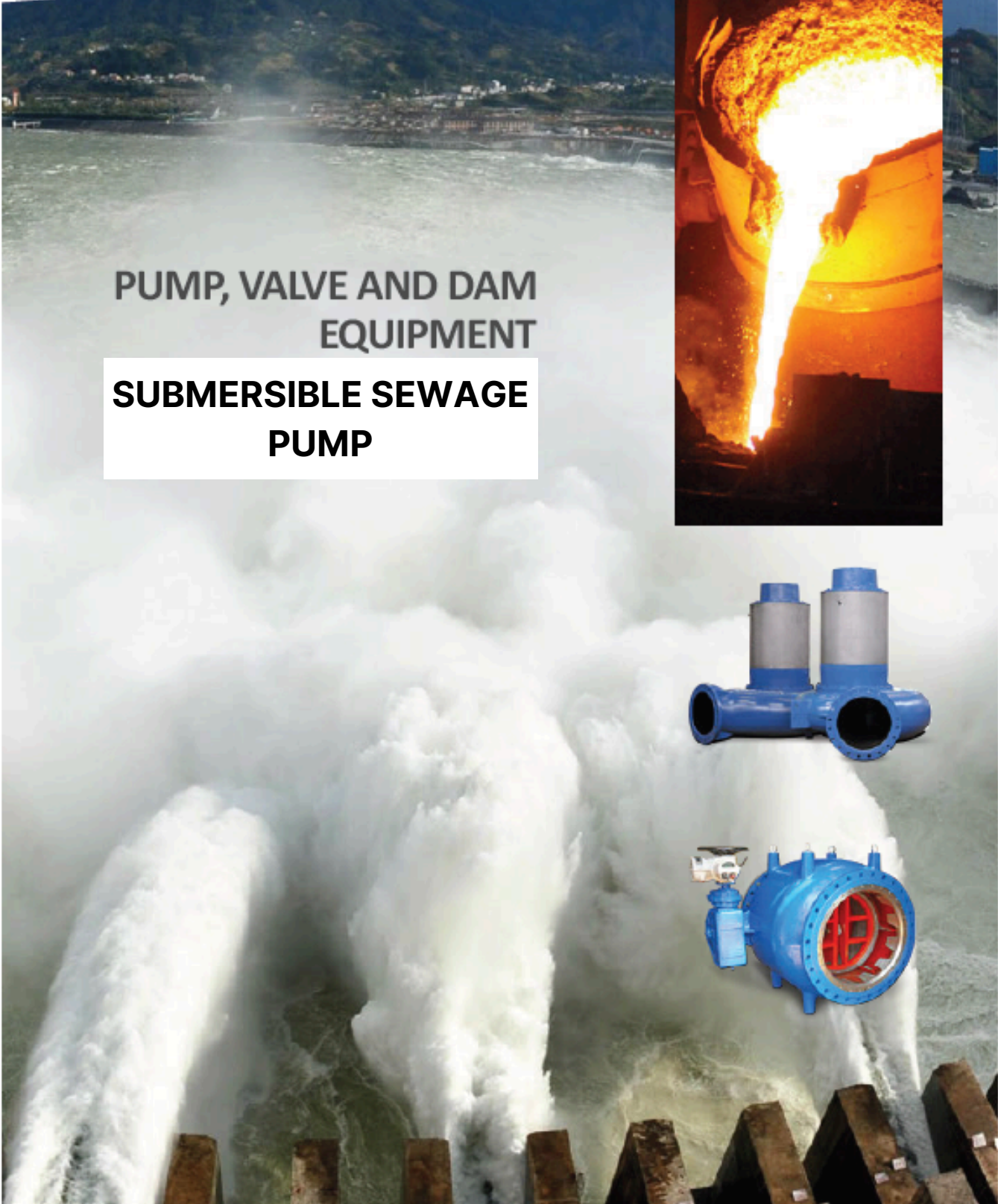


**PUMP, VALVE AND DAM  
EQUIPMENT**

**SUBMERSIBLE SEWAGE  
PUMP**



Since 1984, SEMSAN PUMP is main mechanical equipment and specific process pumps manufacturer for most important projects of Turkey. SEMSAN is most wanted company in Turkey market when SEMSAN PUMP established.

SEMSAN PUMP relocated in Samsun organized industrial zone at 2002 for growing marketing requests.

SEMSAN PUMP has 5000m2 work field in Samsun Industrial zone. Our company has 2x2000 kg. + 2x750 kg. Inducto therm brand twin induction furnaces. We can offer our brands manufacturing and high-tech forming and induction equipment's we can produce stainless steel and ductile products.

SEMSAN PUMP has TSE certificates on all products and all processes have to obey TSE ISO 9001:2008, TSE-EN-ISO 14001, İSG-OHSAS TS18001 quality management.

SEMSAN PUMP also has European CE Declaration of conformity for pumps and valves.

SEMSAN PUMP has innovative perspective, daily gaining new features on our company. Also SEMSAN PUMP check updates and newest products in the marketing world wide and keeps updating and upgrading self.

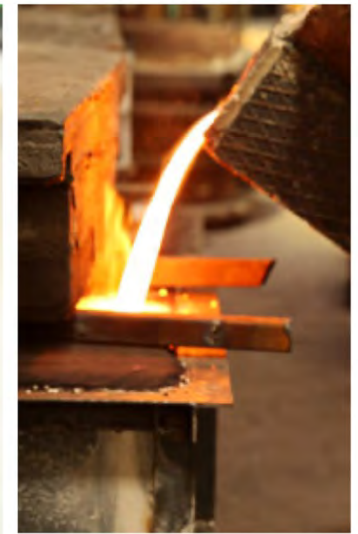
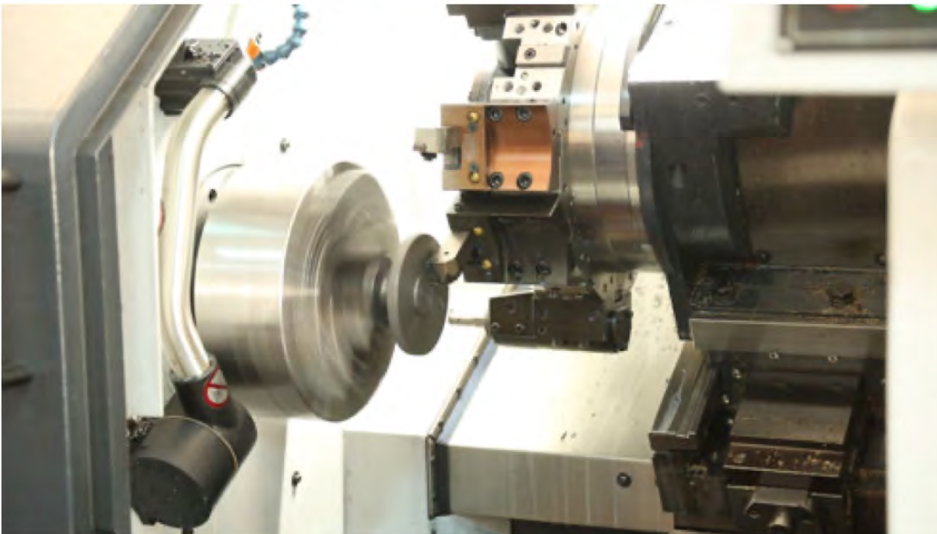
## CERTIFICATION

