

STABILIZER

Stabilizer

Stabilizer is one useful tool for drilling operation, PPGL provides a wide variety of near bit stabilizers and string stabilizers according to API SPEC 7. All drilling stabilizers are integral style, also can be highly customized as per customer's requirement.

Integral straight Blade Stabilizer

Straight blade stabilizer is integrally made of high strength alloy steel AISI 4145H, usually with 3 blades or 4 blades. The working surface of straight stabilizer is provided with carbide insert, diamond compound insert & overlay welding etc.



Integral Straight Blade Stabilizer

Technical Specifications of Straight Blade Stabilizer

Bit O.D. (in)	O.D. (mm)	End O.D. (mm)	I.D. (mm)	Length (mm)				Connection				
				Short Type		Long Type		Drill String		Near Bit		
				Near Bit	Drill String	Near Bit	Drill String	Top	Down	Top	Down	
6	152.4	121	51	800~900	1,000~	1,200~	1,400~1,600	NC38	NC38	NC38	3 1/2	
6 1/4	158.7				1,100	1,400					REG	
6 1/2	165.1											
7 1/2	190.5	159	57	800~900	1,000	1,600	1,800	NC46	NC46	NC46	4 1/2	
7 7/8	200.0											
8 3/8	212.7	165	71	800~900	1,000~	1,600~	1,800~2,000	NC46		NC46	4 1/2	
8 1/2	215.9											
8 3/4	222.2	178			1,200	1,800		NC50			REG	
9 1/2	241.3	178	71	800~900	1,000~	1,600~	1,800~2,000	NC50	NC50	NC50	6 5/8	
9 5/8	244.5				1,000	1,200					1,800	REG
9 7/8	250.8				197							
12 1/4	311.2	203	76	800~900	1,000~1,200	1,200	1,800	NC56		NC56	6 5/8	
									1,500		2,000	6 5/8 REG
17 1/2	444.5	229			1,200~1,300	1,200~1,300	2,000~2,200	NC61 7 5/8 REG				

Integral Spiral Blade Stabilizer

Spiral blade stabilizer is integrally made of high strength alloy steel AISI 4145H, usually with 3 blades & 4 blades. The working surface of spiral stabilizer is provided with carbide insert, diamond compound insert or overlay welding etc.



Integral Spiral Blade Stabilizer

Technical Specifications of Spiral Stabilizer

Bit Size(in)	Working O.D.(mm)	End O.D. of body(mm)	I.D.(mm)	Length (mm)	Thread Code on Both Ends			
					String type		Near bit type	
					Top	Down	Top	Down
6	152.4	121	51	120	NC38			3 1/2 REG
6 1/4	158.7							
6 1/2	165.1							
7 1/2	190.5	159	57	1,600	NC46			4 1/2 REG
7 7/8	200							
8 3/8	212.7	159	71	1,600	NC46			
		165						
8 1/2	215.2	159						
8 3/4	222.2	165	1,800		NC50			
		178						
9 1/2	241.3	178	76	1,600	NC50	NC50	NC50	6 5/8 REG
9 5/8	244.5			1,800				
9 7/8	250.8			197				
12 1/4	311.2	203	76	1,800	NC56 6 5/8REG			6 5/8 REG
		229						
16	406	229	76	2,000	NC61			7 5/8REG
		241.3		2,200				

Replaceable Sleeve Stabilizer

Replaceable sleeve stabilizer is special tool suitable for directional well drilling. The stabilizer sleeve can be changed quickly and easily after sleeve hard banding is worn-out. There're two styles available: 2-piece stabilizer and 3-piece stabilizer.



