

INFLUX

PETROLEUM

CRAFTSMANSHIP QUALITY

2025

INGENUITY QUALITY · TECHNOLOGY FIRST

Introduction

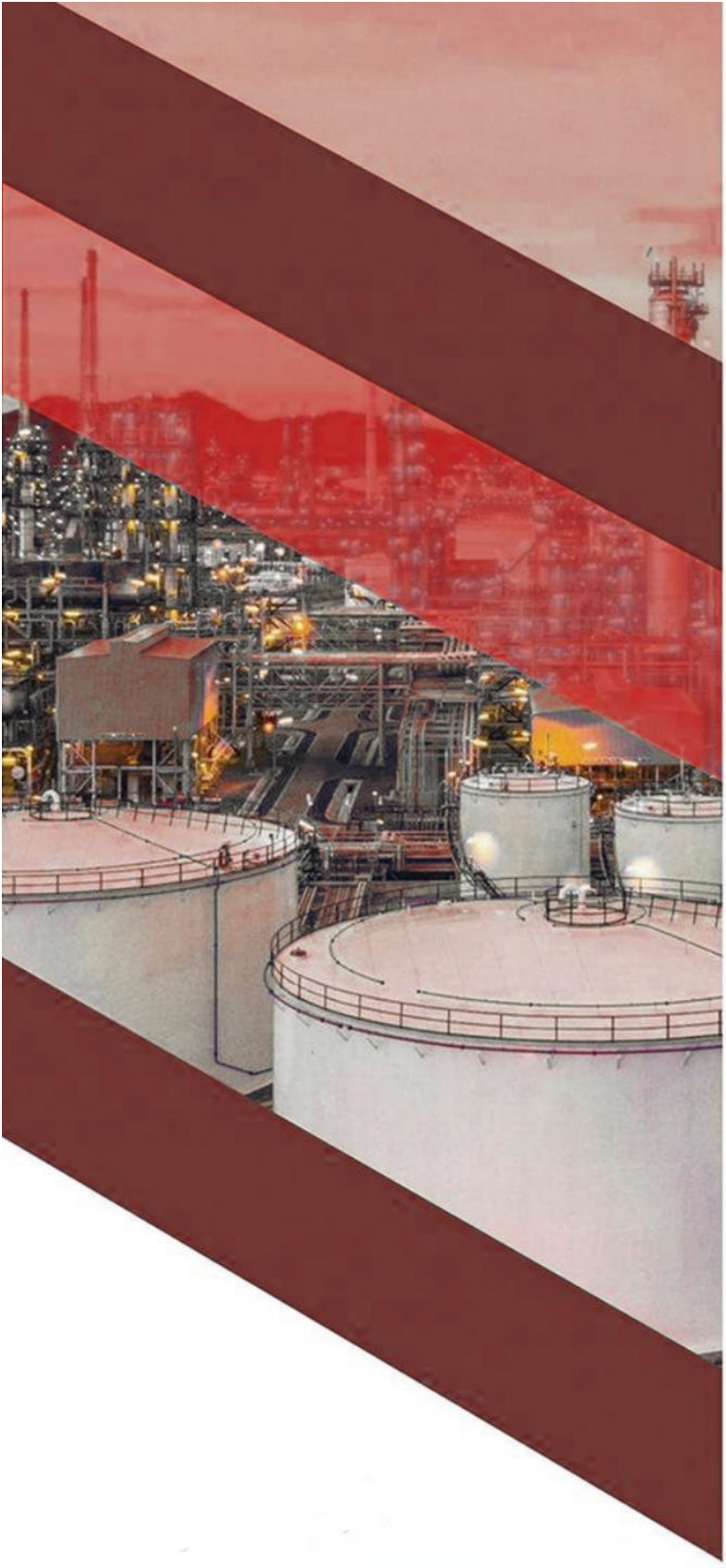
QUALITY LOW-CARBON TECHNOLOGY FIRST

Since its establishment, after several years of development, our company's technical team has formed a pyramid shaped excellent scientific and technological talent team that combines the old, middle, and young. In accordance with the requirements of modern enterprise system and market economy, we continuously deepen internal reforms, establish and improve effective mechanisms, and move towards the goal of high starting point, high level, and high efficiency.









INFLUX

PETROLEUM EQUIPMENT

Hunan Influx Machinery Co., Ltd. has strong technical capabilities and is engaged in the production of oilfield downhole components, submersible centrifugal pumps, guide vanes, separator accessories, cable protectors, and other professional manufacturers. The company has a technical research and development testing center, precision casting factory, and mechanical processing and assembly workshop. Having a comprehensive manufacturing, management, quality, service, safety, and environmental protection system, achieving the integration of industrialization and informatization, we can provide users with various models and specifications of submersible pump products and key components with high quality and stability.

The company has been engaged in the mechanical processing industry for many years, with over a hundred employees, including more than 30 engineering and technical personnel and more than 30 professional service personnel. The entire processing and manufacturing process adopts CAD/CAM professional technology, with advanced process equipment and a complete management system. The company uses a professional digital management system to organize production, and uses a tracking system to control production quality throughout the entire process. All parts processing adopts automated closed-loop management, and the automatic line detection equipment is a world-class online detection system. The repeated positioning accuracy can reach 0.001 mm, and automatic tool compensation ensures the accuracy and stability of parts processing. Currently, there are dozens of processing centers and other equipment, achieving semi-automatic assembly from parts to products, ensuring stable quality with high precision. And I have rich experience in industrial control computers, pneumatics, human-machine interfaces, mold design, and manufacturing, integrating batch processing, mechanical processing, and manufacturing.