- K-Q TSE ISO EN 9000 QUALITY MANAGEMENT SYSTEM
- TSE İSG-OHSAS TS 18001 HEALTH AND SAFETY MANAGEMENT SYSTEM
- Ç-E TSE-ISO-EN 14000 ENVIROMENTAL MANAGEMENT SYSTEM
- TS EN 593 BUTTERFLY VALVE
- TS EN 12334 CHECK VALVE
- TS 12599 SUBMERSIBLE SEWAGE PUMP
- TSE K 461 DISMANTLIG JOINT
- 97/23/EC PRESSURE EQUIPMENT CASTING CERTIFICATE
- CE DECLARATION OF CONFORMITY ABOUT PUMPS
- TS 12873 SERVICE QUALIFICATION CERTIFICATE - PUMPS
- TS 12844 SERVICE QUALIFICATION CERTIFICATE - VALVE
- WRAS - COATING AND EPDM SEALING SUITABLE FOR DRINKING WATER



## MANUFACTURING

- FOUNDRY; 2x2000 kg + 2x750 kg Inductotherm Induction Furnace
- CNC Machining Department
- Electrostatic Epoxy Coating Line
- Double Compound Wet Epoxy Line
- Quality Control
- Material Laboratory: Spectrometer, Tensile Strength Test Machine, Microstructure Analysis Microscope, Hardness Tests
- Hydrostatic Pressure Tests for EN 12266 -1,2
- Pump Performance Tests for ISO 9906
- Material Certification for EN 10204 3.1
- Coating Thickness, Pull of and Spark Test
- Surface Roughness Tests



## SUBMERSIBLE SEWAGE PUMP

DN 50/800 | 1,3 - 630 KW



### MATERIAL

- Motor body ductile iron GGG 40/50
- Cooling jacket ST37-2 / AISI 304
- Motor shaft is AISI 420 X20Cr13
- Fasteners AISI316
- Impeller is ductile iron GGG/40/50

### FOR WET MOUNTING

- Pedestal, ductile iron GGG 40-50 / stainless steel
- Fasteners are galvanized steel
- Pipe coupling socket is ductile iron GGG 40/50

### FOR DRY MOUNTING

- Pump chassis ST37-2

\*\*Please contact for your different material requests.

### SPECIFICATIONS

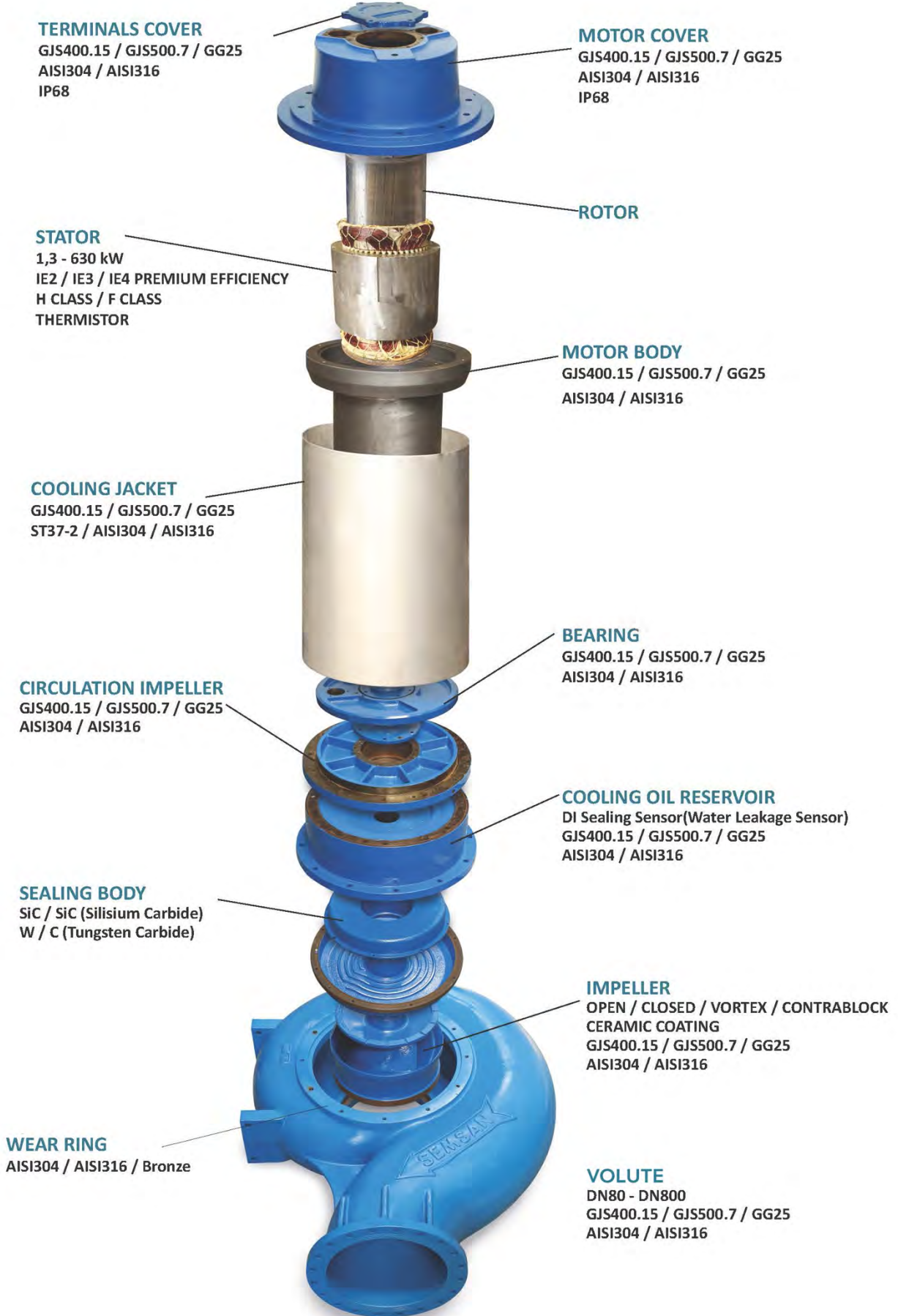
- Discharge Outlets DN50-800
- Motor power is 1,3-630 kw
- Operating voltage is 380 V 50 Hz (3 phase)
- Insulation class: H
- Protection class: IP68
- Type of starting: star delta, directly, soft starter
- Type of cable: H07RNF
- Standart cable length is 10 meters
- Mechanical seal SiC-SiC / W-C

