

## DS型单塞水泥头

Model DS Single Plug Cementing Head

### 特点

1. 配有快装接头，连接方便；
2. 指示器显示胶塞下落；
3. 大尺寸容腔设计，挡销易开启。

### Features

1. Quick installation casing adapter allows convenient installation of cementing head.
2. Plug release indicator provides visual indication for plug pass.
3. Large plug container ID allows easy release of plug retain pin.

## 技术参数 Specifications

套管规格 Casing Size	总长 Overall Length		胶塞容腔长度 Length of Plug Container		最大工作压力 Working Pressure	
	in.	mm	in.	mm	MPa	psi
20	2110	83.071	650	25.591	21	3,000
13-3/8	1959	77.126	685	29.969	35	5,000
10-3/4	1973	77.677	625	24.606	50	7,000
9-5/8	1895	74.606	550	21.654		
7-5/8	1605	63.189	480	18.898		
7	1605	63.189	480	18.898		
5-1/2	1523	59.961	430	16.929		

## ST型双塞水泥头

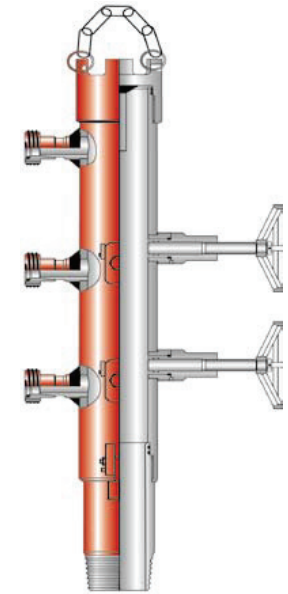
Model ST Double Plug Cementing Head

### 特点

1. 可同时装两个胶塞，用于常规双塞固井和连续式双级注水泥作业；
2. 配有快装接头，连接方便；
3. 指示器显示胶塞下落；
4. 大尺寸容腔设计，挡销易开启。

### Features

1. Capable of holding two plugs simultaneously. Used for cementing with top and bottom plugs, or for continuous two stage cementing.
2. Quick installation casing adapter allows convenient installation of cementing head.
3. Plug release indicator provides visual indication for plug pass.
4. Large plug container ID allows easy release of plug retain pin.

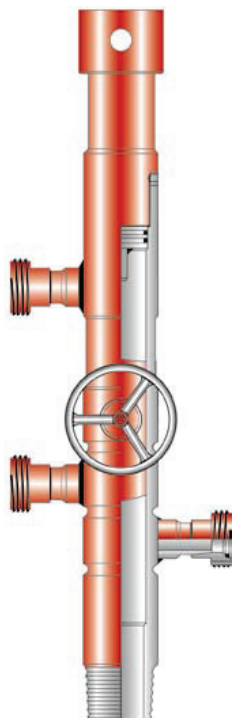


## 技术参数 Specifications

套管规格 Casing Size	总长 Overall Length		最大工作压力 Working Pressure	
	in.	mm	in.	psi
13-3/8	*2770 / 2290	*109.055 / 90.157	35	5,000
10-3/4	*2723 / 2283	*107.205 / 89.882	50	7,000
9-5/8	*2605 / 2165	*102.559 / 85.236		
7-5/8	2257	88.858		
7	2177	85.709		
5-1/2	2045	80.512		

\* 表示双级固井水泥头尺寸

\* Specifications for two-stage cementing head



## ZT型钻杆水泥头

Model ZT Drill Pipe Cementing Head

### 特点

1. 大尺寸容腔设计，挡销易开启；
2. 带提升短节，可用吊卡提起水泥头及管串。

### Features

1. Large plug container ID allows easy release of plug retain pin.
2. Designed with a lifting sub to lift the cementing head and pipe string with elevators.