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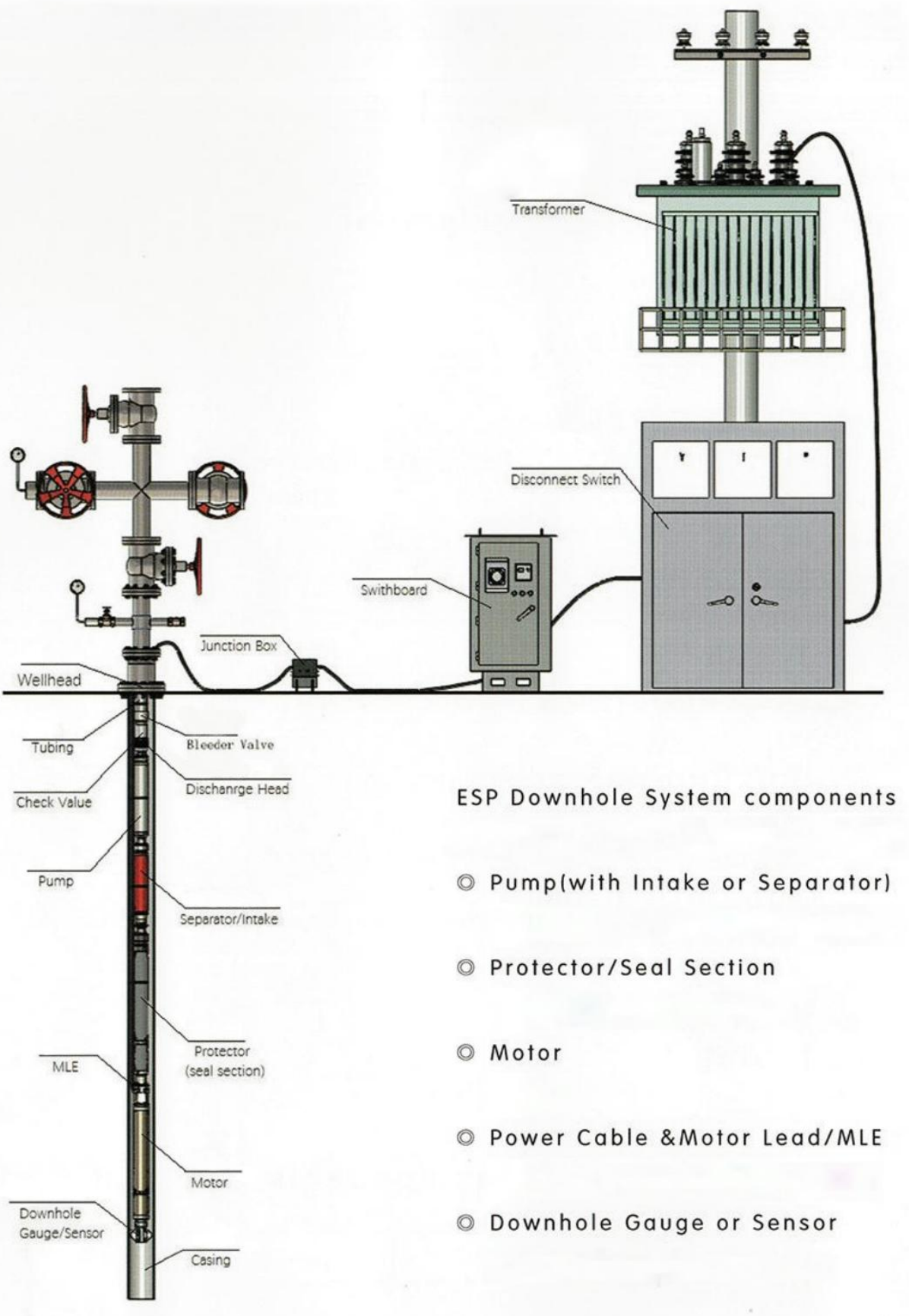
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01 | Typical Installation



ESP Downhole System components

- Pump(with Intake or Separator)
- Protector/Seal Section
- Motor
- Power Cable &Motor Lead/MLE
- Downhole Gauge or Sensor

02 | Product Identification Key

4.5" Equipment for 4.5 inch casing and larger

Series	Diameter	Type
338	3.38Inch(86mm)	Pump
338	3.38Inch(86mm)	Protector
375	3.75Inch(95.25mm)	Motor

5.5" Equipment for 5.5 inch casing and larger

Series	Diameter	Type
400	4.0Inch(101.6mm)	Pump
400	4.0Inch(101.6mm)	Protector
456	4.56Inch(115.82mm)	Motor

6 5/8" Equipment for 6 5/8 inch casing and larger

Series	Diameter	Type
513	5.13Inch(130.2mm)	Pump
513	5.13Inch(130.2mm)	Protector
540/562	5.4/5.62Inch(138.18/143mm)	Motor

8 5/8" Equipment for 8 5/8 inch casing and larger

Series	Diameter	Type
675	6.75Inch(171.45mm)	Pump
675	6.75Inch(171.45mm)	Protector
738	7.38Inch(187.45mm)	Motor

03 | ESP System

Centrifugal pump



338 series

Max. OD 3.38in/Min Casing Size 4 1/2in

400 series

Max. OD 4.00in/Min Casing Size 5 1/2In.

513 series

Max. OD 5.13in/Min Casing Size 6 5/8In.

675 series

Max. OD 6.75in/Min Casing Size 8 5/8In.

Material Option

Item	Standard Material	Optional Material
Fasteners	S-Trim	M-Trim
Head and Base	CS	304、316、416、420
O-Ring	HSN	FKM、AFLAS
Impeller and diffuser	Type 1 Ni-Resist	Type 2-Type 4 Ni-Resist
Housing	CS	304、316、9Cr1Mo
Shaft	Monel K-500	Inconel
Coupling	420SS	304、316 Monel R-405

Pumseries

Series	Type	Capacity Range, Recommended Limits		Shaft Dia.
		m^3/d@50Hz	BPD@60Hz	
338	PA400	34-68	257-513	5/8"
	PA550	42-71	317-536	5/8"
	PA900	82-161	619-1215	5/8"
	PA1200	100-192	755-1449	5/8"
	PA1500	110-268	830-2023	11/16"
	PA2000	150-260	1132-1962	11/16"
	PA2500	209-424	1580-3200	11/16"
400	PD150	18-39	136-294	5/8"
	PD180	20-43	151-325	5/8"
	PD230	23-48	174-362	11/16"
	PD330	42-82	318-619	11/16"
	PD460	39-76	294-574	5/8"
	PD500	47-88	355-664	11/16"
	PD610	57-125	430-943	11/16"
	PD650	58-116	438-875	5/8"
	PD750	61-130	460-981	5/8"
	PD780	87-160	657-1207	11/16"
	PD1200	108-213	815-1607	11/16"
	PD1750	160-320	1207-2415	11/16"
	PD2200	180-345	1358-2604	7/8"
	PD2700	262-440	1977-3321	7/8"

Series	Type	Capacity Range, Recommended Limits		Shaft Dia.
		m^3/d@50Hz	BPD@60Hz	
400	PD3000	242-490	1826-3698	7/8"
	PD4300	430-740	3245-5585	7/8"
	PD6000	437-840	3298-6339	7/8"
513	PG1200	123-220	928-1660	7/8"
	PG1600	155-285	1170-2151	7/8"
	PG2000	173-360	1306-2717	7/8"
	PG2500	200-438	1509-3305	7/8"
	PG3100	272-492	2053-3713	7/8"
	PG3200	280-577	2113-4355	7/8"
	PG4000	370-640	2792-4830	1"
	PG5200	500-860	3773-6490	1"
	PG5600	478-1000	3607-7547	1"
	PG7000	638-1200	4815-9056	1"
	PG10000	850-1500	6415-11320	1 3/16"
	PG12000	1050-1850	9724-13962	1 3/16"
675	PJ6700	600-1210	4528-9132	1 3/16"
	PJ7500	600-1480	4528-11169	1 3/16"
	PJ10000	830-1850	6264-13962	1 3/16"
	PJ12000	890-2050	6717-15471	1 3/16"
	PJ16000	1470-2880	11094-21735	1 3/16"
	PJ21000	1760-3410	13282-25735	1 3/16"