### DESIGN

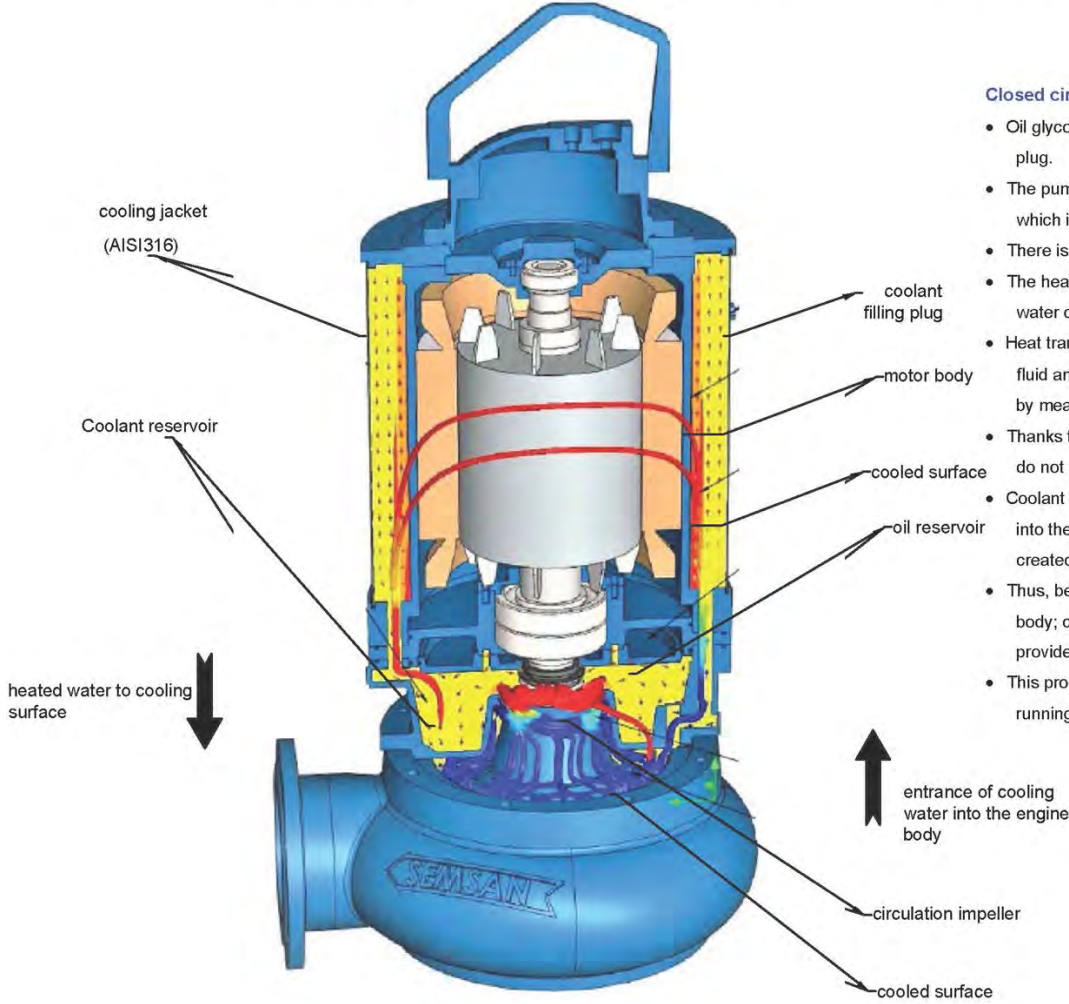
- TS EN 12599 certificated
- 380 V 50 Hz 3phase squirrel cage motor
- Motor insulation class H
- 1,3- 7,5 kw cooling vane (cooling jacket is optional)
- 11-630 kw closed circuit cooling system
- DI sealing sensor in the oil reservoir between the electric motor and the pump
- Maintenance free bearings
- There is a thermister temperature sensor for protect over heating of motor
- Stainless steel shaft
- Optionally completely in stainless steel manufacturing
- Custom manufacturing according to the type of fluid
- Dry, wet, horizontal and vertical mounting ability
- Epoxy coating

### TYPE OF IMPELLER

- SO : One Vane Open
- DO : Two Vane Open
- TO : Three Vane Open
- SC : One Channel Closed
- DC : Two Channel Closed
- TC : Three Channel Closed
- VX : Vortex



## SUBMERSIBLE SEWAGE PUMP CLOSED CIRCUIT COOLING SYSTEM



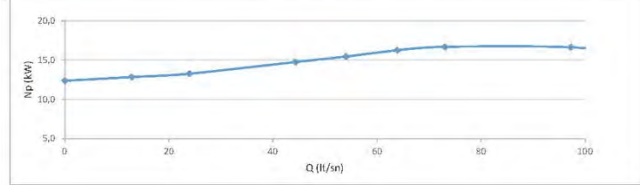
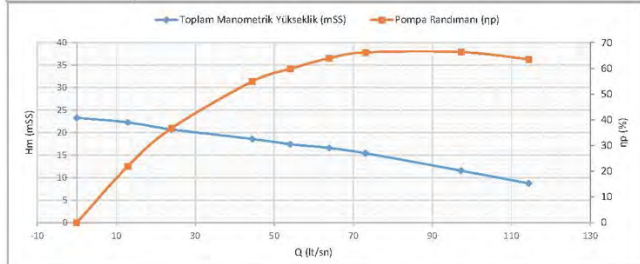
### Closed circuit cooling system working principle

- Oil glycol mixture coolant is filled from the cooling plug.
- The pump transfers the heat of the stator body, which is heated during operation, to the water.
- There is a circulation impeller on the main shaft.
- The heated water is transferred into the cooling water chamber through this impeller.
- Heat transfer is provided between the circulating fluid and the fluid pressed by the pump in the snail by means of the fin plate in the coolant reservoir.
- Thanks to this separator plate, two different liquids do not mix.
- Coolant cooling down on the fins; It is sent back into the engine body with the pressure difference created by the circulation impeller.
- Thus, between the cooling jacket and the engine body; continuous chilled liquid circulation is provided.
- This process continues as long as the pump is running.

### SUBMERSIBLE SEWAGE PUMP PERFORMANCE EFFICIENCY TEST REPORT

		HİDROLİK VERİLER				ELEKTRİK VERİLER			
Teklif No		Debi (Q)	77,7 l/sn	Motor Gücü (N)	18,5 kW				
Pompa Modeli	ASP 100 260 M185 4	Yükseklik (Hm)	15 mSS	Devir (n)	1475 d/dak				
İmal Yılı / Seri No	2016 / KUTLAR 002	Randiman (np)	66 %	Motor Randımanı	91,3 %				
Test Tarihi / Saati	22.02.2016 / 16.57	Basma Ağızı (DN)	150 mm	<b>TEST STANDI VERİLERİ</b>					
Test No	1	Fan Tipi	2 kanat açık	Boru Çapı (DN)	0,13 mt				
Özel Nolar: Pedestallı,		Fan Çapı	270	Su Seviyesi (m3)	1,4 mt				

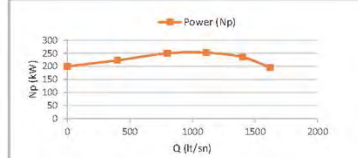
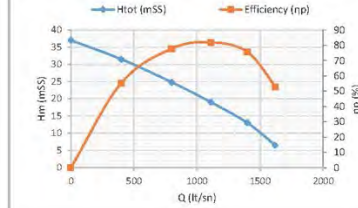
Debi (Q)	l/sn	0	13	24	44	54	64	73	97	114
Basınç Transmitteri	mt.	21,9	20,8	19,2	16,6	15,2	14,0	12,5	7,4	3,6
Toplam Güç (N)	kW	13,6	14,1	14,5	16,2	16,9	17,8	18,3	18,2	16,9
Hız (V)	m/sn	0,00	0,97	1,80	3,34	4,07	4,81	5,51	7,33	8,62
Hız Yükseklik Farkı	mt.	0	0,0482	0,166	0,57	0,845	1,181	1,545	2,736	3,784
Toplam Manometrik Yükseklik (mSS)	Hm	23	22	21	19	17	15	12	9	
Mil Gücü (Np)	kW	12,4	12,8	13,3	14,8	15,4	16,3	16,7	16,6	15,4
Pompa Randımanı (np)	%	0	22	37	55	60	64	66	66	63,51



### SUBMERSIBLE SEWAGE PUMP PERFORMANCE CURVE

Customer		Order No	
		Date	23.08.2016

PUMP SPECIFICATIONS				MOTOR SPECIFICATIONS	
Model	ASP100-260 M3150 / 8	Suction / Discharge	DN 500	Motor Power (N)	315 kW
Flow Rate (Q)	4000 m <sup>3</sup> /h	Impeller Type	3 Ch Closed	Speed (n)	740 d/dak
Flow Rate (Q)	1111,1 l/sn	Impeller Dia	660 mm	Operation Voltage	380 V
Head (Hm)	19 mSS	Solid Size	120 mm	Frequency	50 Hz
Operation Temp.	40 °C	Efficiency (np)	82 %	Insulation Class	H Class
Protection Class	IP68	Power (N)	252,4 Kw	Cable Length	10 mt

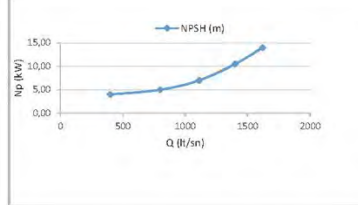


**MATERIAL**

Body: GJS 400/15 (GGG 40) - Ductile Iron  
 Pump Snail: GJS 400/15 (GGG 40) - Ductile Iron  
 Impeller: GJS 400/15 (GGG 40) - Ductile Iron  
 Shaft: AISI 420 (X20Cr13) Stainless Steel  
 Sealing: SIC / SIC