## 技术参数 Specifications

套管规格 Casing Size	总长 Overall Length		胶塞容腔长度 Length of Plug Container		最大工作压力 Working Pressure	
	in.	mm	mm	in.	MPa	psi
5-1/2	1937	76.260	405	15.945	50	7,000
5	1890	74.409				
3-1/2	1654	65.118	340	13.386	35	5,000
2-7/8	910	35.827	294	11.575		

## ZT-DR型顶驱式水泥头

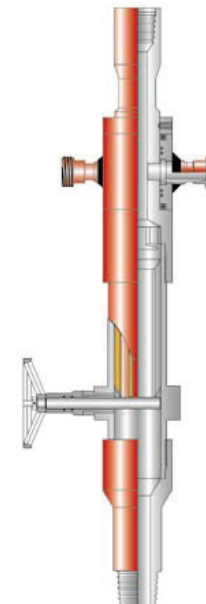
Model ZT-DR Top Drive Cementing Head

### 特点

1. 可直接连接顶驱，旋转尾管；
2. 设计有旁通循环通道，装有钻杆胶塞时仍可通过顶驱进行循环；
3. 高载荷轴承设计，保证管串活动和固井过程中安全旋转；
4. 旋转时密封可靠，可承受高压。

### Features

1. Can be connected with a top drive to rotate the liner.
2. Designed with bypass circulation channel to allow circulation with top drive when a pump down plug is pre-loaded.
3. Heavy duty bearing allows safe rotation during pipe reciprocation and cementation.
4. The cementing head has reliable sealing capacity and can hold high pressure even in rotation status.



## ZT-R型旋转式水泥头

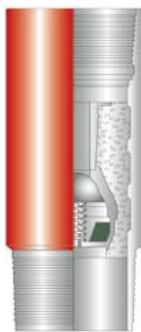
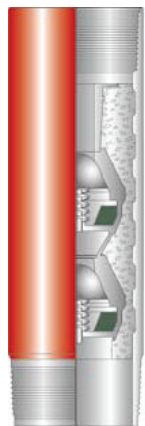
Model ZT-R Rotating Cementing Head

### 特点

1. 高载荷轴承设计，保证管串活动和固井过程中安全旋转；
2. 旋转时密封可靠，可承受高压；
3. 转盘驱动旋转时可用吊卡提起水泥头，在承受拉伸载荷时也可自由旋转。

### Features

1. Heavy duty bearing allows safe rotation during pipe reciprocation and cementation.
2. The cementing head has reliable sealing capacity and can hold high pressure even in rotating status.
3. The cementing head may be lifted when the drill string is rotated by rotary table. It can rotate freely even under tension.



## FG-H型浮箍

Model FG-H Float Collar

### 特点

1. 阀体材料为工程塑料，填充材料为高强度水泥，均具有良好的可钻性；
2. 具有良好的耐冲蚀性能和防回压能力；
3. 有单阀、双阀两种形式供选择。

### Features

1. The valve is made with phenolic material and molded with high strength concrete. Both the valve and concrete are easily drillable.
2. Excellent performance for flow endurance and back pressure holding.
3. Single valve and double valve versions are available.

## FX-HE型浮鞋

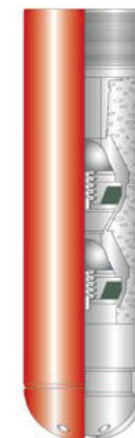
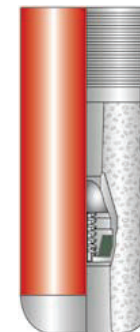
Model FX-HE Float Shoe

### 特点

1. 底部具有导向功能；
2. 阀体材料为工程塑料，填充材料为高强度水泥，均具有良好的可钻性；
3. 具有良好的耐冲蚀性能和防回压能力；
4. 有单阀、双阀两种形式供选择。

### Features

1. Rounded nose profile helps guide the casing string.
2. The valve is made with phenolic material and molded with high strength concrete. Both the valve and concrete are easily drillable.
3. Excellent performance for flow endurance and back pressure holding.
4. Single valve and double valve versions are available.



