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Pompa · Yangın Söndürme Sistemleri · Hidrofor

MİCRA POMPA VE MAKİNA İMALAT LTD. ŞTİ.



**MICRA
POMPA**

SGW TYPE PUMP

SUBMERSIBLE SEWAGE PUMPS



RELIABLE
PERFORMANCE



HEAVY DUTY
CONSTRUCTION



FOR SEWAGE &
WASTEWATER



ENGINEERED
TO LAST



SEWAGE
TREATMENT



INDUSTRIAL
WASTE



BUILDING
DRAINAGE



MUNICIPAL
APPLICATIONS



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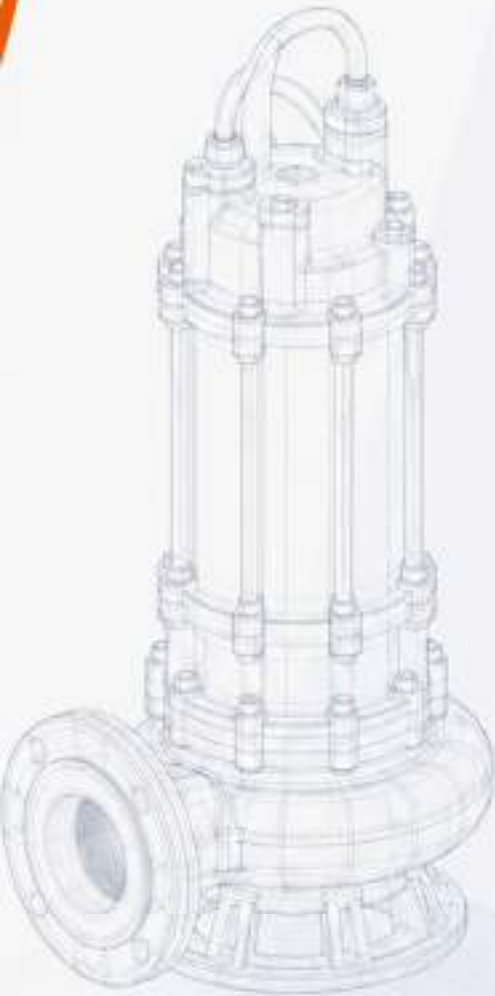


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POMPA**

ABOUT MICRA

ENGINEERING SOLUTIONS. POWERING TOMORROW.

Since our establishment, Micra Pompa has been designing and manufacturing high quality pump systems with a focus on innovation, durability and customer satisfaction.

With our experienced engineering team, advanced production technology and strict quality control, we deliver reliable solutions for various industries around the world.

We are committed to continuous improvement and sustainable growth, offering products that not only meet today's needs but also shape a better tomorrow.



RELIABLE PERFORMANCE

High efficiency pumps engineered for long lasting and trouble-free operation.



ADVANCED ENGINEERING

Modern design and precision manufacturing for superior performance.



WIDE APPLICATION RANGE

Solutions for sewage, industrial, municipal and construction applications.



QUALITY & TRUST

Strict quality control and customer oriented approach ensuring maximum reliability.



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04

TECHNICAL INFORMATION

POWERFUL ENGINEERING.
RELIABLE PERFORMANCE.

	DISCHARGE FLANGE	—	DN 50 - DN 400
	CAPACITY	—	1600 m³/H
	HEAD	—	100 m
	FREQUENCY	—	three-phase 50 Hz
	PROTECTION CLASS	—	IP 68
	THERMISTOR PROTECTION	—	PT100
	INSULATION	—	Class F
	FLUID TEMPERATURE	—	up to 40 °C

ENGINEERED
TO **PERFORM**.
BUILT TO LAST.



TRANSFERABLE LIQUIDS

Domestic and industrial waste water, raw sewage, liquids with fibrous and solid substances.



SHAFT SEALING

Double mechanical seal is used in standard production.



APPLICATIONS

- ✓ Iron and Steel Industry
- ✓ Energy Industry
- ✓ Mining
- ✓ Food and Beverage Industry
- ✓ Waste Water
- ✓ Building Systems



DESIGN FEATURES

Vertical, wide volute casing, single stage, end suction submersible type centrifugal pump with enclosed, semi-open or vortex types impeller. 20 basic sizes covering wide range of operational area.
Electric motor isolation class is IP 68.
Discharge flanges conform to EN 1092-2 / PN 10, EN 1092-1 / PN 10 for steel or stainless steel casing.

MATERIAL OPTIONS

Custom solutions for every need

Part List	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4517	1.4317	2.1005.01	2.0975.01	1.4021
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	
Motor Casing	●	○	○	○	○	○	○	○	○	○	○	
Impeller	●	○	○	○	○	○	○	○	○	○	○	
Rotor Shaft											●	
Oil Chamber	●	○										
Mechanical Seal (*)	EN 12756 / DIN 24250											

(*) Options: Different brand and type seal can be use can according to customer request.