Intake



Material Option

Item.	Standard Material	Optional Material
Fasteners	S-Trim	M-Trim
Housing	CS	304、316、9Cr1Mo
Snap Ring	CS	304、Monel
Shedder	304	316
Shaft	Monel K-500	Inconel
Coupling	420SS	304、316 Monel R-405

Specifications

Series	O.D.	Shaft O.D.	Length		Weight	
	In/mm	In	ft	m	lbs	kg
338	3.38/86	0.688	1.5	0.4	24.3	11
400	4.00/101.6	0.875	1.5	0.4	30.9	14
513	5.25/130.2	1.187	1.7	0.5	52.9	24
675	6.75/171.45	1.187	1.8	0.5	77.2	35







Gas Separor



Material Option

Item.	Standard Material	Optional Material
Fasteners	S-Trim	M-Trim
Head and Base	CS	304、316、9Cr1Mo
Snap Ring	CS	304、Monel
Inducer	Type 1 Ni-Resist	316
Housing	CS	304、316 9Cr1Mo
Shaft	Monel K-500	Inconel
Coupling	420SS	304、316 Monel R-405

Specifications

Series	O.D.	Shaft O.D.	Length		Weight	
	In/mm	In	ft	m	lbs	kg
338	3.38/86	0.688	2.4	0.7	30.9	14
400	4.00/101.6	0.875	2.4	0.7	66.1	30
513	5.13/130.2	1.187	3.6	1.1	148	67







03 | ESP System

Protector or Seal Section



338 series

Max. OD 3.38in/Min Casing Size 4 1/2in

400 series

Max. OD 4.00in/Min Casing Size 5 1/2In.

513 series

Max. OD 5.13in/Min Casing Size 6 5/8In.

675 series

Max. OD 6.75in/Min Casing Size 8 5/8In

Material Option

Item.	Standard Material	Optional Material
Fasteners	S-Trim	M-Trim
Head and Base	CS	304、316、416 420、Duplex
O-Ring	HSN	AFLAS
Bag	HSN	FKM、AFLAS
Thrust Bearing	Bronze	PEEK
D&F Valve	304	Monel R-405
Plug	CS	Monel K-500
Housing	CS	304、316 9Cr1Mo
Shaft	Monel K-500	Inconel
Snap Ring	304	Inconel

Nomenclature

Type	Description
L	.Labyrinth
SB	Single Bag
LSL	Labyrinth Series Labyrinth
BSL	Bag Series Labyrinth
BSB	Bag Series Bag
LSLSL	Labyrinth Series Labyrinth Series Labyrinth
LSLSB	Labyrinth Series Labyrinth Series Bag
LSBPB	Labyrinth Series Bag Parallel Bag
LSBSB	Labyrinth Series Bag Series Bag
BPBSL	Bag Parallel Bag Series Labyrinth
BSBSL	Bag Series Bag Series Labyrinth
LSLSBPB	Labyrinth Series Labyrinth Series Bag Parallel Bag
BPBSLSL	Bag Parallel Bag Series Labyrinth Series Labyrinth
BPBSBPB	Bag Parallel Bag Series Bag Parallel Bag

BHT Optional

Item.	Standard	Optional
Maximum BHT	150° C	180° C

Seal Bags Optional

Chemical	HSN	Aflas
Water/Oil	Excellent	Excellent
CO2	Good	Good
H2S	Excellent	Excellent
Steam (geothemal applications)	Fair	Excellent



Standard Thrust Bearing



513 Series High-load Thrust Bearing



400 Series High-load Thrust Bearing

03 | ESP System

■ Submersible pump



375 series

Max. OD 3.75in/Min Casing Size 4 1/2in

456 series

Max. OD 4.56in/Min Casing Size 5 1/2In.

540 series

Max. OD 5.40in/Min Casing Size 6 5/8In.

562 series

Max. OD 5.62in/Min Casing Size 7In

738 series

Max. OD 7.38in/Min Casing Size 9 5/8In

Material Option

Item	Standard Material	Optional Material
Fasteners	S-Trim	M-Trim
Head and Base	CS	304、316、416、420 Duplex
Coupling	CS	MONEL R-405
O-Ring	HSN	AFLAS
Thrust Bearing	Bronze	PEEK
D&F Valve	304	MONEL R-405
Housing	CS	304、316、9Cr1Mo
Shaft	35CrMo	42CrMo

Nomenclature

Type	Description
ST	Single Motor, can be equipped with centralizer
UT	Upper Tandem, bottom to connect with CT or LT
CT	Center Tandem, top to connect with UT , bottom to connect with LT
LT	Lower Tandem, top to connect with UT or CT
UMB	Universal Motor Base, Y-Point
SMB	Sensor Motor Base, Y-Point with I Wire
UT+UMB	can be used as ST, can be equipped with centralizer
UT+SMB	can be used as ST, can be equipped with sensor
CT+UMB	can be used as LT, can be equipped with centralizer
CT+SMB	can be used as LT, can be equipped with sensor
CBM	Motor combined with single bag seal

Single Motor Technical Data

Series	Poles	O.D.	ST-Motor Power range			
		In/mm	HP@50Hz	KW@50Hz	HP@60Hz	KW@60Hz
375	2	3.75/95.25	6.3-50	4.7-37	7.5-60	5.6-45
456	2	4.56/115.82	8.5-150	6.3-112	10-180	7.5-134
	4		12.5-46	9.3-34	20-73.5	15-55
540	2	5.40/137.16	16.5-250	12.3-186	20-300	15-224
562	2	5.62/142.75	28-375	21-280	35-450	25-336
	4		30-80	22-60	50-130	37-97
738	2	7.38/187.45	175-450	130-336	210-540	157-403

CBM456 Series motor

Series	Poles	O.D.	ST-Motor Power range			
		In/mm	HP@50Hz	KW@50Hz	HP@60Hz	KW@60Hz
456	2	4.56/115.82	5-31.25	3.7-23	7.5-37.5	5.6-28

Motor Temperature Rating for Operating

Item.	Standard	Optional
Insulation grade	180° C	200° C/230° C/260° C

Motor Lead Extension

MLE

Item	Material Description	
Insulation	F46/EPDM	
Jacket	Lead	
Armor	Galvanized/Stainless Steel/Monel	
Size	Overall Dimension	
	inch	mm
AWG7	0.40 × 1.01	10.16 × 25.70
AWG6	0.42 × 1.06	10.60 × 26.88
AWG5	0.50 × 1.17	12.70 × 29.70
AWG4	0.52 × 1.28	13.20 × 32.50
AWG2	0.53 × 1.48	13.50 × 37.60

