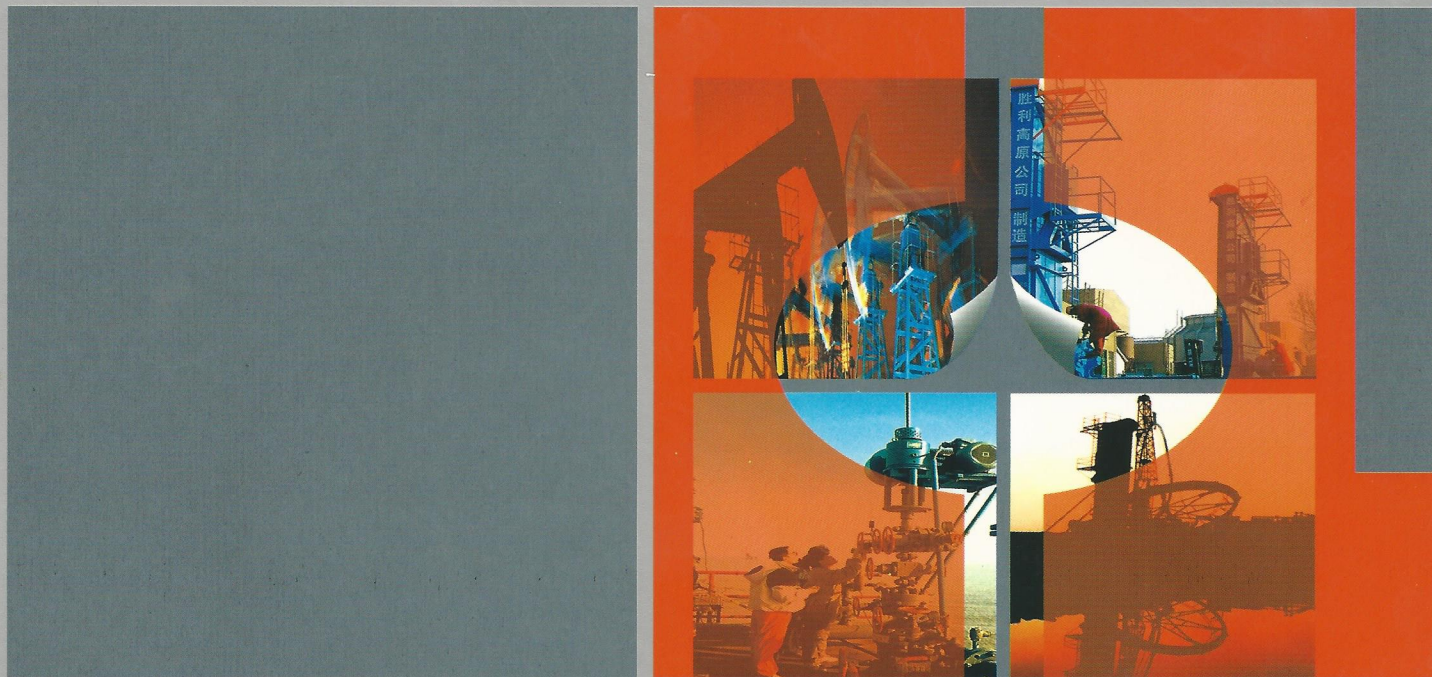


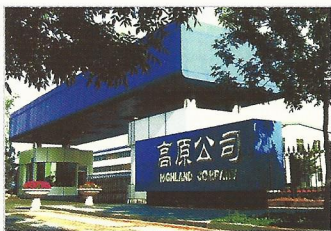
胜利油田高原石油装备有限责任公司

Shengli Oilfield Highland Petroleum Equipment Co., Ltd.



Production Equipments

采油机械



## 简介 Profile

胜利油田高原石油装备有限责任公司成立于1992年。公司以研制、生产、销售石油机械产品为主，现已形成钻井机械、采油机械、石油管材、油气输送、化工、油田服务等多个门类的系列产品。

经过多年的发展，公司已成为中国石油装备行业的知名企业，产品遍及全国各大油田，并销往美国、加拿大、阿根廷、古巴、俄罗斯、哈萨克斯坦、乌兹别克斯坦、印尼等十几个国家。

胜利油田高原石油装备有限责任公司在国内石油装备领域具领先地位，通过了ISO9001:2000质量体系、ISO14001环境管理体系及OHSAS18001职业健康安全管理体系三体系认证，套管、油管、钻杆、抽油泵、钻机井架、钻机底座、钻机绞车、钻机天车、钻机游车、钻机大钩、钻机水龙头、钻机转盘、钻机泥浆泵、抽油杆及抽油机等十五项产品分别获得API5CT、API5D、API11AX、API4F、API7K、API8A、API11B及API11E等的会标使用权。所有产品的质量检验及系统控制均严格执行上述标准，产品的质量和可靠性得到有效保证。

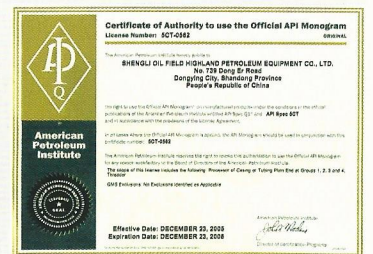
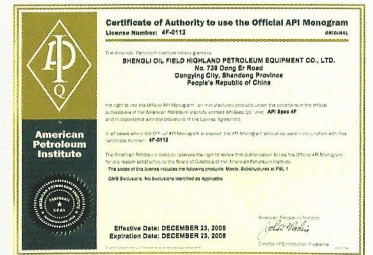
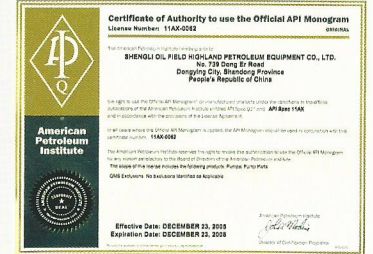
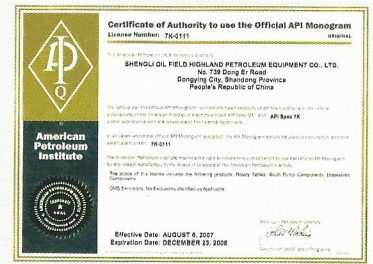
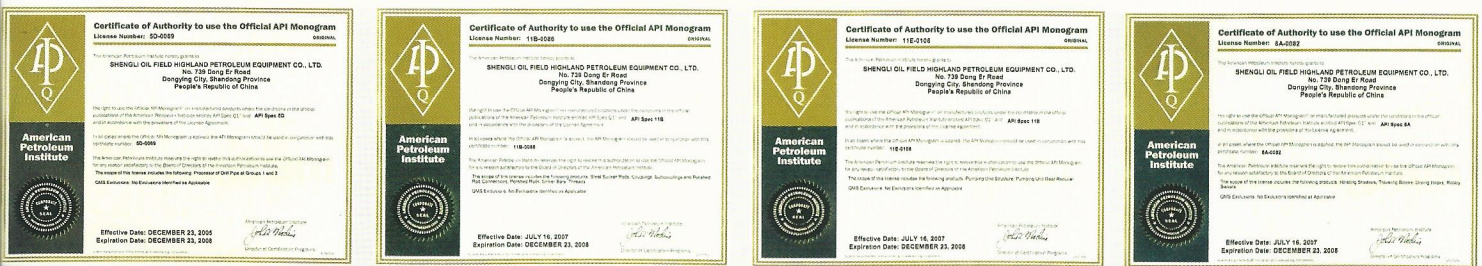
公司的发展目标是在全国乃至世界成为石油机械装备领先技术的供应商，为满足客户的各种挑战性需求提供新产品。

Established in 1992, Shengli Oilfield Highland Petroleum Equipment Co., Ltd. is a manufacturer of petroleum equipments. The products include drilling equipments, production equipments, OCTG pipes, conveying facilities, chemicals and oilfield services. We are able to design, manufacture and provide all these series of products, technical services and OEM parts.