● Standard Manufacturing ○ Optional

MATERIAL DESCRIPTIONS

DESCRIPTIONS	DIN	EN	AISI /SAE/ASTM
Cast Iron	0.6025	EN-GJL-250 (GG 25)	A-48 Class 40-B
Ductile Iron Coating	0.7040	EN-GJS-400-15 (GGG 40)	A 536 60-40-18
Steel Casting	1.0619	GP 240 GH (GSC 25)	A216 WCB
Chrome Nickel Steel Casting	1.4308	GX5 Cr Ni 19-10	A 351 CF8
Chrome Nickel Steel Casting (Low Carbon)	1.4309	GX2 Cr Ni 19-11	A 351 CF3
Chrome Nickel Molybdenum Steel Casting	1.4408	GX5 Cr Ni Mo 19-11-2	A 351 CF8M
Chrome Nickel Molybdenum Steel Casting (L.C.)	1.4409	GX2 Cr Ni Mo 19-11-2	A 351 CF3M
Austenitic - Ferritic Steel Casting (Duplex)	1.4517	GX2 Cr Ni Mo Cu N 25-6-3-3	A 890 CD4MCuN
Martensitic Stainless Steel Casting	1.4317	GX4 Cr Ni 13-4	A 352 CA6NM
Bronze Casting (Tinned)	2.1050.01	G-Cu Sn 10	B 427 C90700
Bronze Casting (Nickel Alloy)	2.0975.01	G-Cu Al 10 Ni	B 148 C95800
Chromium Steel	1.4021	X20 Cr13	A 276 Type 420

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Pumps • Fire Fighting Systems • Hydrofor

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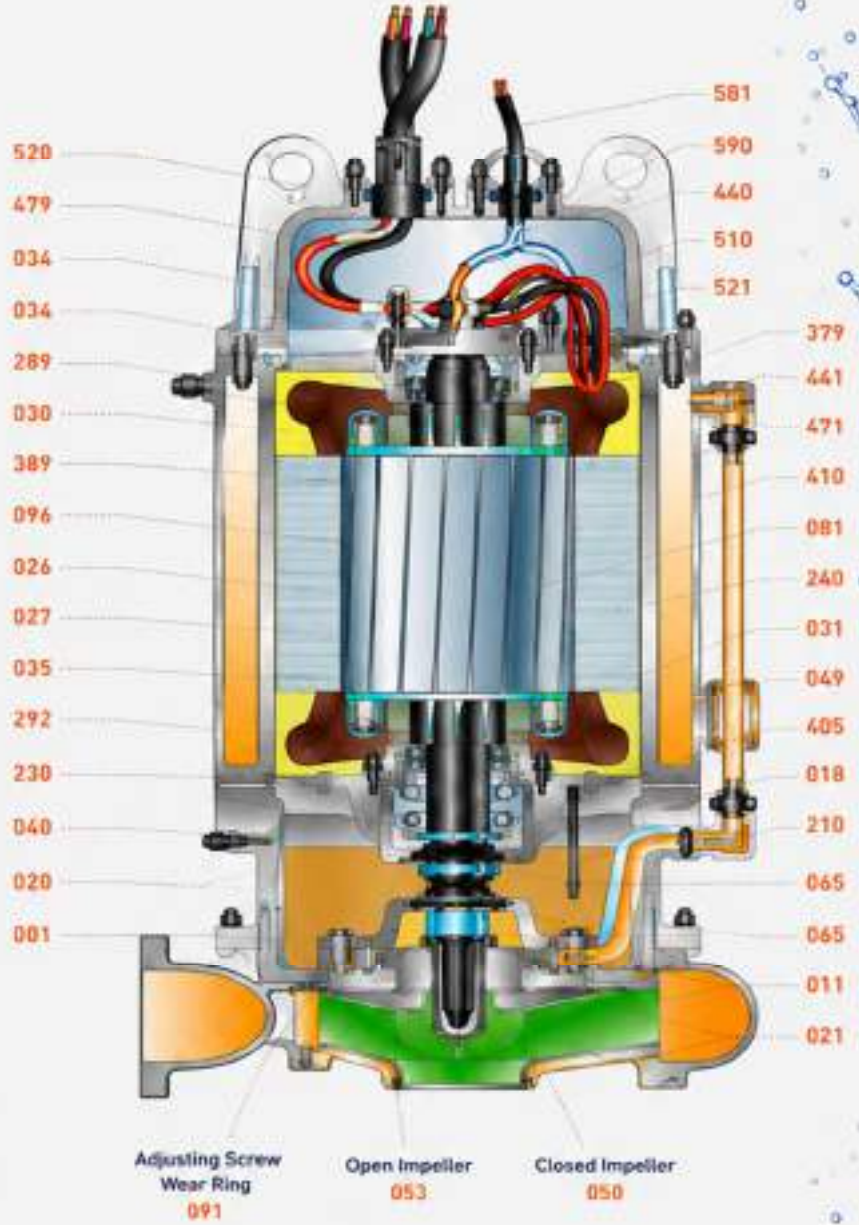


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SECTIONAL DRAWING

Durable design, **high efficiency**.
Each component is manufactured
with precision for maximum
performance and reliability.