MLE Options

Item	AWG7	AWG6	AWG5	AWG4	AWG2
AWG7	●				
AWG6		●	○		
AWG5				●	○
AWG4				●	○
AWG2				○	●



Tape in MLE



Plug in MLE

Options

Item	tape in	plug in
375	●	○
456	●	○
540	●	○
562	●	○
738	●	







Standard: ● Optional: ○

Discharge Head

Series	Description	Thread	Length		Weight	
			ft	m	lbs	kg
338	2 7/8" EUE	8RD	0.5	0.15	7.1	3.2
	2 7/8" NU	10RD	0.5	0.15	7.1	3.2
	2 3/8" EUE	8RD	0.5	0.15	7.1	3.2
400	2 7/8" EUE	8RD	0.6	0.16	7.3	3.3
	2 7/8" NU	10RD	0.6	0.16	7.3	3.3
	2 3/8" EUE	8RD	0.6	0.16	7.3	3.3
513	3 1/2" EUE	8RD	0.6	0.16	12.8	5.8
	3 1/2" NU	10RD	0.6	0.16	12.8	5.8
	2 7/8" EUE	8RD	0.6	0.16	9.3	4.2
	2 7/8" NU	10RD	0.6	0.16	9.3	4.2
	4 1/2" EUE	8RD	0.6	0.17	13.3	6
675	4 1/2" EUE	8RD	0.7	0.21	20.7	9.4

Check Valve

Description	Thread	Length		Weight	
		ft	m	lbs	kg
2 3/8" EUE	8RD	0.69	0.21	11	5
2 7/8" EUE	8RD	0.69	0.21	11	5
2 7/8" NU	10RD	0.69	0.21	11	5
3 1/2" EUE	8RD	0.72	0.22	18	8
3 1/2" NU	10RD	0.72	0.22	18	8
4 1/2" EUE	8RD	0.87	0.265	18	8

Bleeder Valve

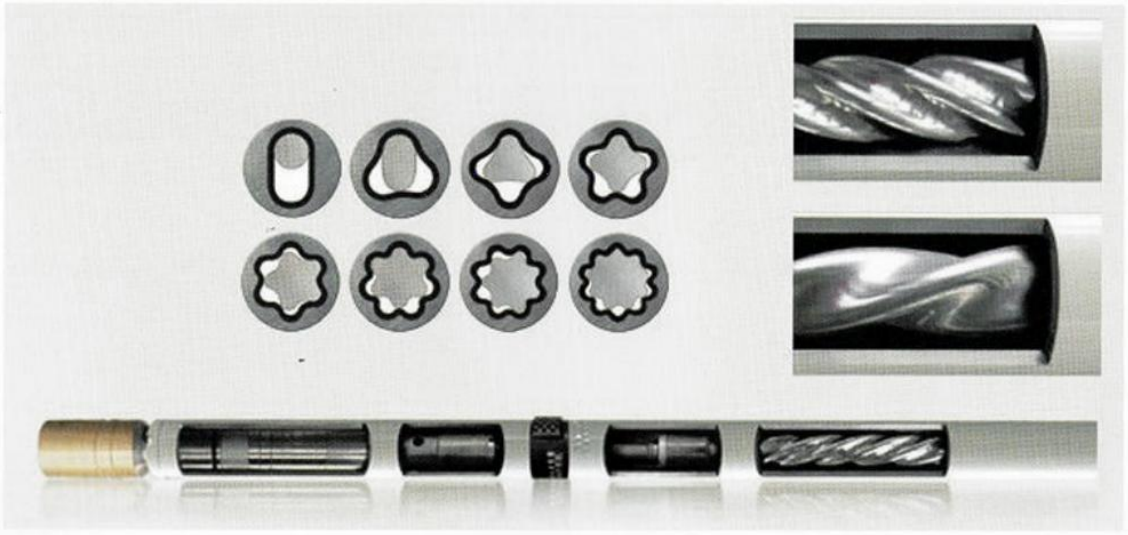
Description	Thread	Length		Weight	
		ft	m	lbs	kg
2 3/8" EUE	8RD	0.69	0.21	11	5
2 7/8" EUE	8RD	0.69	0.21	11	5
2 7/8" NU	10RD	0.69	0.21	11	5
3 1/2" EUE	8RD	0.72	0.22	18	8
3 1/2" NU	10RD	0.67	0.20	14	6
4 1/2" EUE	8RD	0.72	0.22	18	8

03 | ESP System

ESPCP System

Specifications of ESPCP

Type	Head	Capacity				Max.OD
	m	M^3/d				mm
		158rpm	285 rpm	335 rpm	356 rpm	
QYLB28–27	1000	6.4	11.5	13.5	14.4	89.5
QYLB28–40	1500	6.4	11.5	13.5	14.4	89.5
QYLB40–20	800	9.1	16.4	19.3	20.5	89.5
QYLB40–42	1600	9.1	16.4	19.3	20.5	89.5
QYLB65–35	1300	14.8	26.2	31.3	33.3	102
QYLB75–16	550	17.1	30.7	36.2	38.4	107
QYLB75–27	1000	17.1	30.7	36.2	38.4	89.5
QYLB75–40	1500	17.1	30.7	36.2	38.4	107
QYLB75–47	1800	17.4	30.8	36.2	38.5	108
QYLB80–33	1200	18.2	32.8	38.6	41	102
QYLB90–25	1000	20.5	37	43.5	46.2	108
QYLB100–55	1800	22.8	41	48.2	51.3	108
QYLB120–14	500	27.3	50	57.9	61.5	107
QYLB120–27	1000	27.3	50	57.9	61.5	107
QYLB120–36	1300	27.3	50	57.7	61.5	108
QYLB140–30	1200	31.9	57.5	67.5	71.8	114
QYLB190–33	1200	43.3	78	91.7	97.4	107
QYLB200–27	1000	45.8	82	96.5	103	114