Through many years development, the company had been recognized and become well-known in petroleum industry of China. Our products have covered almost every oilfield in China, such as Shengli, Daqing, Liaohe etc. and also have been exported to USA, Canada, Argentina, Cuba, Russia, Kazakstan, Uzbekistan, Indonesia and other countries.

Shengli Oilfield Highland Petroleum Equipment Co., Ltd. has achieved the superior position in petroleum equipment manufacturing in China. Our company had been awarded with quality system of ISO9001:2000 quality management system, ISO14001 environmental management system and OHSAS18001 occupational health and safety management system certificates. And API monogram licenses API5CT, API5D, API11AX, API4F, API7K, API8A, API11B, API11E for casing&tubing, drill pipe, sucker rod pump, drill rig mast, drill rig substructure, drill rig winch, drill rig crown block, drill rig traveling block, drill rig hook, drill rig rotary swivel, drill rig rotary table, mud pump, sucker rod, conversional pumping unit and etc.

Our strategic goal is to become the provider of petroleum equipment with the leading technology in China and then the world, and to provide the state-of-arts products to meet or exceed the challenging needs of our customers.





## 采油机械

# Production Equipments

### ROTAFLEX 抽油机

### ROTAFLEX PUMPING UNITS

Rotaflex 皮带抽油机是美国 Weatherford 公司专利产品，经过多年研究试验，集众家之长而成。独特一流的设计是抽油机的一次重大突破。它是一种纯机械传动的链条——皮带抽油机，特别适合于有杆泵的大排量深抽提液，小泵深抽，稠油开采。现已由我公司开发至七种型号。除在胜利、大港、辽河、中原、江汉等油田有上千台机器在良好运转外，还出口美国、加拿大、古巴、阿根廷、独联体及中东国家。该机具有国际先进水平，高效、可靠、节能，为用户带来了良好的经济效益。

The ROTAFLEX pumping units is the patented product of Weatherford of American. It has consisted major features and advantages of all kind of pumping units through years of research and development. As a unique engineering breakthrough, the 100% mechanical ROTAFLEX is especially suitable for producing high volume fluid in deep wells with rod pump. We had developed up to seven types. Lots of products had been exported to America, Canada, Cuba, Argentina, Kazakhstan, Uzbekistan and other countries in addition to be using at wells in Shengli, Dagang, Liaohe etc., and almost every big oilfield in China. This pump unit combines the advantages of high efficiency, reliability and energy saving.







## 主要优点

## MAIN ADVANTAGES

1. 长冲程，低冲次：长冲程使泵充满系数高，液压冲击小；低冲次使井下设备磨损小，操作成本低。
2. 皮带传动：采用长寿命重载皮带传递动力，其弹性缓冲作用可减小换向冲击，使抽油杆柱运行平稳。
3. 要求扭矩低：由于扭矩臂仅0.46米，极大降低了扭矩要求，可选用小功率电机及小型减速箱，节能10~40%。
4. 优化结构设计，安全方便：两套独立刹车系统及自动刹车装置，确保安全；整机封闭设计，整体移位修井，折叠运输，安全方便。
5. 可靠性高，无需频繁维修保养：整机设计受力均匀，刚性好。采用耐磨轴承、长寿命皮带、重型链条，确保整机的高可靠性；机械平衡、完善的润滑系统、自动保护装置及整机封闭，使机器无需频繁维修保养。
6. 完善的采油配套系统，既可以大泵提液，也可以小泵深抽。

1. Slow, Long Strokes: Long stroke leads to more complete barrel filling, less fluid pounding. Slow period means less wear on downhole equipment and less direction reverse. It also makes the operational cost reduced.
2. Belt Transmission: A long life heavy duty belt transmission can absorb the shock during stroke reverse, thus effectively reducing the stress on downhole components, and rod strings run uniformly.
3. Low Torque Demand: The torque demand is greatly reduced due to the short torque arm which is only 0.46m. Thereby, smaller prime mover and gear box may be possible. Comparing to other manual lift system, ROTAFLEX can cut down energy costs by 10% to 40%.
4. Optimum Structure Design, Safety and Convenience: The automatic braking device and two sets of brake systems ensure the unit safety absolutely. Enclosed unit design makes the unit folded up and convenient during shipping, moving safely.
5. High Reliability and Low Maintenance: High reliability by using antifriction bearings, heavy duty belt, heavy load sleeve roller chains, mechanical balance and self-protection, carrying load evenly and perfect rigidity through optimum design.
6. Auxiliary system is fairly complete, not only for high volume production, but also for deep wells low volume production.



## 规格参数 SPECIFICATIONS

参数	型号	1100	1000	900	800	700	600	500
冲程长度 m	Stroke Length	8	8	7.3	7.0	6.0	5.0	4.5
悬点负荷 t	Peak Polished Rod Load	22.7	20	16.3	14	12	10	8
最高冲次 min-1	Max of Strokes Per Minute	4	4	4	4	4	5	5
最低冲次 min-1	Min of Strokes Per Minute	可非常小 Very Low						
平衡箱重 t	Counterweight Base	6.1	4.6	4.2	2.7	2.4	1.9	1.7
附加平衡块重量 t	Counterweight-Max Aux.	8.6	9.0	7.2	7.1	6.4	4.8	3.5
抽油机重 t	Shipping Weight	26.5	22	19.5	16.5	15.5	12.0	11.0
立起状态: 长×宽×高	External Size(L × W × H)	7.4 × 2.6 × 13.4	7.4 × 2.4 × 13.4	6.6 × 2.4 × 12.4	6.1 × 2.1 × 11.8	5.5 × 2.1 × 10.8	5.5 × 1.9 × 8.9	5.2 × 1.9 × 8.2
运输状态: 长×宽×高	Shipping Size(L × W × H)	13.4 × 2.6 × 3.1	13.4 × 2.4 × 2.8	12.4 × 2.4 × 2.8	11.8 × 2.1 × 2.6	10.8 × 2.1 × 2.5	8.9 × 1.9 × 2.5	8.2 × 1.9 × 2.5
电机功率 KW	Motor power	75	75	55	45	37	22	18.5
减速箱扭矩 kN · m	Torque of Gearbox	37	37	37	26	26	18	13
使用温度	Working Temperature	-40°C ~ +50°C						
电磁自动刹车保护系统	Electromagnetism Automatic Braking System	有 Yes	有 Yes	有 Yes	有 Yes	有 Yes	无 N/A	无 N/A

注: 自动刹车保护系统可根据用户要求选配

Note: Automatic Braking System is available according to the customer's requirements.

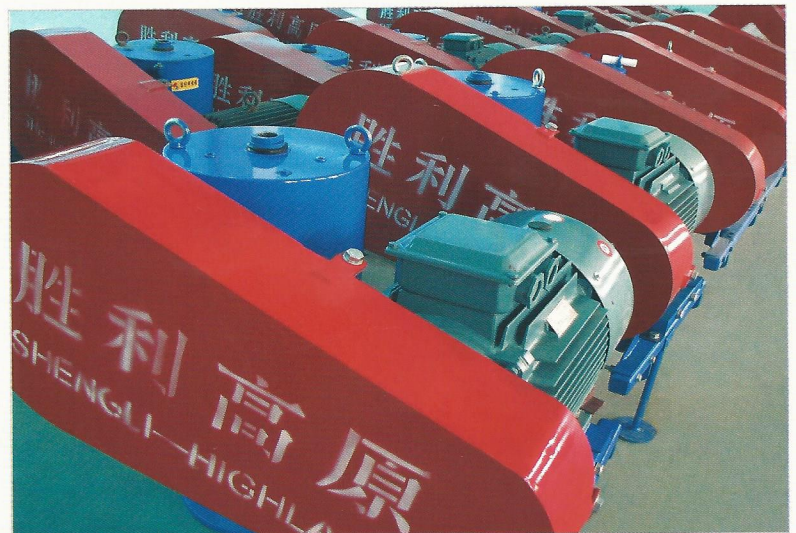


## 地面驱动螺杆泵

# SURFACE DRIVE PROGRESSIVE CAVITY PUMPS

地面驱动螺杆泵是一种新型的采油机械，主要由地面驱动装置和井下螺杆泵两部分组成。地面驱动装置将井口动力通过抽油杆的旋转运动传递到井下，驱动井下的螺杆泵工作，螺杆泵是一种容积式泵，它依靠转子在定子中旋转，形成一系列空腔，从吸入端向排出端渐进，连续完成从井底吸油和向井口排油。

The PC pump with surface drive is a new type of production equipment, which is consisted with surface drive equipment and downhole progressive cavity pump. The surface drive equipment transmits the power to the downhole through the rotating motion of sucker rod, then drive the rotor to rotate in the stator downhole. PC pump is a positive displacement pump. The rotor rotates within the stator, thus series of cavities are formed and these cavities progress gradually from the bottom (suction end) to the top (discharge end), carrying the formation fluids through the pump and into tubing.