520	Mechanical Seal Cover	581	Control Cables
479	Seal Housing	590	Cable Gland
034	Upper Bearing Cover	440	Mechanical Salmatra
034	Upper Bearing Cap	010	Cable Terminal
289	Upper Bearing Body	021	Mechanical Seal Cover
030	Upper Bearing Shield	379	Impeller Nut
389	Key	441	Impeller
096	Strainer	471	Impeller Washer
026	Motor Frame	410	Oil Plug
027	Support Bracket	081	Rotor & Shaft
035	Lower Bearing Cap	240	Oil Chamber Cover
292	Oil Chamber	031	Lower Bearing Shield
291	Upper Oil Seal	049	Water-Slinger
230	Oil Ring	405	Mechanical Salmatra
040	Wear Plate	018	Support Bracket
020	Pump Casing	210	Impeller Key
001	Discharge Flange	045	Impeller Screw
		011	Impeller Blade
		021	Wear Ring



**RELIABLE
PERFORMANCE**

Engineered for
demanding conditions.



**EASY
MAINTENANCE**

Modular structure for
fast and easy service.



**HIGH
EFFICIENCY**

Optimized design for
maximum efficiency.



**LONG
SERVICE LIFE**

Robust construction
for continuous operation.



**QUALITY
MATERIALS**

High quality materials
for lasting durability.



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MORE**

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PUMP CODE

SGW 150 - 315

- Nominal Impeller Diameter (mm)
- Discharge Flange (DN)
- Pump Type



PAINT CODE

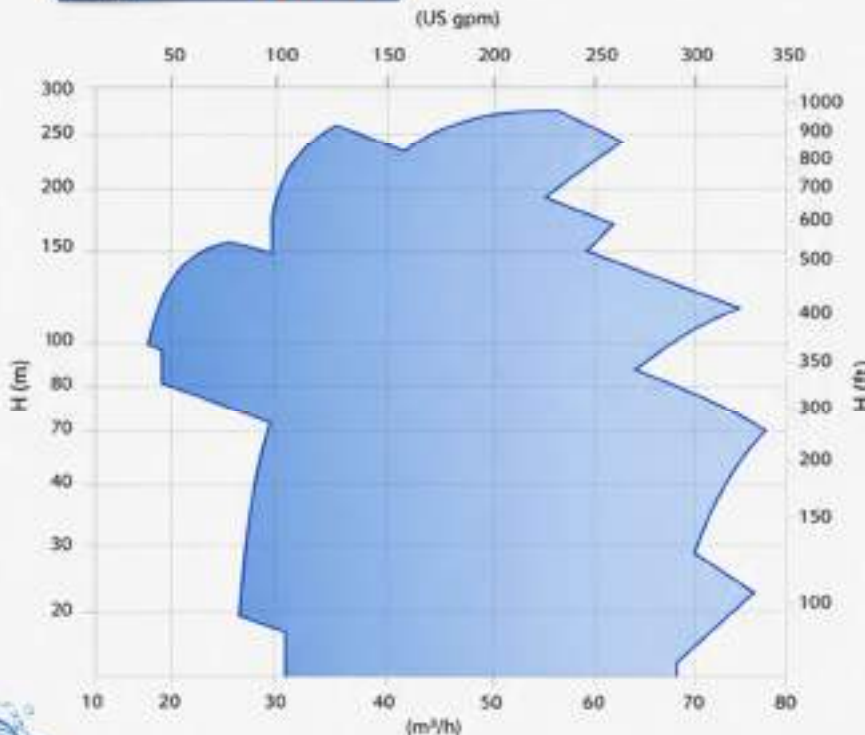


**BLACK RAL 9005
SHINE**

High Quality Shine Finish
for Maximum Corrosion
Resistance and Durability.



FIELD CHART



HIGH EFFICIENCY

Optimized hydraulic design
for maximum performance.



RELIABLE PERFORMANCE

Stable operation in
demanding conditions.



WIDE APPLICATION

Suitable for various industrial
and municipal applications.



BUILT TO LAST

Robust construction for
long service life.



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TECHNICAL DATA



HIGH EFFICIENCY

Optimized hydraulic design for maximum performance.



RELIABLE SOLUTIONS

Designed for uninterrupted and trouble-free operation in demanding conditions.



WIDE APPLICATION RANGE

Suitable for various industrial, municipal and construction applications.



LONG SERVICE LIFE

High quality materials and superior coating ensure extended service life.

