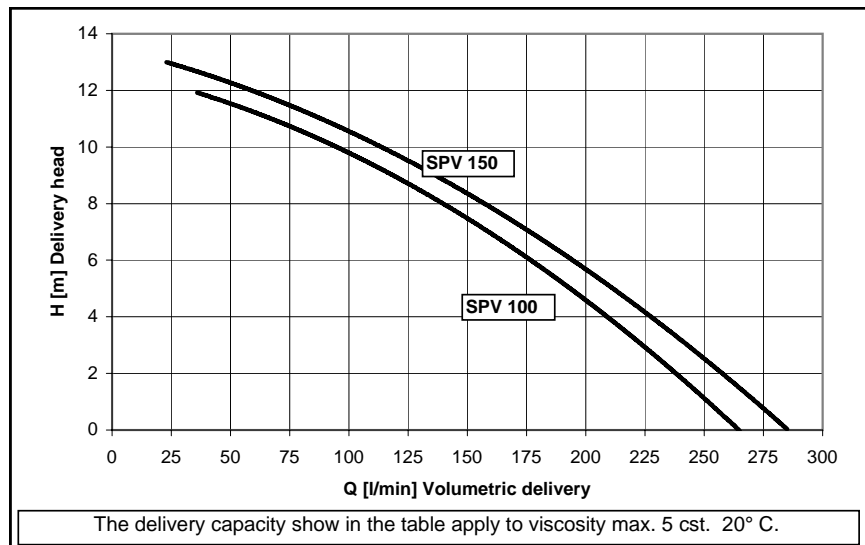
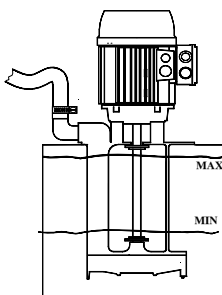
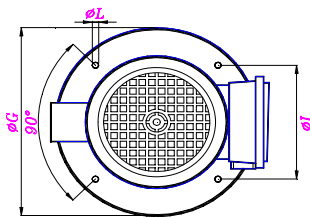
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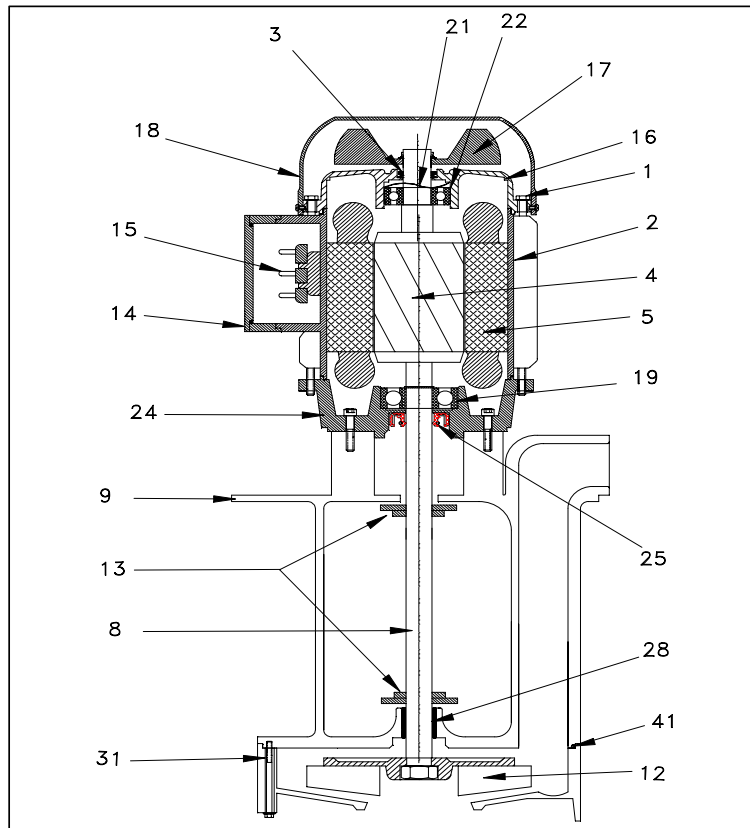
TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØI mm	Kg.
SPV 100	500	200 T	300	1 1/4"	138	140	180	230	160	9 N. 4	10,50
	570	270 T									11,05
	650	350									11,70
	740	440									12,40
	850	550									13,25
SPV 150	500	200 T	300	1 1/4"	138	140	180	230	160	9 N. 4	11,80
	570	270 T									12,35
	650	350									13,00
	740	440									13,70
	850	550									14,55

On request: T = execution TRI

Electrical features

TYPE	KW. Input	Hz. 50			Hz. 60		
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SPV 100	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6
SPV 150	1,47	4,8/2,8	3,8/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3





Type SPV 100

Type SPV 150

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring Ø 20	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel aisi 420**
9 Pump body	PBT
12 Impeller	PBT
13 Rubber washer	PBT
14 Terminal box	Nylon
15 Terminal block	mm. 50x32 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6205 ZZ
21 Spring ring	ø 47
22 Bearing	6204 ZZ
24 Flange	Aluminium
25 Sealing ring	NBR 25x40x7
28 Bush	20x23x20 Plastic
31 House impeller	PBT
41 OR 101,34 x 1,78	NBR

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-Ring Ø 20	NBR
4 Rotor	
5 Stator	
8 Shaft	Steel aisi 420**
9 Pump body	PBT
12 Impeller	PBT
13 Rubber washer	PBT
14 Terminal box	Nylon
15 Terminal block	mm. 50x32 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6205 ZZ
21 Spring ring	ø 47
22 Bearing	6204 ZZ
24 Flange	Aluminium
25 Sealing ring	NBR 25x40x7
28 Bush	20x23x20 Plastic
31 House impeller	PBT
41 OR 101,34 x 1,78	NBR

On request

**	Shaft length mm. 200-270-350 PBT covered
***	Sheet



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller and scroll in PBT and the cast iron pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 70° C.

They are usually used on:

- **Machine tools** (milling machines – lathes - drills)
- **Surface treatment systems**
- **Filtration systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure). In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office

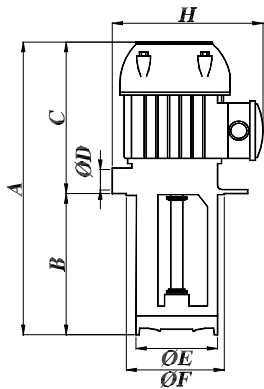


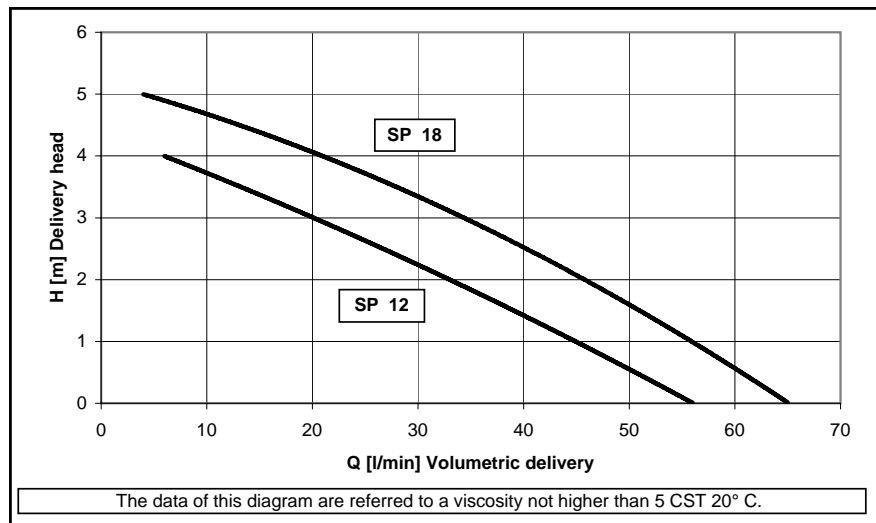
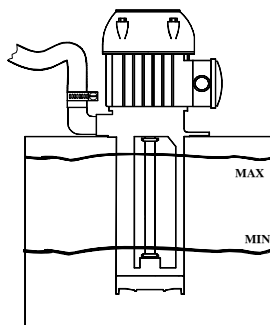
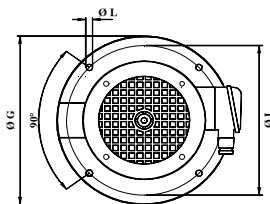
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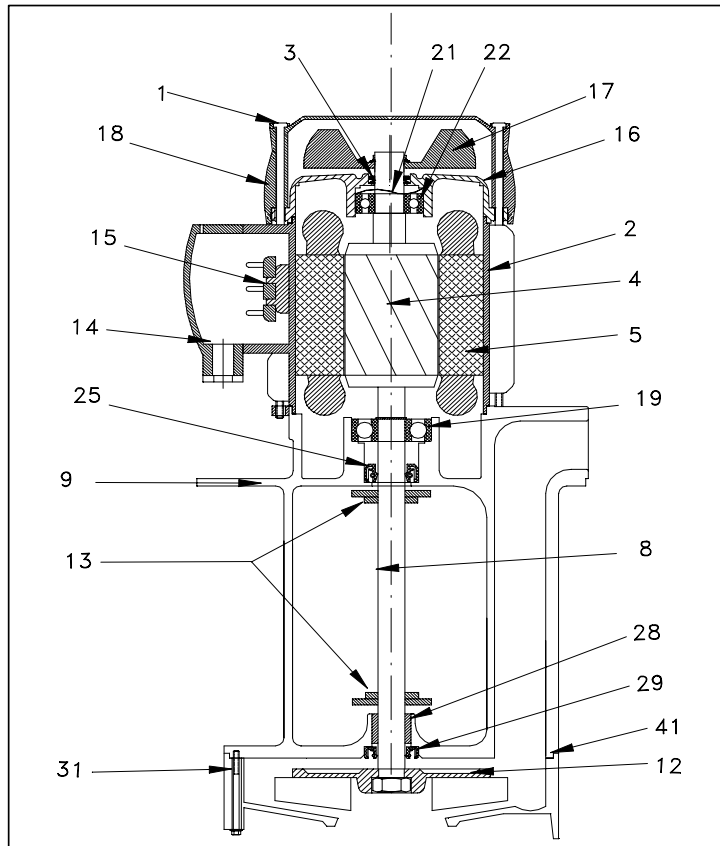
TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
SP 12	255	90 T	165	3/4"	98	100	130	151	115	7 N. 4	5,02
	285	120 T									5,31
	335	170 T									5,51
	385	220 T									5,69
	435	270 T									5,97
	515	350									6,53
SP 18	255	90 T	165	3/4"	98	100	130	151	115	7 N. 4	5,07
	285	120 T									5,36
	335	170 T									5,56
	385	220 T									5,74
	435	270 T									6,02
	515	350									6,58

On request: T = execution TRI

Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SP 12	0,15	0,55/0,32	0,53/0,30	0,84/0,50	0,57/0,33	0,55/0,32	0,55/0,32
SP 18	0,16	0,9/0,55	0,7/0,4	1,1/0,64	0,98/0,57	0,9/0,55	0,74/0,42





Type	SP12	Type	SP18		
Components	Materials	Components	Materials		
1	Rod	Steel C 40	1	Rod	Steel C 40
2	Frame	Aluminium	2	Frame	Aluminium
3	V-Ring Ø 12	NBR	3	V-Ring Ø 12	NBR
4	Rotor		4	Rotor	
5	Stator		5	Stator	
8	Shaft	Steel C 40**	8	Shaft	Steel C 40**
9	Pump body	Cast iron G 20	9	Pump body	Cast iron G 20
12	Impeller	PBT*	12	Impeller	PBT*
13	Rubber washer	PBT	13	Rubber washer	PBT
14	Terminal box	Nylon	14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P	15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium	16	Non-drive end shield	Aluminium
17	Fan	Nylon	17	Fan	Nylon
18	Fan cover	Nylon***	18	Fan cover	Nylon***
19	Drive end shield	6003 ZZ	19	Drive end shield	6003 ZZ
21	Spring ring	ø 32	21	Spring ring	ø 32
22	Bearing	6201 ZZ	22	Bearing	6201 ZZ
25	Sealing ring	NBR 17X25X4	25	Sealing ring	NBR 17X25X4
28	Bronze bearing	19x17x15	28	Bronze bearing	19x17x15
29	Sealing ring	NBR 17X25X4	29	Sealing ring	NBR 17X25X4
31	House impeller	PBT	31	House impeller	PBT
41	OR 82,27X1,78	NBR	41	OR 82,27X1,78	NBR

Details 28 - 29 only on length mm. 350

	On request
*	Cast iron G 20
**	Aisi 420
***	Sheet

Immersion pumps

Type SP 25 - 33



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller and scroll in PBT and the cast iron pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 70° C.

They are usually used on:

- Machine tools (milling machines – lathes - drills)
- Surface treatment systems
- Filtration systems

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office

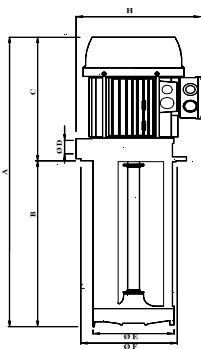
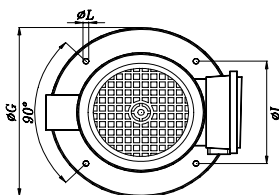


Table of dimensions and weights

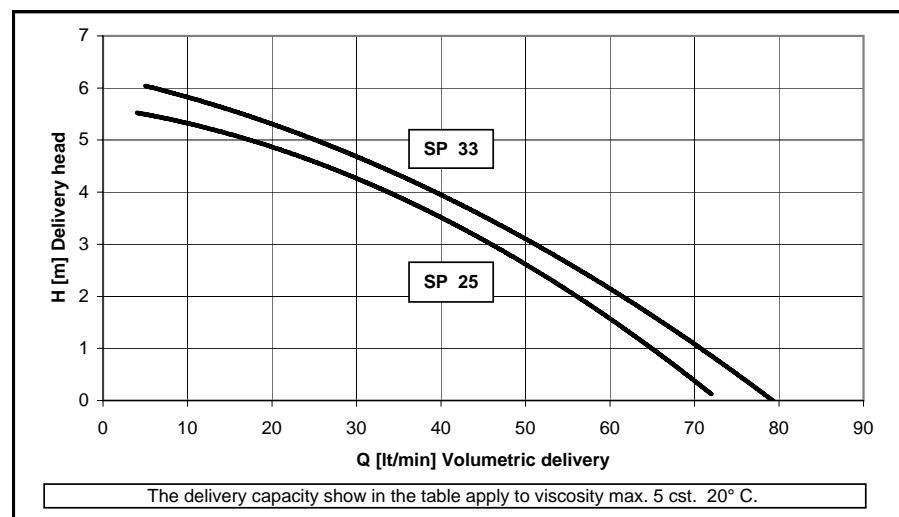
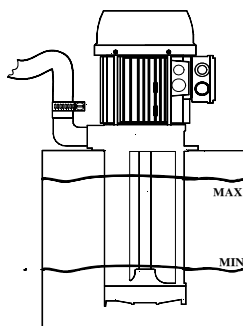
TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
SP 25	305	90 T	215	3/4"	98	100	130	170	115	7 N. 4	6,54
	335	120 T									6,84
	385	170 T									7,06
	435	220 T									7,24
	485	270 T									7,52
	565	350									8,08
SP 33	305	90 T	215	3/4"	98	100	130	170	115	7 N. 4	7,06
	335	120 T									7,34
	385	170 T									7,56
	435	220 T									7,74
	485	270 T									8,02
	565	350									8,58

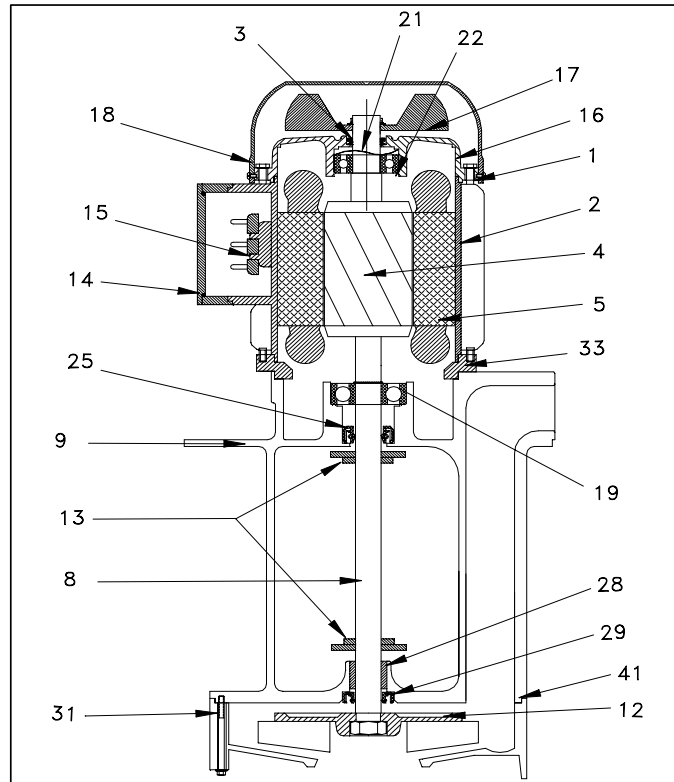
On request: T = execution TRI



Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SP 25	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45
SP 33	0,40	1,6/0,9	1,2/0,7	1,9/1,1	1,73/1,0	1,6/0,9	1,2/0,7





Type	SP 25	
Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring ø 16	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	Cast iron G 20
12	Impeller	PBT*
13	Rubber washer	PBT
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6003 ZZ
21	Spring ring	ø 35
22	Bearing	6202 ZZ
25	Sealing ring	NBR 17X25X4
28	Bronze bearing	19X17X15
29	Sealing ring	NBR 17X25X4
31	House impeller	PBT*
33	Flange	Aluminium
41	OR ring	NBR 82,27X1,78

Details 28 - 29 only non body pump length mm. 350

On request

*	Cast iron G 20
**	Aisi 420
***	Sheet

Type	SP 33	
Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring ø 16	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	Cast iron G 20
12	Impeller	PBT*
13	Rubber washer	PBT
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6003 ZZ
21	Spring ring	ø 35
22	Bearing	6202 ZZ
25	Sealing ring	NBR 17X25X4
28	Bronze bearing	19X17X15
29	Sealing ring	NBR 17X25X4
31	House impeller	PBT*
33	Flange	Aluminium
41	OR ring	NBR 82,27X1,78

Details 28 - 29 only non body pump length mm. 350

On request

*	Cast iron G 20
**	Aisi 420
***	Sheet

Immersion pumps

Type SP 50 - 75



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller and scroll in PBT and the cast iron pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 70° C.