## 主要优点

## MAIN ADVANTAGES

### 1 对油井液体适应范围广

可用于原油粘度 $\leq 5000\text{mPa}\cdot\text{s}$ 的稠油井、含砂井和含蜡井。

### 2 不发生气锁

均匀连续吸液和排液，溶解气不易析出；同时，PC泵中没有阀件，也没有发生气锁的可能性。

### 3 泵效高

运动部件少，没有阀件和复杂流道，油流扰动小，水力损失较低，泵效可达70%以上。

### 4 输出流量均匀；易于调节

通过改变地面驱动装置的转速，很容易调节流量。

### 5 适应排量范围大

日产液量为 $1.59\sim 400\text{m}^3/\text{d}$ 。

### 6 简单方便，成本低

地面设备简单、体积小、重量轻、投资少；使用维护简单方便，运行成本低。

### 1. Wide Well Fluid Range

Including viscous oil with the viscosity up to  $5000\text{ mPa}\cdot\text{s}$ , high wax bearing crude oil and high sand cut oil for the stator has resilience to sand.

### 2. Without Gas Lock

Solution gas can not be released out, the fluid moves continuously and evenly and it' s impossible for gas lock due to no valves in the pump.

### 3. High Efficiency

Few moving parts, no valves and complex channels, low hydraulic loss so the efficiency can be up to 70%.

### 4. Uniform Flow and Easily Adjusted

By changing the speed of the surface drive, it could adjust the pump flow easily.

### 5. Wide Production Range

Daily production can be 10 to 2500 BPD.

### 6. Simple Operation and Low Cost

Simple surface equipment, compact design and low cost so the pump has the advantages of simple operation, little maintenance and lower running cost.



## 井下泵规格参数

## SPECIFICATIONS OF DOWNHOLE PUMPS

型号 Type	额定排量 Discharge Capacity			举升能力 Lifting Capacity		最大长度 mm
	ml/r	m <sup>3</sup> /d · r	m <sup>3</sup> /d · 200r	级数 Stages	水柱高 m	Length
LB40 系列 /Series	40	0.057	11.4	0~50	0~2200	5130
LB75 系列 /Series	75	0.094	18.8	0~50	0~2200	7230
LB120 系列 /Series	120	0.171	34.2	0~40	0~1800	6700
LB190 系列 /Series	190	0.267	53.4	0~40	0~1800	7600
LB300 系列 /Series	300	0.432	86.4	0~27	0~1200	6613
LB400 系列 /Series	400	0.596	119.2	0~27	0~1200	7620
LB500 系列 /Series	500	0.720	144	0~21	0~900	9460
LB600 系列 /Series	630	0.916	183.2	0~21	0~900	9000
LB800 系列 /Series	800	1.150	230	0~18	0~850	9970
LB1100 系列 /Series	1100	1.580	316	0~14	0~700	9980
LB230DT 系列 /Series	230	0.331	66.2	0~40	0~1800	5835
LB375DT 系列 /Series	375	0.540	108	0~40	0~1800	6940
LB460DT 系列 /Series	460	0.660	132	0~33	0~1500	7575
LB580DT 系列 /Series	580	0.830	166	0~27	0~1200	9030
LB800DT 系列 /Series	800	1.150	230	0~24	0~1100	7055
LB1200 DT 系列 /Series	1200	1.728	345.6	0~22	0~1000	9500
LB1100TT 系列 /Series	1100	1.580	316	0~27	0~1200	6750

LB40 系列：代表每转排量 40 毫升的螺杆泵系列。螺杆泵扬程根据需要选取。例如 LB120-40、LB375DT40 泵含义如下：

LB120 — 40

级数 40 级 (40 Stages)

每转排量 120 毫升 (120ml/rotation)

LB 375 DT/TT 40

级数 40 级 (40 Stages)

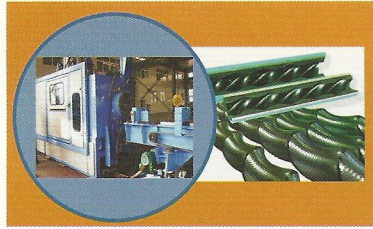
双头泵 / 三头泵 (Double Thread/Triple Thread)

每转排量 375 毫升 (375ml/rotation)

## 驱动头规格参数

## SPECIFICATIONS OF SURFACE DRIVE EQUIPMENTS

型号	传动比	最大许用扭矩 N · m	最大轴向负荷 kN	电机最大功率 kW	工作转速 rpm
Model	Gear Ratio	Max Allowable Torque	Max Axial Load	Max Power	Working Speed
GBF2	2.1	2000	150	37	150~500
GBF5B	4.9	2500	200	37	70~250
GBF5C	4.5	2000	150	37	70~250
GBF5D	4.9	3000	250	55	70~250
GBF6	6.17	1500	150	22	50~200
VED		2000	150	45	250~500





## 电动潜油螺杆泵

# ELECTRIC SUBMERSIBLE PROGRESSIVE CAVITY PUMPS

电动潜油螺杆泵是近年来采油设备发展的新突破，它结合了潜油电泵和地面驱动螺杆泵的优点，输送介质范围广；节电效果显著；不存在管、杆磨损；可用于斜井、水平井；可使用小直径油管；运行可靠、维修量小；启动扭矩大，更加适合斜井、稠油井以及高含砂、高含气井的开采。

The electric submersible progressive cavity pump (ESPCP) is a new breakthrough in artificial lift system in recent years, which combines the flexibility of the progressive cavity pump with the reliability of the electric submersible motor to handle your most difficult artificial lift. It has wide fluid range, more suitable for deviated well, horizontal well, especially with viscous crude oil, high sand cut and gas oil. The wear of tubing and sucker rod could be eliminated and energy cost is reduced efficiently.