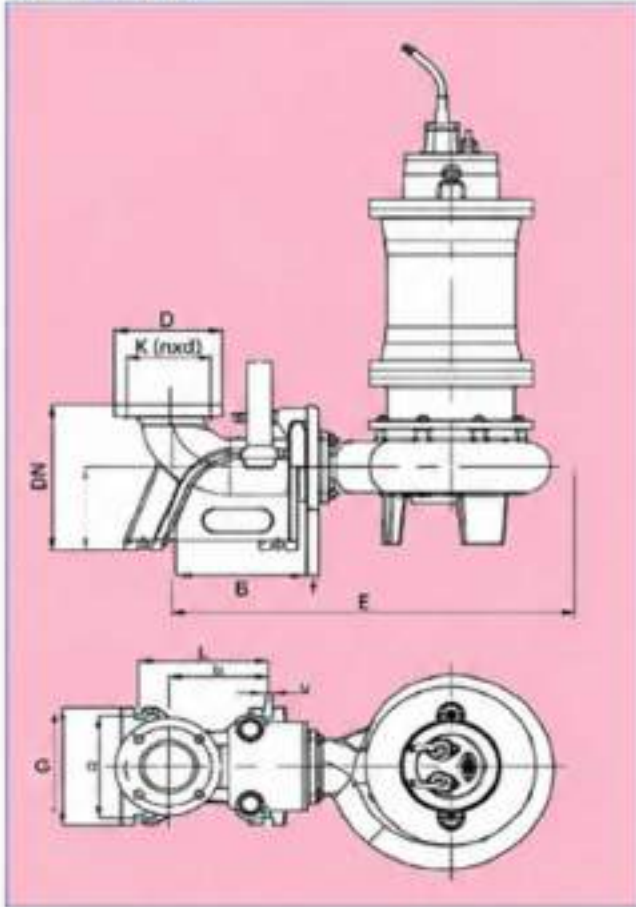
Pump Type	Impeller Type	Rated Power (kW)		
		Rated Speed		
		1000 (rpm)	1500 (rpm)	3000 (rpm)
50-240	D	-	-	5,5
50-240	D	-	-	7,5
50-240	D	-	-	11
50-270	Vx	-	3	-
50-270	Vx	-	4	-
50-270	Vx	-	5,5	-
50-270	Vx	-	7,5	-
80-270	D	-	-	11
80-270	D	-	-	15
80-270	D	-	-	18,5
80-270	D	-	-	22
80-270	D	-	-	30
80-315	AB	7,5	11	-
80-315	AB	-	15	-
80-315	AB	-	18,5	-
100-270	D	-	-	11
100-270	D	-	-	15
100-270	D	-	-	18,5
100-270	D	-	-	22
100-270	D	-	-	30
100-270	B	-	11	-
100-270	B	-	15	-
100-270	B	-	18,5	-
100-315	AB	7,5	11	-
100-315	AB	11	15	-
100-315	AB	-	18,5	-
100-315	AB	-	22	-
100-315	AB	-	30	-
100-315	B	-	11	-
100-315	B	-	15	-
100-315	B	-	18,5	-
100-315	B	-	22	-
100-315	B	-	30	-

Pump Type	Impeller Type	Rated Power (kW)		
		Rated Speed		
		1000 (rpm)	1500 (rpm)	3000 (rpm)
150-315	AB	7,5	11	-
150-315	AB	11	15	-
150-315	AB	15	18,5	-
150-315	AB	18,5	22	-
150-315	AB	-	30	-
150-315	AB	-	37	-
150-315	AB	-	45	-
150-315	AB	-	55	-
150-315	B	7,5	11	-
150-315	B	11	15	-
150-315	B	15	18,5	-
150-315	B	18,5	22	-
150-315	B	-	30	-
150-315	B	-	37	-
150-315	B	-	45	-
150-315	B	-	55	-
150-500	AB	45	75	-
150-500	AB	55	90	-
150-500	AB	-	110	-
150-500	AB	-	160	-
150-500	AB	-	160	-
150-500	AB	-	185	-
150-500	AB	-	200	-
200-315	AB	15	-	-
200-315	AB	18,5	30	-
200-315	AB	22	37	-
200-315	AB	-	45	-
200-315	AB	-	55	-
200-315	AB	-	75	-
200-315	G2K	15	22	-
200-315	G2K	18,5	30	-
200-315	G2K	22	37	-
200-315	G2K	-	45	-
200-315	G2K	-	55	-