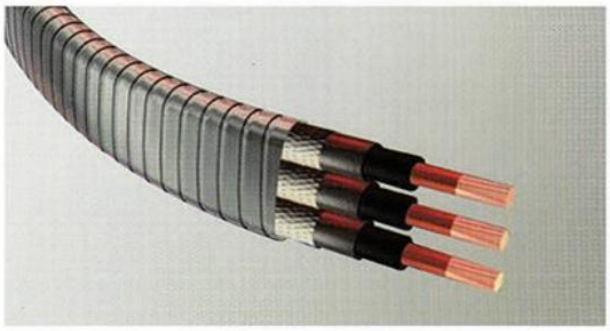


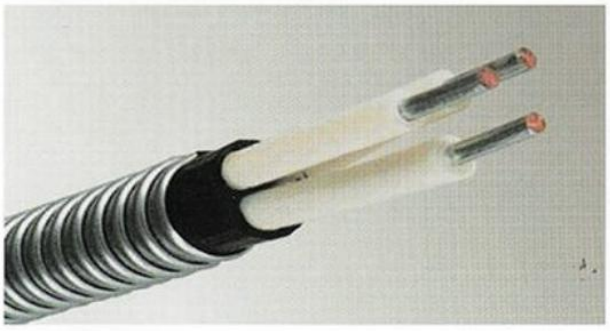
04 | Miscellaneous Equipment

Power Cable

Flat Power Cable / Round Power Cable

Item	Material Description				
Insulation	Polypropylene、EPDM、Polypropylene +EPDM、Polypropylene +Fluoride				
Jacket	Lead、Nitrile、Lead+ EPDM				
Armor	Galvanized/Stainless Steel/ Monel				
Conductor Size (Secting mm^2)	Working Temperature ℃	Verall Dimension FPC mm × mm/in × in			
		3KV		6KV	
AWG5 (16)	90 120 150 180 205	15 × 39	0.60 × 1.54	16 × 41	0.63 × 1.61
AWG4 (20)		16 × 40	0.63 × 1.57	17 × 42.5	0.67 × 1.67
AWG2 (33)		18 × 46	0.70 × 1.81	18.5 × 48.5	0.73 × 1.91
AWG1 (42)		19 × 49	0.75 × 1.93	19 × 51	0.75 × 2.00
		RPC mm/in			
		3KV		6KV	
AWG5 (16)		33	1.3.	35	1.38
AWG4 (20)		34	1.34	36	1.42
AWG2 (33)		38	1.50	40	1.57
AWG1 (42)		40	1.57	42	1.65





04 | Miscellaneous Equipment

electric Submersible pump Wellhead Mandrel

ESP Wellhead Mandrel is a kind of penetrator which provide the power through the well-head for the downhole motor. The ESP Wellhead Mandrel has a high class insulation and high seal level, anti-corrosion which could be applied to high requirement well or gas well.

Technical parameter:

- 1、Maximum Pressure 35 MPa
- 2、Anti-corrosion performance: H2S、CO2、Cl-
- 3、Rated Voltage ≤5000V
- 4、Rated current ≤120A
- 5、Insulation to the ground ≥2500MΩ
- 6、Temperature: -30-150℃



ESP Downhole Sensor

Downhole sensor of ESP is a measuring device of downhole signal, which uses multiple sensors and signal processing circuit fixed in a sealed unit, and which is connected with the bottom end of the submersible motor. Downhole sensor monitor the downhole pressure, temperature, pump outlet pressure, vibration unit, unit insulation single and other single or multiple parameters. Downhole sensor will transmit data via a three-phase submersible cable to the ground, to achieve the protection of ESP unit and the monitoring of oil well conditions.



We can collect and analyze the data from ESP Downhole Sensor. By these data, we can measure the condition of the well and the ESP units, adjust the operation of ESP, optimize the well output, extend the ESP unit' s life and reduce the cost of production.



Technical parameter

Test Parameter	Measuring	Accuracy	Resolution	Velocity
Intake Pressure	0-40MPa	0.1%	0.00069MPa	20S
Discharge Pressure	0-40MPa	0.1%	0.00069MPa	
Intake Temperature	0-150℃	1℃	0.1℃	
Mortor Temperature	0-210℃	1℃	0.1℃	
X/Y Shaft Vibration	0-5g	1.0%	0.003g	
Current Leakage	0-25mA	0.05%	1μA	



Specification data

Applicable to ESP size	375、456、540、562
Submerged depth	3500米
The standard diameter	95mm、115mm
Protection grade	IP68



04 | Miscellaneous Equipment

Switchboard or VSD control panel





The VSD control panel is controlling and protecting equipment specially designed to supply the AC power for the ESP. Its function is to protect ESP system when short circuit. under load, overload, overvoltage, phase loss or current unbalance happens.

Controlling motor speed can lower motor temperature; improve ESP gas handing capabilities; control well drawdown; adjust ESPs to changing well conditions; decrease system voltage at start up; maximize the benefits of down-hole monitoring; and improve system harmonics.

VSD Control Panel

Input Power Supply	Number of Phases Voltage, Frequency	3AC、800V-4000V、50HZ/60HZ
	Allowable Fluctuate	Voltage ± 10%, Frequency ± 2%
Frequency	Maximal Frequency	Bellow 90HZ set up arbitrarily
	Startup Frequency	2-5HZ
	Precision	Analog setting: below maximal set point ± 0.3% (25 ± 10℃)
Frequency	Precision	Digital setting: below maximal set point ± 0.1% (-10~ ± 50℃)
	Accuracy	Analog setting: 1/2000 of the maximal set point
		Digital setting:0.01HZ(below 99.99HZ),0.1HZ(above 1000HZ)
Control	Voltage/Frequency Characteristic,	Be decided by V/F curve for choosing
	Torque Upgrade	Adjust the best value according to the load torque
	Accelerating/ Deceleration time	1-999s, To the according time and decelerate time can set up alone
Running	Running Operation	Keyboard Operation、Computer Operation
	Frequency Setting	Panel Keyboard Setting、Analog Signals (0-5V) setting
	Running Mode Outut	Open circuit collector output, The frequency arrives some particular value to output
Display	Numeric Display	Output frequency、output current、input voltage、power factor etc. running parameter setting value of frequency、fault code
	Sate Display	Running indication、Protect indication
Protec Function		Over current、short circuit、over voltage、under voltage、under load、absence、phase overheat、stall、external alarm

Specification for BYQ-1 VSD Control Cabinet

Item	Parameter		Description
1	Rate Voltage		380V/415V ± 5%
2	Rate Frequency		50HZ
3	Working		FSD
			VSD
4	Control cabinet		ESP Control cabinet
			Junction Box
5	Installation fashion		Fixed by bottom bolt
6	Protection grade	Control cabinet	IP54
		Junction box	
7	Environment		1.There should not have acuity shake and impact on site, peak rake should not exceed 5°
			2. Altitude should not exceed 1500m.
			3.The running environment is conductive or exploded with dust at noon, no corrosive metal and broken insulation gas or steam.
			4.Working environment temperature -20℃~+50℃
			5.Relative humidity should not exceed 80%.

Remarks: the control cabinet is operated from the front side, and there is a reliable mechanical interlocking device in the cabinet. Only when the power switch of the control cabinet is closed, can the door be opened.

Junction Box

Junction Box

Rated voltage	KV	1.2、2、2.5、3、3.6、5、6
Amp	A	40、60、100、、150、200、250
Protection grade	≥IP23	
Insulation resistance	≥1000MΩ	

Transformer

Using three-phase transformer to transfer the primary voltage supplied by power into the secondary voltage required by the ESP. We have three types of the transformers: in oil-immersed, dry-type and box transformer. It is equipped with a group of voltage Ne can produce many series transformer rated power range of 30KVA-500KVA accoring to user's need, the voltage of both boosting transformer & reducing transformer can be de-signed for users need.