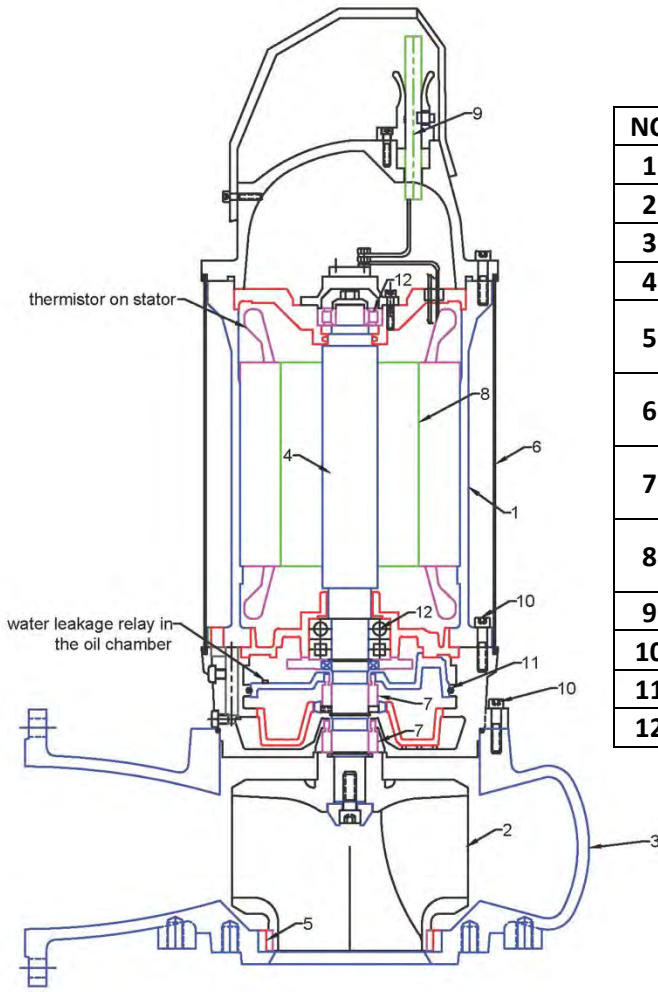
**DESIGN**

- \* Thermistor Temperature Sensor for Protect Over Heating of Motor.
- \* DI Sealing Sensor in the Oil Reservoir Between \* The Electric Motor and the Pump
- \* Closed Circuit Cooling System
- \* Cooling Jacket for Dry Mounting
- \* Double Mechanical Seal for Pump Sealing
- \* Maintenance Free Bearings

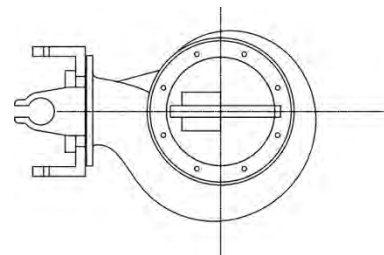
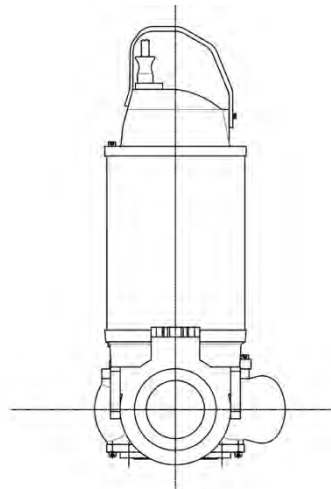
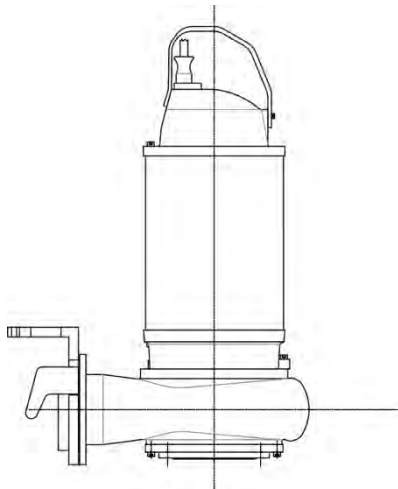


EN ISO 9906  
PUMP TEST  
STAND

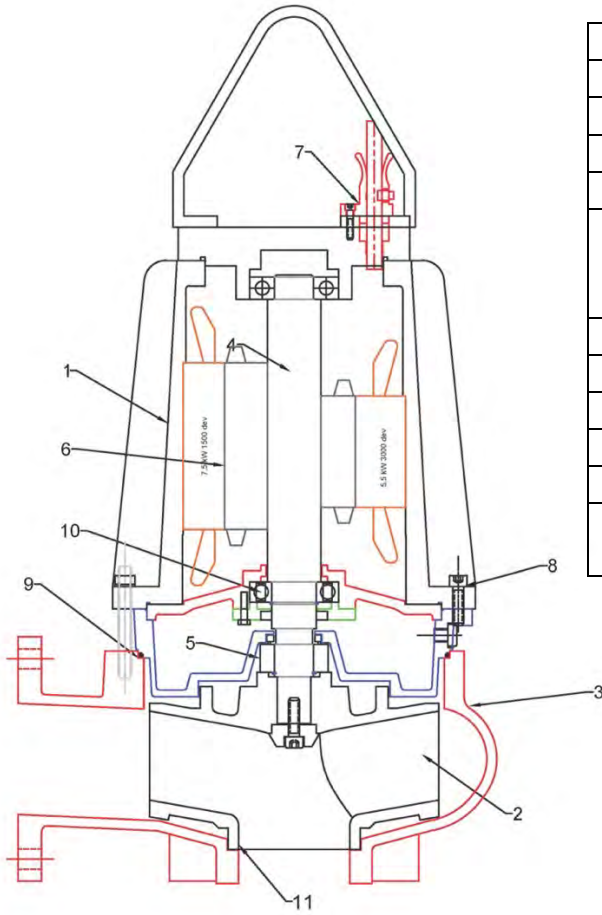




NO	PART NAME	MATERIAL LIST
1	Body	GJS 400.15 Ductile iron
2	Impeller	GJS 400.15 Ductile iron
3	Snail	GJS 400.15 Ductile iron
4	Pump shaft	AISI 420 (X20Cr13)
5	Wear Ring (impeller and snail)	AISI 316/304 Stainless steel
6	Cooling Jacket	AISI 316/304 Stainless steel OR steell
7	Mechanical Seal	Double Mechanical Seal in accordance with DIN 24960 (SiC/SiC or WC)
8	Motor	IE2 380V 50 Hz 3 phase H Class
9	Cable	H07RNF
10	Bults and nuts	A2 stainless steel
11	Seals	EPDM
12	Bearings	Ground, metal bodied bearing

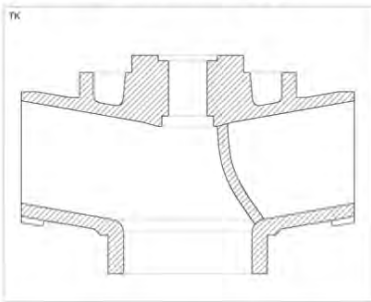




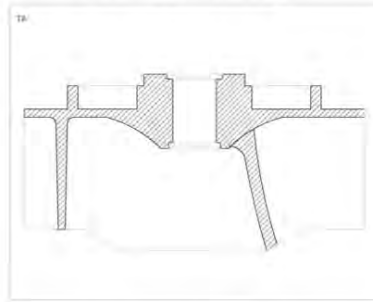


NO	PART NAME	MATERIAL LIST
1	Body	GJS 400.15 Ductile iron
2	Impeller	GJS 400.15 Ductile iron
3	Snail	GJS 400.15 Ductile iron
4	Pump shaft	AISI 420 (X20Cr13)
5	Mechanical Seal	Double Mechanical Seal in accordance with DIN 24960 (SiC/SiC or WC)
6	Motor	IE2/IE3 380V 50 Hz 3 phase H Class
7	Cable	H07RNF
8	Bolt and Nuts	A2 Stainless Steel
9	Seals	EPDM
10	Berings	Ground, metal bodied bearing
11	Wear Ring (impeller and snail)	AISI 316/304 Stainless Steel