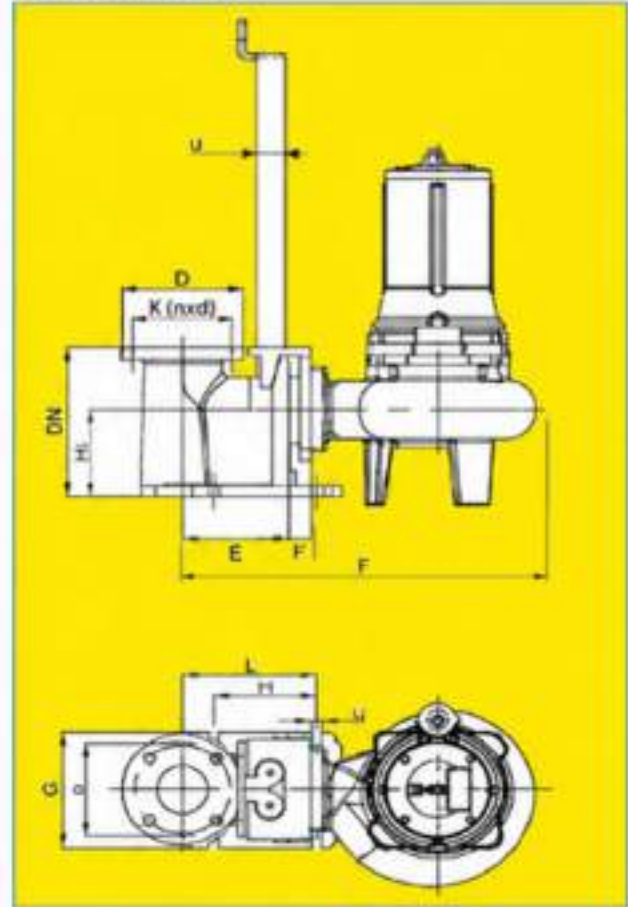


DIMENSIONS

DN 100 and above



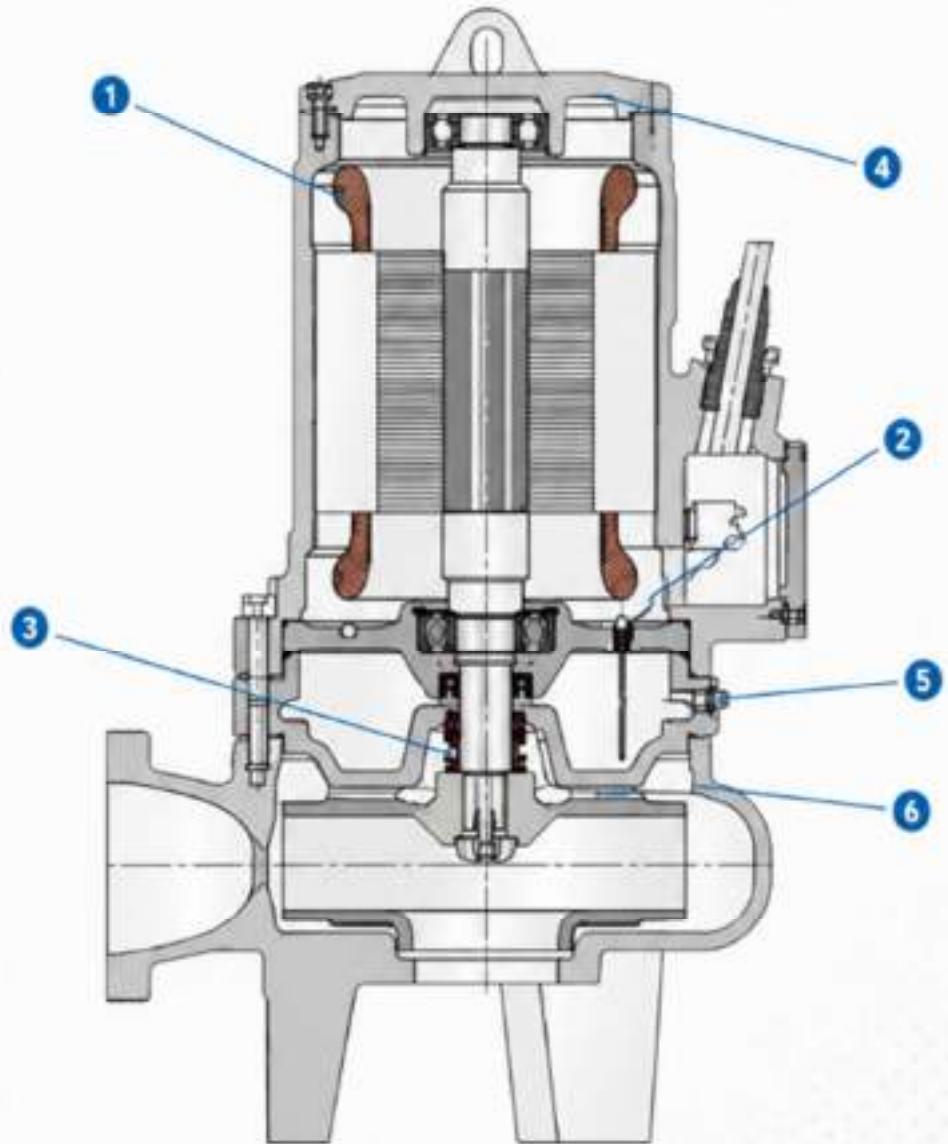
DN 50 and DN 80



Elbow No.	Guide Rail Pipe System Dimensions											Rail Pipe Diameter d
	F	E	hh	BB	s	m	u	p	n	D	K	
50	29	126	101	167	150	130	12	145	108	150	125(ø18/4 Ad.)	¾"
80	30	165	145	250	208	160	15	200	160	190	150(ø18/4 Ad.)	1 ¼"
100	21	245	180	310	191	251	18	250	220	190	170(ø18/4 Ad.)	1 ½"
150	31	371	270	465	295	385	27	375	310	285	240(ø22/8 Ad.)	2"
200	53	488	300	650	389	510	31	510	450	340	295(ø22/8 Ad.)	2"
250	55	610	365	800	485	618	41	640	565	395	350(ø23/12Ad.)	2 ½"
300	65	730	445	965	580	760	46	750	660	445	400(ø23/12Ad.)	2 ½"

COMPONENTS

- 1 - Temperature **SENSOR** (130°C) in F class winding head protection for overheating.
- 2 - Signaling **ELECTRODE** in case of leakage into the motor or into the oil chamber.
- 3 - **MECHANICAL SEAL** running in pumping liquid.
- 4 - Demountable **TOP COVER** for easy motor winding.
- 5 - Oil filling and inspection **PLUG**.
- 6 - **BACK VANES** for reducing axial load and sealing pressure.