Transformer Specification

Item	Type	Capacity KV.A	Primary KV	Secondary V	Auxiliary V
Step-down	QYSS40	40	6.3	400-700	380
	QYSS50	50		400-700	
	QYSS63	63		700-1400	
	QYSS80	80		700-1400	
	QYSS100	100		700-1400	
	QYSS125	125		1550-2550	
	QYSS160	160		1550-2550	
	QYSS200	200		1550-2550	
	QYSS250	250		1550-2550	
	QYSS315	315		1550-2550	
Recifiter	BZSS9-M-250	250	33	720	415
	BZSS9-M-315	315			
	BZSS9-M-400	400			
	BZSS9-M-500	500			
	BZSS9-M-630	630			
	BZSS9-M-800	800			
Step-up	ZPS-250	250	0.587	1100-4200	
	ZPS-315	315			
	ZPS-400	400			
	ZPS-500	500			
	ZPS-630	630			
	ZPS-800	800			

Tubing

API Tublar Goods

Nominal	OD	Thread	Inch Lb/Ft	O.D.	I.D.	Drift	Coupling O.D. (inch)
Tubing (Non Upset)							
1-1/2"		10RD	2.75	1.900	1.610	1.516	2.200
2"	2-3/8"	10RD	4.00	2.375	2.041	1.947	2.875
2-1/2"	2-7/8"	10RD	6.40	2.875	2.441	2.347	3.500
3"	3-1/2"	10RD	7.70	3.500	3.068	2.943	4.250
3-1/2"	4"	8RD	9.50	4.000	3.548	3.423	4.750
4"	4-1/2"	8RD	12.60	4.500	3.958	3.833	5.200
Tubing(External Upset)							
1-1/2"		10RD	2.90	1.900	1.610	1.516	2.500
2"	2-3/8"	8RD	4.70	2.375	1.995	1.901	3.063
2-1/2"	2-7/8"	8RD	6.50	2.875	2.441	2.347	3.688
3"	3-1/2"	8RD	9.30	3.500	2.992	2.867	4.500
3-1/2"	4"	8RD	11.00	4.000	3.476	3.351	5.000
4"	4-1/2"	8RD	12.75	4.500	3.958	3.833	5.563

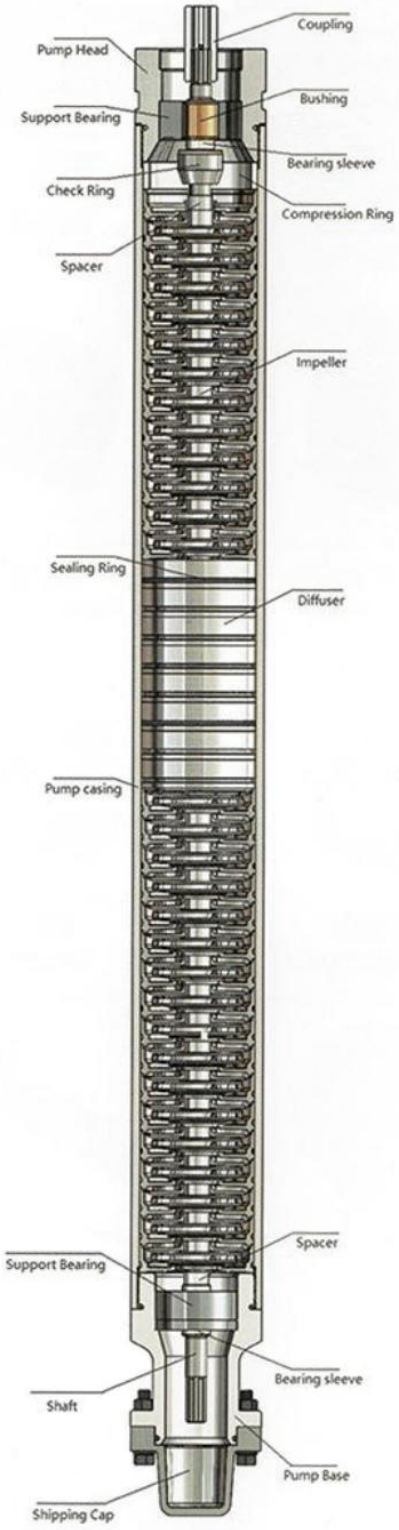
API Tublar Goods

Nominal	OD	Thread	Lb/Ft	Inch O.D.	I.D.	Drift	Coupling O.D. (inch)
API油管 Regular Casing							
	4-1/2"	8RD	9.50	4.500	4.090	3.965	5.000
		8RD	11.60	4.500	4.000	3.875	5.000
		8RD	13.50	4.500	3.920	3.795	5.000
	5-1/2"	8RD	14.00	5.500	5.012	4.887	6.050
		8RD	15.50	5.500	4.940	4.825	6.050
		8RD	17.00	5.500	4.892	4.767	6.050
		8RD	20.00	5.500	4.778	4.653	6.050
		8RD	23.00	5.500	4.670	4.545	6.050
	6-5/8"	8RD	17.00	6.625	6.135	6.010	7.390
		8RD	24.00	6.625	5.921	5.796	7.390
	7"	8RD	20.00	7.000	6.456	6.331	7.656
		8RD	23.00	7.000	6.366	6.241	7.656
		8RD	26.00	7.000	6.276	6.151	7.656
		8RD	29.00	7.000	6.184	6.059	7.656
		8RD	32.00	7.000	6.094	5.969	7.656
	8-5/8"	8RD	28.00	8.625	8.017	7.892	9.625
		8RD	36.00	8.625	7.825	7.700	9.625
		8RD	40.00	8.625	7.725	7.600	9.625
		8RD	44.00	8.625	7.625	7.500	9.625
	9-5/8"	8RD	36.00	9.625	8.921	8.765	10.625
		8RD	40.00	9.625	8.835	8.679	10.625
		8RD	43.50	9.625	8.755	8.599	10.625
		8RD	47.00	9.625	8.681	8.525	10.625