They are usually used on:

- **Machine tools** (milling machines – lathes - drills)
- **Surface treatment systems**
- **Filtration systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

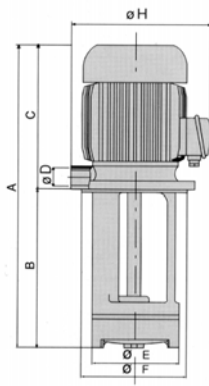
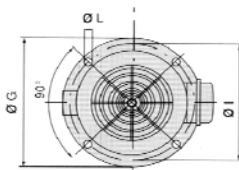


Table of dimensions and weights

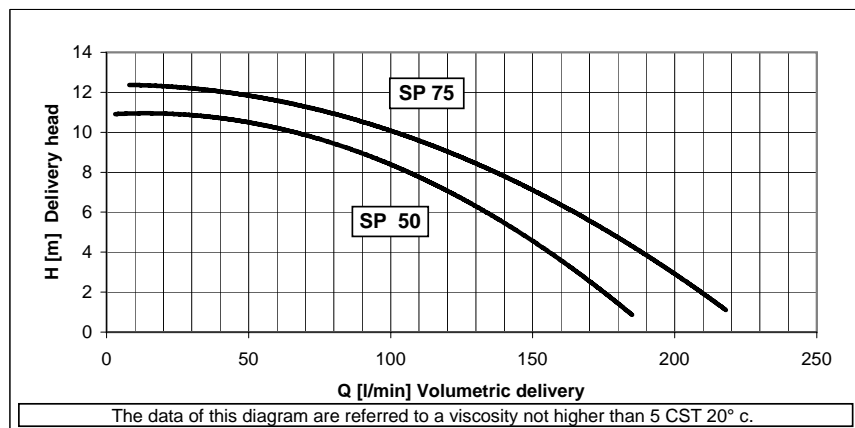
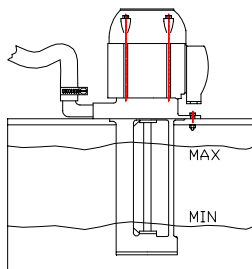
TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
SP 50	450	200 T	250	1 1/4"	138	140	180	215	160	9	13,55
	520	270 T									14,25
	600	350									15,05
	690	440									15,95
	800	550									17,05
SP 75	450	200 T	250	1 1/4"	138	140	180	215	160	9	14,50
	520	270 T									15,20
	600	350									16,00
	690	440									16,90
	800	550									18,00

T on request = execution TRI

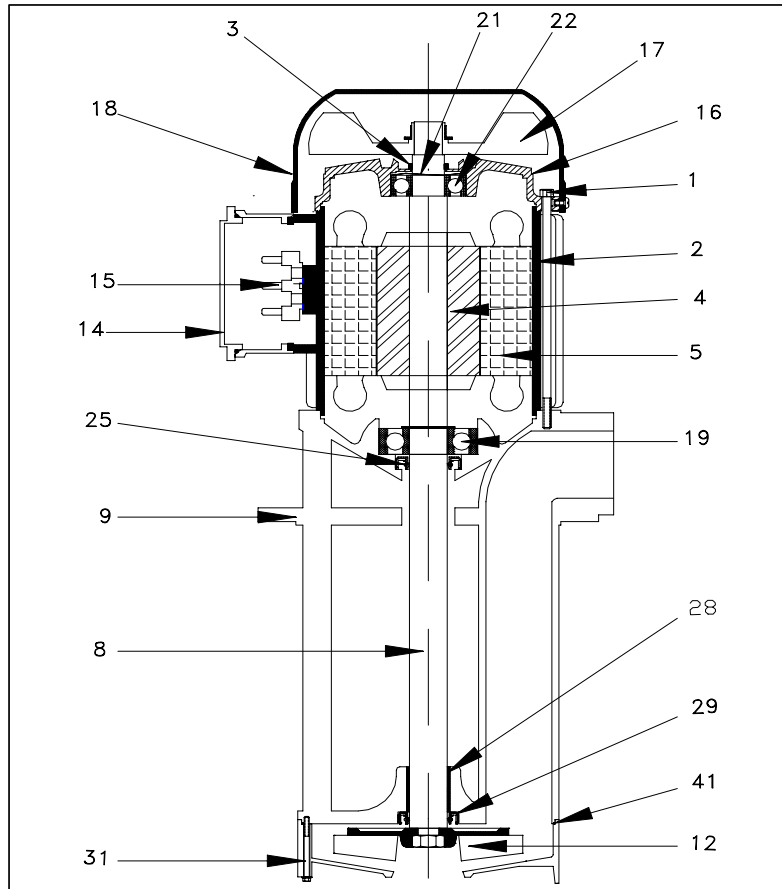


Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SP 50	0,53	2,40/1,40	1,94/1,12	3,00/1,68	2,60/1,50	2,40/1,40	2,00/1,17
SP 75	0,78	3,30/1,90	2,50/1,40	4,00/2,30	3,60/2,10	3,30/1,90	2,80/1,60



The data of this diagram are referred to a viscosity not higher than 5 CST 20° c.



Type	SP 50	
Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring ø 16	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40*
9	Pump body	Cast iron G 20
12	Impeller	PBT *
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6304 ZZ
21	Spring ring	ø 40
22	Bearing	6203 ZZ
25	Sealing ring	NBR 20X35X7
28	Bronze bearing	23x20x20
29	Sealing ring	NBR 20x32x7
31	House impeller	PBT*
41	OR ring	NBR 101,34 X1,78

Type	SP 75	
Components	Materials	
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring ø 16	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40*
9	Pump body	Cast iron G 20
12	Impeller	PBT *
14	Terminal box	Nylon
15	Terminal block	mm. 40x25 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6304 ZZ
21	Spring ring	ø 40
22	Bearing	6203 ZZ
25	Sealing ring	NBR 20X35X7
28	Bronze bearing	23x20x20
29	Sealing ring	NBR 20x32x7
31	House impeller	PBT*
41	OR ring	NBR 101,34 X1,78

On request

*	Cast iron G 20
**	Aisi 420
***	Sheet

On request

*	Cast iron G 20
**	Aisi 420
***	Sheet

Immersion pumps

Type SP 100- 150



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller and scroll in PBT and the cast iron pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 70° C.

They are usually used on:

- **Machine tools** (milling machines – lathes - drills)
- **Surface treatment systems**
- **Filtration systems**

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3 – 4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

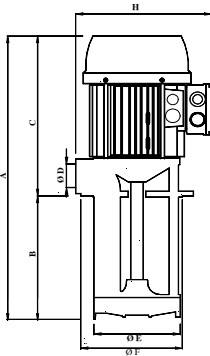


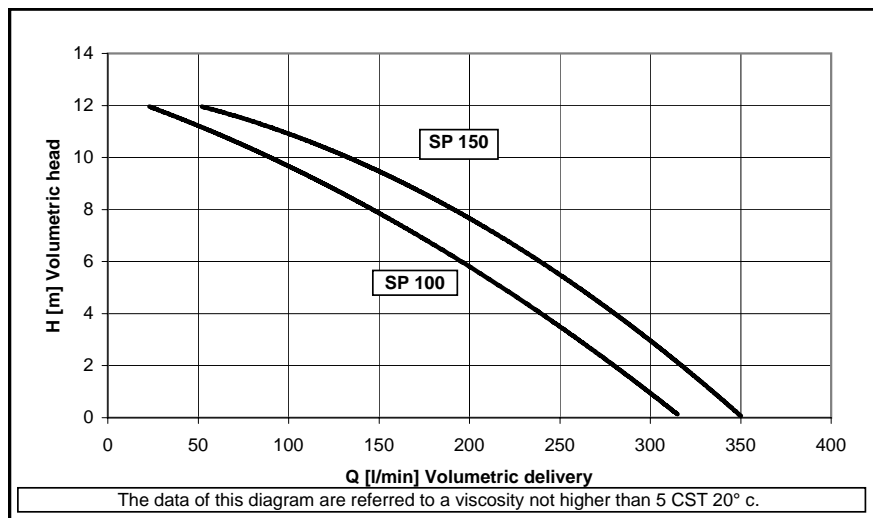
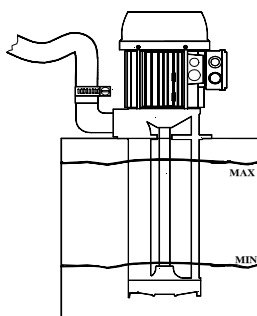
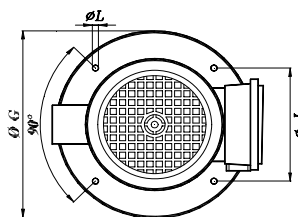
Table of dimensions and weights

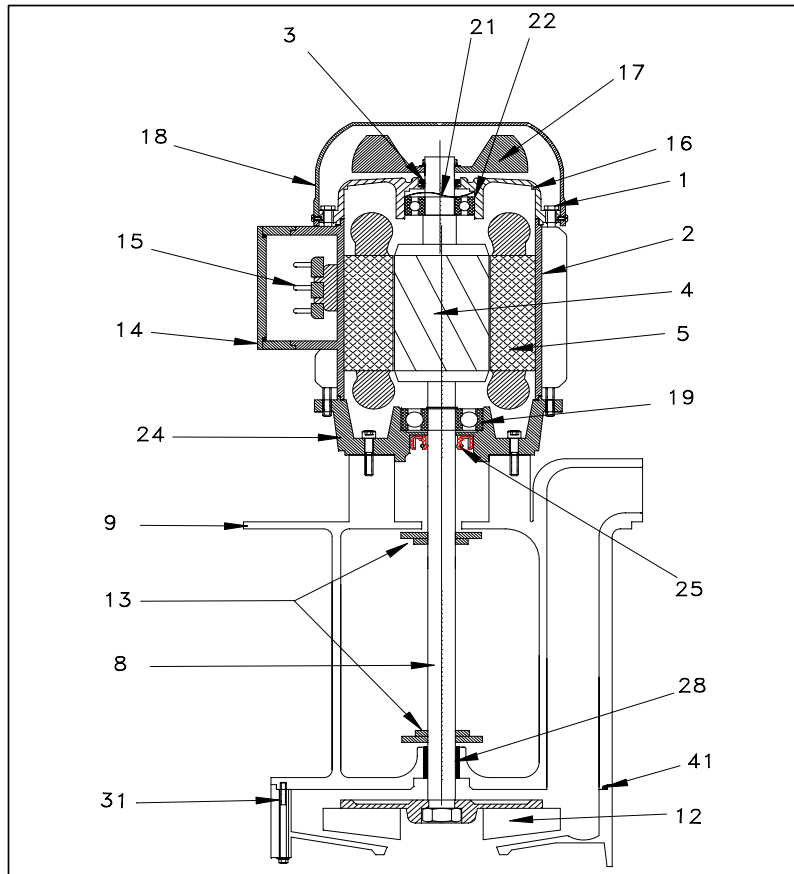
TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
SP 100	500	200 T	300	1 1/4"	138	140	180	230	160	9	16,30
	570	270 T									17,10
	650	350									18,06
	740	440									19,10
	850	550									20,35
SP 150	500	200 T	300	1 1/4"	138	140	180	230	160	9	17,60
	570	270 T									18,40
	650	350									19,30
	740	440									20,07
	850	550									21,90

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Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SP 100	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6
SP 150	1,47	4,8/2,8	3,7/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3





Type	SP 100	Materials
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring \varnothing 20	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	Cast iron G 20
12	Impeller	PBT *
14	Terminal box	Nylon
15	Terminal block	mm. 50x32 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6205 ZZ
21	Spring ring	\varnothing 47
22	Bearing	6204 ZZ
25	Sealing ring	NBR 25X35X7
28	Bronze bearing	23x20x20
29	Sealing ring	NBR 20x32x7
31	House impeller	PBT*
41	OR ring	NBR 101,34 X1,78

On request

*	Cast iron G 20
**	Aisi 420
***	Sheet

Type	SP 150	Materials
1	Rod	Steel
2	Frame	Aluminium
3	V-Ring \varnothing 20	NBR
4	Rotor	
5	Stator	
8	Shaft	Steel C 40**
9	Pump body	Cast iron G 20
12	Impeller	PBT *
14	Terminal box	Nylon
15	Terminal block	mm. 50x32 6P
16	Non-drive end shield	Aluminium
17	Fan	Nylon
18	Fan cover	Nylon***
19	Bearing	6205 ZZ
21	Spring ring	\varnothing 47
22	Bearing	6204 ZZ
25	Sealing ring	NBR 25X35X7
28	Bronze bearing	23x20x20
29	Sealing ring	NBR 20x32x7
31	House impeller	PBT*
41	OR ring	NBR 101,34 X1,78

On request

*	Cast iron G 20
**	Aisi 420
***	Sheet

Centrifugal pumps - side mounted

Type **SQ**



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller in nylon and the scroll in cast iron allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST) and a maximum temperature of 70° c.

They are usually used on:

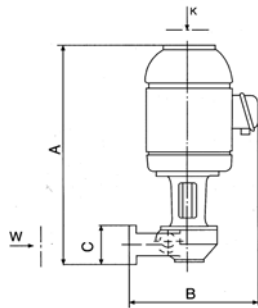
Machine tools (milling machines – lathes)

Surface treatment systems (de-oilers)

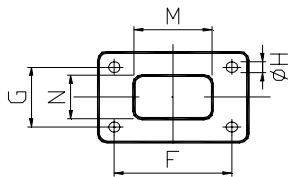
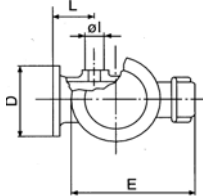
They should be installed on the side of the tank to allow the liquid to enter straight into the suction mouth (see Figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office



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	M	N
SQ 56 - 63	50	30
SQ 71 - 80	80	40

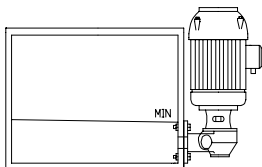
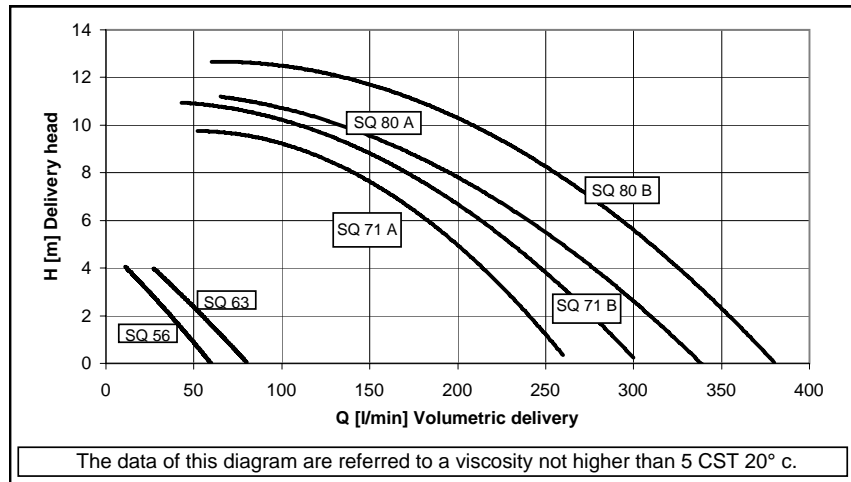


Table of dimensions and weights

TYPE	A mm	B mm	C mm	D mm	E mm	F mm	G mm	ØH mm	ØI mm	L mm	Kg.
SQ 56/S	265	170	60	95	140	75	45	7	3/8" 1/2"	51	3,87
SQ 63/S	300	180	60	95	158	75	45	7	3/8" 1/2"	51	4,95
SQ 71A	330	245	80	145	175	115	60	9	1"	62	14,50
SQ 71B	330	245	80	145	175	115	60	9	1"	62	15,20
SQ 80A	335	250	80	145	210	115	60	9	1 1/4"	62	16,30
SQ 80B	335	250	80	145	210	115	60	9	1 1/4"	62	17,30

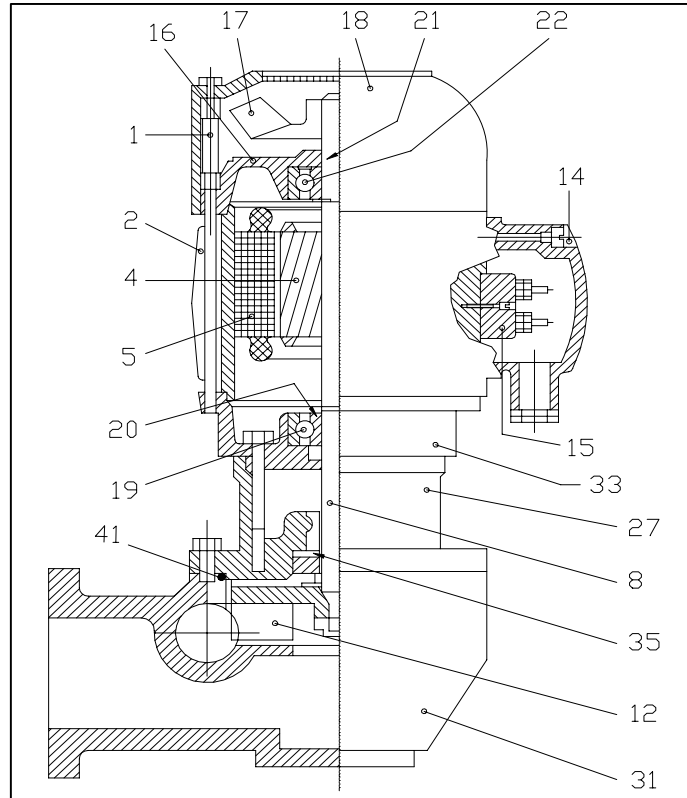
Electrical features

TYPE	Kw Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
SQ 56/S	0,16	0,90/0,55	0,70/0,40	1,10/0,64	0,98/0,57	0,90/0,55	0,74/0,42
SQ 63/S	0,30	1,00/0,58	0,76/0,44	1,20/0,70	1,10/0,60	1,00/0,58	0,80/0,45
SQ 71A	0,53	2,40/1,40	1,94/1,12	3,00/1,68	2,60/1,50	2,40/1,40	2,00/1,17
SQ 71B	0,78	3,30/1,90	2,60/1,50	4,00/2,30	3,60/2,10	3,30/1,90	2,80/1,60
SQ 80A	1,15	3,30/1,90	2,60/1,50	4,00/2,30	3,60/2,10	3,30/1,90	2,80/1,60
SQ 80B	1,47	4,80/2,80	3,70/2,20	5,80/3,40	5,20/3,00	4,80/2,80	4,00/2,30



Centrifugal pumps - side mounted

Type **SQ**



Type	SQ 56	SQ 63	SQ 71A-B	SQ 80A-B
Components	Materials	Materials	Materials	Materials
1 Rod	Steel	Steel	Steel	Steel
2 Frame	Aluminium	Aluminium	Aluminium	Aluminium
3 V-Ring	NBR \varnothing 12	NBR \varnothing 14	NBR \varnothing 16	NBR \varnothing 20
4 Rotor				
5 Stator				
8 Shaft	Steel C 40**	Steel C 40**	Steel C 40**	Steel C 40**
12 Impeller	Nylon*	Nylon*	Brass 58*	Brass 58*
14 Terminal box	Nylon	Nylon	Nylon	Nylon
15 Terminal block	mm. 40x25 6P	mm. 40x25 6P	mm. 40x25 6P	mm. 50X32 6P
16 Non-drive end shield	Aluminium	Aluminium	Aluminium	Aluminium
17 Fan	Nylon	Nylon	Nylon	Nylon
18 Fan cover	Nylon***	Nylon***	Nylon***	Nylon***
19 Bearing	6201 ZZ	6003 ZZ	6204 ZZ	6304 ZZ
21 Spring ring	\varnothing 32	\varnothing 35	\varnothing 40	\varnothing 47
22 Bearing	6201 ZZ	6202 ZZ	6203 ZZ	6204 ZZ
24 Flange	Aluminium	Aluminium	Aluminium	Aluminium
27 Cone	PBT	PBT	No	No
27 Coupling	No	No	Cast iron G20	Cast iron G20
31 House impeller	Cast iron G20	Cast iron G20	Cast iron G20	Cast iron G20
35 Mechanical seal	\varnothing 12	\varnothing 12	\varnothing 19	\varnothing 19
41 OR ring	NBR 56,87X1,78	NBR 56,87X1,78	No	No

On request

**	Aisi 420
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Self-priming pumps

Type AU 56 - 63

Usages:

These pumps are suitable for transferring liquids containing impurities measuring up to 30 micron.