IMPELLER TYPE



B TYPE IMPELLER :

Enclosed type impellers with wide channels capable of pumping large size solid particles without clogging, for big capacity and low pressure. It is mainly used for 4 pole motors.



D TYPE IMPELLER :

It is also enclosed type like B type but suitable for high speed motors (2 pole). It is convenient for high pressure, small capacity and smaller size solid particles.



VX TYPE IMPELLER :

Semi-open free vortex type impeller is placed on top of the volute. It creates a forced vortex motion in the casing. It is mostly suitable for fibrous materials. They are suitable for low head applications but pump efficiency is lower compare to other impeller types. The increased clearances limit the head that can be generated and reduce the attainable efficiency. Recessed type impellers are also possible for some models. With this type of design solid particles up to pump flanges size can pass through the pump. Please ask for more information.



F TYPE IMPELLER :

Semi-open type impeller with cutter. The cutting system is placed in front of the impeller and it breaks up the solid particles into smaller sizes that makes passing possible through the smaller pipes without sticking. F type impeller is suitable for small capacity, high pressure, but the pump efficiency is also low.

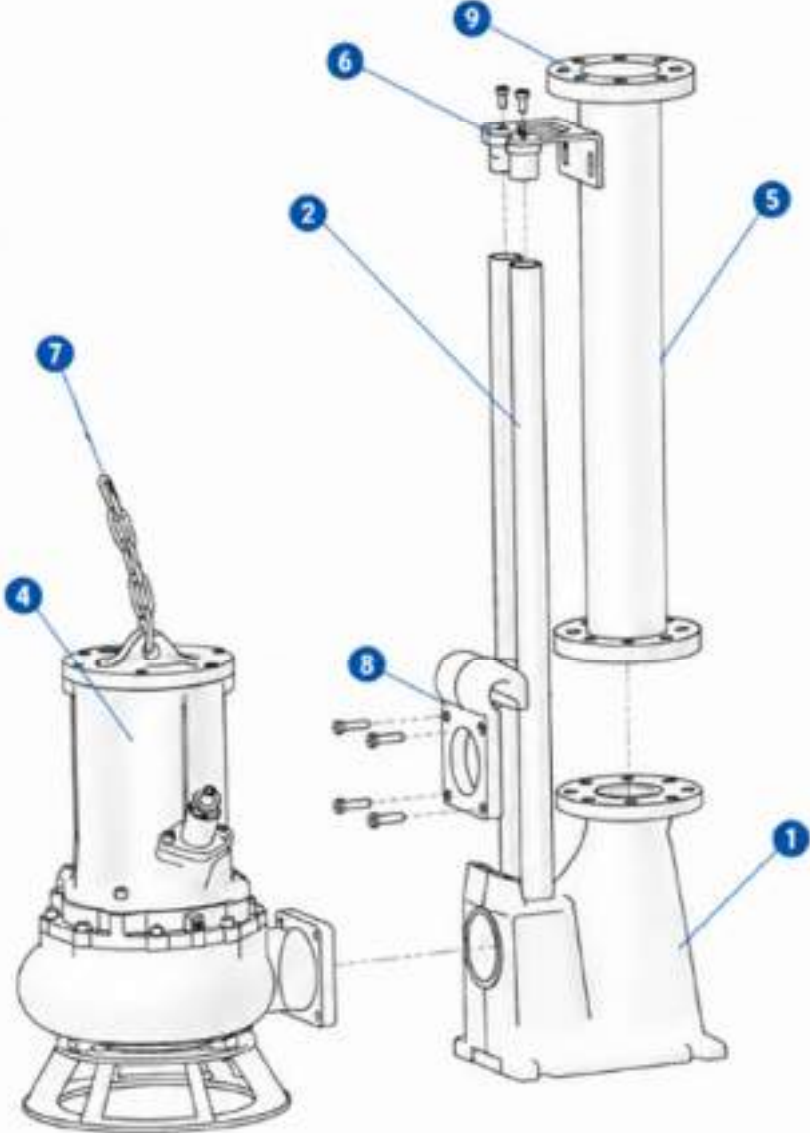


AB TYPE IMPELLER :

Semi-open type impellers with wide channels capable of pumping large size solid particles without clogging, for big capacity and low pressure. It is more suitable for 4 pole motors. Designed for aggressive applications. Impeller works against a wear plate. Clearance between the wear plate and impeller blades is between 0.25 - 0.40 mm.