Replaceable Sleeve Stabilizer

Technical Specifications of Replaceable Sleeve Stabilizer

Bit Dia (in)	DC Dia (in)	Sleeve		Stabilizer Body							Thread Code on Both Ends							
		Length (mm)	Work O.D.	Upset End Dia.	Upset End Length	Fishing Neck Length	ID	Make-up Torque (KN·m)	Over length		Drill string		Near bit					
									Near bit	Drill string	Top	down	Top	Down				
8-1/2	6 1/2	480	214	190	200	600	71	6.95~7.25	1,800	1,800	4 1/2	4 1/2	4 1/2	4 1/2				
8-1/4		470	210						~	~					IF	IF	IF	REG
8		472	203						1,900	1,900								
7-3/4		455	197															
11	8	530	279	238	200	600	76	19.7~11	1,800	1,800	6-5/8	6-5/8	6-5/8	6-5/8				
11-1/2		540	292						~	~					REG	REG	REG	REG
12		550	305															
12-1/4		555	310															
16	9	644	407	279	200	600	76	13.85~16.55	2,000	2,000	7-5/8	7-5/8	7-5/8	7-5/8				
16-1/2		670	420						~	~								
17		676	432															
17-1/2		682	444															
22		644	407						2,000	2,000					REG	REG	REG	REG
24									~	~								
26									2,200	2,200								

Non-Rotating Stabilizer

Non-rotating stabilizer is special tool in drilling to avoid blade worn out or wall damage. PPGL provides non-rotating stabilizer for drilling hole from 7” to 28”.



Non-Rotating Stabilizer

Technical Specifications of Non-Rotating Stabilizer

Hole Size (in)	Stabilizer Sleeve			Stabilizer			Overall Length(mm)
	Length(mm)	OD	Blade Qty.	ID (mm)	Fishing OD	Thread Type	
7	380	157	4	44	127	4-1/2 IF	1,600

9-5/8	500	220	4	71	165	4-1/2 IF	2,000
10-3/4	500	255	4	71	165	4-1/2 IF	2,000
12-1/4	523	310	4	76	215	6-1/8 REG	2,010
13-3/8	500	313	4	71	165	4-1/2 IF	2,000
16	543	405	4	76	241	7-5/8 REG	2,210
17	543	430	4	76	241	7-5/8 REG	2,210
22	635	558	4	76	241	7-5/8 REG	2,210
28	715	711	5	76	241	7-5/8 REG	2,210

Float Valve Stabilizer

Float valve stabilizer is effective tool in drilling operation. The stabilizer is connected at upper part of drill bit, the float valve assembly in stabilizer is near the bit thread. Such structure of stabilizer can realize the automatically shutting off inside bore of tool to avoid the accident.



Float Valve Stabilizer

Technical Specifications of Float Valve Stabilizer

Stabilizer Body O.D. (mm)	Stabilizer Thread	Float Valve Assembly O.O.(mm)	Float Valve Assembly Length (mm)
228 , 241	7-5/8 REG	121	298.4
228 , 241	7-5/8 REG	121	298.4
228 , 241	7-5/8 REG	121	298.4
203 , 209.6	6-5/8 REG	121	298.4
178	4-1/2 REG	98	247.6
178 , 165	4-1/2 REG	88	211.14
127 , 121	3-1/2 REG	61	165.1

Spherical Stabilizer

Spherical stabilizer is new tool for various drilling operation. PPGL supply spherical stabilizer from 6” to 12-1/4”.



Spherical Stabilizer

Technical Specifications of Spherical Stabilizer

Working O.D. (in)	Body O.D. on both ends (mm)	I.D. (mm)	Stabilizer Length (mm)	Thread on Both Stabilizer Ends (in)			
				String Type		Near Bit Type	
				Top	Down	Top	Down
6~6-1/2	121	51	785	3-1/2 IF	3-1/2 IF	3-1/2 IF	3-1/2 REG
7~7/8	159	57	850	4-1/2 IF	4-1/2 IF	4-1/2 IF	4-1/2 REG
8~8-1/2	165	71	850	4-1/2 IF	4-1/2 IF	4-1/2 IF	4-1/2 REG
9~9-1/4	197	71	870	4-1/2 IF	4-1/2 IF	4-1/2 IF	4-1/2 REG
12~12-1/4	203	76	940	6-5/8 REG	6-5/8 REG	6-5/8 REG	6-5/8 REG

Variable Diameter Stabilizer

Variable diameter stabilizer is new tool for drilling operation. With special support head, variable diameter stabilizer can change the outside diameter by stretching out or drawing back support head so as to adjust the clearance between hole wall and stabilizer and avoid sticking.