## FX-D型自动灌浆式浮鞋

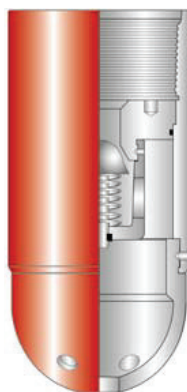
Model FX-D Auto-fill Float Shoe

### 特点

1. 能够在下入过程中自动灌浆，减少作业时间；
2. 具有良好的耐冲蚀性能和防回压能力；
3. PDC可钻。

### Features

1. Allows auto-fill during casing running and saves rig time.
2. Excellent performance for flow endurance and back pressure holding.
3. PDC drillable.



## FX-H尾管式浮鞋

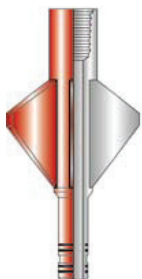
Model FX-H Liner Float Shoe

### 特点

1. 带旋流孔和底部尾翼，专用于尾管作业；
2. 阀体材料为工程塑料，填充材料为高强度水泥，均具有良好的可钻性；
3. 具有良好的耐冲蚀性能和防回压能力；
4. 有单阀、双阀两种形式供选择。

### Features

1. Designed with side ports and bottom blades for liner job.
2. The valve is made with phenolic material and molded with high strength concrete. Both the valve and concrete are easily drillable.
3. Excellent performance for flow endurance and back pressure holding.
4. Single valve and double valve versions are available.


 注水泥插头  
Stab-in Stinger

## 插入式注水泥浮箍/浮鞋

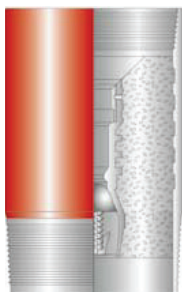
Stab-in Float Collar/ Shoe

### 特点

1. 用于大尺寸套管内插法固井;
2. 减少替浆量, 节约固井作业时间;
3. 阀体材料为工程塑料, 填充材料为高强度水泥, 均具有良好的可钻性;
4. 具有良好的耐冲蚀性能和防回压能力;
5. 有单阀、双阀两种形式供选择。

### Features

1. Used for the inner string cementing of large diameter casing.
2. Displacement volume and cementation time are reduced.
3. The valve is made with phenolic material and molded with high strength concrete. Both the valve and concrete are easily drillable.
4. Excellent performance for flow endurance and back pressure holding.
5. Single valve and double valve versions are available.


 插入式浮箍  
Stab-in Float Collar

## FG-HF型防转式浮箍

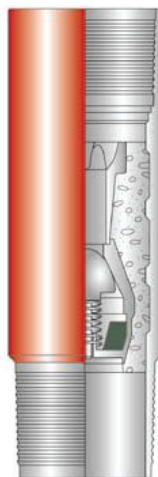
Model FG-HF Non-rotating Float Collar

### 特点

1. 与防转型固井胶塞配套使用, 减少胶塞钻除时间;
2. 阀体材料为工程塑料, 填充材料为高强度水泥, 均具有良好的可钻性;
3. 具有良好的耐冲蚀性能和防回压能力。

### Features

1. Designed to bump non-rotating cementing plugs and reduce plug drill-out time.
2. The valve is made with phenolic material and molded with high strength concrete. Both the valve and concrete are easily drillable.
3. Excellent performance for flow endurance and back pressure holding.



## 固井顶、底胶塞

Cementing plugs

### 特点

1. 能有效隔离泥浆与水泥浆, 防止混浆;
2. 采用复合材料, 易钻除;
3. 有普通式、防转式供选择;
4. 防转式可降低钻除时间。

### Features

1. Separate cement slurry from drilling fluid and prevent contamination.
2. Both plastic core and rubber fins are easily drillable.
3. Available in two types: conventional and non-rotating.
4. Non-rotating design reduces drill-out time.