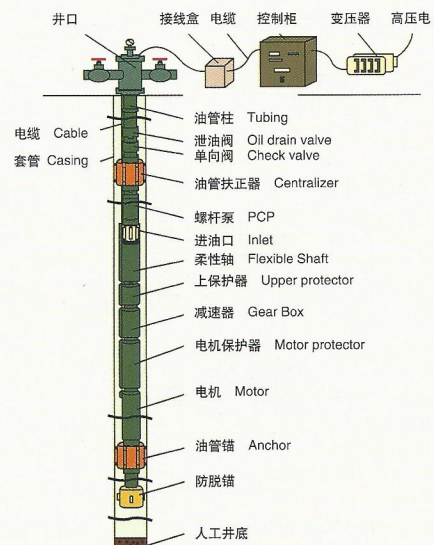
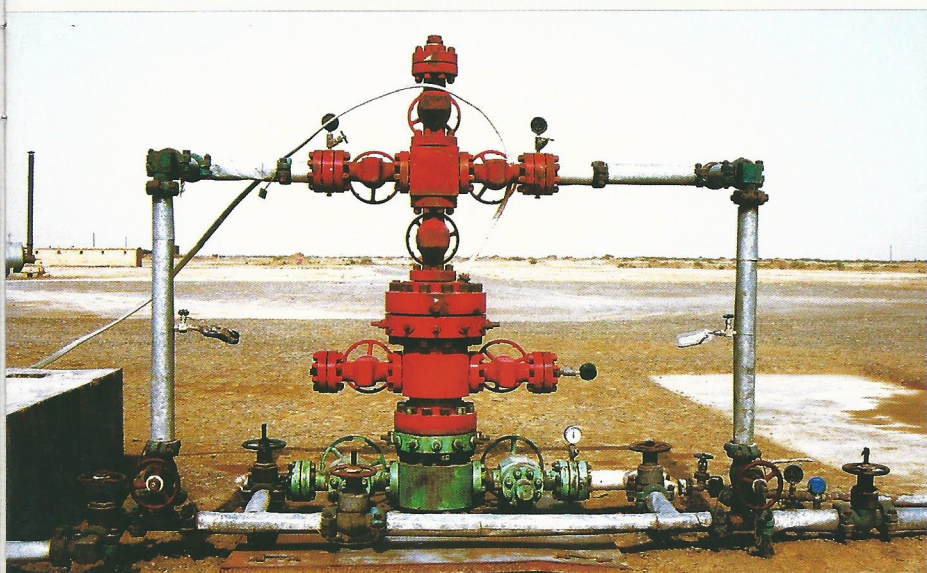
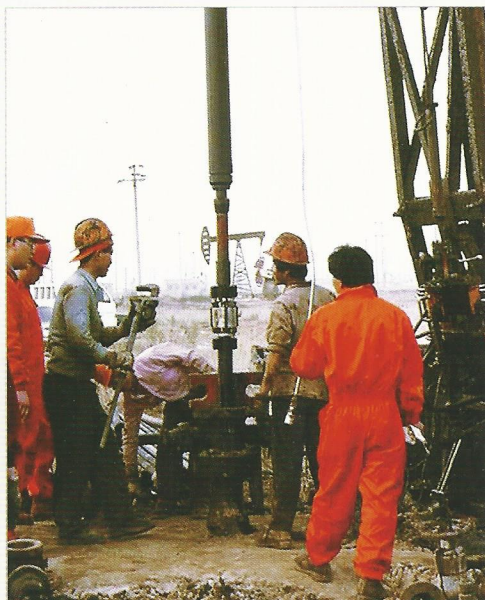
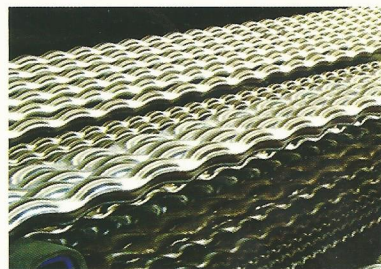
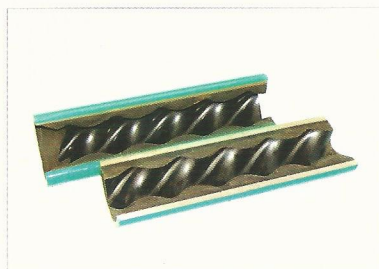
### 规格参数

## SPECIFICATIONS

型号 Type	适用套管 Casing Size	额定转速 rpm Rated Rotating Speed	理论排量 m <sup>3</sup> /d Displacement	理论扬程 m Lifting Capacity	电机功率 KW Motor Power
QLB5-1/2	5-1/2" 以上 Above	80-360	10-60	1000-1800	12-30
QLB7	7" 以上 Above	80-360	30-120	1000-1800	22-43
QLB9-5/8	9-5/8"	80-360	50-200	900-1800	32-80

注：可配变频调速控制柜

Note: Variable frequency control box is available





## 常规抽油机

## CONVENTIONAL PUMPING UNITS

常规抽油机为最常用的采油地面设备，在世界范围内广泛应用。公司生产的抽油机技术成熟度高、结构合理、应用可靠、运行平稳、安全可靠；能够适合各种气候条件和应用场合，产品在国内外得到广泛认可。可以根据客户要求要求进行设计和生产。

Conventional pumping units are the most usually used surface equipment for artificial lifting of the oil and had been widely used in the world. Our products have the advantages of rational structure, reliable operation, stable working, safety and can be applied to various air conditions and applications. Our products had been highly appraised by domestic and foreign clients. We can design and manufacture the pumping unit according to requirements of the client.

### 规格参数

### SPECIFICATIONS

型号 Model	API 型号 API Code	额定悬点载荷 Rated Load Max.kN (lbs)	减速器额定扭矩 Rated Torque of Gearbox kNm (inlbs)	减速比 Reduction Ratio	最高冲次/分钟 Strokes Per Minute	最大冲程 Strokes Max. mm (in)
CYJ4-1.5-9HB	80-89-59	40(8,900)	9(80,000)	31.73	15	1500(59)
CYJ6-1.6-13HB	114-143-64	60(14,300)	13(114,000)	29.55	18	1625(64)
CYJ8-2.1-18HB	160-173-86	80(17,300)	18(160,000)	31.32	16	2185(86)
CYJ8-2.5-26HB	228-173-100	80(17,300)	26(228,000)	29.55	14	2540(100)
CYJ8-3-26HB	228-173-120	80(17,300)	26(228,000)	29.55	14	3048(120)
CYJ10-2.1-26HB	228-213-86	100(21,300)	26(228,000)	29.55	16	2185(86)
CYJ10-3-37HB	320-213-120	100(21,300)	37(320,000)	29.43	14	3048(120)
CYJ12-3-37HB	320-256-120	120(25,600)	37(320,000)	29.43	14	3048(120)
CYJ12-3.6-53HB	456-256-144	120(25,600)	53(456,000)	30.8	12	3658(144)
CYJ14-3.6-53HB	456-305-144	140(30,500)	53(456,000)	30.8	12	3658(144)
CYJ14-4.2-73HB	640-305-168	140(30,500)	73(640,000)	31.73	10	4267(168)
CYJ16-3.6-73HB	640-365-144	160(36,500)	73(640,000)	31.73	10	3658(144)
CYJ16-4.8-105HB	912-365-192	160(36,500)	105(912,000)	35.43	8	4876(192)





## 抽油机智能控制系统 DURA-MAG

智能抽油机控制系统是美国 Chaparral Automation LLC公司的专利产品,由美国 Off-shore Source LLC 公司代理,高原公司负责该设备的生产和销售。智能抽油机控制系统由调速模块、E-111 控制芯片以及传感器构成。设备根据井况自动调整抽油机工作状态,使它能够达到最大效率。同时通过降低峰值电流来减少能耗,以及减少光杆和减速箱的最大载荷从而降低成本。

抽油机智能控制系统能够简单经济的解决原油生产过程中的抽油机控制问题。抽油机的上下冲程按照生产需求和井况被精确的控制。该系统可以简单的安装在皮带式抽油机,游梁式抽油机以及螺杆泵上。

The Dura-Mag Product line is the patented design of Chaparral Automation LLC and Licensed exclusively for Manufacture and Marketing to Off-shore Source LLC of America. Shengli Highland is a master distributor for the Chinese market and OEM exporter for Pumping equipments.

The Dura-Mag System is comprised of a Variable Speed Drive (VSD) and a E-1111 Series microprocessor control with field sensors and wiring harness. With well specific programs the system optimizes performance of the well pump to produce 100% volumetric efficiency and reduce the operation cost of the pumping unit by reducing peak motor amps; in addition the system reduces stress on both the polish rod and the mechanical gear equipment resulting in less operational cost for the well operation.

Dura-Mag is the Simple and Economical control system that may solve some of your toughest production problems. All four phases of the pumping cycle are very precisely controlled according to well conditions to obtain the best results achievable for conventional pumping units (walking beam type), Rotaflex and PCP pumping systems.