The hydraulic components, namely the brass scroll, the bottom in cast iron and the aluminium pump body, allow the pumps to be used with emulsions, oily substances and liquids in general as long as they are not oxidative for construction materials. Viscosity must not exceed 3° Engler (21 CST).

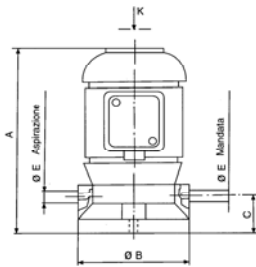
They must be installed at the top of the tank and must be primed before use.

If the pump sucks in air due to lack of liquid, priming must be repeated.

To ensure a long life for the pump, never let it turn when it is dry since the mechanical seal is not self-lubricated.

Where possible, the installation of a suction filter is recommended.

For other usages you are advised to consult our technical office.

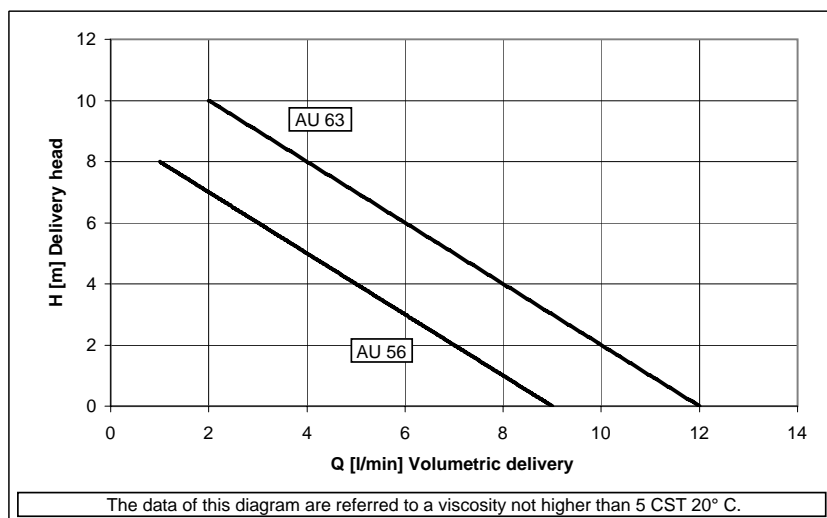
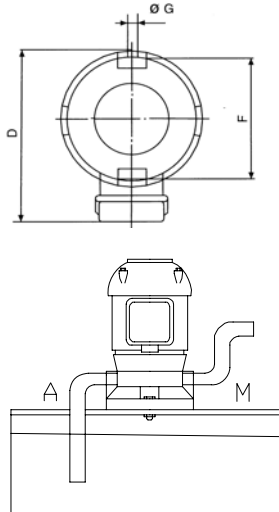


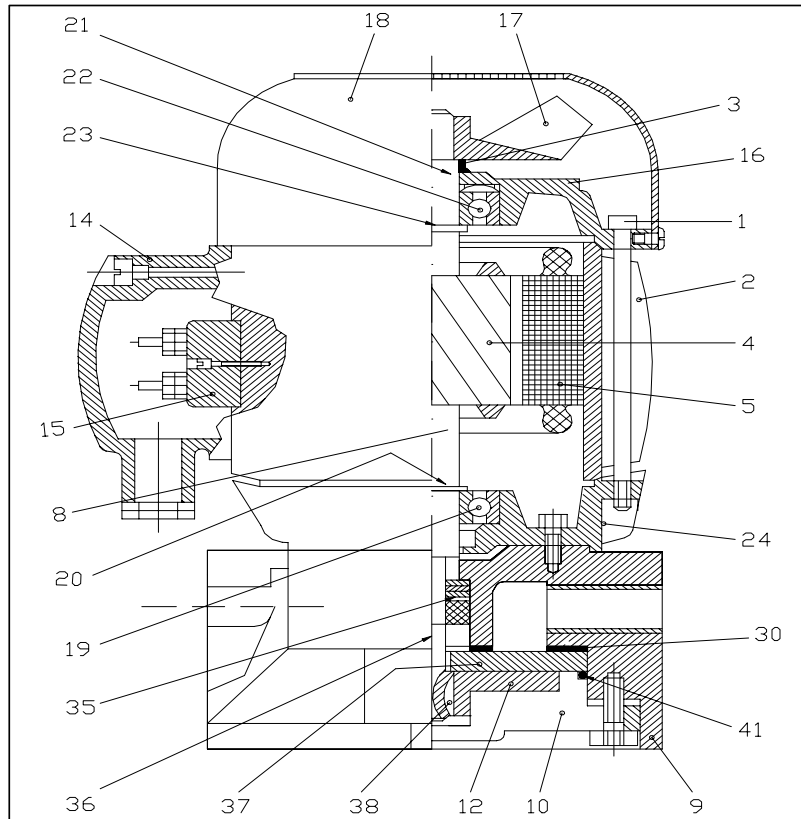
Dimensions and weights

TYPE	A mm	ØB mm	C mm	D mm	ØE mm	ØF mm	ØG mm	Kg.
AU 56	215	115	48	144	3/8" 1/2"	95	7	4,33
AU 63	270	115	48	165	1/2"	95	7	5,05

Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
AU 56	0,16	0,9/0,55	0,7/0,4	1,1/0,64	0,98/0,57	0,9/0,55	0,74/0,42
AU 63	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45





Type AU 56

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V ring	NBR ø 12
4 Rotor	
5 Stator	
8 Shaft	Steel C 40
9 Pump body	Aluminium
10 House impeller	Cast iron G 20
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon
19 Bearing	6201 ZZ
20 Retaining ring	Seeger ø 12
21 Spring ring	ø 32
22 Bearing	6201 ZZ
23 Retaining ring	Seeger ø 12
24 Drive end shield	Aluminium
30 Gasket	Guarnital
35 Mecanical seal	ø 8
36 Retaining ring	Seeger ø 8
37 Diffuser	Cast iron G 20
38 Spline	3x5x13
41 Or ring	Viton 2,62x71,12

Type AU 63

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V ring	NBR ø 16
4 Rotor	
5 Stator	
8 Shaft	Steel C 40
9 Pump body	Aluminium
10 House impeller	Cast iron G 20
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon
19 Bearing	6202 ZZ
20 Retaining ring	Seeger ø 17
21 Spring ring	ø 35
22 Bearing	6003 ZZ
23 Retaining ring	=
24 Drive end shield	Aluminium
30 Gasket	Guarnital
35 Mecanical seal	ø 8
36 Retaining ring	Seeger ø 8
37 Diffuser	Cast iron G 20
38 Spline	3x5x13
41 Or ring	Viton 2,62x71,12

Centrifugal transfer pumps

Type TR



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the impeller in brass and the scroll in cast iron allow the pumps to be used with water, emulsions, oily substances and liquids in general with a maximum viscosity of 3° Engler (21 CST) and a maximum temperature of 90° C.

They are usually used in cases where there is no space at the top of the tank.

They should be installed on the side of the tank to allow the liquid to enter straight into the suction mouth (see Figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

To ensure a long life for the pump, never let it turn when it is dry since the mechanical seal is not self-lubricated.

For other usages you are advised to consult our technical office.

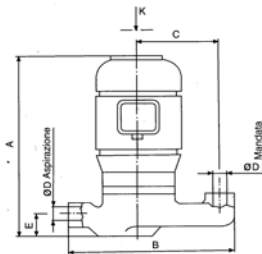
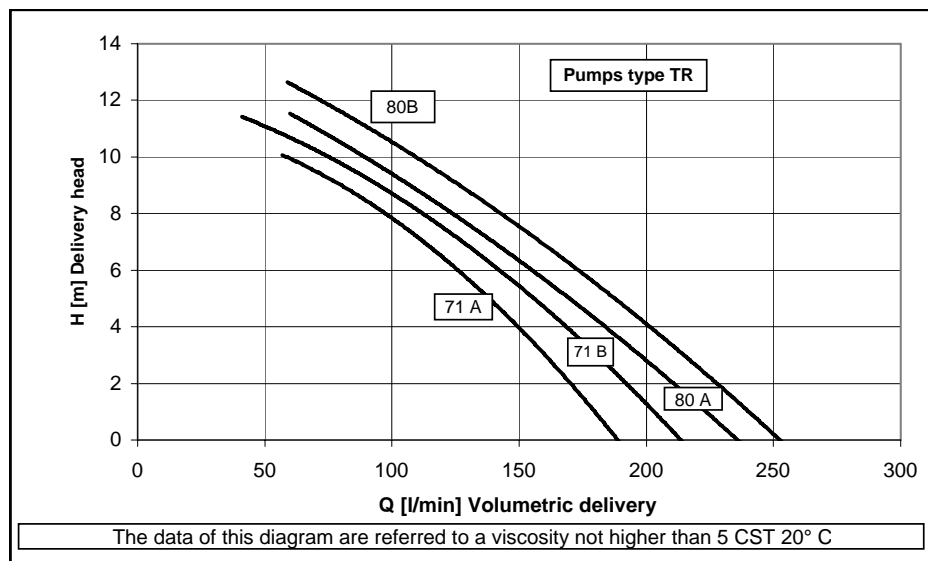
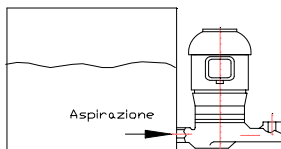
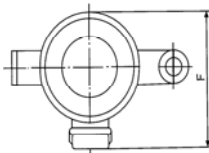


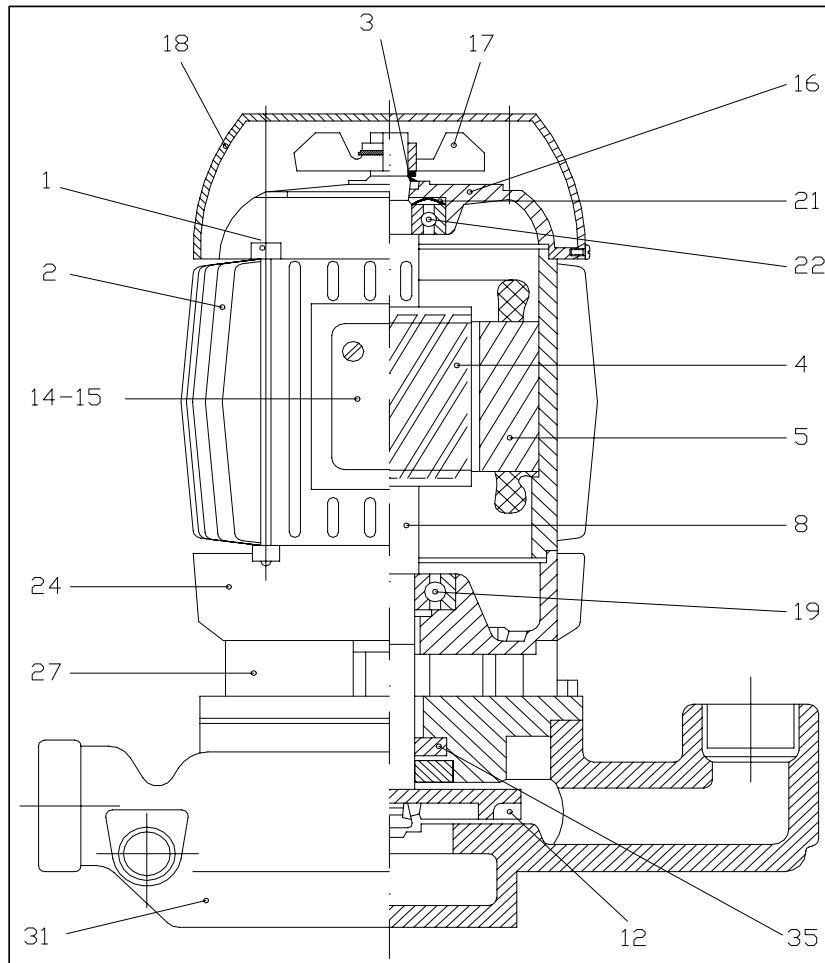
Table of dimensions and weights

TYPE	A mm	B mm	C mm	Ø D Gas	E mm	F mm	Kg.
TR 71 A	320	290	130	1"	40	220	12,10
TR 71 B	320	290	130	1"	40	220	13,00
TR 80 A	370	290	130	1"	40	220	13,90
TR 80 B	370	290	130	1"	40	220	14,70

Electrical features

TYPE	Kw Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
TR 71 A	0,53	2,40/1,40	1,94/1,12	3,00/1,68	2,6/1,50	2,40/1,40	2,00/1,17
TR 71 B	0,78	3,30/1,90	2,60/1,50	4,00/2,30	3,60/2,10	3,30/1,90	2,80/1,60
TR 80 A	1,15	3,30/1,90	2,60/1,50	4,00/2,30	3,60/2,10	3,30/1,90	2,80/1,60
TR 80 B	1,47	4,80/2,80	3,70/2,20	5,80/3,40	5,20/3,00	4,80/2,80	4,00/2,30





Type	TR 71 A	TR 71 B	TR 80 A	TR 80 B
Components	Materials	Materials	Materials	Materials
1 Rod	Steel	Steel	Steel	Steel
2 Frame	Aluminium	Aluminium	Aluminium	Aluminium
3 V-Ring	NBR ø 16	NBR ø 16	NBR ø 20	NBR ø 20
4 Rotor				
5 Stator				
8 Shaft	Steel C 40	Steel C 40	Steel C 40	Steel C 40
12 Impeller	Brass	Brass	Brass	Brass
14 Terminal box	Nylon	Nylon	Nylon	Nylon
15 Terminal block	mm. 40x25 6P	mm. 40x25 6P	mm. 50X32 6P	mm. 50X32 6P
16 Non-drive end shield	Aluminium	Aluminium	Aluminium	Aluminium
17 Fan	Nylon	Nylon	Nylon	Nylon
18 Fan cover	Nylon***	Nylon***	Nylon***	Nylon***
19 Bearing	6204 ZZ	6204 ZZ	6304 ZZ	6304 ZZ
21 Spring ring	ø 40	ø 40	ø 47	ø 47
22 Bearing	6203 ZZ	6203 ZZ	6204 ZZ	6204 ZZ
24 Flange	Aluminium	Aluminium	Aluminium	Aluminium
27 Bridle dap joint	Cast iron G20	Cast iron G20	Cast iron G20	Cas iron G20
31 House impeller	Cast iron G20	Cast iron G20	Cast iron G20	Cast iron G20
35 Mechanical seal	ø 19 Viton	ø 19 Viton	ø 19 Viton	ø 19 Viton

On request

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Usages:

These pumps are suitable for transferring liquids containing impurities measuring up to 2 mm. The hydraulic components, namely the cast-iron impeller and scroll and the steel pump body, allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST).

The temperature of the liquid must not exceed 90° C.