 防转固井顶塞  
Non-rotating Top Cementing Plug

 防转固井底塞  
Non-rotating Bottom Cementing Plug

## 技术参数 Specifications

套管规格 Casing Size	适用套管范围 Casing Weight Range		胶碗外径 Wiper Fin O.D.	
	kg/m	lb/ft	mm	in.
4-1/2	14.14-17.26	9.50-11.60	110	4.331
5	17.11-35.86	11.50-24.10	122	4.803
5-1/2	20.83-39.88	14.00-26.80	135	5.315
7	25.30-56.55	17.00-38.00	170	6.693
7-5/8	35.72-63.69	24.00-42.80	185	7.283
9-5/8	53.57-79.62	36.00-53.50	235	9.252
10-3/4	60.27-97.77	40.50-65.70	260	10.236
13-3/8	71.43-107.15	48.00-72.00	333	13.110
20	139.89-197.93	94.00-133.00	498	19.606

## DCT-B型非焊接弹性套管扶正器

Model DCT-B Non-welded Casing Centralizer



### 特点

1. 非焊接，由模具压制而成，结构牢固；
2. 起动力、恢复力均符合API 10D标准要求；
3. 铰链式设计，安装方便；
4. 可拆卸堆放，节省储运成本；
5. 带有旋流片时，能更有效地改善顶替效率。

### Features

1. Non-welded, pressed by punching, high strength.
2. Starting force and restoring force exceed API 10D specifications.
3. Hinged design allows convenient field installation.
4. Can be unfolded and stacked flatly, saving storage and transportation cost.
5. Improves displacement efficiency when installed with turbo blades.

### 技术参数 Specifications

套管规格 Casing Size	井眼尺寸 Hole Size	最大外径 Max O.D.	
		mm	in.
in.	in.	mm	in.
20	24 / 26	650 / 714	25.591 / 28.110
18-5/8	22 / 24	590 / 680	23.228 / 26.772
16	20 / 22	550 / 613	21.654 / 24.132
14	18	484	19.055
13-3/8	17-1/2	470	18.504
12-3/4	17-1/2	466	18.346
10-3/4	12-1/4	370	14.567
9-5/8	12-1/4	375	14.764
7-5/8	9-7/8	273	10.748
7	8-1/2	252	9.921
6-5/8	8-1/2	245	9.646
5-1/2	8-1/2	256	10.079
5	6-1/2	190	7.480
4-1/2	6	181	7.126

## DCT-S型双弓弹性扶正器

Model DCT-S Double Bow Centralizer



### 特点

1. 非焊接，由模具压制而成，结构牢固；
2. 与单弓弹性扶正器相比，恢复力大，启动力、运行力小，可用于直井、大斜度井及水平井；
3. 铰链式设计，安装方便；
4. 可拆卸堆放，节省储运成本。

### Features

1. Non-welded, pressed by punching, high strength.
2. Compared with single bow centralizer, the restoring force is higher while the starting force and running force are lower. Therefore, it can be run in vertical, highly-deviated and horizontal wells.
3. Hinged design allows convenient field installation.
4. Can be unfolded and stacked flatly, saving storage and transportation cost.

### 技术参数 Specifications

套管规格 Casing Size	井眼尺寸 Hole Size	最大外径 Max O.D.	
		mm	in.
in.	in.	mm	in.
20	24 / 26	630 / 680	24.803 / 26.772
13-3/8	17-1/2	460	18.110
9-5/8	12-1/4	348	13.701
7	8-1/2	236	9.291
5-1/2	8-1/2	233	9.173
5	6-1/2	175	6.890
4-1/2	6	165	6.496

## GFZ-F型刚性套管扶正器

Model GFZ-F Positive Centralizer



### 特点

1. 用于套管重叠段;
2. 与普通刚性扶正器相比, 过流面积更大;
3. 非焊接, 由模具压制而成, 结构牢固;
4. 铰链式设计, 安装方便;
5. 可拆卸堆放, 节省储运成本。

### Features

1. Used for cased hole.
2. Larger flow area than conventional rigid centralizer.
3. Non-welded, pressed by punching, high strength.
4. Hinged design allows convenient field installation.
5. Can be unfolded and stacked flatly, saving storage and transportation cost.