# 抽油泵

## SUBSURFACE SUCKER

## ROD PUMPS



### 管式抽油泵

### TUBING PUMPS

管式抽油泵的下入过程是：泵筒随着油管下到预定深度，柱塞连接到抽油杆上下到泵筒内。在油管尺寸相同的情况下，可以安装的管式泵比杆式泵大。管式泵结构简单，适用于下泵深度不大、产量较高的油井。

管式抽油泵有固定阀不可拔式 THD 和可拔式 THC、THM 两种。固定阀可拔式管式泵的固定阀由机械或皮碗支撑装置固定并进行密封，在检泵作业时，可以不用起出油管，直接将柱塞和固定阀同时提出。适用于检泵周期短的油井。

The workover process of tubing pump is: firstly the barrel being connected to the tubing is directly run into the well at desired depth and then the plunger is run into the barrel with the sucker rod. The applicable tubing pump is larger in size than rod pump in the same tubing. Tubing pump has simple structure so the displacement is bigger and it is suitable for the well with shallow depth and high production.

The THD type of tubing pump means that its standing valve is directly connected to the barrel and it cannot be pulled up separately with the barrel. The THC or THM type of tubing pump means that its standing valve can be pulled up separately with the barrel. The seating assembly of THC pump is cup type and for THM is mechanical type. The THC and THM type of tubing pump are suitable for the frequently work-over wells.

### 管式泵规格参数

### SPECIFICATIONS OF TUBING PUMPS

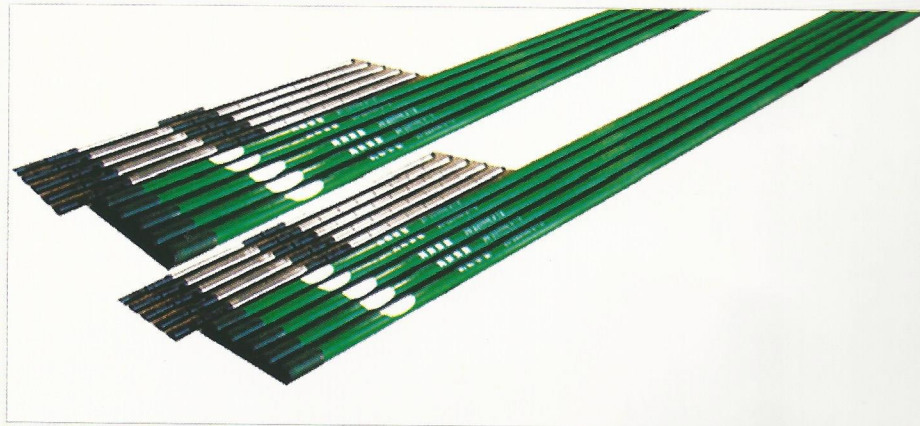
型号 Model	公称直径 mm(in) Nominal Dia.	柱塞长度 m(ft) Plunger Length	冲程 Stroke m	泵常数 m <sup>3</sup> /d Pump Constant	连接油管螺纹 Tubing And Thread	连接抽油杆in Sucker Rod
20-125TH	32(1.25)	1.2~1.8 (4~6)	0.6~7.3	1.14	2 3/8NU/EU	3/4
25-125TH	32(1.25)		0.6~7.3	1.14	2 7/8NU/EU	3/4
20-150TH	38(1.50)		0.6~7.3	1.64	2 3/8NU/EU	3/4
25-150TH	38(1.50)		0.6~7.3	1.64	2 7/8NU/EU	3/4
20-175TH	44(1.75)		0.6~7.3	2.24	2 3/8NU/EU	3/4
25-175TH	44(1.75)		0.6~7.3	2.24	2 7/8NU/EU	3/4
25-225TH	57(2.25)		0.6~7.3	3.69	2 7/8NU/EU	3/4
30-275TH	70(2.75)		0.6~7.3	5.50	3 1/2NU/EU	7/8
35-325TH	83(3.25)		0.6~7.3	7.70	4NU/EU	7/8
40-375TH	95(3.75)		0.6~7.3	10.26	4 1/2NU/EU	1

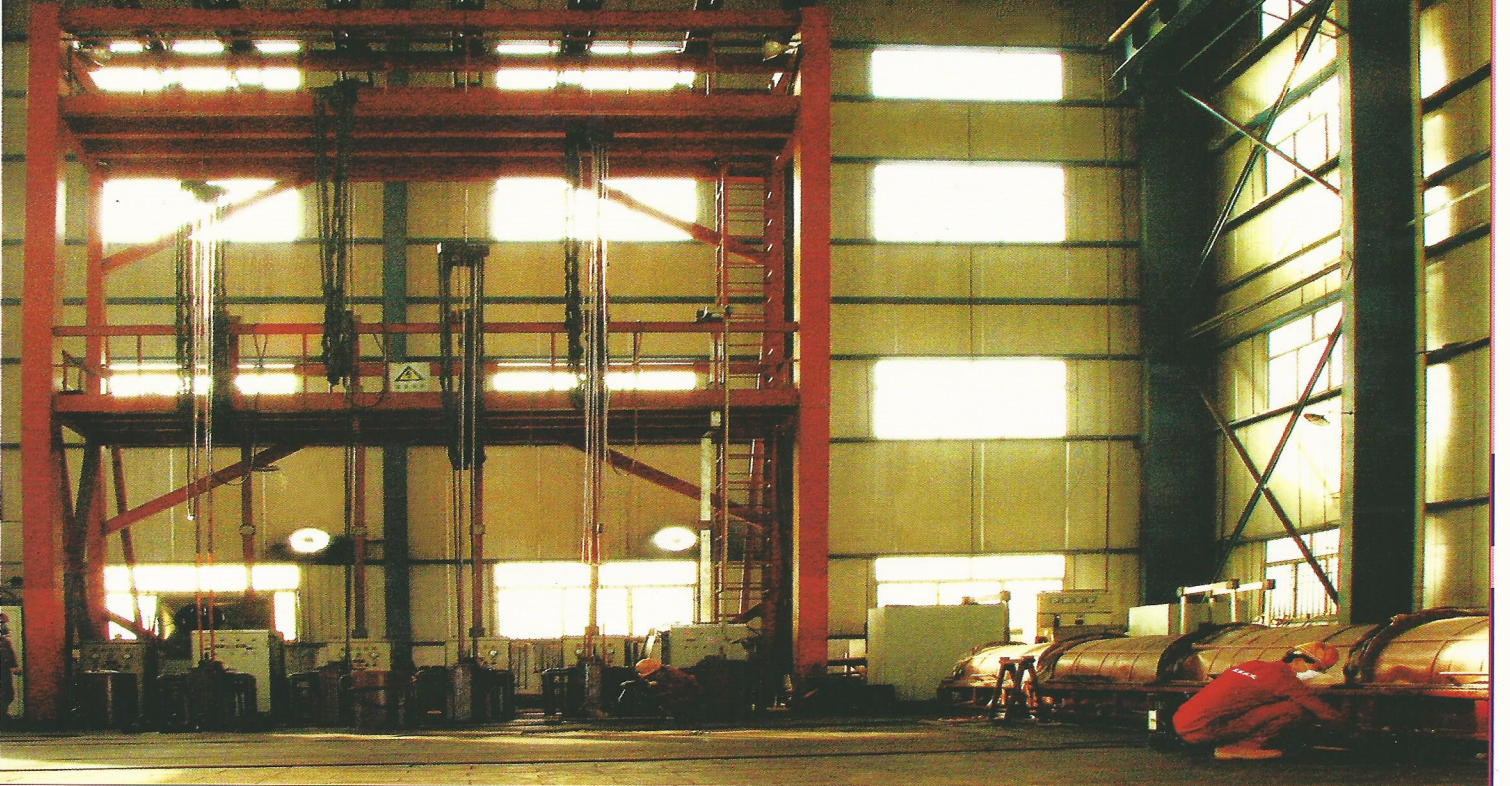
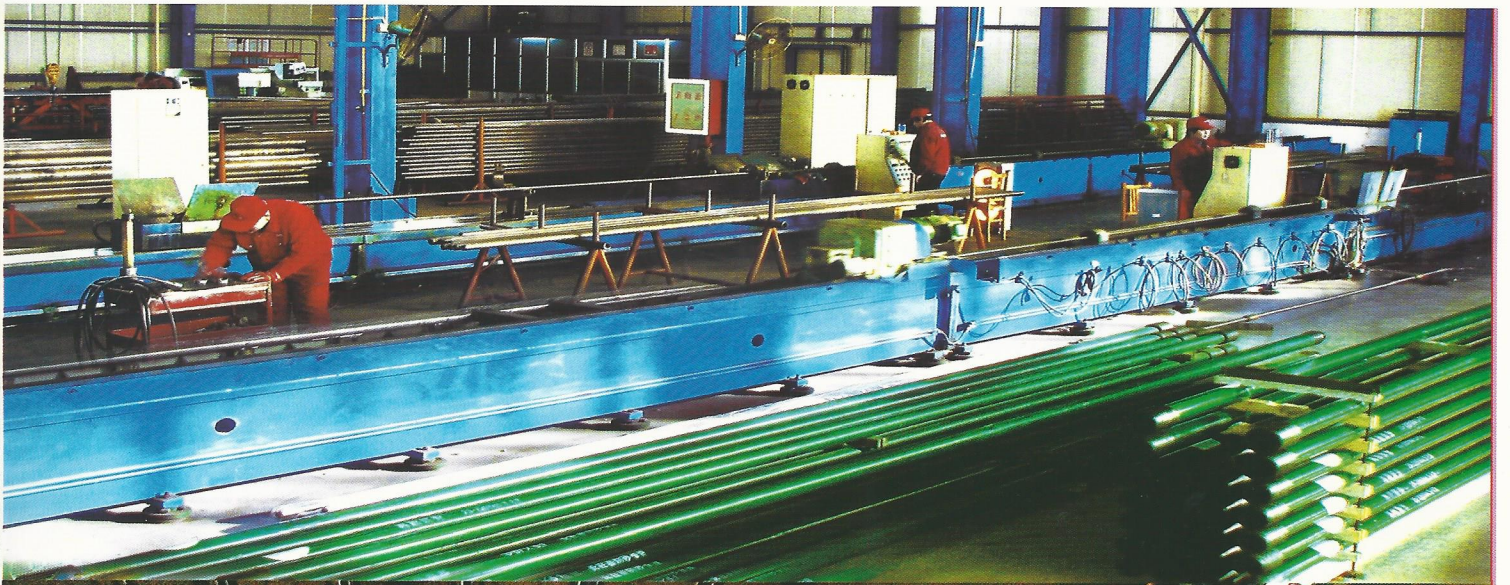