AUTO COUPLINGS DETAILS

- 1 DUCK FOOT BEND**
Fixed on the sump floor.
- 2 GUIDE RAIL**
Made of 2 galvanized pipes or SS304.
- 3 AUTO COUPLING BRACKET**
Fixed on the duck foot bend.
- 4 SUBMERSIBLE PUMP**
With auto coupling system.
- 5 DISCHARGE PIPING**
Connected to the system.
- 6 UPPER GUIDE SUPPORT**
Fixed at the top of the guide rails.
- 7 LIFTING CHAIN**
For safe pump installation and removal.
- 8 BOLTS & FIXINGS**
For secure connection of bracket and supports.
- 9 FLANGE CONNECTION**
For discharge piping connection.



It's economic and practical installation for stationery systems. Automatic coupling system consists of duck foot bend fixed on sump floor, guide rail (consists of 2 galvanized or 2 SS304 pipes connected in parallel) and fixing flange which is fitted to the pump. Automatic coupling set components and discharge piping have to be installed before sump get filled with medium. Fixing flange which is fitted to the pump slides through the guide rails and pump lowered to the sump by means of chain. To take pump out of the sump by pulling pump by chain is enough, no dismantling or bolt removal required. Sealing is done by special gasket.

PART LIST OF AUTO COUPLING

NO	DESCRIPTION
1	Duck Foot Bend
2	Guide Rail
3	Guide Flange
4	Pump
5	Discharge Pipe
6	Upper Support Bracket
7	Chain
8	Bolt

SOLID SIZE OF SWG TYPE PUMPS

Model	Free passage (mm)	Model	Free passage (mm)
SWG 50/160D (141.1)	25	SWG 80/200B (200.1)	55
SWG 50/160D (141.2)	25	SWG 80/200B (200.2)	55
SWG 50/160D (141.3)	25	SWG 80/200D (202.1)	35
SWG 50/160D (142.1)	25	SWG 80/200D (202.2)	35
SWG 50/160F (148.1)	5	SWG 80/200Vx (205.1)	60
SWG 50/160F (148.2)	5	SWG 80/200Vx (205.2)	60
SWG 50/160F (148.3)	5	SWG 80-270	18
SWG 50/160Vx (146.1)	35	SWG 100/240B (240.1)	55
SWG 50/160Vx (146.2)	35	SWG 100/240B (240.2)	55
SWG 50/160Vx (146.3)	35	SWG 100/240D (242.1)	38
SWG 50/160Vx (146.4)	35	SWG 100/240D (242.2)	38
SWG 50/200B (150.1)	25	SWG 100/240Vx (245.1)	60
SWG 50/200B (150.2)	25	SWG 100/240Vx (245.2)	60
SWG 50/200B (150.3)	25	SWG 100/270B	76
SWG 50/200D (152.1)	25	SWG 100/270B (270.1)	76
SWG 50/200D (152.2)	25	SWG 100/270B (270.2)	76
SWG 50/200F (158.1)	5	SWG 100/270Vx (275.1)	76
SWG 50/200F (158.2)	5	SWG 100/270Vx (275.2)	76
SWG 50/200Vx (155.1)	40	SWG 100-270	40
SWG 50/200Vx (155.2)	40	SWG 150-315	80
SWG 50/200Vx (155.3)	40	SWG 150-500	36
SWG 50/200Vx (156.1)	35	SWG 200-315	85
SWG 50/200Vx (156.2)	35	SWG 200-400	88
SWG 50-270Vx	40	SWG 200-500	52
SWG 80/160B (160.1)	72		
SWG 80/160Vx (165.1)	76		