### 技术参数 Specifications

套管规格 Casing Size	井眼尺寸 Hole Size	最大外径 Max O.D.	
		mm	in.
in.	in.	mm	in.
4-1/2	6	146.1	5.752
5	6-1/2	158.8	6.252
5-1/2	8-1/2	209.6	8.252
7	8-1/2	209.6	8.252
7-5/8	9-1/2	235	9.252
9-5/8	12-1/4	304.8	12.000
10-3/4	12-1/4	304.8	12.000
13-3/8	16	400	15.748
13-3/8	17-1/2	438	17.244

## 焊接式弹性扶正器

Welded Bow Spring Centralizer

### 特点

1. 采用自动焊接机焊接, 焊接均匀, 性能可靠;
2. 起动力、恢复力均符合API 10D标准要求;
3. 铰链式设计, 安装方便;
4. 可拆卸堆放, 节省储运成本;
5. 整体套入式焊接扶正器可用于小井眼。

### Features

1. Welded by automatic welding machine, the centralizer has uniform welds and reliable strength.
2. Starting force and restoring force exceed API 10D specifications.
3. Hinged design allows convenient field installation.
4. Can be unfolded and stacked flatly, saving storage and transportation cost.
5. Slip-on welded bow spring centralizer is available for slim hole.



铰链式  
Hinged Type



Slip-on Type

### 技术参数 Specifications

套管规格 Casing Size	井眼尺寸 Hole Size	最大外径 Max O.D.	
		mm	in.
in.	in.	mm	in.
20	24 / 26	650 / 714	25.591 / 28.110
18-5/8	22 / 24	590 / 680	23.228 / 26.772
16	20 / 22	550 / 613	21.654 / 24.132
14	18	484	19.055
13-3/8	17-1/2	470	18.504
12-3/4	17-1/2	466	18.346
10-3/4	12-1/4	370	14.567
9-5/8	12-1/4	375	14.764
7-5/8	9-7/8	273	10.748
7	8-1/2	252	9.921
6-5/8	8-1/2	245	9.646
5-1/2	8-1/2	256	10.079
5	6-1/2	190	7.480
4-1/2	6	181	7.126

## GFZ-H型螺旋焊接式扶正器

Model GFZ-H Welded Spiral Centralizer



### 特点

1. 特殊扶正肋设计便于在井眼中下行;
2. 拖拽力小, 旋转扭矩低;
3. 适用于直井、大斜度井及水平井;
4. 有直肋和斜肋供选择。

### Features

1. Special blade profile allows easy gliding in wellbore.
2. Low drag force and rotation torque.
3. Can be run in vertical, highly-deviated and horizontal wells.
4. Available with straight or spiral blades.



### 技术参数 Specifications

套管规格 Casing Size	井眼尺寸 Hole Size	最大外径 Max O.D.	
		mm	in.
in.	in.		
4-1/2	6	146.1	5.752
5	6-1/2	158.8	6.252
5-1/2	8-1/2	209.6	8.252
7	8-1/2	209.6	8.252
7-5/8	9-1/2	235	9.252
9-5/8	12-1/4	304.8	12.000
10-3/4	12-1/4	304.8	12.000
13-3/8	16	400	15.748
13-3/8	17-1/2	438	17.244

## GFZ-E型锌合金扶正器

Model GFZ-E Zinc Alloy Centralizer



### 特点

1. 可保护套管, 阻止电化学腐蚀;
2. 摩擦系数比钢、铝等材质扶正器低, 更便于套管下入和旋转;
3. 适用于直井、大斜度井及水平井。

### Features

1. Protects casing from electrochemical corrosion.
2. Lower coefficient of friction than steel and aluminum centralizers, providing easier casing running and rotation.
3. Can be run in vertical, highly-deviated and horizontal wells.