## 杆式抽油泵 ROD PUMPS

杆式抽油泵整个在地面装好后，接到抽油杆的下端，整体通过油管下入井内。检泵时不需起下油管，作业方便，适合于深井。由于缩短了作业时间，减少油管上卸扣的次数，所以延长了油管的使用寿命。杆式抽油泵根据支承总成类型可分为机械式和皮碗式，按支承位置分成定筒式顶部固定、定筒式底部固定和动筒式底部固定三种。

The rod pump is connected to sucker rod after being assembled on the surface then it is pulled down to the well bottom through the tubing. Thus it is convenient for the inspection and workover because they can be pulled up and down through the tubing and suitable for deeper well. The life span of tubing can be prolonged due to decreasing the time of the tubing thread being turned on and off and the timing of the workover. The rod pump can be classified into two types: mechanical seating and cup seating. Also it is divided into three types: RHA (stationary heavy well barrel top anchor rod pump), RHB (stationary heavy well barrel bottom anchor rod pump) and RHT (traveling heavy well barrel bottom anchor rod pump).







## 杆式泵规格参数

## SPECIFICATIONS OF ROD PUMPS

型号 Model	公称直径 mm(in) Nominal Dia.	柱塞长度 m(ft) Plunger Length	冲程 Stroke m	泵常数 m <sup>3</sup> /d Pump Constant	连接油管螺纹 Tubing And Thread	连接抽油杆 in Sucker Rod
20-125RHAC/M	32(1.25)	1.2~1.8 (4~6)	≤ 7.5	1.14	2 3/8	3/4
25-150RHAC/M	38(1.50)			1.64	2 7/8	3/4
25-175RHAC/M	44(1.75)			2.24	2 7/8	3/4
30-225RHAC/M	57(2.25)			3.69	3 1/2	3/4
20-125RHBC/M	32(1.25)			1.14	2 3/8	3/4
25-150RHBC/M	38(1.50)			1.64	2 7/8	3/4
25-175RHBC/M	44(1.75)			2.24	2 7/8	3/4
30-225RHBC/M	57(2.25)			3.69	3 1/2	3/4
20-125RHTC/M	32(1.25)			1.14	2 3/8	3/4
25-150RHTC/M	38(1.50)			1.64	2 7/8	3/4
25-175RHTC/M	44(1.75)			2.24	2 7/8	3/4
30-225RHTC/M	57(2.25)			3.69	3 1/2	3/4

## 特种泵

## SPECIAL SUCKER ROD PUMPS

我公司生产的特种抽油泵适用于含砂井、含气井、稠油井、斜井、分层开采油井、无油管采油等不同类型油井的开采，在各油田均有应用，收到了良好的使用效果。

我们可以根据现场使用情况及用户要求，设计、外协加工制造各种特种抽油泵及其零部件，包括：

\* 采用符合环保要求的循环密闭深井电镀及深孔卧式强力珩磨等先进生产工艺，高精度优质整筒泵筒电镀长度可达9米，各种杆类、筒类零件的电镀长度可达10米以上；

\* 不锈钢、电镀及镍磷喷焊等各种柱塞；

\* 不锈钢、陶瓷、碳化钨硬质合金等不同材料的系列高精度球阀阀座。

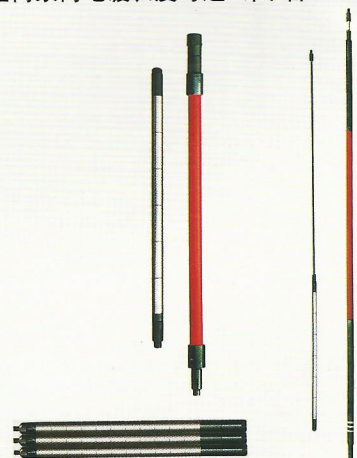
Special sucker rod pumps can be applied for exploiting various types of wells effectively and can handle the work effectively. It can be used in wells with sand, gas, and high viscosity oil, slant wells, separate zone production, production without tubing etc. They have been used in many oilfields and received good effects.

We can design and manufacture all kinds of special type pumps and fittings according to the field situations and the customer's requirements. The parts include:

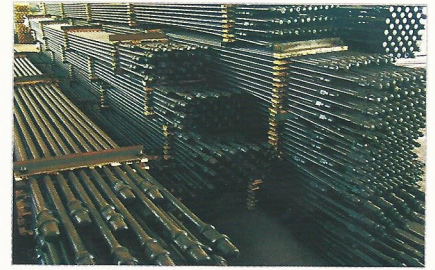
\* Using closed deep electroplating well and horizontal honing machine, which is suitable for the environmental protection. Length of electroplating pump barrel can be up to 9m and other parts can be up to 10m;

\* Plunger can be made of stainless steel, electroplating or processes with thermal metal spraying technology;

\* The valve ball and seat of pumps can be made of stainless steel, ceramic and carbide.



# 抽油杆 SUCKER ROD



抽油杆是有杆抽油设备的重要部件，它将抽油机的动力传递给井下抽油泵。目前生产的有连续抽油杆、普通抽油杆和短节、空心杆、特殊抽油杆、光杆等。钢级主要有C、D、H级。

Sucker rod is important part of rod production equipment which drives the downhole pump from the motor of the pumping units. We have produced the continuous sucker rod, ordinary sucker rod and pony rod, hollow sucker rod, special sucker rod, polished rod.