05 | Accessories and Components

whole structure of pump

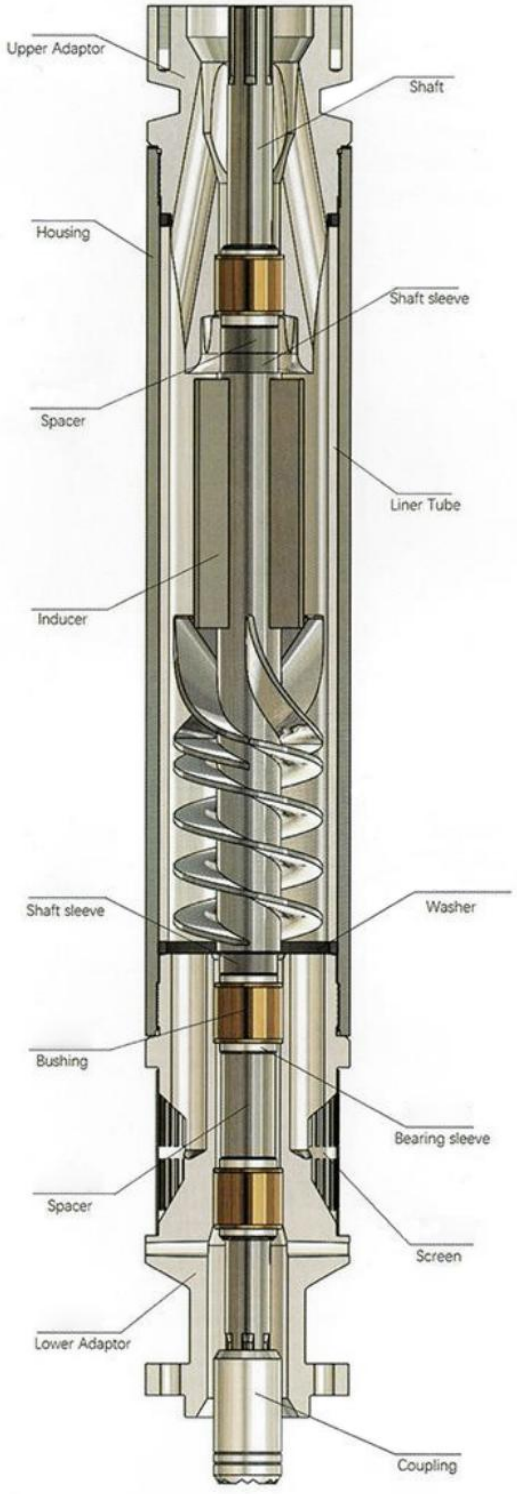


Pump parts breakdown diagram

Pump Housing 	Shaft 	Impeller 	Diffuser 
Lower Diffuser 	TC Bushing 	Spacer 	C Ring 
Support Bearing 	Pump Head 	Pump Base 	Coupling 
Upper Shipping Cap 	Lower Shipping Cap 	Screw 	Pump Discharge 

05 | Accessories and Components

whole structure of Gas Separator

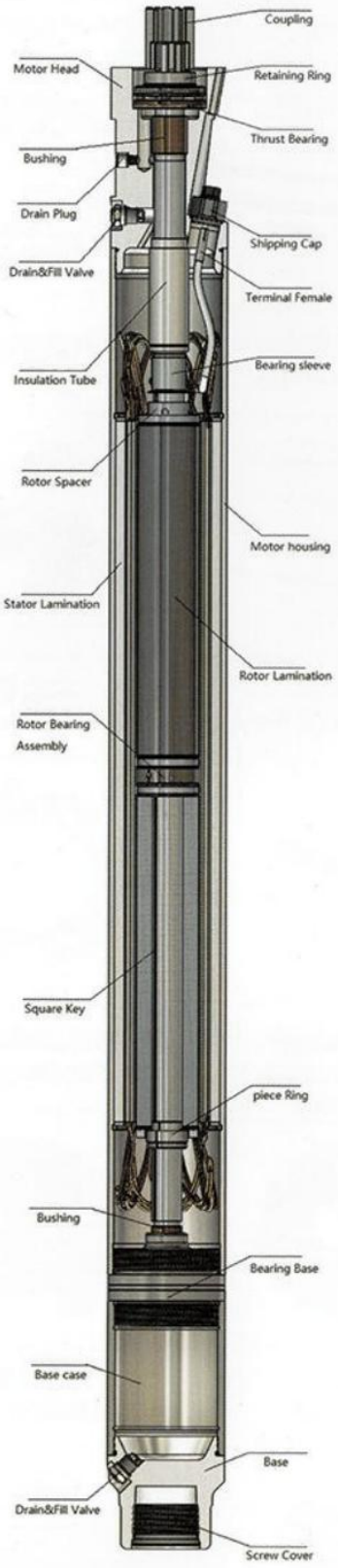


Separator parts breakdown diagram

Housing	Shaft	Impeller	Inducer
			
Spacer	TC Bushing	C Ring	Coupling
			
Upper Adaptor	Lower Adaptor	Screen	Upper Shipping Cap
			
Lower Shipping Cap	Screw		
			

05 | Accessories and Components

whole structure of Motor



Motor parts breakdown diagram

Stator Assembly	Housing	Stator Lamination	End Lamination
Magnet Wire	Rotor Assembly	Rotor Core	Rotor Bar
Rotor End Ring	Rotor Sleeve Key	Retainer A	Retainer B
Retaining Ring	Rotor Bearing Assembly	Shorting Ring	Terminal Male
Terminal Femal	Terminal	Insulation Tube A	Insulation Tube B

Head Assembly	Head	Universal Base	Connection Head Assembly
Connection Base Assembly	Connection Head	Connection Base	Upper connection head
Lower connection head	Coupling	Lead Gasket	Fill and Drain Valve
Drain Plug	Nut	HEX Socket Nut	Stud
Pothead Cap	Lock Plate	Shipping Gasket	Lower Adaptor

Upper Shipping Cap	olt	Pothead Flange	Pothead Shipping Cap	Bleeder Pin

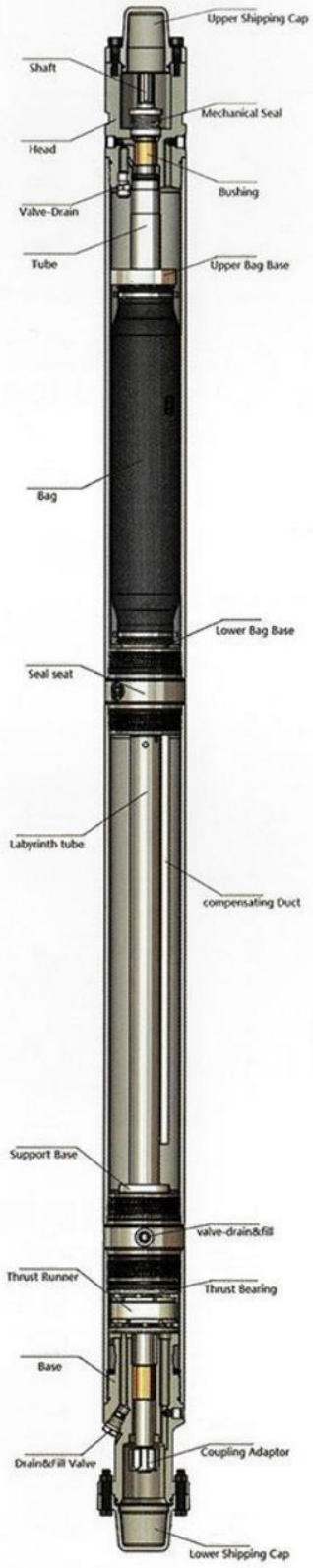
Wedge	Insulation Tube C	Thrust Washer	Thrust Bearing Washer
Thrust Bearing	Runner	Bearing sleeve	Bushing
Rotor Spacer	Coil Forming Block	Bearing Base	O Ring
piece Ring A	piece Ring B	护轴管档圈 Tube Retaining Ring	防护罩 Lead Guard
护轴管 Guard Tube	弹簧垫圈 Lockwasher	底座装配 Base Assembly	底座 Base