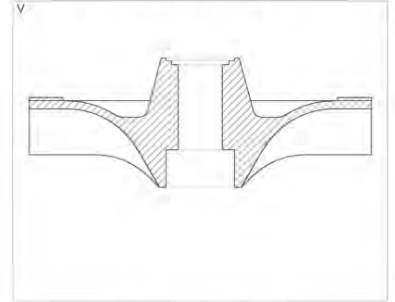
**TK Impeller Type**



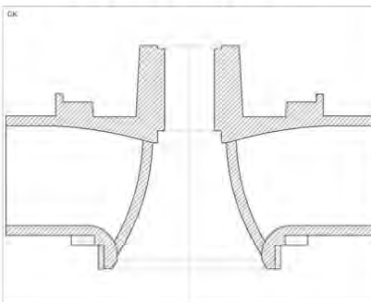
**TA Impeller Type**



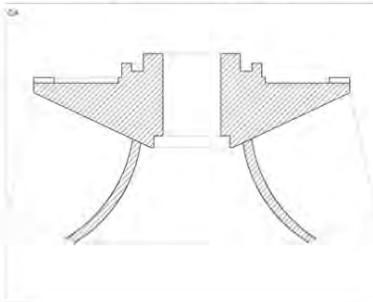
**V Impeller Type**



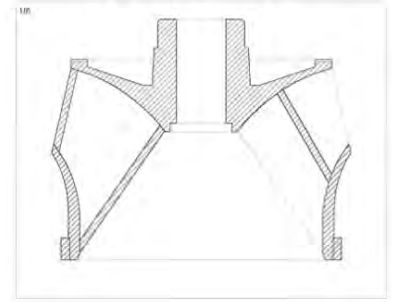