## 机械性能 MECHANICAL PROPERTIES

等级 Grade	屈服强度 MPa Yield Strength	抗拉强度 MPa Tensile Strength	延伸率 % Elongation	断面收缩率 % Reduction of Area
C	≥ 414	620~793	≥ 13	≥ 50
D	≥ 586	793~965	≥ 10	≥ 48
H	≥ 793~862	≥ 966~1136	≥ 12	45~55





## 连续抽油杆 CONTINUOUS SUCKER ROD

连续抽油杆是具有半椭圆截面和圆截面的无接箍的钢质抽油杆，是选用优质合金钢材料，运用先进制造工艺生产的产品。具有高强度、高柔韧性和良好的可焊性，其机械性能与 API 的 D 级杆及特殊用途 SM SMR, SU 及 SUR 相当，可以大幅度降低抽油杆失效频率、减少与油管的磨损，极大提高作业速度，减轻劳动强度，增加油井产量。目前在胜利油田已得到广泛应用，年使用量在 100 万公里以上。

Continuous sucker rod is a kind of steel sucker rod with semi-elliptical and round section manufactured with high quality alloy steel and advanced technology. It has high strength, high flexibility and better weldability while the mechanical performance is equivalent to grade D of API. The advantages are decreasing the failure frequency of sucker rod, reducing the wear between the rod and the tubing, improving the workover efficiency, lightening the labor and increasing the production of the well. Now the annual usage in Shengli Oilfield is more than 3.3 million feet.

## 规格参数 SPECIFICATIONS

型号 Model	名义尺寸 Nominal Size		单位质量 Unit Mass		截面积(最小) Section Area (min)		最大直径 Max Diameter		最小直径 Min Diameter	
	mm	inch	磅 / 英尺	千克 / 米	平方英寸	平方毫米	英寸	毫米	英寸	毫米
			lb/ft	kg/m	in <sup>2</sup>	mm <sup>2</sup>	in	mm	in	mm
LG8	28.6	1 1/8	3.38	5.02	0.994	642	1.570	46.2	0.745	18.9
LG7	27.0	1 1/16	3.01	4.49	0.886	572	1.430	35.6	0.745	18.9
LG6	25.4	1	2.67	3.98	0.785	507	1.260	32.3	0.740	18.8
LG5	23.8	15/16	2.35	3.50	0.690	445	1.115	29.7	0.730	18.5
LG4	22.2	7/8	2.04	3.05	0.601	388	1.005	25.5	0.700	17.8
LG3	20.6	13/16	1.76	2.63	0.518	334	0.940	24.1	0.650	16.5
LG2	19.1	3/4	1.50	2.24	0.441	285	0.870	22.1	0.600	15.2
LGR7	28.0	35/32	3.25	4.83	0.953	615	1.100	28.0	1.100	28.0
LGR6	25.4	1	2.67	3.98	0.786	507	1.000	25.4	1.000	25.4
LGR5	23.8	15/16	2.19	3.26	0.643	415	0.938	23.8	0.938	23.8
LGR4	22.2	7/8	2.04	3.05	0.601	388	0.870	22.2	0.870	22.2
LGR3	20.6	13/16	1.76	2.63	0.518	334	0.810	20.6	0.810	20.6





## 实心抽油杆

### SOLID SUCKER ROD

普通抽油杆严格按照 API Spec 11B 生产，分为 C 级和 D 级，并在此基础上开发出 H 级超高强度抽油杆。

Ordinary sucker rod is manufactured according to API Spec 11B that is mainly classified at grade C and D. Grade H sucker rod is developed to suit for deep well and larger pumps.

### 规格参数 SPECIFICATIONS

尺寸 inch Nominal Size	杆体直径 mm O.D. of Rod	螺纹公称直径 in Nominal Diameter of the Thread	扳手方宽度 Width for the Spanner		长度 Length	
			mm	Inch	mm	ft
5/8	15.88	15/16	22.2	7/8	7518 9042	25 30
3/4	19.05	1 1/16	25.4	1		
7/8	22.23	1 3/16	25.4	1		
1	25.40	1 3/8	33.3	1 5/16		
1 1/8	28.58	1 9/16	38.1	1 1/2		

短节长度 508、1118、1727、2337、2946 mm  
Length of the pony rod: 20, 44, 68, 92, 116 inches

## 空心抽油杆 HOLLOW SUCKER ROD

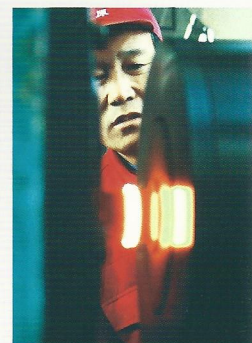
空心抽油杆是一种具有中间流道的抽油杆，主要是为了开采“三高”（高粘度、高凝、高含蜡）原油。它具有以下特点：可以通过其内孔加入各种化学药剂和热油等降低原油的粘度、控制油井结蜡，提高泵效；流道小、流速快，不易沉积砂粒，适用于含砂油井；和无管泵配套使用，替代油管；抗扭能力大，可驱动螺杆泵。

Hollow sucker rod has a hole in the middle and is suitable for high viscosity, oil with high freezing point and high wax bearing crude oil. It has these features: chemicals and hot oil can be injected through the inner hole to decrease the viscosity of the oil and the paraffin deposit in the well thus the pump efficiency is increased; The smaller passage and the faster flow velocity can avoid the sand deposit efficiently while using hollow sucker rod in the sand well; Matched with the rod pump hollow sucker rod can substitute the tubing; Hollow sucker rod can be used to drive the PC pumps as it can bear larger torque.

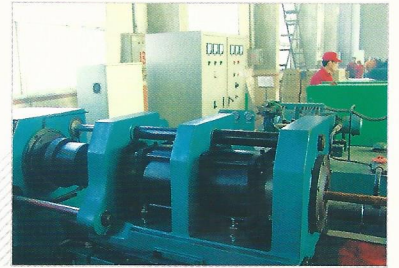
### 规格参数 SPECIFICATIONS

规格 Specs	杆体直径 mm O.D. of Rod	螺纹公称直径 in Nominal Diameter of the Thread	扳手方宽度 mm Width for Spanner	长度 Length	
				mm	ft
KG32	32	1 7/16	41	7000	23
KG36	36	1 9/16	44	7500	25
KG38	38	1 3/4	49	8000	26
KG42	42	1 7/8	54	8500	28

短节长度 500、1000、1500、2000、3000 mm  
Length of the pony rod: 20, 40, 60, 79, 112 inches









## 特种杆、光杆、加重杆、接箍和抽油杆修复

## SPECIAL SUCKER ROD, POLISHED ROD, SINKER ROD, COUPLINGS AND SUCK

为了满足油田的各种需求，我们还开发了各种防腐杆、防偏磨杆以及特殊空心抽油杆。为了满足螺杆泵对抽油杆高扭矩的要求，在普通空心抽油杆的基础上开发了一种专利技术的高抗扭矩驱动（空心抽油）杆，其螺纹抗扭极限可达  $7500\text{N} \cdot \text{m}$  以上，满足了采油机械对驱动杆的高扭矩要求。此外，还生产各种配套的工具、接箍、光杆和加重杆。

We had developed all kinds of special sucker rods like corrosion prevention rod, anti eccentric wear rod and special hollow sucker rod to suit various needs of the oilfield. In order to satisfy the demand of high torque by PC pump, we developed a patented drive (hollow) sucker rod with higher torque resistibility which can bear the torque up to  $7,500\text{N} \cdot \text{m}$ . At same time we manufacture the associated tools, couplings, polished rod, sinker rod etc. All kinds of the sucker rods can be repaired in our plant based on the years of experience of manufacturing.

## 地面混输螺杆泵

## SURFACE MULTIPHASE PC PUMPS

单螺杆地面混输泵是一种容积泵，主要工作部件由定子和转子组成，采用多头渐开线型技术，具有转速范围宽，压力脉动小，运转平稳，自吸能力强，结构简单，维修方便，工作可靠，寿命长等特点。适用于多种流体介质，如高粘度原油及多相混输等，广泛用于石油、煤炭、化工、食品等行业。

The Surface Multiphase PCP is a positive displacement pump whose main parts are stator and rotor that adopts the technology of multi head involutes type curve. The main advantages are wide range rotating speed, small pressure pulsation, stable rotation, high sucking performance, simple structure, reliability, long working life and so on. It is suitable for various liquid mediums like high viscous oil and multiphase transportation that can be widely used in petroleum, coal, chemicals, food area.