Submersible Motor

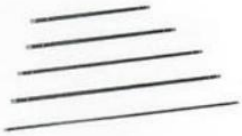


05 | Accessories and Components

whole structure of Protector or Seal Section



Protector parts breakdown diagram

Housing 	Shaft 	Labyrinth Tube 	Tube 	Bag 
Bag Clamp 	Bag Base 	Seal Base 	Support Base 	Thrust Runner 
Thrust Bearing 	Thrust Bearing Spacer 	Bushing 	Mechanical Seal 	O ring 
Lead Gasket 	PF Base 	Head 	Base 	Lock Ring 
Coupling Adaptor 	Lock Plate 	Upper Shipping Cap 	Lower Shipping Cap 	Bolt 

06 | Engineering Data

Request for informations

1.Purchasing Informations

Casing Size and weight
Tubing Size, type and thread
Flow Rating
Head Rating
Down Hole Temp.
informations of liquild being lifted
Power sources voltage and frequency

2.Well Data Sheet

Well Data
Casing or liner size and weight
Tubing size, type and thread (condition)
Perforated or open hole interval
Pump setting depth (measured & vertical)
Reservoir Data(From Test and Production Data)
Wellhead tubing pressure
Present Production rate
Bottom Hole Static Pressure /Static fluid level
Bottom Hole Flowing Pressure/Producing fluid level/pump intake pres-sure
Datum point
Bottom Hole Temperature
Desired Production rate
Gas-Oil Ratio
Water Cut
Water Specific Gravity
Oil API or specific gravity
Gas Specific Gravity
Bubble Point Pressure
Viscosity of oil
Desired Pump(Intake) Vertical Setting Depth
Required Well Head Pressure
Power sources voltage and frequency

Note: The well data sheet is not nesscery if you have purchasing information

General Conversions

1Atm =1.00323 Kilograms Per Square Centimeter	1Atm =14.696 Pounds per Square Inch
Mpa = 1N/ Square Meters	PSI = 6.895 Kilopascals(kpa)
Mpa = 10bar	bar = 14.503 PS
Barrels = 5.614Cubic Feet	Kilograms = 9.8N
Barrels= 0.158987 Cubic Meters	Kilograms = 35.2739 Ounces
Barrels=42 Gallons	Kilograms per Cubic Meter = 0.0624 Pounds per Cubic Foo
Barrels /Day= 0.15898 Kilolitres / Day	Kilograms / Square Centimeter =14.223 Pounds /
Centimeters = 0.032808 Feet	lb = 0.454 Kilograms
Centimeters = 0.3937 Inches	Lb/Ft=1.486 Kilogram per Meter
Inches =2.54 Centimeters	Feet = 12 Inches
Feet = 30.48 Centimeters	Feet=0.3048 Meters
Liters per Hour = 0.0044 Gallons per Minute	Cubic Meters Per Hour 4 4028 Gallons per Minute
Cubic Centimeters = 0.06102 Cubic Inches	Liters = 0.2642 Gallons
Cubic Centimeters =0.03381 Fluid Ounces	Liters = 0.03531 Cubic Feet
Cubic Feet =0.02832 Cubic Meters	Liters = 61.025 Cubic Inches
Cubic Feet =7,481 Gallons	Liters per Second = 2.1189 Cubic Feet per Minute
Cubic Feet 28.316 Liters	Liters per Second = 15.8507 Gallons per Minute
Cubic Feet per Minute = 0.4719 Liters per Second	Meters = 3.2808 Feet
Cubic Feet per Minute =0.028317 Cubic Meters per M	Meters = 39.37 Inches
Cubic Inches 16.387 Cubic Centimeters	Miles(statute)= 1.6093 Kilometers
Cubic Inches 0.01639 Liters	Millimeters = 0.03937 Inches
Cubic Meters = 6.2897 Barrels	Pounds(AVDP)=0.4536 Kilongrams
Cubic Meters = 35.3146 Cubic Feet	Cubic Meters = 264.172 Gallons
Cubic Meters Per Hour = 4.4028 Gallons per Minute	Gallons = 0.02381 Barrels
Degrees Centigrade =(° F–32)x5/9 Degrees Fahrenbeit	Degrees Fahrenheit =(° C × 9/5)+32Degrees Centigrade
Gallons =0.003785 Cubic Meters	Square Meters = 10.7639 Square Feet
Gallons 231 Cubic Inches	Square Meters = 1.1959 Square Yards
Gallons = 3.785 Liters	Square Miles = 640 Acres
Gallons Per Minute 34.286 Barrels per Day	Square Millimeters = 0.00155 Square Inches
Gallons Per Minute 227 1198 Liters per Hour	Gallons Per Minute = 0.06309 Liters per Second
Gallons(IMP)= 1.201 Gallons	Gallons Water(60° F)=8.337 Pounds(AVDP)
Tons(Metric)= 2204.622 Pounds(AVDP)	Grams =0.0353 Ounces
Grams Per Cubic Centimeter =0.0361 Pounds per Cubic Inch	Watts = 0.001314 HP
Grams Per Square Centimeter 0.01422 Pounds per Square Inch	Kilowatts = 1.3405 HP
HP =0.7457 Kilowatts	HP = 745.7 Watts
HP =550 Foot Pounds per Second	

UMB(UNIVERSAL MOTOR BASE) AND SMB(SENSOR MOTOR BASE)

TM375 UMB AND SMB

	Length		Weight	
	ft	m	lbs	kg
UMB	0.75	0.23	21	9.5
SMB	0.92	0.28	21	9.5

TM540 UMB AND SMB

	Length		Weight	
	ft	m	lbs	kg
UMB	0.75	0.23	33	15
SMB	0.75	0.23	33	15

TM456 UMB AND SMB

	Length		Weight	
	ft	m	lbs	kg
UMB	0.75	0.23	23	10
SMB	0.79	0.24	23	10

TM562 UMB AND SMB

	Length		Weight	
	ft	m	lbs	kg
UMB	0.75	0.23	38	17
SMB	0.72	0.22	35	16

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