CIRCUIT DIAGRAMS FOR MOTOR CONTROL PANEL

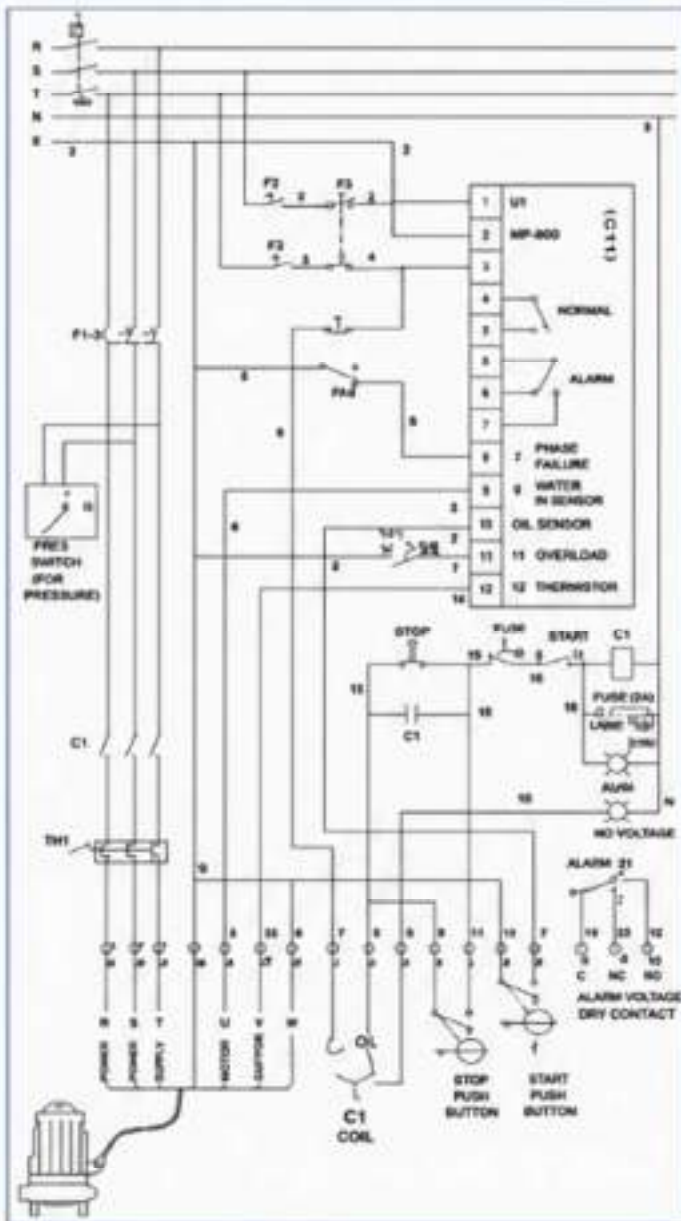


Figure 5a.

PUMPS WITH THREE-PHASE MOTORS

Cable sizes according to motor powers

Up to 0.75kW (4 x 1.5 + 3 x 1.5)

11kW (3 x 2.5 + 4 x 1.5)

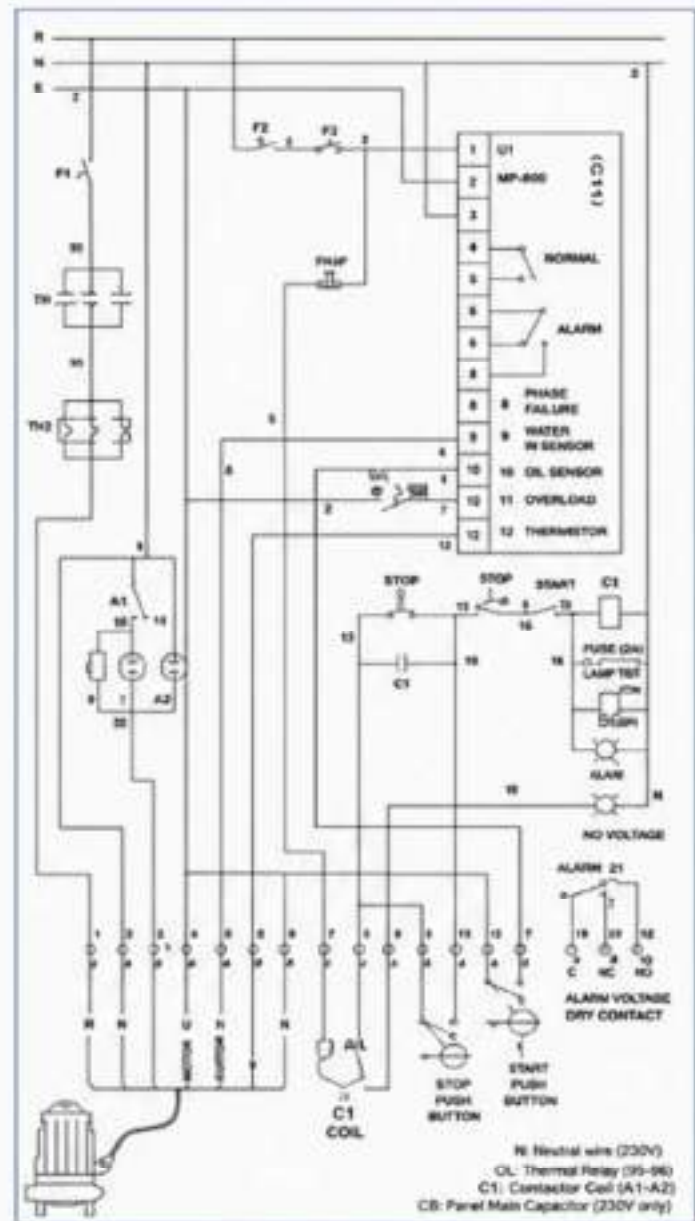


Figure 5b.

PUMPS WITH SINGLE-PHASE MOTORS

Cable sizes according to motor powers

For 1.1 and 1.5 kW (3 x 2.5 + 4 x 1.5)



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Fire • Dewatering • Solutions

SUBMERSIBLE PUMPS

STRONG PERFORMANCE,
RELIABLE SOLUTIONS.



HIGH RELIABILITY

Engineered for
demanding conditions.



LONG SERVICE LIFE

Durable construction for
continuous operation.



HIGH EFFICIENCY

Advanced hydraulic design
for maximum efficiency.



EASY MAINTENANCE

User-friendly design for
quick and easy service.



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