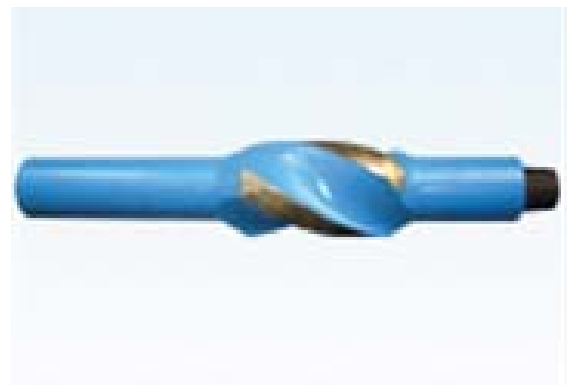
Variable Diameter Stabilizer

Technical Specifications of Variable diameter Stabilizer

Body OD (mm)	ID (mm)	Head OD (9mm)	Head Nos.	Overall Length (mm)	Box Thread	Pin Thread	OD Varied	Min Pressure Stretch out (MPa)	Max Working Pressure (MPa)	Max. Differential Pressure (mm)
201	55	80	15	1,350	NC50	NC50	211~213	0.1	20	40
204	55	80	15	1,350	NC50	NC46	214~215	0.1	20	40

Unbalanced Spiral Blade Stabilizer

Unbalanced Spiral Blade Stabilizer is ideal anti-inclination tool drilling operation. Relying on stabilizer's structural unbalanced principle, during rotating of drilling string, stabilizer will make one centrifugal force to heavy side, working with the eccentric force etc. of drilling string, such as large impart restoring force will straighten well-bore gradually. There're two styles available: unbalanced spiral blade.



Unbalanced Spiral Blade Stabilizer

Technical Specifications of Unbalanced Single-Spiral Blade Stabilizer

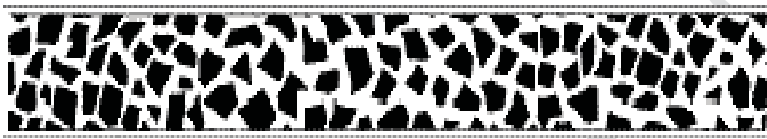
OD	ID	Thread Conn. (in)	Length (mm)
215	71	4-1/2 IF	1,800
311	76	6-5/8 REG	1,800
444	76	7-5/8 REG	2,000

Technical Specifications of Unbalanced Multi-Spiral Blade Stabilizer

OD	ID	Thread Conn. (in)	Length (mm)
215	71	4-1/2	4,600
311	76	6-5/8 REG	4,600

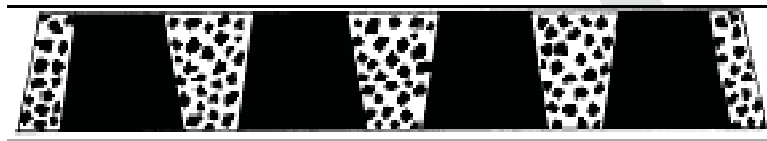
Options for Stabilizer Hard Facing

HF 1000, ideal for soft formation drilling.



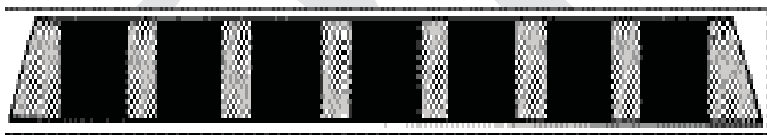
Sections through hard facing.

HF 2000, ideal for high deviation drilling in abrasive formations.



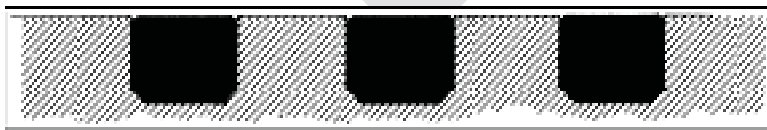
Sections through hard facing.

HF 3000, recommended for non-magnetic stabilizer



Sections through hard facing.

TCI, button type



Sections through hard facing.