They are usually used on:

- **Machine tools** (milling machines-lathes-work centres)
- **Glass processing machines**
- **Surface treatment systems**
- **Filtration systems**

They should usually be installed at about 6 – 7 cm. from the base of a tank, with a capacity in proportion to the flow rate. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

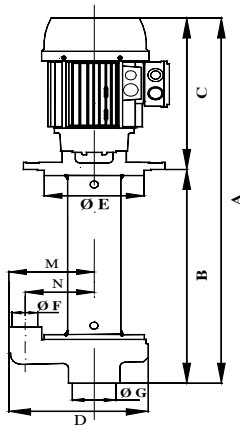
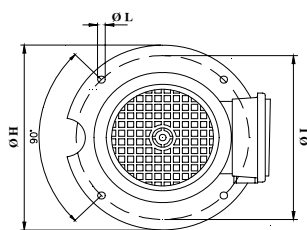


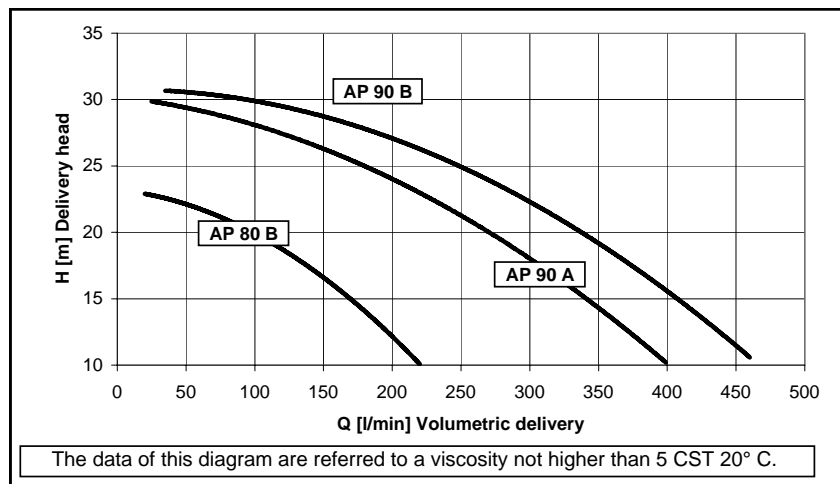
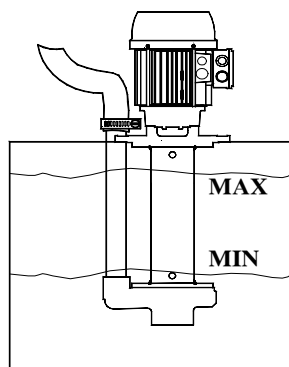
Table of dimensions and weights

TYPE	A mm	B mm	C mm	D mm	ØE mm	ØF mm	ØG mm	ØH mm	ØI mm	ØL mm	M mm	N mm	Kg.
AP 80B	620	320	300	280	240	1"½	2" ½	300	270	13 N. 4	170	136	37
	750	450											43
	910	610											46
	1160	860											48
AP 90A	675	320	355	280	240	1"½	2" ½	300	270	13 N. 4	170	136	41
	805	450											47
	965	610											49
	1215	860											51
AP 90B	675	320	355	280	240	1"½	2" ½	300	270	13 N. 4	170	136	43
	805	450											49
	965	610											51
	1215	860											53



Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
AP 80 B	2,19	5,5/3,2	4,2/2,4	6,6/3,8	5,7/3,3	5,5/3,2	4,3/2,5
AP 90 A	2,70	9,3/5,4	7,0/4,0	11,1/6,4	9,7/5,6	9,3/5,4	7,4/4,3
AP 90 B	3,60	10,8/6,2	8,3/4,8	13,0/7,5	10,9/6,3	10,8/6,2	8,5/4,9



Immersion pumps

Type AP 100A - 112A-B



Usages:

These pumps are suitable for transferring liquids containing impurities measuring up to 2 mm. The hydraulic components, namely the cast-iron impeller and scroll and the steel pump body, allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST). The temperature of the liquid must not exceed 90° C.

They are usually used on:

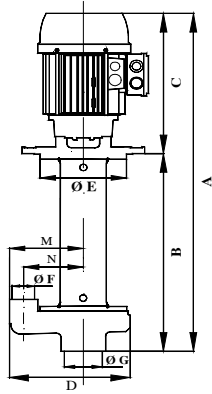
- **Machine tools** (milling machines-lathes-work centres)
- **Glass processing machines**
- **Surface treatment systems**
- **Filtration systems**

They should usually be installed at about 6 – 7 cm. from the base of a tank, with a capacity in proportion to the flow rate. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

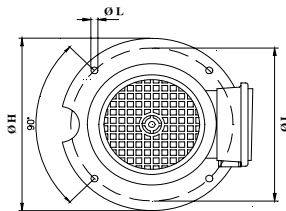
In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

Table of dimensions and weights

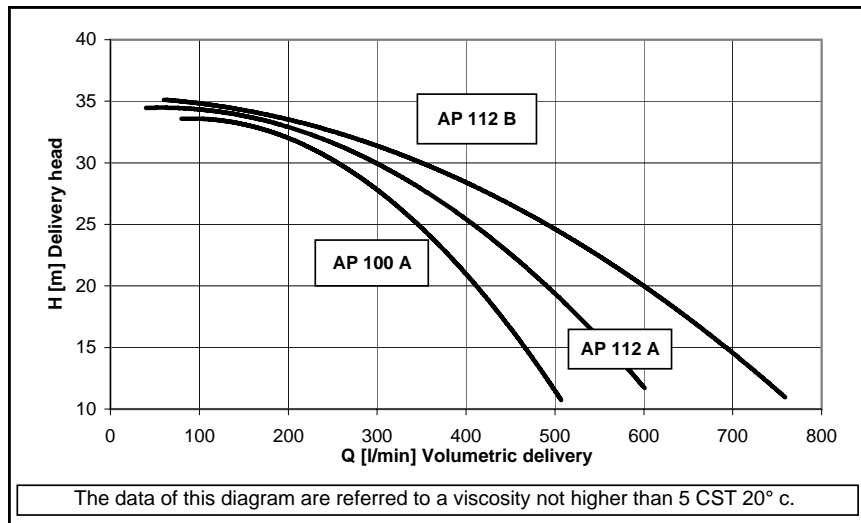
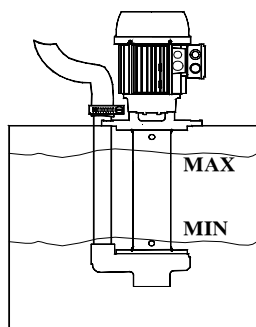


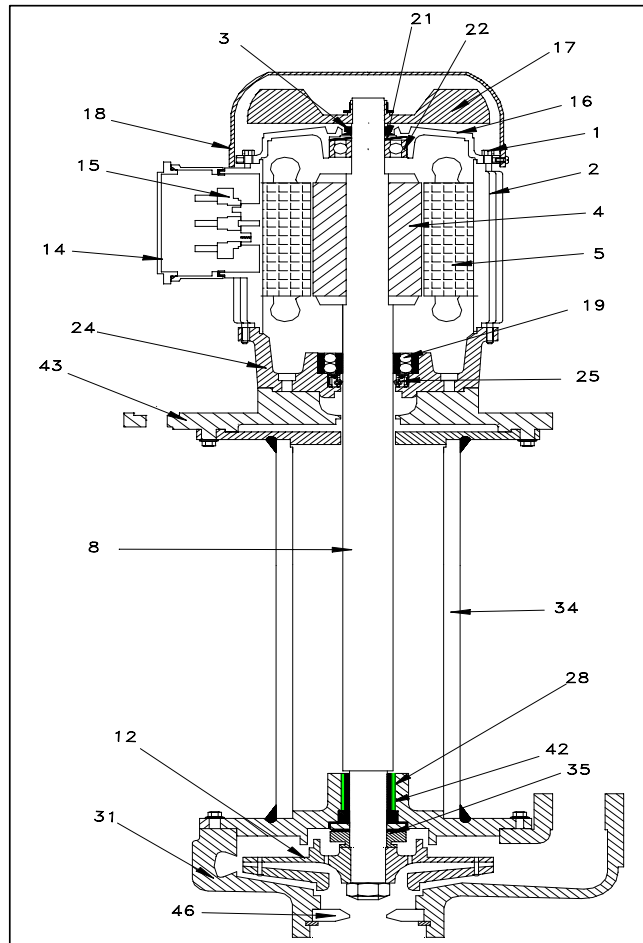
TYPE	A mm	B mm	C mm	D mm	ØE mm	ØF mm	ØG mm	ØH mm	ØI mm	ØL mm	M mm	N mm	Kg.
AP 100A	700	320	380	280	240	1-1/2"	2-1/2"	300	270	13 N. 4	170	136	48
	830	450											54
	990	610											56
	1240	860											58
AP 112A	730	320	410	280	240	1-1/2"	2-1/2"	300	270	13 N. 4	170	136	59
	860	450											65
	1020	610											67
	1270	860											69
AP 112B	730	320	410	320	240	2"	2-1/2"	300	270	13 N. 4	190	145	61
	860	450											67
	1020	610											69
	1270	860											71



Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
AP 100 A	4,80	14,5/8,4	11,0/6,3	17,3/10	14,8/8,6	14,5/8,4	11,4/6,0
AP 112 A	5,50	19,2/11	14,5/8,4	23,8/13,8	19,4/11,2	19,2/11	15,2/8,7
AP 112 B	6,00	21,0/12,2	16,0/9,2	25,2/14,5	21,4/12,4	21,0/12,2	16,6/9,6





Type	AP 80 B	AP 90 A-B	AP 100 A	AP 112 A-B
Components	materials	materials	materials	materials
1 Rod	Steel	Steel	Steel	Steel
2 Frame	Aluminium	Aluminium	Aluminium	Aluminium
3 V-ring	NBR ø 20	NBR ø 25	NBR ø 30	NBR ø 30
4 Rotor				
5 Stator				
8 Shaft	Steel	Steel	Steel	Steel
12 Impeller	Cast iron G20	Cast iron G20	Cast iron G20	Cast iron G20
14 Terminal box	Nylon	Nylon	Nylon	Nylon
15 Terminal block	mm. 50x32 6P	mm. 50x32 6P	mm. 50x32 6P	mm. 56x36 6P
16 Non-drive end shield	Aluminium	Aluminium	Aluminium	Aluminium
17 Fan	Nylon	Nylon	Nylon	Nylon
18 Fan cover	Nylon	Nylon	Nylon	Nylon
19 Bearing	62206 2RS (*)	62207 2RS	62207 2RS	62207 2RS
21 Spring ring	ø 47	ø 52	ø 62	ø 62
22 Bearing	6204 ZZ	6205 ZZ	62206 2RS	62206 2RS
24 Drive end shield	Cast iron G20	Cast iron G20	Cast iron G20	Cast iron G20
28 Bronze bearing (*)	28x30x30	28x30x30	28x30x30	28x30x30
31 House impeller	Cast iron G20	Cast iron G20	Cast iron G20	Cast iron G20
34 Tube on length 450-610-800	Steel	Steel	Steel	Steel
34 Cone on length 320mm	Cast iron G20	Cast iron G20	Cast iron G20	Cast iron G20
35 Mechanical seal	ø 22 - ø 45	ø 22 - ø 45	ø 22 - ø 45	ø 22 - ø 45
42 Ring IR (*)	22x28x30	22x28x30	22x28x30	22x28x30
43 Support flange	Cast iron G20	Cast iron G20	Cast iron G20	Cast iron G20
46 Suction reduction	Nylon	Nylon only AP 90A	No	No

19 (*) On body pump length mm. 450-610-860 = 63007 2RS

28-42 (*) Only son body pump length mm. 860

Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the brass impeller and the aluminium scroll and pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST).

The temperature of the liquid must not exceed 90° C.

They are usually used on:

Machine tools (milling machines – lathes - drills)

Glass processing machines

Filtration systems.

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 4 – 5 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

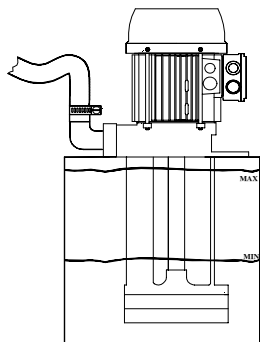
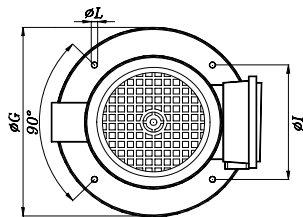
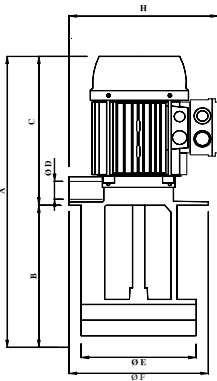
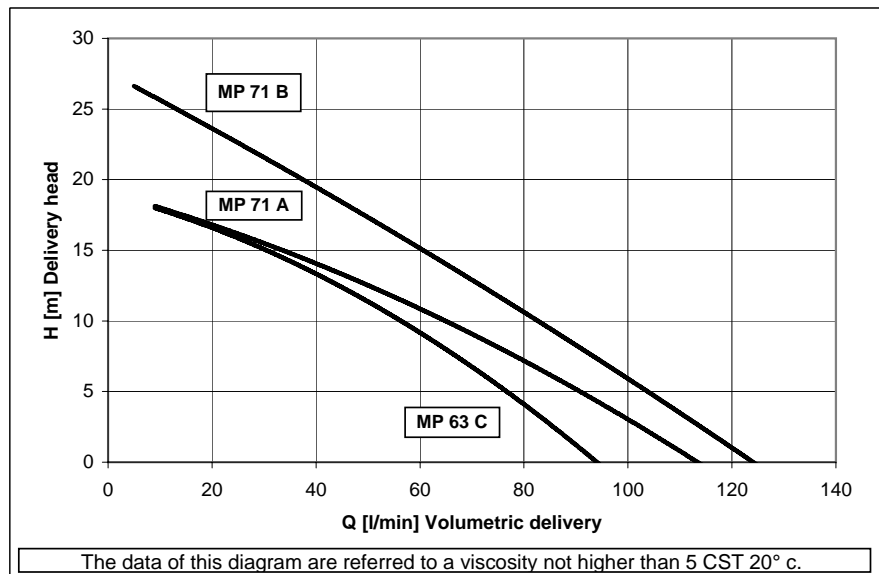


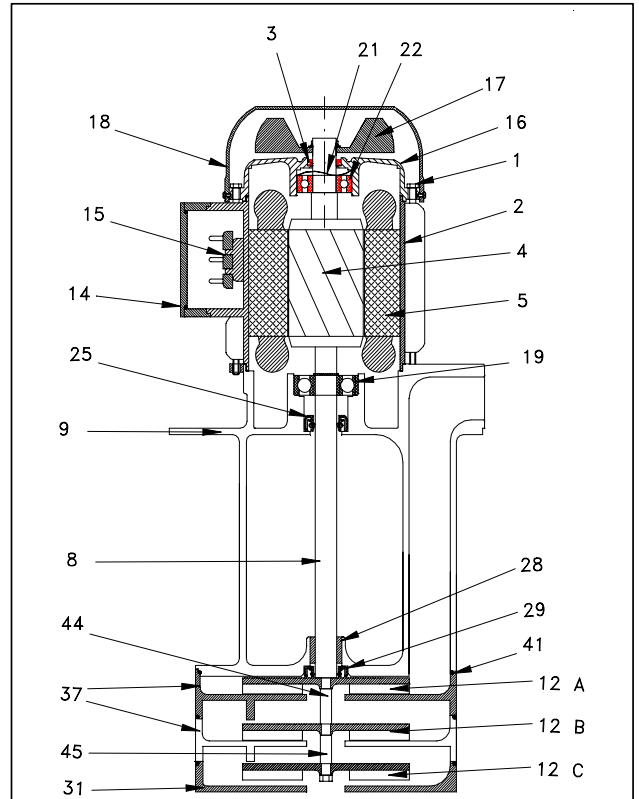
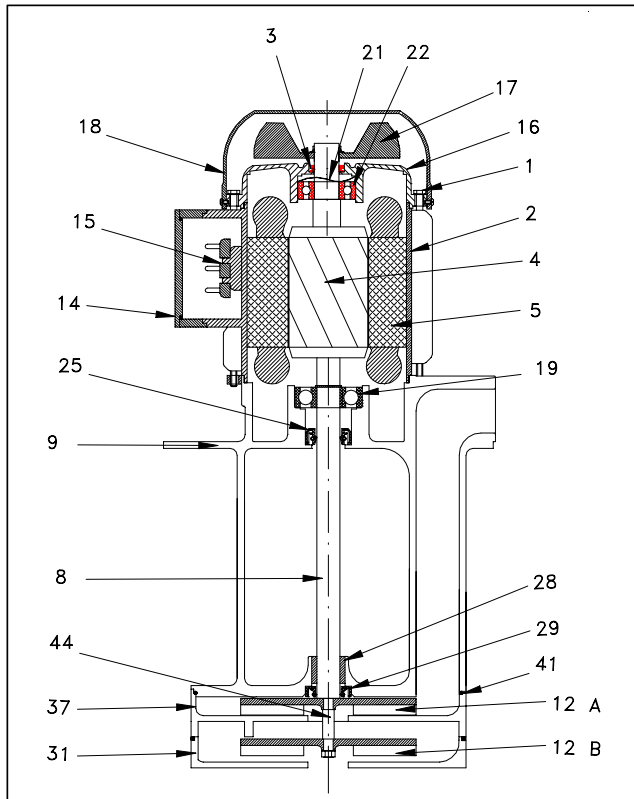
Table of dimensions and weights

TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
MP 63C	385	180	205	3/4"	128	130	180	190	150	9 N. 4	6,84
	435	230									6,92
	485	280									7,00
	535	330									7,08
MP 71A	410	180	230	3/4"	128	130	180	200	150	9 N. 4	8,83
	460	230									8,99
	510	280									9,15
	560	330									9,31
MP 71B	440	210	230	3/4"	128	130	180	200	150	9 N. 4	10,40
	490	260									10,56
	540	310									10,72
	590	360									10,89

Electrical features

TYPE	KW. Input	Hz. 50			Hz. 60		
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
MP 63C	0,54	1,9/1,1	1,52/0,88	2,3/1,32	2,2/1,3	1,9/1,1	1,6/0,92
MP 71A	0,70	2,4/1,4	1,94/1,12	2,9/1,68	2,7/1,6	2,4/1,4	2,0/1,17
MP 71B	0,95	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6





Type MP 63 C

Type MP 71 A

Type MP 71 B

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-ring	NBR ø 14
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Aluminium
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6203 ZZ
21 Spring ring	ø 35
22 Bearing	6202 ZZ
25 Sealing ring	NBR 17x30x7
28 Bronze bearing	19X17X15
29 Sealing ring	NBR 17x25x4
31 House impeller	Aluminium
37 Diffuser	Aluminium
41 OR ring	NBR 101,34X1,78
44 Spacer	Steel 17x12x17

Materials
Steel
Aluminium
NBR ø 16
Steel C 40**
Aluminium
Brass 58
Nylon
mm. 40x25 6P
Aluminium
Nylon
Nylon***
6004 ZZ
ø 40
6203 ZZ
NBR 20x32x5
19X17X15
NBR 17x25x4
Aluminium
Aluminium
NBR 101,34X1,78
Steel 17x12x17

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V-ring	NBR ø 16
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Aluminium
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6004 ZZ
21 Spring ring	ø 40
22 Bearing	6203 ZZ
25 Sealing ring	NBR 20x32x7
28 Bronze bearing	19X17X15
29 Sealing ring	NBR 17x25x4
31 House impeller	Aluminium
37 Diffuser	Aluminium
41 OR ring	NBR 101,34X1,78
44 Spacer	Steel 17x12x17
45 Spacer	Steel 17x12x17

On request

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Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2-3 mm. The hydraulic components, namely the brass impeller and the aluminium scroll and pump body allow the pumps to be used with water, emulsions and oily substances in general with a maximum viscosity of 3° Engler (21 CST).

The temperature of the liquid must not exceed 90° C.

They are usually used on:

Machine tools

(milling machines – lathes - drills)

Glass processing machines

Filtration systems.