**CK Impeller Type**

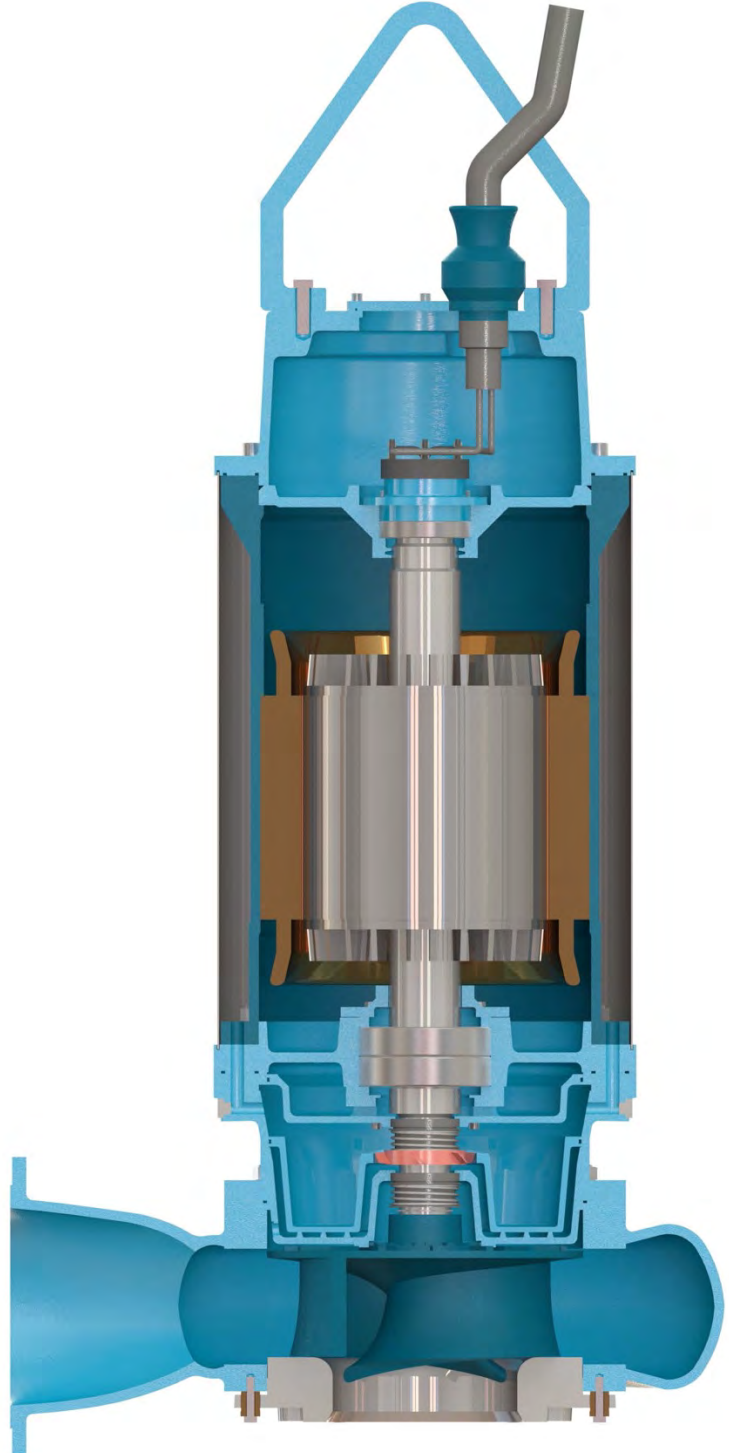


**CA Impeller Type**

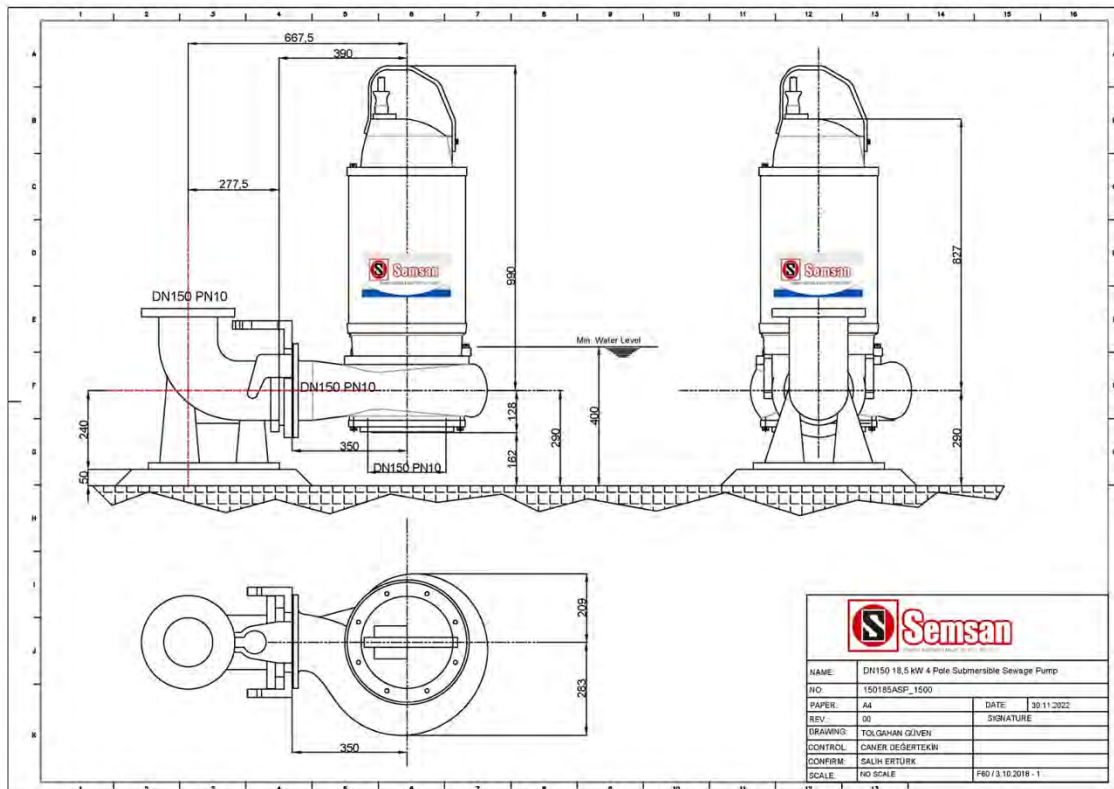
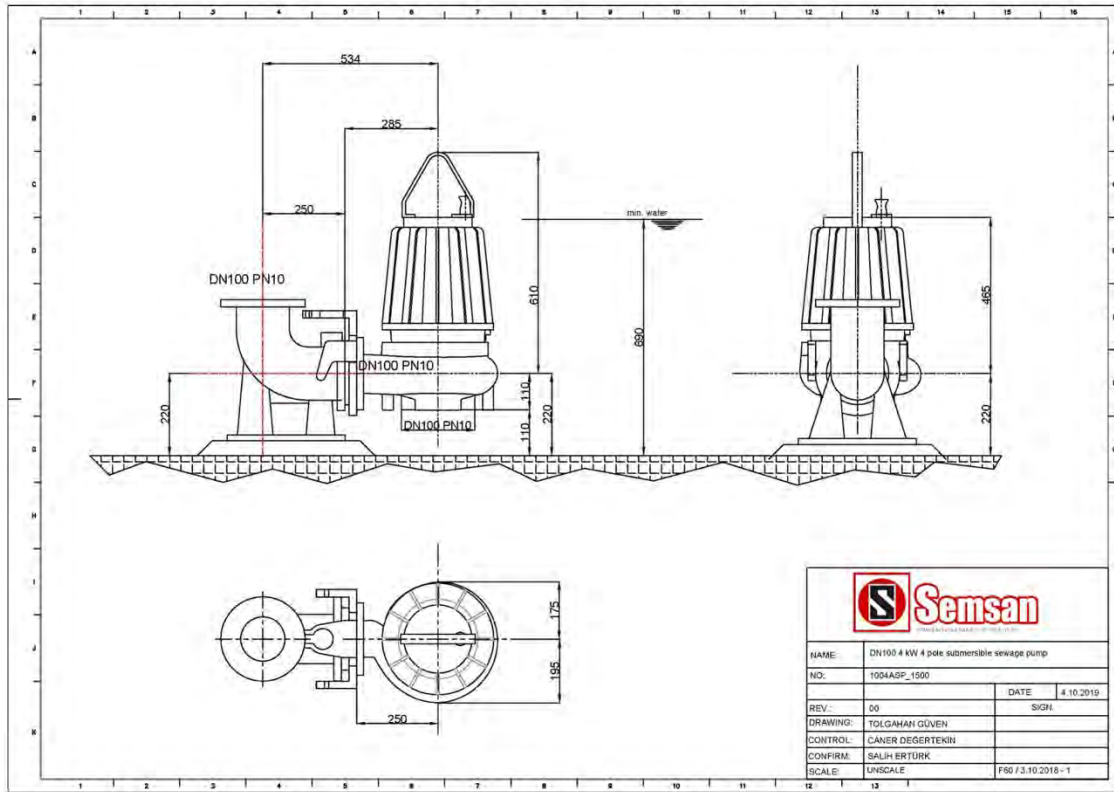


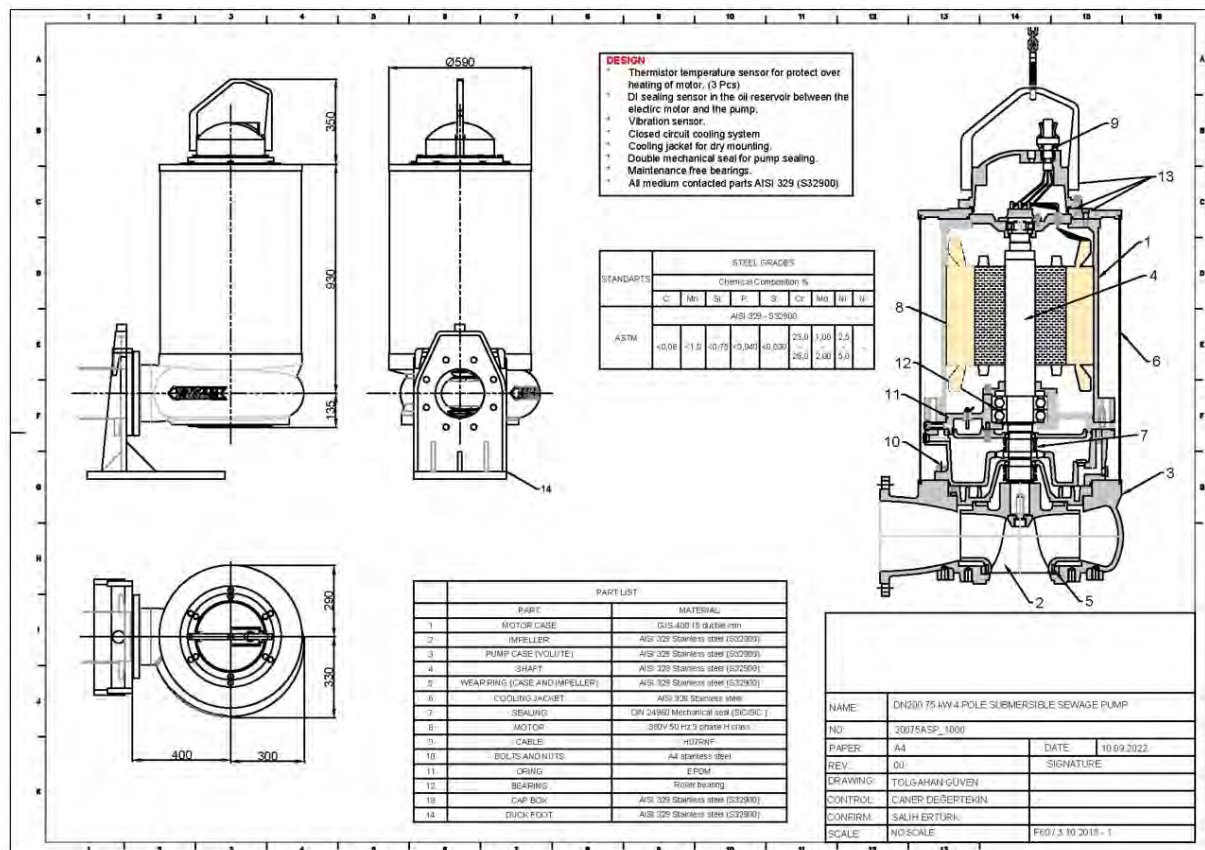
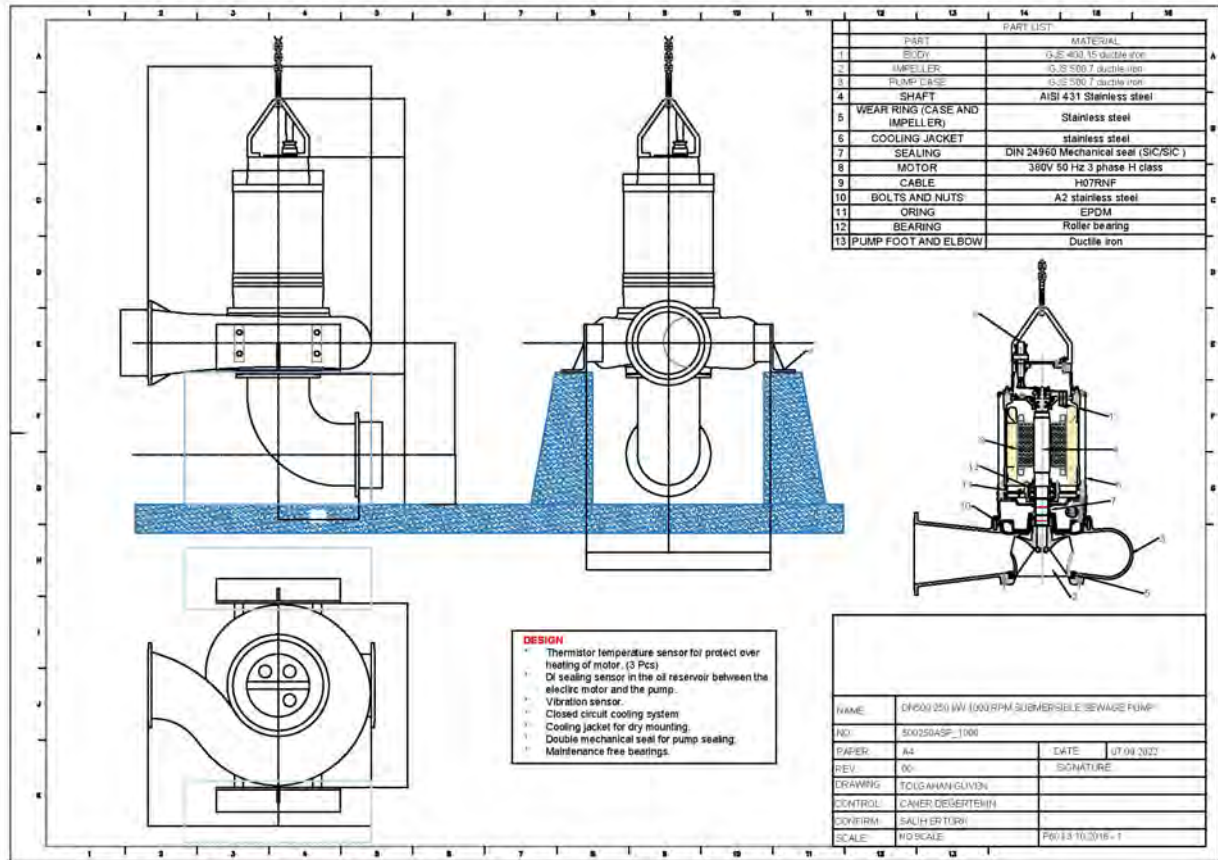
**UK Impeller Type**