### 技术参数 Specifications

套管规格 Casing Size	井眼尺寸 Hole Size	最大外径 Max O.D.	
		mm	in.
in.	in.		
4-1/2	5-7/8	146	5.748
5-1/2	8-1/2	210	8.268
7	8-1/2	210	8.268
7-5/8	9-1/2	233	9.173

## GFZ-D型树脂扶正器

Model GFZ-D Polymer Centralizer



### 特点

1. 耐磨性能好;
2. 摩擦系数低, 有利于套管下入和旋转;
3. 适用于直井、大斜度井及水平井。

### Features

1. Strong wear resistance.
2. Low coefficient of friction, providing easier casing running and rotation.
3. Can be run in vertical, highly-deviated and horizontal wells.

### 技术参数 Specifications

套管规格 Casing Size	井眼尺寸 Hole Size	最大外径 Max O.D.	
		mm	in.
in.	in.		
5-1/2	8-1/2	210	8.268
7	8-1/2	210	8.268
7-5/8	9-1/2	233	9.173

## 刚性扶正器

Solid Body Centralizer



GFZ-A型刚性扶正器(铸钢)  
Model GFZ-A Solid Body Centralizer  
(Cast Steel)

### 特点

1. 有直肋、螺旋肋两种形式;
2. 有铸钢、铸铝材质供选择;
3. 可用于直井、大斜度井及水平井。

### Features

1. Available with straight or spiral blades.
2. May be casted with steel or aluminum.
3. Can be run in vertical, highly-deviated and horizontal wells.



GFZ-B型刚性扶正器(铸钢)  
Model GFZ-B Solid Body Centralizer  
(Cast Steel)



GFZ-C型刚性扶正器(铸铝)  
Model GFZ-C Solid Body Centralizer  
(Cast Aluminum)

## 技术参数 Specifications

套管规格 Casing Size	内径 I.D.		最大外径 Max O.D.	
	mm	in.	mm	in.
13-3/8	343	13.504	400	15.748
10-3/4	276	10.866	308	12.1626
9-5/8	247	9.724	308	12.1626
7-5/8	197	7.756	243	9.567
7	180	7.087	212	8.346
5-1/2	143	5.630	213	8.386
5	130	5.118	151	5.945
4-1/2	117	4.606	148	5.827
4	104	4.094	118	4.646

## 螺栓式卡箍

Hinged Stop Collar, with Bolt and Nut

### 特点

1. 通过上紧螺栓, 将卡箍在套管外壁抱紧;
2. 铰链式结构, 安装简便。

### Features

1. A bolt/nut assembly is tightened to grip the stop collar around the circumference of casing pipe.
2. Hinged design allows convenient installation.



KG-C型螺栓式卡箍  
Model KG-C Stop Collar



KG-A型固定螺钉式卡箍  
Model KG-A Stop Collar

## 固定螺钉式卡箍

Slip-on Stop Collar, with Set Screws

### 特点

1. 一体式结构, 强度高;
2. 通过内六角螺钉固定, 紧固力更大。

### Features

1. One piece, high strength.
2. Fixed by Allen screws to provide superior holding force.

## 技术参数 Specifications

套管规格 Casing Size	内径 I.D.		外径 O.D.	
	mm	in.	mm	in.
13-3/8	343.5	13.524	358.5	14.114
10-3/4	276	10.866	291.5	11.476
9-5/8	247	9.724	262.5	10.335
8-1/8	209	8.228	223	8.780
7-5/8	198	7.795	211	8.307
7	181	7.126	195	7.677
5-1/2	143	5.630	157	6.181
5	130	5.118	144	5.669
4-1/2	117	4.606	130	5.118