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 4 – 5 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

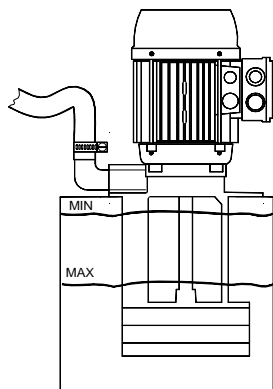
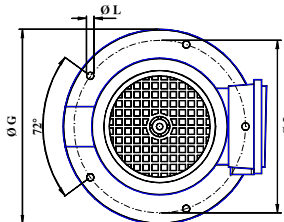
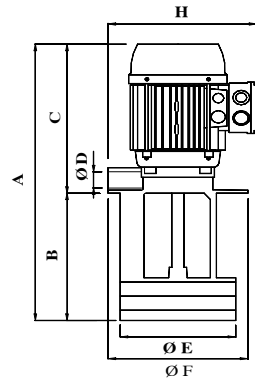
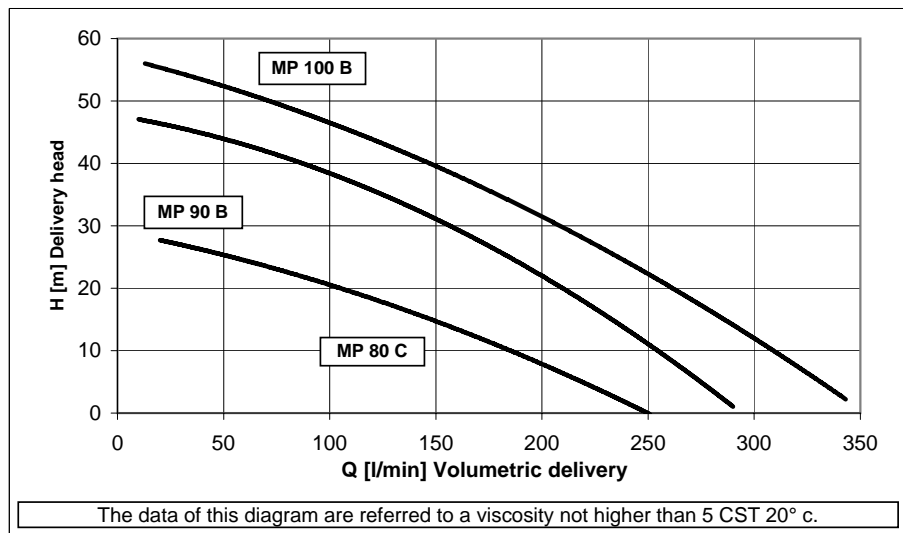


Table of dimensions and weights

TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
MP 80C	517	230	287	1"	190	190	230	245	204	9 N. 5	16,50
	567	280									17,00
	642	355									17,50
	757	470									18,00
MP 90B	590	265	325	1"	190	190	230	255	204	9 N. 5	22,00
	640	315									22,50
	715	390									23,00
	830	505									23,50
MP 100B	625	265	360	1-1/4"	202	220	250	275	235	9 N. 5	32,00
	675	315									32,50
	725	365									33,00
	775	415									33,50
	955	595									35,50

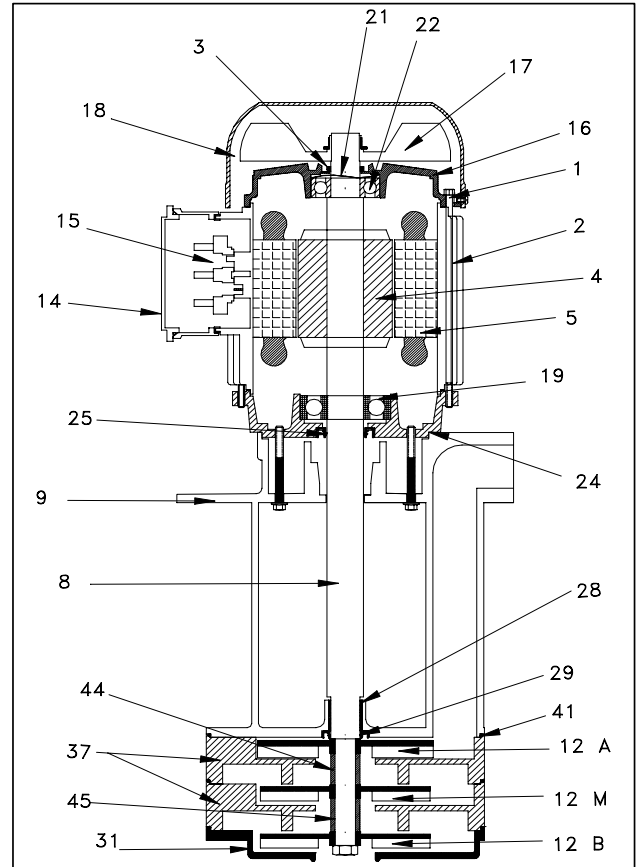
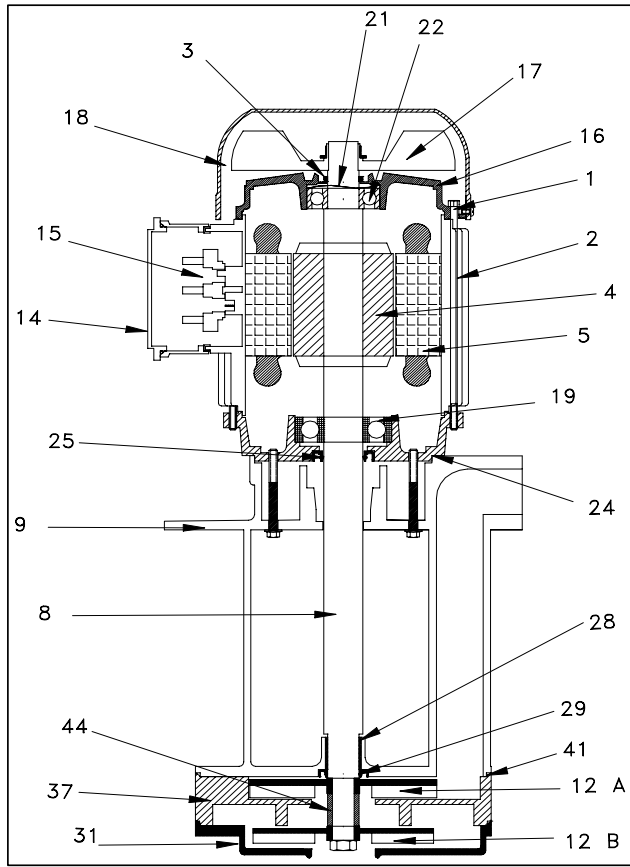
Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
MP 80C	2,20	6,2/3,6	4,8/2,8	7,4/4,3	6,5/3,8	6,2/3,6	5,2/3,0
MP 90B	3,60	9,4/5,4	7,4/4,3	11,2/6,4	9,5/5,5	9,4/5,4	7,8/4,5
MP 100B	5,70	17,3/10	13,8/8,0	20,7/12	17,6/10,2	17,3/10	14,4/8,3



Immersion pumps

Type MP 80 - 90 - 100



Type MP 80 C

Type MP 90 B

Type MP 100 B

Components		Materials	Materials	Materials
1	Rod	Steel	Steel	Steel
2	Frame	Aluminium	Aluminium	Aluminium
3	V-ring \varnothing 20	NBR \varnothing 20	NBR \varnothing 25	NBR \varnothing 30
4	Rotor			
5	Stator			
8	Shaft	Steel C 40	Steel C 40	Steel C 40
9	Pump body	Aluminium	Aluminium	Aluminium
12	Impeller	Brass 58	Brass 58	Cast iron G20
14	Terminal box	Nylon	Nylon	Nylon
15	Terminal block	mm. 50x32 6P	mm. 50x32 6P	mm. 50x32 6P
16	Non-drive end shield	Aluminium	Aluminium	Aluminium
17	Fan	Nylon	Nylon	Nylon
18	Fan cover	Nylon***	Nylon***	Nylon***
19	Bearing	6305 ZZ	6305 ZZ	62207 2RS
21	Spring ring	\varnothing 47	\varnothing 52	\varnothing 62
22	Bearing	6204 ZZ	6205 ZZ	6206 ZZ
24	Drive end shield	Aluminium	Aluminium	Aluminium
25	Sealing ring	NBR 25x40x7	NBR 25X47X7	NBR 35X47X7
28	Bronze bearing	23x20x20	23x20x20	23x20x20
29	Sealing ring	NBR 20x32x5	NBR 20x32x5	NBR 20X32X5
31	House impeller	Aluminium	Aluminium	Aluminium
37	Diffuser	N. 1 Aluminium	N. 2 Aluminium	N. 2 Aluminium
41	OR ring	NBR 180X2	NBR 180X2	NBR 180X2
44	Spacer	Steel. 20X14X23,5	Steel 20X14X23	Steel 20X14X21
45	Spacer	No	Steel 20X14X22	Steel 20X14X21

On request

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Immersion pumps

Type MPC 80 - 90 - 100



Usages:

The pumps are suitable to transfer liquids containing impurities measuring up to 2 mm. The hydraulic components, namely the brass impeller and the aluminium scroll and pump body, allow the pumps to be used with water, emulsions and oily substances in general, with a maximum viscosity of 3° Engler (21 CST).

The temperature of the liquid must not exceed 90° C.

They are usually used on:

Machine tools (milling machines – lathes - drills)

Filtration systems.

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 4–5 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

In cases where the liquid is particularly dirty, the user is recommended to construct the tank in compartments to allow the dirt to deposit before it is stirred up by the pump.

For other usages you are advised to consult our technical office.

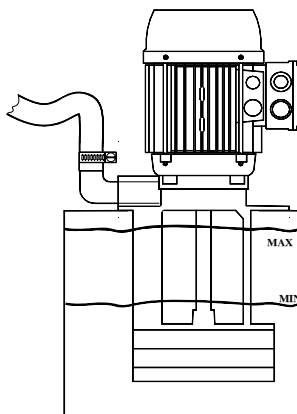
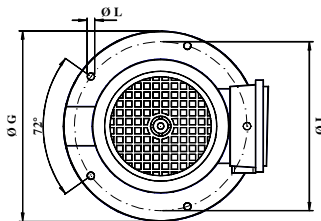
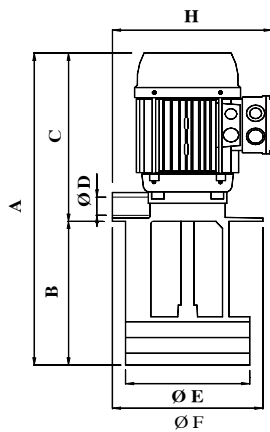
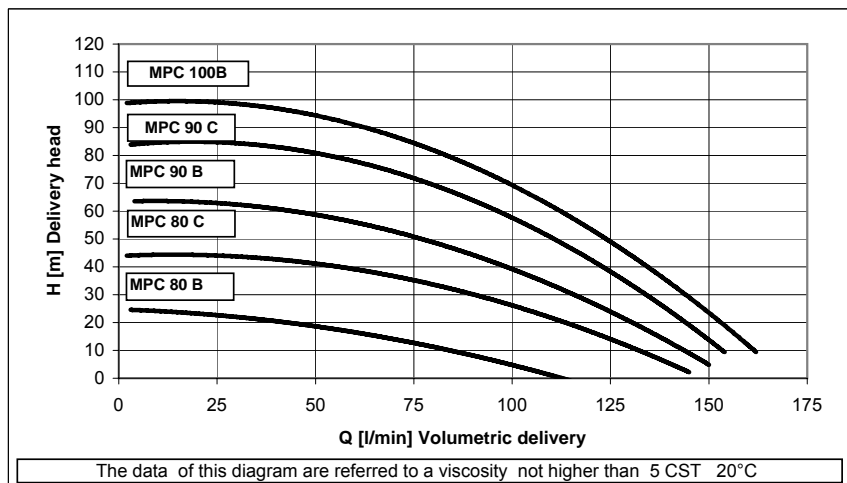


Table of dimensions and weights

TYPE	A mm	B mm	C mm	ØD mm	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.	
MPC 80B	490	210	280	1"	190	—	230	245	204	9	15,96	
	540	260									16,10	
	615	335									N. 5	16,25
	730	450									18,00	
MPC 80C	520	240	280	1"	190	—	230	245	204	9	17,86	
	570	290									N. 5	18,00
	645	365									18,15	
	760	480									19,00	
MPC 90B	583	260	323	1"	190	—	230	255	204	9	25,46	
	633	310									N. 5	25,60
	708	385									25,75	
	823	500									27,50	
MPC 90C	613	290	323	1"	190	—	230	255	204	9	26,36	
	663	340									N. 5	26,50
	738	415									26,65	
	853	530									28,50	
MPC 100 B	650	280	370	1 1/4"	202	220	250	275	235	9	38,50	
	700	330									N. 5	39,00
	750	380									39,50	
	800	430									40,00	
	980	610									42,20	

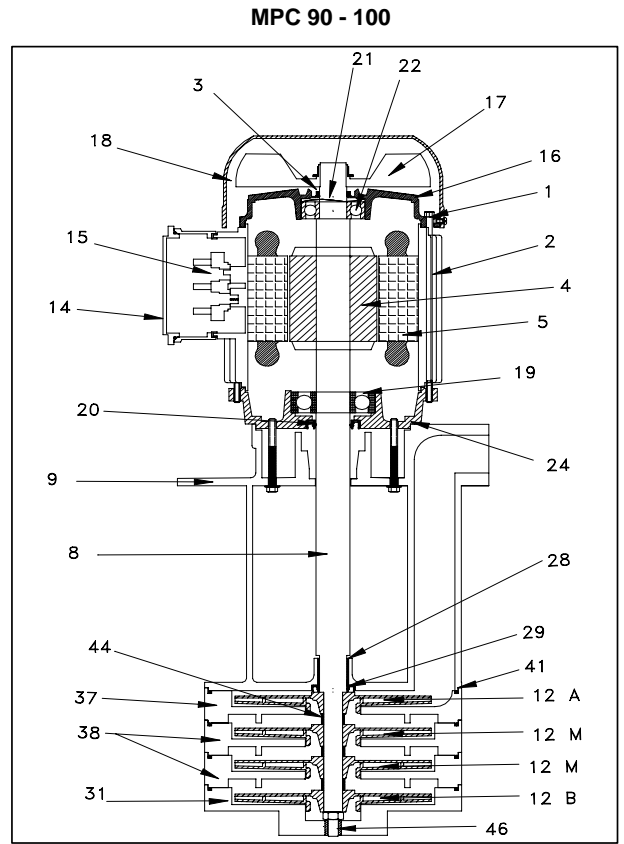
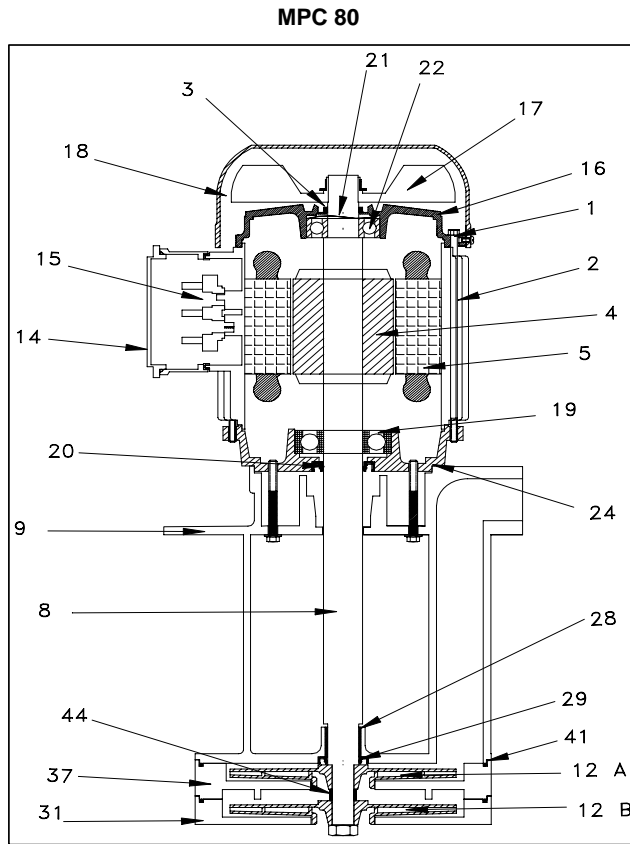
Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
MPC 80B	1,10	4,3/2,5	3,6/2,1	5,2/3	4,6/2,7	4,3/2,5	3,8/2,2
MPC 80C	2,00	6/3,5	5/2,9	7,2/4,2	6,4/3,7	6/3,5	5,2/3
MPC 90B	3,10	9,3/5,4	7,8/4,5	11,2/6,5	10/5,8	9,3/5,4	8,1/4,7
MPC 90C	3,90	11,4/6,6	9,5/5,5	13,8/8	12,1/7	11,4/6,6	10/5,8
MPC 100 B	5,60	16,2/9,4	14,7/8,5	19,5/11,3	17,6/10,2	16,2/9,4	13,5/7,8



Immersion pumps

Type MPC 80 - 90 - 100



	MPC 80 B - 80C	MPC 90 B	MPC 90 C	MPC 100B
Components	Materials	Materials	Materials	Materials
1 Rod	Steel	Steel	Steel	Steel
2 Frame	Aluminium	Aluminium	Aluminium	Aluminium
3 V-Ring	NBR ø 20	NBR ø 25	NBR ø 25	NBR ø 30
4 Rotor				
5 Stator				
8 Shaft	Steel C 40	Steel C 40	Steel C 40	Steel C 40
9 Pump body	Aluminium	Aluminium	Aluminium	Aluminium
12 Impeller	Brass 58	Brass 58	Brass 58	Brass 58
14 Terminal box	Nylon	Nylon	Nylon	Nylon
15 Terminal block	mm. 50X32 6P	mm. 50X32 6P	mm. 50X32 6P	mm. 50X32 6P
16 Non-drive end shield	Aluminium	Aluminium	Aluminium	Aluminium
17 Fan	Nylon	Nylon	Nylon	Nylon
18 Fan cover	Nylon***	Nylon***	Nylon***	Nylon***
19 Drive bearing	6305 ZZ	6305 ZZ	6305 ZZ	62207 2RS
20 Sealing ring	NBR 25X40X7	NBR 25X47X7	NBR 25X47X7	NBR 35X47X7
21 Spring ring	ø 47	ø 52	ø 52	ø 62
22 Non-drive bearing	6204 ZZ	6205 ZZ	6205 ZZ	6206 ZZ
24 Drive end shield	Aluminium	Aluminium	Aluminium	Aluminium
28 Main bronze bearing	23x20x20	23x20x20	23x20x20	23x20x20
29 Sealing ring	NBR 20X32X5	NBR 20X32X5	NBR 20X32X5	NBR 20X32X5
31 House impeller	Aluminium	Aluminium	Aluminium	Aluminium
37 Diffuser - upper	Aluminium (on 80C)	Aluminium	Aluminium	Aluminium
38 Diffuser - middle	=====	Aluminium	Aluminium	Aluminium
41 OR ring	NBR	NBR	NBR	NBR
44 Spacer	Steel (on 80C)	Steel	Steel	Steel
46 Bottom bronze bearing	=====	=====	Bronze	Bronze

On request

*** Sheet

Immersion pumps

Type EPC 63 - 71



Usages:

These pumps are suitable for transferring clean liquids containing impurities measuring up to 30 micron.