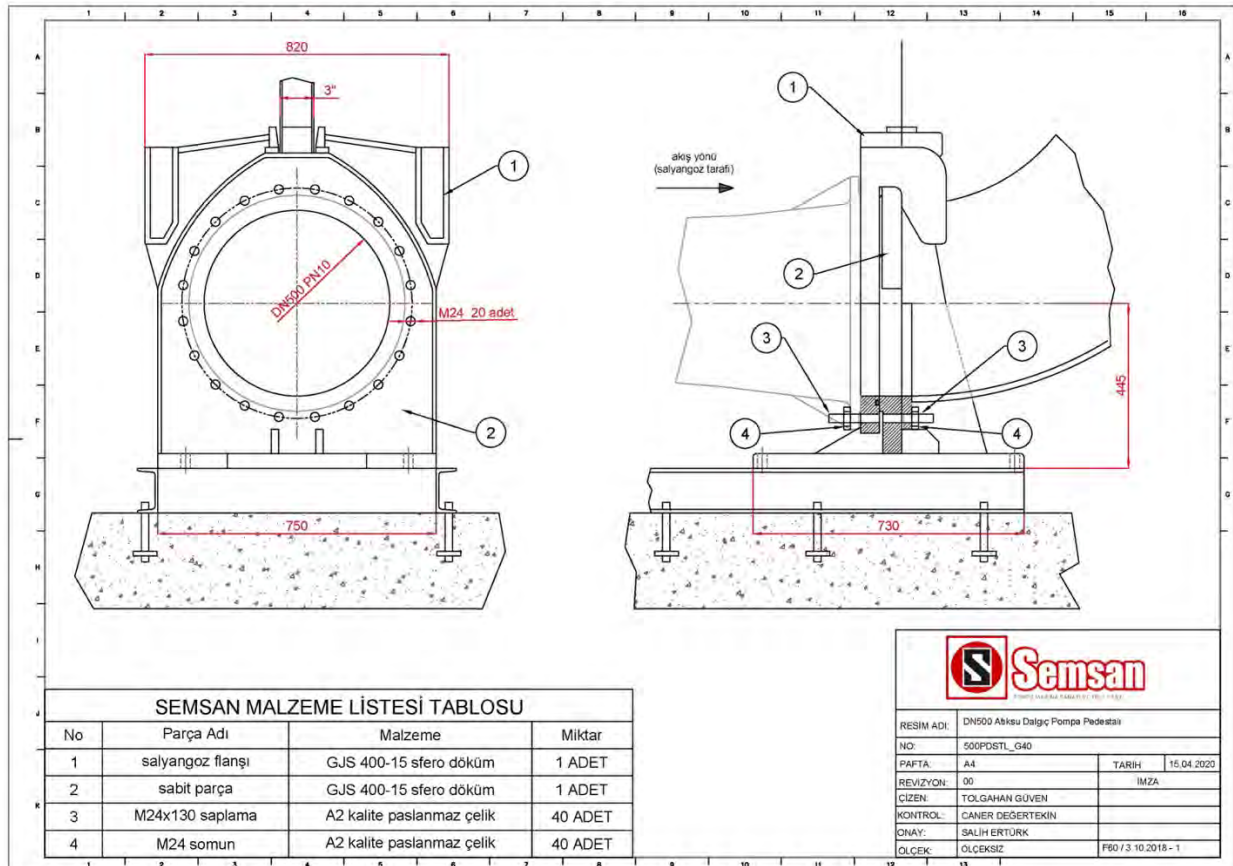
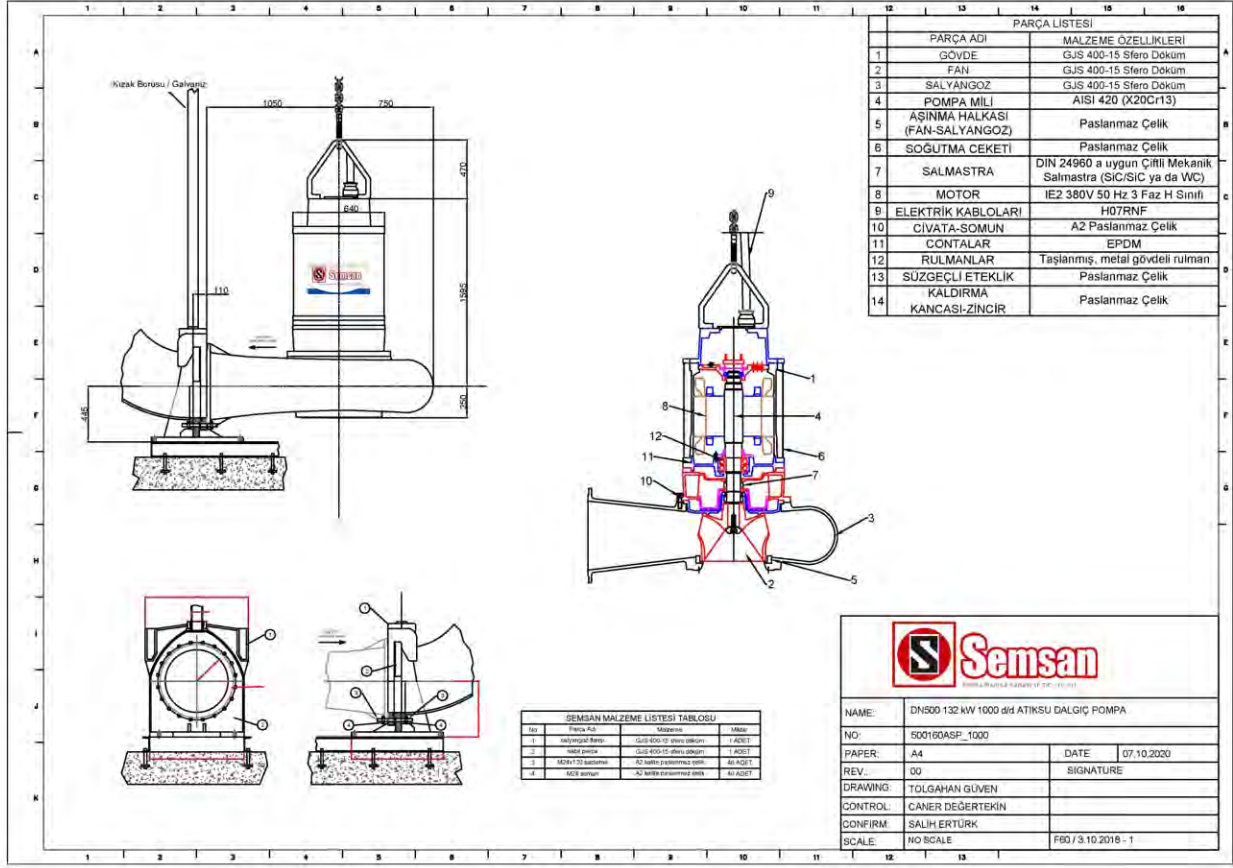