## R ROD REPAIRING





## 规格参数

## SPECIFICATIONS

型号 Model	额定流量 m <sup>3</sup> /h Rated Flow	每转排量 ml/min Displacement	额定压力 MPa Rated Pressure	额定转速 r/min Rotating Speed	吸入压力 MPa Suction Pressure	电机功率 kW Motor Power
HL22-20-2.4	20	2200	2.4	167	> 0.06	22
HL22-16.5-2.4	16.5	2200	2.4	136	> 0.06	18
HL22-14.5-2.4	14.5	2200	2.4	120	> 0.06	15
HL22-12.5-2.4	12.5	2200	2.4	107	> 0.06	15
HL22-10-2.4	10	2200	2.4	96	> 0.06	11
HL22-8-2.4	8	2200	2.4	77	> 0.06	10
HL22-20-1.8	20	2200	1.8	167	> 0.06	15
HL22-16.5-1.8	16.5	2200	1.8	136	> 0.06	15
HL22-14.5-1.8	14.5	2200	1.8	120	> 0.06	11
HL22-12.5-1.8	12.5	2200	1.8	107	> 0.06	11
HL22-10-1.8	10	2200	1.8	96	> 0.06	10
HL22-8-1.8	8	2200	1.8	77	> 0.06	10
HL44-33-2	33	4400	2	136	> 0.06	30
HL44-29-2	29	4400	2	120	> 0.06	22
HL44-25-2	25	4400	2	107	> 0.06	22
HL44-33-1.6	33	4400	1.6	136	> 0.06	22
HL44-29-1.6	29	4400	1.6	120	> 0.06	18
HL44-25-1.6	25	4400	1.6	107	> 0.06	18
HL44-33-1.2	33	4400	1.2	136	> 0.06	22
HL44-29-1.2	29	4400	1.2	120	> 0.06	18
HL44-25-1.2	25	4400	1.2	107	> 0.06	15
HL55-52-2	52	5500	2	167	> 0.06	40
HL55-42-2	42	5500	2	136	> 0.06	37
HL55-31-2	31	5500	2	107	> 0.06	30
HL55-52-1.6	52	5500	1.6	167	> 0.06	37
HL55-42-1.6	42	5500	1.6	136	> 0.06	30
HL55-31-1.6	31	5500	1.6	107	> 0.06	22
HL66-62-1.5	62	6600	1.5	167	> 0.06	37
HL66-50-1.5	50	6600	1.5	136	> 0.06	30
HL66-42-1.5	42	6600	1.5	120	> 0.06	30
HL66-31-1.5	31	6600	1.5	96	> 0.06	22

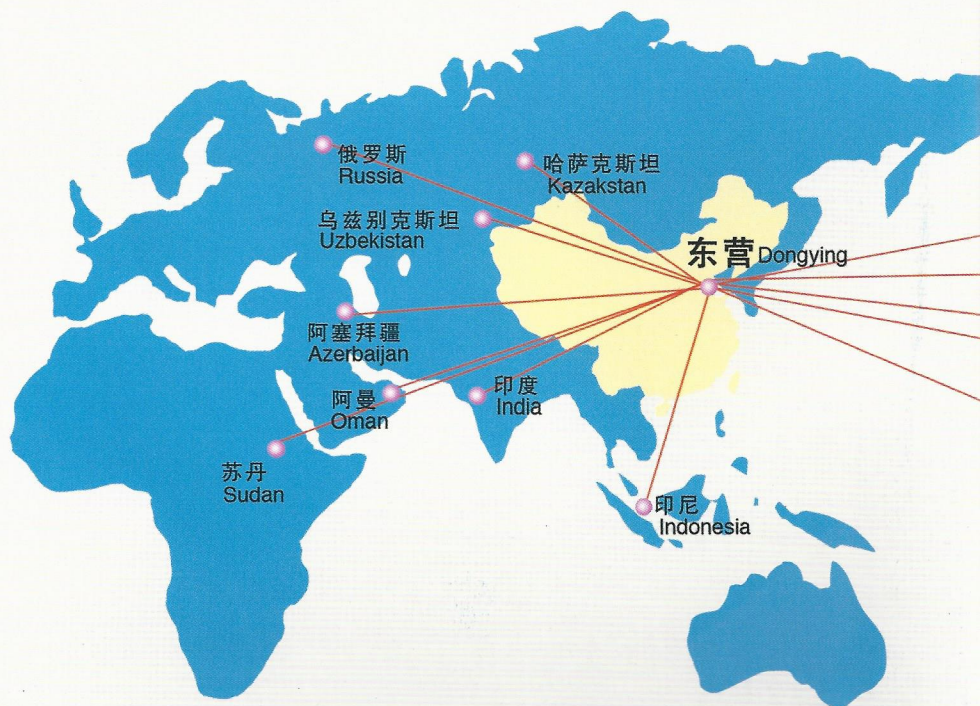


HL66-29-1.5	29	6600	1.5	85	> 0.06	18
HL66-62-1.2	62	6600	1.2	167	> 0.06	30
HL66-50-1.2	50	6600	1.2	136	> 0.06	25
HL66-42-1.2	42	6600	1.2	120	> 0.06	22
HL66-31-1.2	31	6600	1.2	96	> 0.06	18
HL66-29-1.2	29	6600	1.2	85	> 0.06	15
HL127-83-2	83	12700	2	136	> 0.06	75
HL127-75-2	75	12700	2	107	> 0.06	60
HL127-67-2	67	12700	2	96	> 0.06	55
HL127-58-2	58	12700	2	85	> 0.06	50
HL127-83-1.6	83	12700	1.6	136	> 0.06	60
HL127-75-1.6	75	12700	1.6	107	> 0.06	50
HL127-67-1.6	67	12700	1.6	96	> 0.06	45
HL127-58-1.6	58	12700	1.6	85	> 0.06	37
HL127-83-1.2	83	12700	1.2	136	> 0.06	45
HL127-75-1.2	75	12700	1.2	107	> 0.06	37
HL127-67-1.2	67	12700	1.2	96	> 0.06	37
HL127-59-1.2	58	12700	1.2	85	> 0.06	30





# 产品分布图 International Markets



## 联系方式 Contact Information

公司名称	胜利油田高原石油装备有限责任公司	COMPANY	SHENGLI OILFIELD HIGHLAND PETROLEUM EQUIPMENT CO. LTD.
公司地址	山东省东营市东二路 739 号	ADDRESS	No. 739, Dong 'Er Road, Dongying City, Shandong Province, P.R.C.
邮政编码	257091	ZIP CODE	257091
网 址	<a href="http://www.chinahighland.com">http://www.chinahighland.com</a>	Website	<a href="http://www.chinahighland.com">http://www.chinahighland.com</a>



电 话	办公室	+86.546.883 5789	TEL	Office	+86.546.883 5789
	国际经贸	+86.546.883 5787		International Business	+86.546.883 5787
	销售公司	+86.546.883 5808		Sale Company	+86.546.883 5808
传 真	办公室	+86.546.883 5999	FAX	Office	+86.546.883 5999
	国际经贸	+86.546.883 5321		International Business	+86.546.883 5321
	销售公司	+86.546.883 5800		Sale Company	+86.546.883 5800
电子邮件	办公室	zblgj@chinahighland.com	Email	Office	zblgj@chinahighland.com
	国际经贸	gjjm@chinahighland.com		International Business	gjjm@chinahighland.com
	销售公司	zbxaf@chinahighland.com		Sale Company	zbxaf@chinahighland.com

SHENGLI OILFIELD HIGHLAND PETROLEUM EQUIPMENT CO., LTD.

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