The hydraulic components, namely the brass impeller, scroll and cast iron pump body, allow the pumps to be used with emulsions and oily substances, glycols and liquids in general, as long as they are not oxidative for the construction materials.

Viscosity must not exceed 3° Engler (21 CST).

The temperature of the liquid must not exceed 90° C.

They are usually used on:

- Boring centres
- Cooling exchanges

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3-4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

For other usages you are advised to consult our technical office.

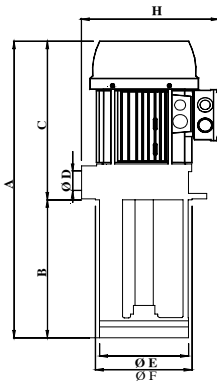
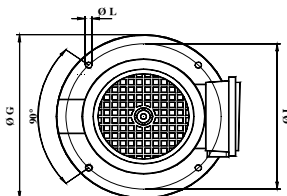


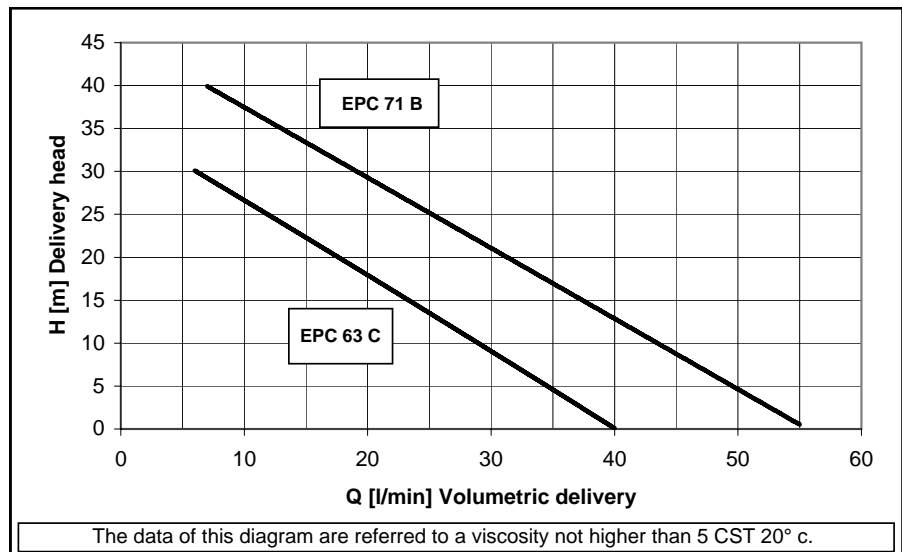
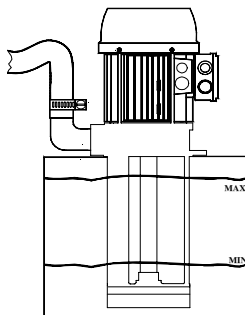
Table of dimensions and weights

TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
EPC 63 C	310	100	210	3/4"	98	100	130	185	115	7 N. 4	8,900
	340	130									9,210
	390	180									9,410
	440	230									9,610
	490	280									9,780
	570	360									10,340
EPC 71 B	360	100	260	3/4"	98	100	130	193	115	7 N. 4	11,580
	390	130									11,890
	440	180									12,090
	490	230									12,290
	540	280									12,460
	620	360									13,020



Electrical features

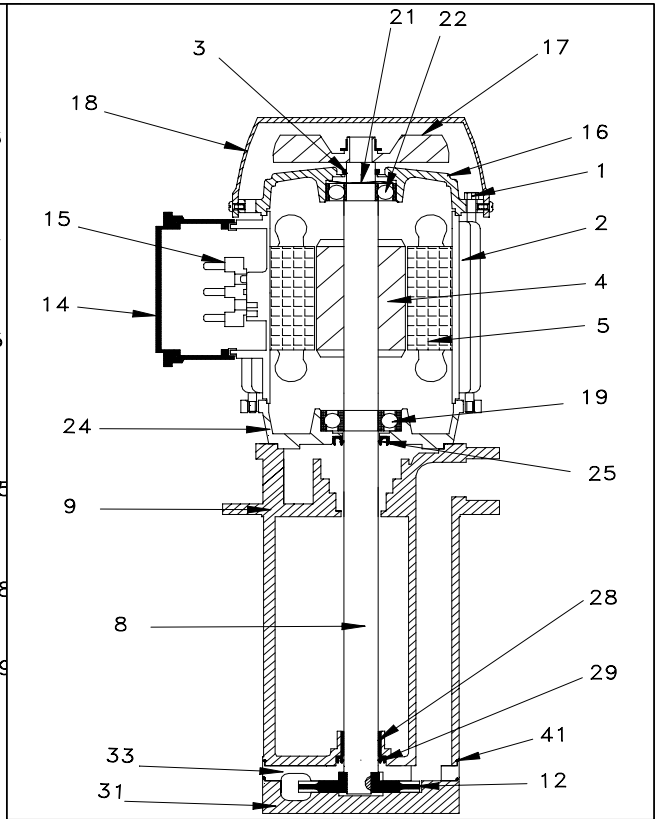
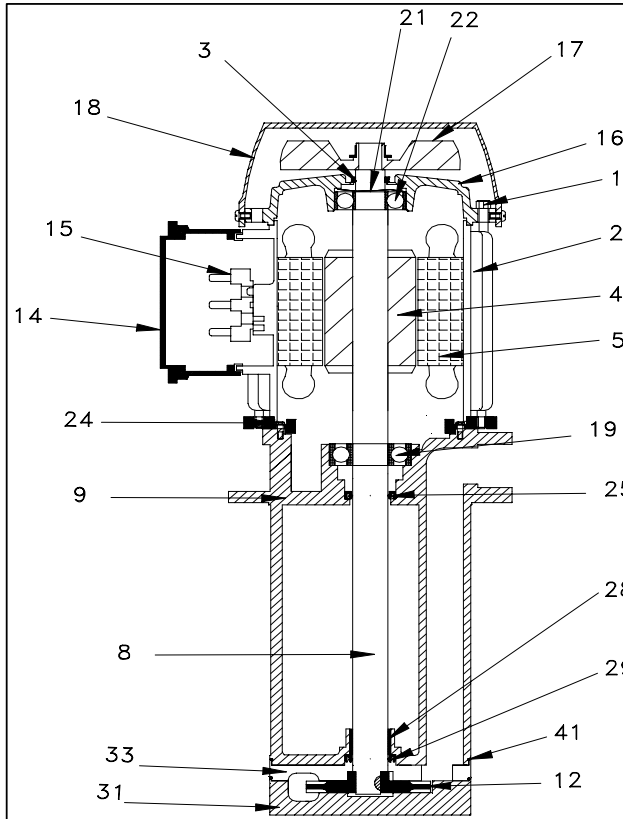
TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
EPC 63C	0,54	1,9/1,1	1,52/0,88	2,3/1,32	2,2/1,3	1,9/1,1	1,6/0,92
EPC 71B	1,10	3,3/1,9	2,6/1,5	4,00/2,3	3,6/2,1	3,3/1,9	2,8/1,6



The data of this diagram are referred to a viscosity not higher than 5 CST 20° c.

Immersion pumps

Type EPC 63 - 71



Type EPC 63C

Type EPC 71B

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V ring	NBR ø 16
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Cast iron G 20
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 40x25 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6203 ZZ
21 Spring ring	ø 35
22 Bearing	6202 ZZ
24 Spacer	Aluminium
25 Sealing ring	NBR 17x25x4
28 Bronze bearing	19X17X15
29 Sealing ring	NBR 17x25x4
31 House impeller	Cast iron G 20
33 Adapter flange	Cast iron G 20
41 O-Ring	NBR 82,27x1,78

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V ring	NBR ø 16
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Cast iron G 20
# Impeller	Brass 58
# Terminal box	Nylon
# Terminal block	mm. 40x25 6P
# Non-drive end shield	Aluminium
# Fan	Nylon
# Fan cover	Nylon***
# Bearing	6304 ZZ
# Spring ring	ø 40
# Bearing	6203 ZZ
# Drive end shield	Aluminium
# Sealing ring	NBR 20X32X7
# Bronze bearing	19X17X15
# Sealing ring	NBR 17x25x4
# House impeller	Cast iron G 20
# Adapter flange	Cast iron G 20
# O-Ring	NBR 82,27x1,78

On request

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Aisi 420

Sheet

Immersion pumps

Type EPC 80B - 80C - 90 B



Usages:

These pumps are suitable for transferring clean liquids containing impurities measuring up to 30 micron.

The hydraulic components, namely the brass impeller, scroll and cast iron pump body, allow the pumps to be used with emulsions and oily substances, glycols and liquids in general, as long as they are not oxidative for the construction materials. Viscosity must not exceed 3° Engler (21 CST).

The temperature of the liquid must not exceed 90° C.

They are usually used on:

- Boring centres
- Cooling exchanges

They should usually be installed on a tank, with a capacity in proportion to the flow rate,

at about 3-4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

For other usages you are advised to consult our technical office.

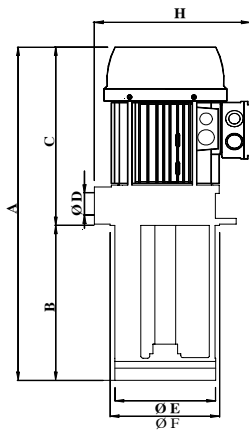
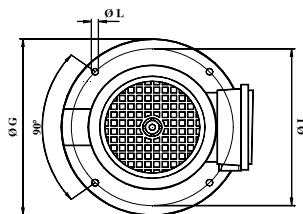


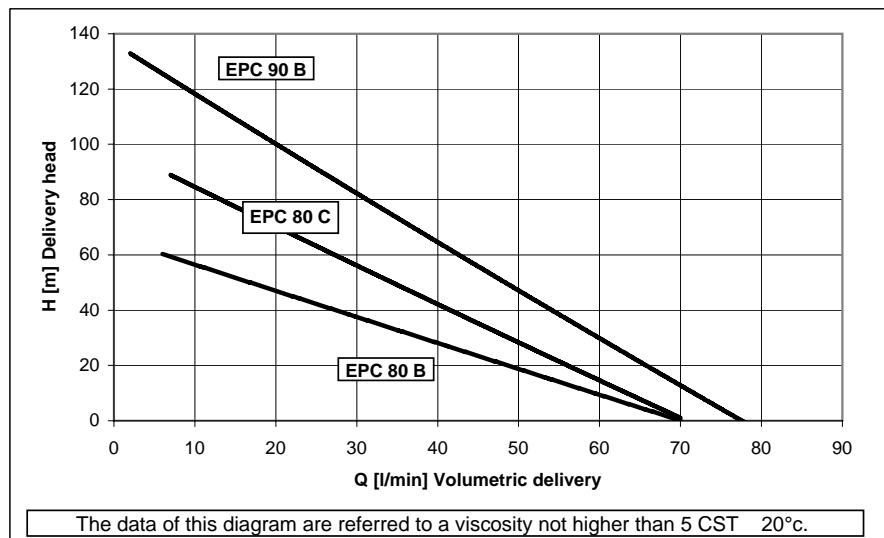
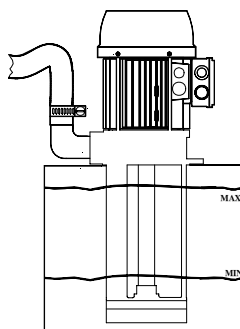
Table of dimensions and weights

TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
EPC 80B	381	100	281	3/4"	98	100	130	200	115	7 N. 4	13,950
	411	130									14,250
	461	180									14,450
	511	230									14,650
	561	280									14,820
	641	360									15,380
EPC 80C	396	115	281	3/4"	98	100	130	200	115	7 N. 4	16,220
	426	145									16,520
	476	195									16,720
	526	245									16,920
	576	295									17,090
	656	375									17,650
EPC 90B	460	140	320	3/4"	98	100	130	220	115	7 N. 4	30,300
	490	170									30,600
	540	220									30,800
	590	270									31,000
	640	320									31,200
	720	400									31,800



Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
EPC 80B	1,70	5,0/2,9	4,0/2,32	6,0/3,48	5,3/3,1	5,0/2,9	4,2/2,42
EPC 80C	2,60	6,9/4,0	5,5/3,2	8,3/4,8	7,3/4,2	6,9/4,0	5,7/3,34
EPC 90B	3,00	9,3/5,4	7,8/4,5	11,2/6,48	9,7/5,6	9,3/5,4	8,13/4,7

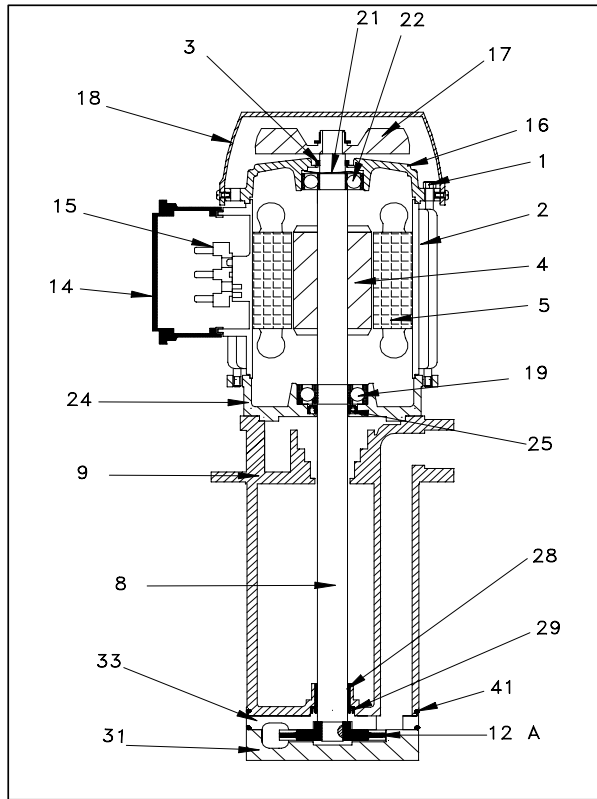


The data of this diagram are referred to a viscosity not higher than 5 CST 20°c.

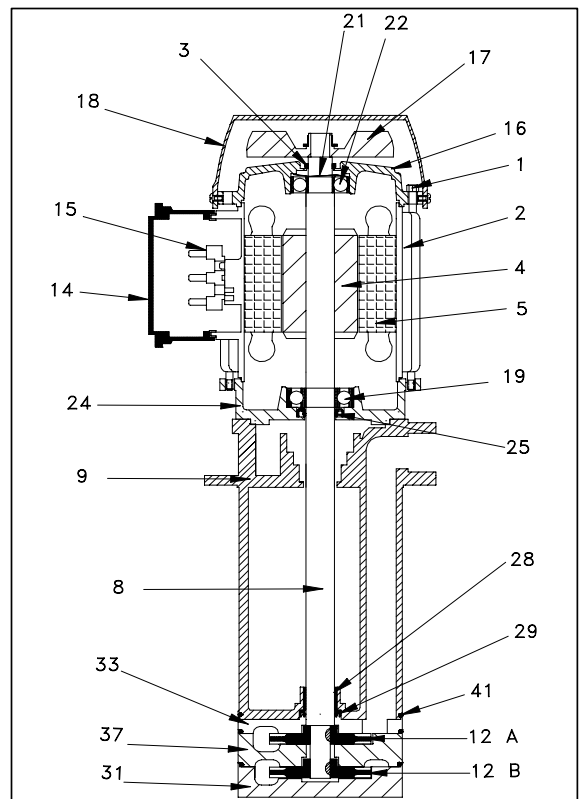
Immersion pumps

Type EPC 80B - 80C - 90 B

EPC 80 B



EPC 80 C - 90 B



EPC 80B

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V ring	NBR Ø 20
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Cast iron G 20
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 50x32 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6205 ZZ
21 Spring ring	ø 47
22 Bearing	6204 ZZ
24 Reduction flange	Aluminium
25 Sealing ring	NBR 25X40X7
28 Bronze bearing	19x17x15
29 Sealing ring	NBR 17x25x4
31 House impeller	Cast iron G 20
33 Reduction flange	Cast iron G 20
41 OR ring (N. 2)	NBR 82,27x1,78

EPC 80C

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V ring	NBR Ø 20
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Cast iron G 20
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 50x32 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6205 ZZ
21 Spring ring	ø 47
22 Bearing	6204 ZZ
24 Reduction flange	Aluminium
25 Sealing ring	NBR 25X40X7
28 Bronze bearing	19x17x15
29 Sealing ring	NBR 17x25x4
31 House impeller	Cast iron G 20
33 Reduction flange	Cast iron G 20
37 Diffuser	Cast iron G 20
41 OR ring (N. 3)	NBR 82,27x1,78

EPC 90B

Components	Materials
1 Rod	Steel
2 Frame	Aluminium
3 V ring	NBR Ø 25
4 Rotor	
5 Stator	
8 Shaft	Steel C 40**
9 Pump body	Cast iron G 20
12 Impeller	Brass 58
14 Terminal box	Nylon
15 Terminal block	mm. 50x32 6P
16 Non-drive end shield	Aluminium
17 Fan	Nylon
18 Fan cover	Nylon***
19 Bearing	6206 ZZ
21 Spring ring	ø 52
22 Bearing	6205 ZZ
24 Reduction flange	Aluminium
25 Sealing ring	NBR 25X40X7
28 Bronze bearing	19x17x15
29 Sealing ring	NBR 17x25x4
31 House impeller	Cast iron G 20
33 Reduction flange	Cast iron G 20
37 Diffuser	Cast iron G 20
41 OR ring (N. 3)	NBR 82,27x1,78

On request

Aisi 420

Sheet

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Immersion pumps

Type PPI 63C - 71B



Usages:

These pumps are suitable for transferring clean liquids containing impurities measuring up to 30 micron.