PUMP CODE	IMPELLER TYPE		SOLID SIZE	OUTLET	INLET	NO OF POLES	N (kW)	Qnom (lt/sn)	Hmax (mWC)						
ASP 080 SO T1	SO	T1	65	080	080	2 / 4 / 6	1,5 - 11	5 - 35	70						
ASP 080 SC T2	SC	T2	65												
ASP 080 VX T1	VX	T1	75												
ASP 080 VX T2	VX	T2	75												
ASP 100 SO T1	SO	T1	65	100	100	2 / 4	3 - 75	5 - 65	70						
ASP 100 SO T2	SO	T2	65												
ASP 100 SO T3	SO	T3	65												
ASP 100 SC T1	SC	T1	75												
ASP 100 SC T2	SC	T2	75												
ASP 100 VX T1	VX	T1	100												
ASP 100 VX T2	VX	T2	100												
ASP 100 DO T1	DO	T1	77 x 52												
ASP 100 DO T2	DO	T2	75												
ASP 100 DC T1	DC	T1	75												
ASP 100 DC T2	DC	T2	75												
ASP 150 SO T1	SO	T1	80 x 100							150	150	4 / 6	11 - 75	20 - 150	70
ASP 150 SO T2	SO	T2	80 x 100												
ASP 150 SC T1	SC	T1	80 x 100												
ASP 150 SC T2	SC	T2	80 x 100												
ASP 150 DO T1	DO	T1	100												
ASP 150 DO T2	DO	T2	100												
ASP 150 DC T1	DC	T1	80 x 100												
ASP 150 DC T2	DC	T2	80 x 100												
ASP 150/100 SO T3	SO	T3	80 x 100	/100											
ASP 150/100 DO T3	DO	T3	80 x 100	/100											
ASP 200 SO T1	SO	T1	100	200	200	4 / 6	18,5 - 132	35 - 215	70						
ASP 200 SC T1	SC	T1	100												
ASP 200 DO T1	DO	T1	100												
ASP 200 DO T2	DO	T2	100												
ASP 200 DC T1	DC	T1	100												
ASP 200 DC T2	DC	T2	100												
ASP 200/150 SO T3	SO	T3	100							/150					
ASP 200/150 DO T3	DO	T3	100							/150					
ASP 250 DO T1	DO	T1	90 x 110	250	250	4 - 6	11 - 250	100 - 360	70						
ASP 250 DO T2	DO	T2	90 x 110												
ASP 250 DC T1	DC	T1	90 x 110												
ASP 250 DC T2	DC	T2	90 x 110												
ASP 300 DO T1	DO	T1	90 x 125	300	300	4 / 6 / 8	30 - 315	150 - 550	50						
ASP 300 DO T2	DO	T2	90 x 125												
ASP 300 DC T1	DC	T1	90 x 125												
ASP 300 DC T2	DC	T2	90 x 125												
ASP 300 TOT1	TO	T1	90 x 125												
ASP 300 TCT1	TC	T1	90 x 125												
ASP 400 DO T1	DO	T1	100 x 130	400	400	6 / 8	30 - 315	200 - 750	35						
ASP 400 DC T1	DC	T1	100 x 130												
ASP 400 TOT1	TO	T1	100 x 130												
ASP 400 TCT1	TC	T1	100 x 130												
ASP 500 TOT1	TO	T1	130 x 150	500	500	6 / 8	45 - 450	400 - 1200	35						
ASP 500 TCT1	TC	T1	130 x 150												
ASP 600 TOT1	TO	T1	175	600	600	6 / 8 / 10	110 - 500	800 - 1600	25						
ASP 600 TCT1	TC	T1	175												
ASP 800 TOT1	TO	T1	255	800	800	8 / 10	110 - 630	1200 - 2500	20						
ASP 800 TOT1	TC	T1	255												







# Our Products



**Butterfly Valve**



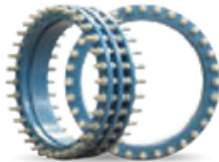
**Plunger Valve**



**Tilting Check Valve**



**Nozzle Check Valve**



**Dismantling Joint**



**Submersible Mixed Flow Column Type Pump**



**Hydraulic Controlled Check Butterfly Valve**



**Strainer - Y - Type / Inline - Basket Type**



**Swing Check Valve**



**Knife Gate Valve**



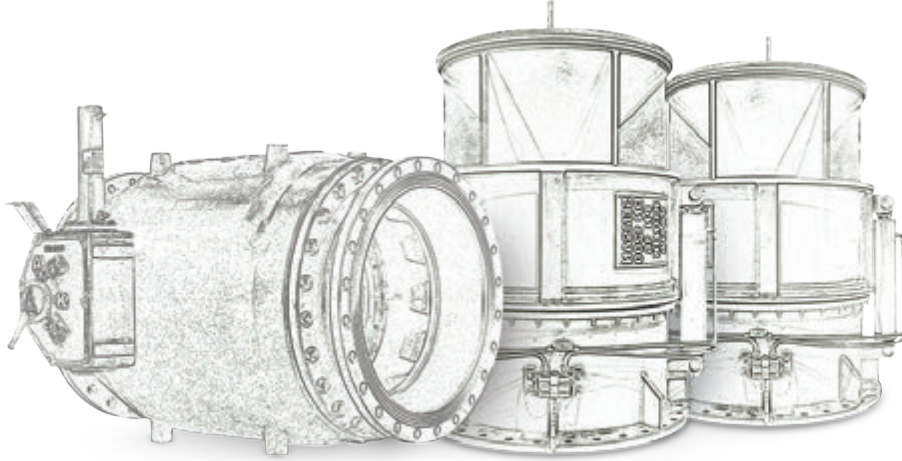
**Hollow Jet Valve / Gate Valve**



**Submersible Sewage Pump**



PUMP, VALVE & DAM  
EQUIPMENTS  
PRODUCT CATALOGUE



**SEMSAN POMPA MAKİNA SANAYİ VE TİCARET LTD. ŞTİ.**

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