The hydraulic components, namely impeller, scroll and brass pump body, allow the pumps to be used with emulsions and oily substances, glycols and liquids in general, as long as they are not oxidative for the construction materials.

Viscosity must not exceed 3° Engler (21 CST) and the temperature of the liquid must not exceed 90° C.

The employment of diathermic oils, enable to reach fluid temperature 150° C. max.

They are usually used on:

Water/oil temperature controllers.

They should usually be installed on a tank, with a capacity in proportion to the flow rate, at about 3-4 cm. from the bottom. It is important to check that the maximum level of the liquid in the tank always remains 3 – 4 cm. lower than the flange (see figure).

For other usages you are advised to consult our technical office.

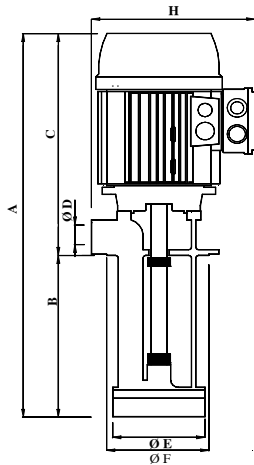
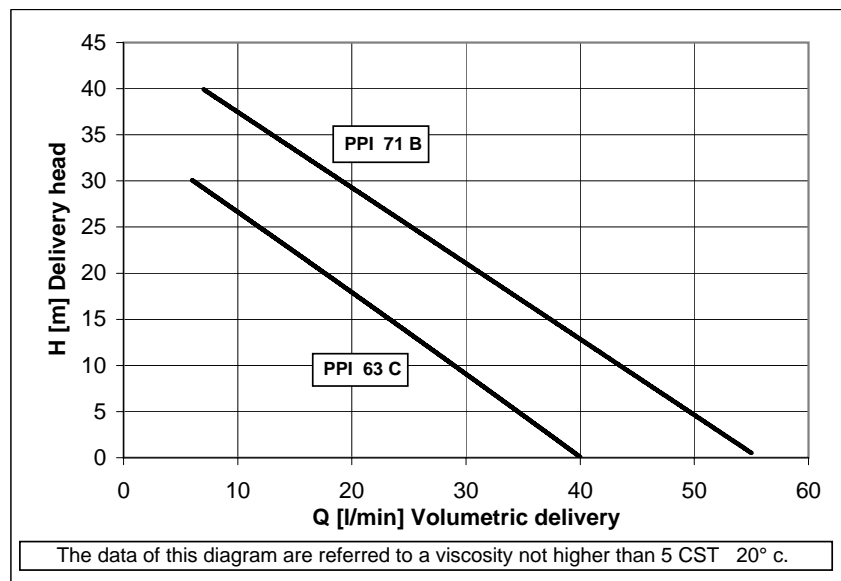
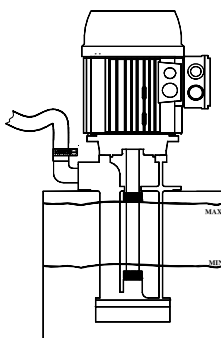
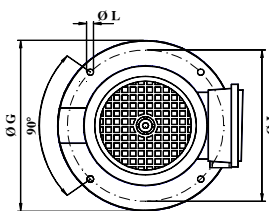


Table of dimensions and weights

TYPE	A mm	B mm	C mm	ØD	ØE mm	ØF mm	ØG mm	H mm	ØI mm	ØL mm	Kg.
PPI 63 C	437	195	242	3/4"	98	100	130	185	115	7 N.4	9,120
PPI 71 B	466	200	266	3/4"	98	100	130	193	115	7 N.4	11,410

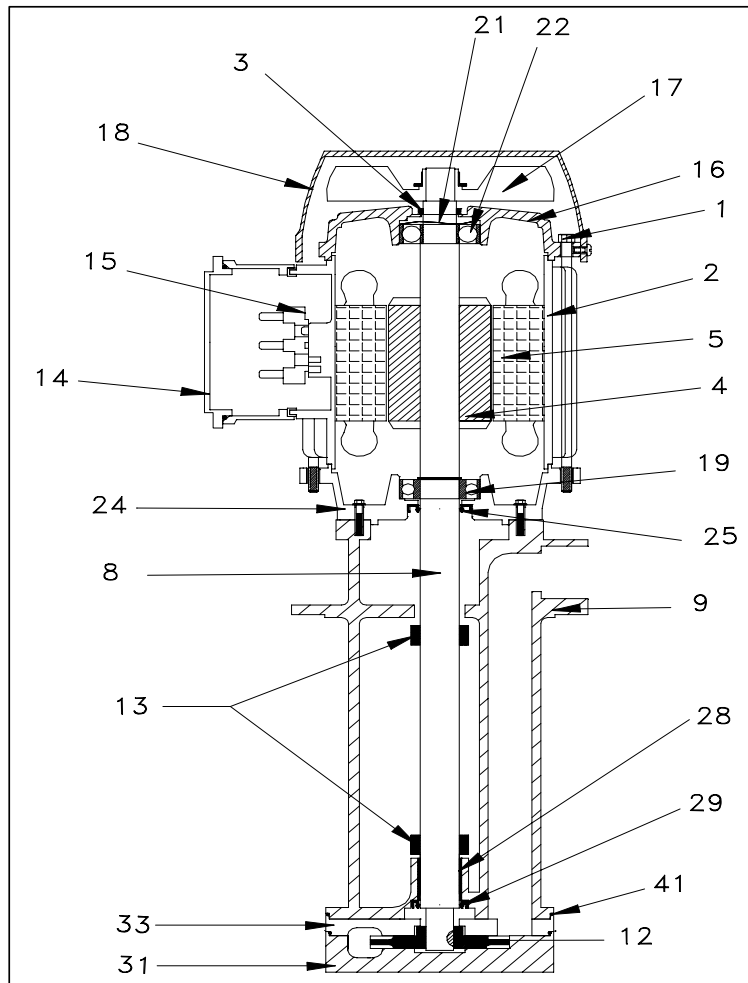
Electrical features

TYPE	KW. Input	Hz. 50		Hz. 60			
		230/400	254-290/440-500	230/400	208-230/440-460	254-277/440-480	318-346/550-600
PPI 63C	0,54	1,9/1,1	1,52/0,88	2,3/1,32	2,2/1,3	1,9/1,1	1,6/0,92
PPI 71B	1,10	3,3/1,9	2,6/1,5	4,00/2,3	3,6/2,1	3,3/1,9	2,8/1,6



Immersion pumps

Type PPI 63C - 71B



Components	PPI 63C
1	Rod Steel
2	Frame Aluminium
3	V ring NBR Ø 16
4	Rotor
5	Stator
8	Shaft Stainless steel 420
9	Pump body Brass 58
12	Impeller Brass 58
13	Rubber washer Brass 58
14	Terminal box Aluminium
15	Terminal block mm. 40x25 6P
16	Non-drive end shield Aluminium
17	Fan Nylon
18	Fan cover Sheet
19	Drive bearing 6203 ZZ
21	Spring ring ø 35
22	Bearing 6202 ZZ
24	Drive end shield Aluminium
25	Sealing ring NBR 17X25X4
28	Bronze bearing 19X17X15
29	Sealing ring NBR 17x25x4
31	House impeller Brass 58
33	Adapter flange Brass 58
41	O-Ring NBR 82,27x1,78

Components	PPI 71B
1	Rod Steel
2	Frame Aluminium
3	V ring NBR Ø 16
4	Rotor
5	Stator
8	Shaft Stainless steel 420
9	Pump body Brass 58
12	Impeller Brass 58
13	Rubber washer Brass 58
14	Terminal box Aluminium
15	Terminal block mm. 40x25 6P
16	Non-drive end shield Aluminium
17	Fan Nylon
18	Fan cover Sheet
19	Drive bearing 6304 ZZ
21	Spring ring ø 40
22	Bearing 6203 ZZ
24	Drive end shield Aluminium
25	Sealing ring NBR 20X32X5
28	Bronze bearing 19X17X15
29	Sealing ring NBR 17x25x4
31	House impeller Brass 58
33	Adapter flange Brass 58
41	O-Ring NBR 82,27x1,78

USAGE AND MAINTENANCE MANUAL ELECTRIC PUMPS SACEMI® Rev. 1/2010**GENERAL INFORMATION:**

This manual has been written to provide general knowledge about the machine and the instructions considered necessary for its correct installation and running.

The manual is an integral part of the machine. It must be read carefully before moving, installing and commissioning the machine and it must be kept for future reference.


Any non-observance, improper use or maintenance work not carried out by specialised personnel, the removal of labels of any type, the removal of or tampering with guards and safety devices and, in any case, any other, not explicitly prescribed action that reduces the machine's active and passive safety devices, may cause serious damage to individuals and things and shall exonerate the manufacturer from any liability.

Interventions on the machine by unauthorised personnel shall automatically cancel the product's guarantee.

A code for tracing the production date and batch is stamped on the plate that accompanies the electric pump.

For situations not covered by this manual or other information, reference should be made to that reported in our general catalogue, in the documentation available on the web site www.sacemi.com If necessary contact our commercial service.

DECLARATION OF CONFORMITY:

Sacemi® electric pumps type AP-AU-EPC-IMM-MP-MPC-PPI-SP-SPV-SQ-TR comply with the prescriptions of directives 89/392, 91/368, 93/44, 93/68 EEC and subsequent amendments - 73/23, 93/68, 89/336/EEC - 89/336, 92/31, 93/68, 93/97 EEC and subsequent amendments - 2002/95 EEC and carry the  mark on their rating plate.

PRODUCT'S DESCRIPTION:

Sacemi® electric centrifugal pumps are designed to circulate liquids in general and coolant mixtures.

The impellers are attached directly onto the extended motor shaft.

The pump is fitted with a 2-pole electric motor, designed for constant service and AC power supply, manufactured in compliance with IEC60034 standards, cooled with external ventilation, class F winding and protection level IP 55.

**MACHINE PRESERVATION:**

The machine must be stored in an area where it is protected from foreign bodies and atmospheric agents (rain, snow, etc.) that may cause deterioration of the electric part. The temperature of the storage area must be between -20 °C and +50 °C.

**HANDLING:**

Even if packed, electric pumps must be handled with the utmost care using means suited to their weight and size.

During handling and transport, care must be taken not to damage the delicate parts.

**USAGE:**

Sacemi® electric pumps are particularly suitable for use in the industrial field on machine tools for processing metal, plastic, glass, stones (cutting, perforating, milling, grinding, and turning) and industrial applications for filtering, thermal regulation of fluids, varnishing cabins, surface treatments and pressing machines.

**USAGE LIMITS:**

Electric pumps must not be used in explosive and/or potentially explosive environments, with inflammable or aggressive liquids (e.g. acids, alkaline solutions) and liquids that produce harmful and/or explosive gases.

The pumps cannot be used for heads lower than the lowest point of the characteristic curve reported in the catalogue.

The use of electric pumps for heads lower than the above-mentioned ones result in overloading the motor.

Electric pumps cannot be used in tanks under pressure.

The pumped liquid must not exceed a viscosity of 21 cSt (3° E) and a temperature of + 70 °C

The dimensions of the solid parts allowed in the pumped liquid vary for every type of pump. (**table no. 1**)

The electric pump is built to be installed in-doors or in areas protected from bad weather conditions and can work in constant service as long as the electrical data indicated on the plate are observed.

**INSTALLATION:**

To avoid load losses and to guarantee maximum capacity, you are advised to use pipes with the same diameters as the pump's delivery hole.

The machine must be adequately protected from the action of atmospheric agents.

Never put your fingers into the suction duct as there is a risk of damage from contact with the impeller.

When lifting the pump, use special equipment and take all the necessary precautions regarding the weight and dimensions of the machine.

Make sure that the electric pump is primed perfectly when it is started.

Make sure that there are no obstacles preventing the normal flow of the cooling air towards the motor fan.

The electric pumps must be secured to avoid vibrations or movements that could damage the pipes.

You are advised not to use rigid couplings between the pump delivery and the plant.

Type AU pumps:

The pump must be installed on the top of the tank and fixed with adequate screws.

In order for the pump to function and guarantee that the seal functions, the pump must be primed for use; the priming operation must be repeated every time the pump sucks in air when there is no liquid.

The pump cannot turn without liquid. (table no. 2)

Type SQ pumps:

The type SQ pump must be installed on one of the tank's side walls.

The pump must be securely attached to the tank with suitable screws, inserting a seal between the tank surface and the suction mouth of the pump.

The pump cannot turn without liquid.

In order for the pump to function correctly and to guarantee that the seal functions, it is indispensable to respect the minimum level of the liquid in the tank. (table no. 2)

Pumps type TR:

To reduce the problem of the instability of type TR pumps, rigid suction and delivery ducts must be used.

The pump cannot turn without liquid.

In order for the pump to function correctly and to guarantee that the seal functions, it is absolutely indispensable that the machine is positioned under head. (table no. 2)

Pumps type AP- EPC- IMM- MP-MPC-PPI-SP-SPV:

The pump must be installed by fixing the coupling flange onto the top of the tank and with the body submerged in the liquid.

Use suitable screws for attaching the flange to the tank.

The maximum level of the liquid in the tank must always remain 3-4 cm. below the support flange, while the minimum level must always remain above the suction chamber (table no. 2)

The suction hole is located on the bottom of the pump body.

The minimum distance between the suction hole and the bottom of the tank must be calculated so as to avoid situation of cavitation and to stop any deposits of impurities from obstructing the necessary flow of fluid.

When installing SPV-type pumps, you are invited:

- not to use rigid pipe fittings and/or pipe fittings with conical thread;
- to use liquid sealants only or very thin films;
- to take care when screwing the pipe fitting onto the pump delivery so as not to force it beyond the stop beat located inside the output pipe.

Failure to observe the above-mentioned warnings could irreparably damage the delivery hole on the pump.



ELECTRIC CONNECTION:

The electric pump is built for a permanent electric connection different from the plug.

Electric connection must be carried out by qualified personnel in observance of the regulations in force in the user's country. The machine must always be earthed.

The power supply voltage and frequency of the motor must correspond to those indicated on the rating plate. (table no. 1)

The layout of the connection bridges "Y or Δ" must comply with the electric circuit diagram shown inside the terminal cover. (table no. 3)

Check that the pump turns in the direction indicated by the arrow on the pump body.

If the direction is not correct, stop the motor, disconnect the power line and exchange two power supply phases.

Always check that the current absorbed by the electric pump when it is running is never over to that indicated on the rating plate.

We recommend using cables and plugs of a section that is appropriate for the currents absorbed by the electric motor with which the machine is fitted, remembering that the current absorbed at direct start-off can be much higher than those indicated.

Since the standard construction of the electric pump does not include a protection against over-load, the installer must provide a separate, adequate protection.

Make sure that the fuses, the automatic switches and thermal relays are of the correct size. (table no.1)



USE INSTRUCTIONS:

In order for the machine to function correctly, it must always be positioned with the motor axis in a vertical position. The temperature of the working environment must be between -20 °C and +40 °C.

Although the electric pumps have been designed to tolerate impurities contained in the liquids (table no. 1), we still recommend reserving suitable decantation areas (i.e. divide the tank into compartments), following installation regulations.

For self-priming pumps, an initial primer must be provided by filling the suction or delivery pipe.

In pipes fitted with mechanical seal, if liquid leaks from the point where the axis enters the suction/delivery chamber, stop the machine and check the damaged part.

If an electrical fault should occur on the machine equipped with single-phase motor, the operator must look out for possible electrostatic situation due to the presence of the capacitor.

The external structure of the motor may reach a temperature of 70 °C; for prolonged operations on this surface, the use of appropriate means of protection (gloves) is recommended.

For the acoustic pressure Lp level see table no. 1



MAINTENANCE: No special maintenance operations are required other than periodic cleaning of the impeller and screw to remove impurities present in the liquid.

When replacing bearings, mechanical seals and/or component parts of the electric motor, refer to the technical reports given in our general catalogue, to the documentation available on the web site www.sacemi.com or contact our commercial service.

All maintenance operations must be carried out by qualified personnel with the machine at a standstill and disconnected from the electricity mains.



WASTE DISPOSAL: when decommissioning the electric pump and disposing of it, the laws in force in the user's country must be observed with respect to disposing of waste and therefore differential collection in special structures.

Symbols used – terminology:

Warning		General hazard		Electric shock hazard	
	Warns that failure to observe prescriptions entails a risk of damage to the machine		Warns that failure to observe prescriptions entails a risk of damage for people or things		Warns of the presence of high voltage with the risk of electric shocks

Table no. 1) Technical characteristics and performances:

Pump type	Electric features							Hydraulic performances				Allowed impurity	Ø Delivery (inc)	Lp (db)
	Input kW P 1	Hz. 50		Hz. 60				Max. Q		Min. Q				
		volt 230/400 amp.	volt 254-290 440-500 amp.	volt 230/400 amp	volt 208-230 440-460 amp	volt 254-277 440-480 amp	volt 318-346 550-600 amp	l/min	mt	l/min	mt	mm.		
AP 80 B	2,19	5,5/3,2	4,2/2,4	6,6/3,8	5,7/3,3	5,5/3,2	4,3/2,5	220	10	50	22	1-2	1-1/4"	<70
AP 90 A	2,70	9,3/5,4	7,0/4,0	11,1/6,4	9,7/5,6	9,3/5,4	7,4/4,3	399	10	25	30	1-2	1-1/2"	73
AP 90 B	3,60	10,8/6,2	8,3/4,8	13,0/7,5	10,9/6,3	10,8/6,2	8,5/4,9	460	10	98	30	1-2	1-1/2"	75
AP 100 A	4,80	14,5/8,4	11,0/6,3	17,3/10	14,8/8,6	14,5/8,4	11,4/6,0	507	10	80	32	1-2	1-1/2"	78
AP 112 A	5,50	19,2/11	14,5/8,4	23,8/13,8	19,4/11,2	19,2/11	15,2/8,7	601	10	100	34	1-2	1-1/2"	76
AP 112 B	6,00	21,0/12,2	16,0/9,2	25,2/14,5	21,4/12,4	21,0/12,2	16,6/9,6	759	10	130	34	1-2	2"	76
AU 56	0,16	0,9/0,55	0,7/0,4	1,1/0,64	0,98/0,57	0,9/0,55	0,74/0,42	10	0	1	8	0,03	3/8"-1/2"	<70
AU 63	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,10/0,6	1,0/0,58	0,8/0,45	13	0	2	10	0,03	1/2"	<70
EPC 63C	0,54	1,9/1,1	1,52/0,88	2,3/1,32	2,2/1,3	1,9/1,1	1,6/0,92	40	0	6	30	0,03	3/4"	<70
EPC 71B	1,10	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	55	0	7	40	0,03	3/4"	<70
EPC 80B	1,70	5,0/2,9	4,0/2,32	6,0/3,48	5,3/3,1	5,0/2,9	4,2/2,42	70	0	6	60	0,03	3/4"	<70
EPC 80C	2,60	6,9/4,0	5,5/3,2	8,3/4,8	7,3/4,2	6,9/4,0	5,7/3,34	70	0	7	90	0,03	3/4"	<70
EPC 90B	3,00	9,3/5,4	7,8/4,5	11,2/6,48	9,7/5,6	9,3/5,4	8,1/3,4,7	80	0	2	130	0,03	3/4"	<70
IMM 40	0,08	0,4/0,23	0,35/0,21	0,48/0,28	0,43/0,25	0,4/0,23	=	13	0	5	2	2-3	3/8"	<70
IMM 50	0,11	0,52/0,3	0,4/0,23	0,6/0,35	0,56/0,32	0,52/0,3	=	22	0	8	2	2-3	3/8"	<70
IMM 63 A	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45	98	0	2	6	2-3	3/4"	<70
IMM 63 B	0,40	1,6/0,9	1,2/0,7	1,9/1,1	1,73/1,00	1,6/0,9	1,2/0,7	105	0	6	8	2-3	3/4"	<70
IMM 71 A	0,53	2,7/1,6	2,1/1,2	3,2/1,8	3,1/1,8	2,7/1,6	2,3/1,3	198	0	37	12	2-3	1"	<70
IMM 71 B	0,78	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	215	0	39	14	2-3	1"	<70
IMM 80 A	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	283	0	29	14	2-3	1-1/4"	<70
IMM 80 B	1,47	4,8/2,8	3,8/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3	388	0	53	18	2-3	1-1/4"	<70
IMM 90 A	1,85	8,6/5,0	6,5/3,7	10,2/6,0	9,0/5,2	8,6/5	6,8/3,9	624	0	18	10	3-4	2"	73
IMM 90 B	2,80	10,8/6,2	8,3/4,8	13,0/7,5	11/6,4	10,8/6,2	8,5/4,9	846	0	82	14	3-4	2"	75
IMM 100 B	4,80	14,9/8,6	11,5/6,6	17,6/10,1	15,2/8,8	14/9/8,6	11,8/6,8	1.200	0	184	18	3-4	2-1/2"	78
MP 63C	0,54	1,9/1,1	1,52/0,88	2,3/1,32	2,2/1,3	1,9/1,1	1,6/0,92	95	0	24	16	2-3	3/4"	<70
MP 71A	0,70	2,4/1,4	1,94/1,12	2,9/1,68	2,7/1,6	2,4/1,4	2,0/1,17	116	0	26	16	2-3	3/4"	<70
MP 71B	0,95	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	120	0	20	24	2-3	3/4"	<70
MP 80C	2,20	6,2/3,6	4,8/2,8	7,4/4,3	6,5/3,8	6,2/3,6	5,2/3,0	250	0	5	28	2-3	1"	<70
MP 90B	3,60	9,4/5,4	7,4/4,3	11,2/6,4	9,5/5,5	9,4/5,4	7,8/4,5	290	0	50	44	2-3	1"	<70
MP 100B	5,70	17,3/10	13,8/8,0	20,7/12	17,6/10,2	17,3/10	14,4/8,3	343	0	13	55	2	1-1/4"	<70
MPC 80B	1,10	4,3/2,5	3,6/2,1	5,2/3	4,6/2,7	4,3/2,5	3,8/2,2	116	0	3	25	2	1"	<70
MPC 80C	2,00	6/3,5	5/2,9	7,2/4,2	6,4/3,7	6/3,5	5,2/3	145	0	2	45	2	1"	<70
MPC 90B	3,10	9,3/5,4	7,8/4,5	11,2/6,5	20/5,8	9,3/5,4	8,1/4,7	150	0	5	65	2	1"	<70
MPC 90C	3,90	11,4/6,6	9,5/5,5	13,8/8	12,1/7	11,4/6,6	10,5/8	162	0	3	85	2	1"	<70
MPC 100B	5,60	16,2/9,4	14,7/8,5	19,5/11,3	17,6/10,2	16,2/9,4	13,5/7,8	162	0	2	100	2	1-1/4"	<70
PPI 63C	0,54	1,9/1,1	1,52/0,88	2,3/1,32	2,2/1,3	1,9/1,1	1,6/0,92	40	0	6	30	0,03	3/4"	<70
PPI 71B	1,10	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	55	0	7	40	0,03	3/4"	<70
SP 12	0,15	0,55/0,32	0,53/0,30	0,84/0,50	0,57/0,33	0,55/0,32	0,55/0,32	56	0	6	4	2-3	3/4"	<70
SP 18	0,16	0,9/0,55	0,7/0,4	1,1/0,64	0,98/0,57	0,9/0,55	0,74/0,42	65	0	4	5	2-3	3/4"	<70
SP 25	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45	72	0	20	5	2-3	3/4"	<70
SP 33	0,40	1,6/0,9	1,2/0,7	1,9/1,1	1,73/1,1	1,6/0,9	1,2/0,7	80	0	5	6	2-3	3/4"	<70
SP 50	0,53	2,4/1,4	1,94/1,12	3,0/1,68	2,6/1,5	2,4/1,4	2,0/1,17	265	0	45	10	2-3	1-1/4"	<70
SP 75	0,78	3,3/1,9	2,5/1,4	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	290	0	56	10	2-3	1-1/4"	<70
SP 100	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	315	0	23	12	2-3	1-1/4"	<70
SP 150	1,47	4,8/2,8	3,7/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3	350	0	52	12	2-3	1-1/4"	<70
SPV 12	0,15	0,55/0,32	0,53/0,30	0,84/0,50	0,57/0,33	0,55/0,32	0,55/0,32	56	0	6	4	2-3	3/4"	<70
SPV 18	0,16	0,9/0,55	0,7/0,4	1,1/0,64	0,98/0,57	0,9/0,55	0,74/0,42	65	0	4	5	2-3	3/4"	<70
SPV 25	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45	72	0	20	5	2-3	3/4"	<70
SPV 33	0,40	1,6/0,9	1,20/0,70	1,9/1,1	1,73/1,1	1,6/0,9	1,2/0,7	80	0	5	6	2-3	3/4"	<70
SPV 50	0,53	2,4/1,4	1,94/1,12	3,0/1,68	2,6/1,5	2,4/1,4	2,0/1,17	215	0	2	12	2-3	1-1/4"	<70
SPV 75	0,78	3,3/1,9	2,5/1,4	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	240	0	30	12	2-3	1-1/4"	<70
SPV 100	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	265	0	36	14	2-3	1-1/4"	<70
SPV 150	1,47	4,8/2,8	3,8/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3	285	0	23	16	2-3	1-1/4"	<70
SQ 56/S	0,16	0,9/0,55	0,7/0,4	1,1/0,64	0,98/0,57	0,9/0,55	0,74/0,42	60	0	11	4	2-3	3/8"-1/2"	<70
SQ 63/S	0,30	1,0/0,58	0,76/0,44	1,2/0,7	1,1/0,6	1,0/0,58	0,8/0,45	80	0	27	4	2-3	3/8"-1/2"	<70
SQ 71A	0,53	2,4/1,4	1,94/1,12	3,0/1,68	2,6/1,5	2,4/1,4	2,0/1,17	260	0	52	10	2-3	1"	<70
SQ 71B	0,78	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	300	0	113	10	2-3	1"	<70
SQ 80A	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	340	0	85	12	2-3	1-1/4"	<70
SQ 80B	1,47	4,8/2,8	3,7/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3	380	0	108	14	2-3	1-1/4"	<70
TR 71 A	0,53	2,4/1,4	1,94/1,12	3,0/1,68	2,6/1,5	2,4/1,4	2,0/1,17	190	0	57	10	2-3	1"	<70
TR 71 B	0,78	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	220	0	41	12	2-3	1"	<70
TR 80 A	1,15	3,3/1,9	2,6/1,5	4,0/2,3	3,6/2,1	3,3/1,9	2,8/1,6	240	0	62	12	2-3	1"	<70
TR 80 B	1,47	4,8/2,8	3,7/2,2	5,8/3,4	5,2/3,0	4,8/2,8	4,0/2,3	260	0	59	14	2-3	1"	<70

Table no. 2) Installation and liquid levels:

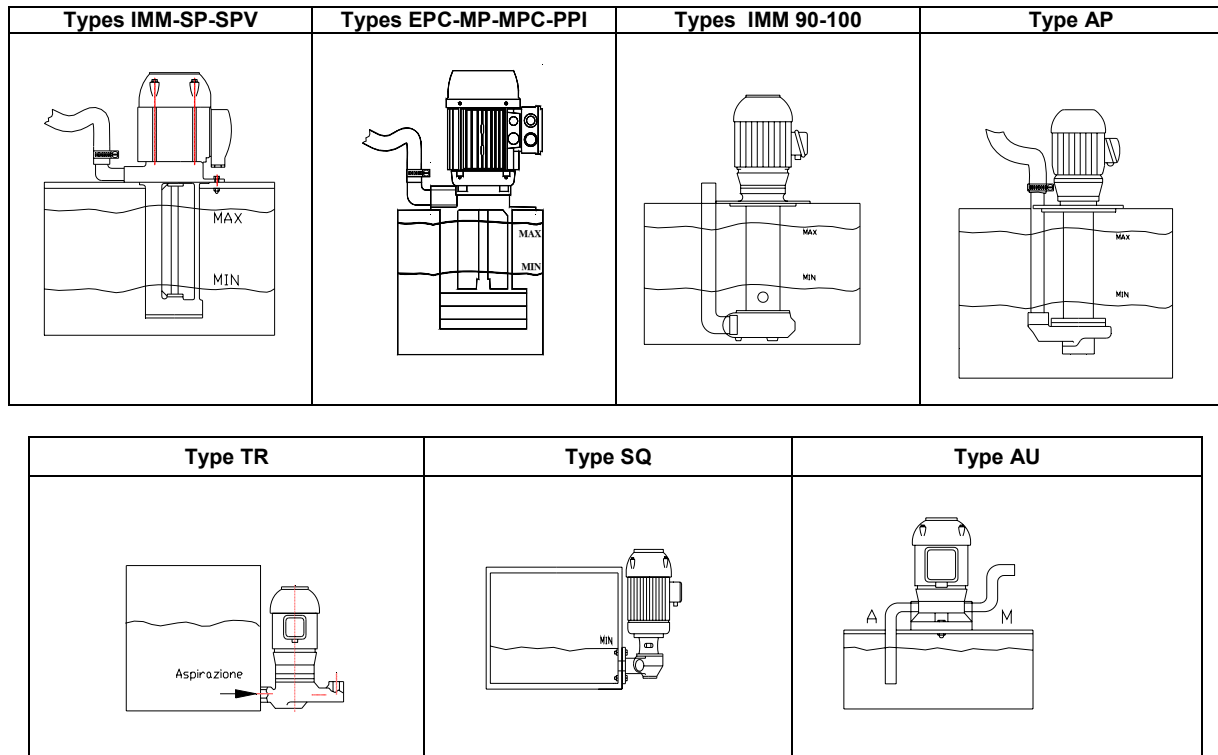
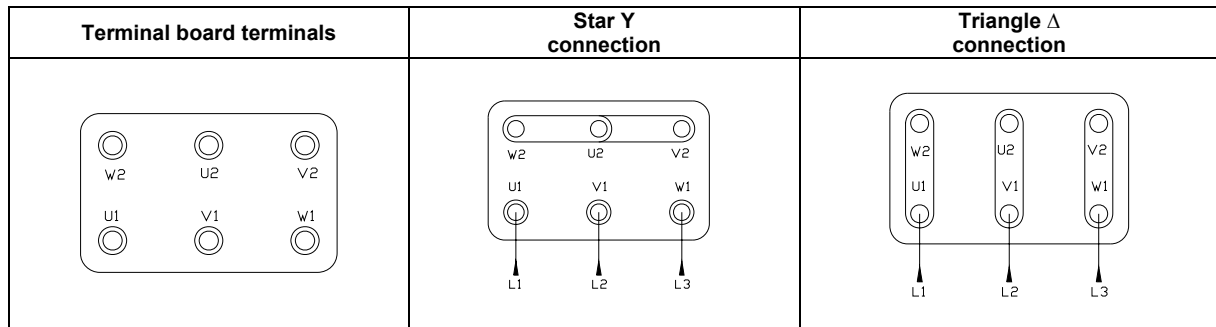


Table no. 3) – Electric Motor connection:



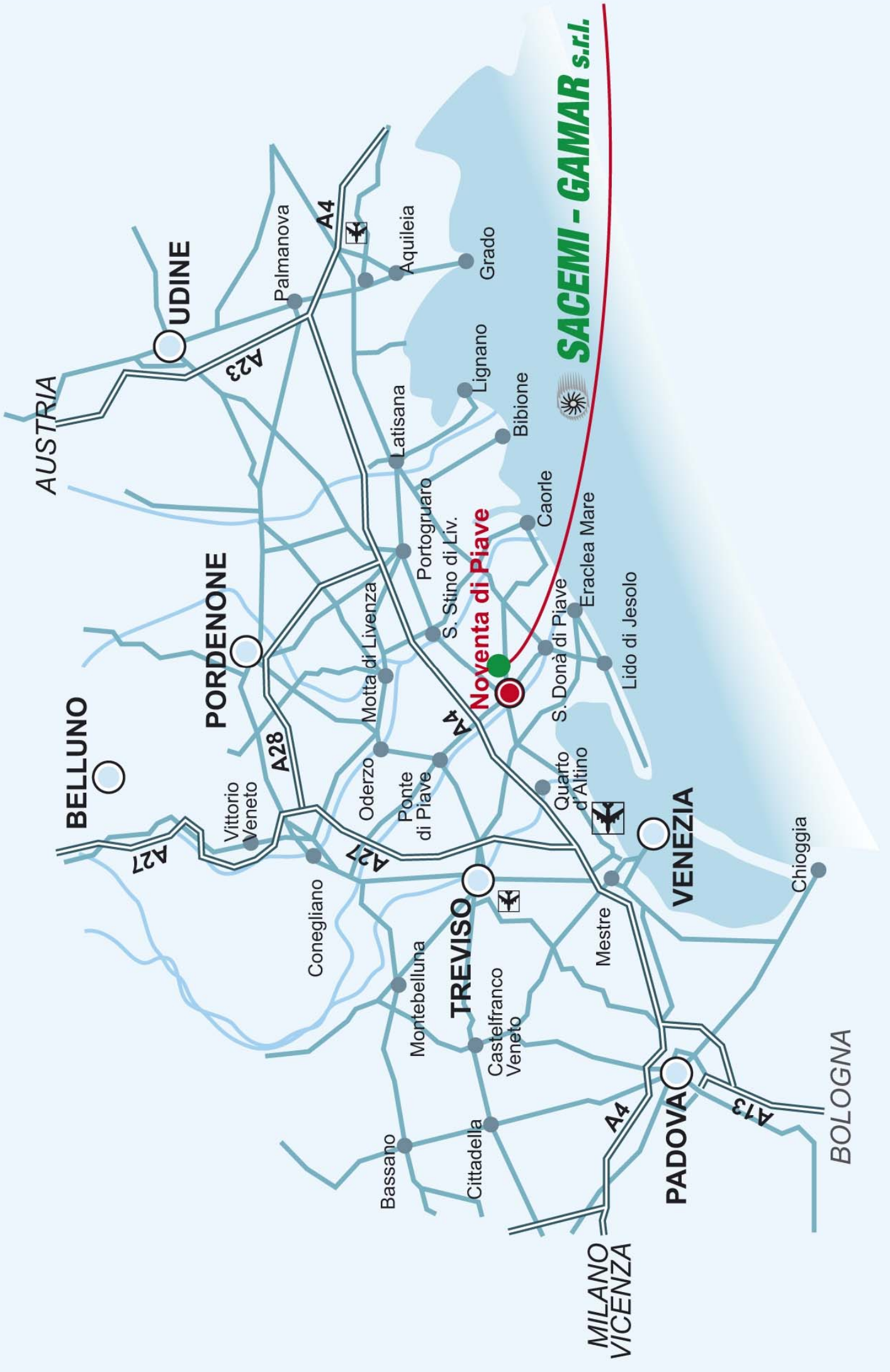
GUIDE FOR SOLVING PROBLEMS:

Fault found	Possible causes	Possible remedy
<p>The motor does not start No noise</p>	<ul style="list-style-type: none"> -Fault in connections in the motor terminal board -Fault in the mains electricity line connections 	<ul style="list-style-type: none"> -Check the motor terminal board connections -Check the supply line -Check switches, fuses and thermal protectors
<p>The motor does not start Buzzing noise</p>	<ul style="list-style-type: none"> -Motor fault due to lack of phase on the winding -fault on the supply line due to lack of phase -blocked impeller -blocked bearing -blocked bushing -blocked seal 	<ul style="list-style-type: none"> -Check connections on the motor terminal board -Check motor winding -Check supply line -Replace impeller -Replace bearing -Replace bushing -Replace seal
<p>The motor turns, but there is no liquid in delivery</p>	<ul style="list-style-type: none"> -liquid level in the tank below prescribed minimum -damaged and/or blocked impeller -blocked suction hole -blocked delivery pipe 	<ul style="list-style-type: none"> -Top up minimum liquid level in the tank -Clean the impeller and if damaged, replace it -Clean the suction hole -Clean the suction and pumping chamber -Clean the delivery pipe
<p>Insufficient Pressure and delivery</p>	<ul style="list-style-type: none"> -motor turning in the wrong direction -impeller, suction chamber and delivery pipe blocked with impurities -damaged impeller -damaged suction chamber, pumping chamber 	<ul style="list-style-type: none"> -Reinstate correct rotation direction of motor -Clean the impeller, suction chamber and the delivery pipe -Replace the impeller -Replace the delivery, suction chamber and pumping chamber
<p>Motor absorption too high</p>	<ul style="list-style-type: none"> -presence of banned impurities -friction among moving parts 	<ul style="list-style-type: none"> -Remove unauthorised impurities -Identify and replace faulty components

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The descriptions and illustrations reported in this manual are not binding.

The manufacturer reserves the right, to make, at any time, without being committed to updating this manual immediately, all the changes to the product that it considers useful for its improvement.



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