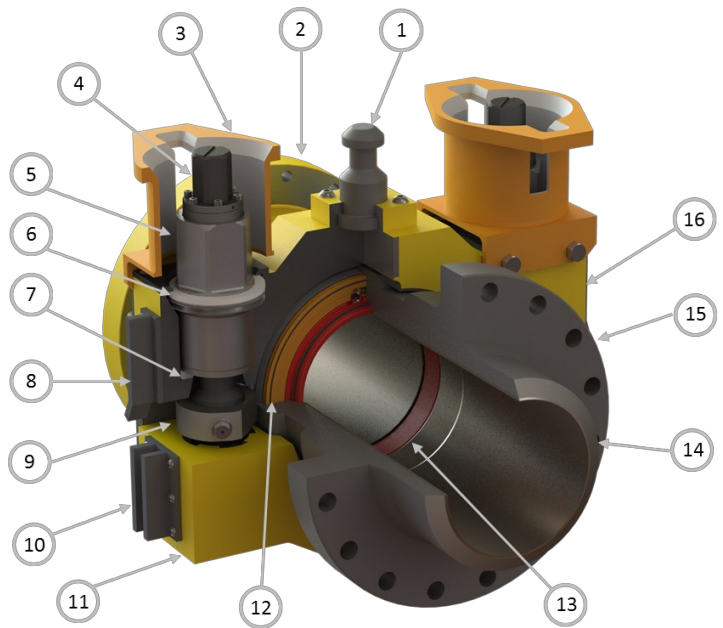


RETLOCK® CONNECTOR

Optimized Sealing Technology

For more than 20 years, AFGlobal has provided advanced deepwater diverless connection solutions for a broad range of field requirements. The source of our success is the field-proven *Retlock*® connector, a first-of-its-kind twin-bolt clamp and the central core of each diverless connection solution we offer. Compared to traditional offerings, the twin-bolt design provides the best combination of features and benefits available.

ITEM	DESCRIPTION	QTY
1	Lifting Mandrel	1
2	Inboard Hub	1
3	Torque Bucket Receptacle	2
4	Retlock Shaft	2
5	Main Nut	2
6	Debris Seal	2
7	Spherical Seat	2
8	Upper Clamp Guide	2
9	Shear Screw Assembly	2
10	Lower Clamp Guide	2
11	Lower Clamp Half	2
12	Seal Plate	1
13	Metallic Gasket Seal	1
14	Hub Interface (Weld nib or flanged)	-
15	Outboard Hub	1
16	Upper Clamp Half	1



The *Retlock* clamp's unique design affords a versatility of bore configurations, which allows delivery of monobore, multi-bore, and controls (H/E) deployment systems. It can reliably make secure and safe connections for vertical and horizontal applications, or for any angle off the vertical/horizontal as required. As part of our commitment to quality control and seamless subsea system delivery, AFGlobal designs, engineers, and builds each *Retlock* connector in-house. Our current size portfolio extends from 2 inches to 48 inches NPS. *Retlock* clamp connectors are manufactured with a strict adherence to international best practices and materials.

Each clamp incorporates several mechanical features that help ensure trouble-free installation and operation:

- * An even distribution of hub pre-load assures high pressure and load capability.
- * A gasket with broad-faced, robust metal-to-metal sealing surface prevents sand gouges from forming leak paths.
- * Functional clamp components can be retrieved by an ROV without recovering the jumper, spool, or host structure.

- * A continual leak monitoring system and annulus port allow for pressure testing and external seal tests.
- * The compact, lightweight clamp and accompanying porch design enables smaller associated structures.
- * Secondary release feature ensures the connection can always be separated if needed.
- * Clamp contingency operations enable clamp mounting on the host structure/inboard side, which allows for the use of simple cost effective full pressure blinds to serve as long term/short term pressure caps.
- * Clamps qualified in accordance with API 6A and 17D.

These features, coupled with our commitment to expert project execution and in-field installation, have helped the *Retlock* technology amass a successful track record of more than 1,750 subsea connectors around the world.

Retlock Pressure / Capacities

Retlock Standard Connector 16.25" Hub

Bore Size (Inch)	Load Limits			2,000 psi 13.8 MPa 138 bar			5,000 psi 34.5 MPa 345 bar			10,000 psi 69 MPa 690 bar		
	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)
2	922	6426	232	920	6412	232	916	6384	231	906	6314	231
4	910	6342	247	901	6286	246	885	6174	242	844	5895	242
6	889	6202	260	871	6076	256	834	5825	248	742	5195	248
8	861	6006	271	828	5783	262	763	5335	246	600	4216	246
10	824	5755	277	773	5405	264	671	4706	236	416	2958	236
12	779	5447	281	706	4944	259	559	3937	217	192	1419	217
14	726	5083	279	626	4398	249	426	3028	187			

Multi-Bore

6 & 2	885	6174	277	865	6034	272	824	5755	261	722	5055	236
6 & 4	873	6090	308	846	5909	300	793	5545	285	661	4636	246
6 & 6 & 2	848	5923	317	810	5657	305	732	5125	281	538	3797	221
8 & 2	881	6146	327	859	5992	320	814	5685	306	702	4916	272
6 & 4	857	5979	286	822	5741	277	753	5265	258	579	4077	211

Retlock Standard Connector 19.25" Hub

Bore Size (Inch)	Load Limits			2,000 psi 13.8 MPa 138 bar			5,000 psi 34.5 MPa 345 bar			10,000 psi 69 MPa 690 bar		
	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)
10	1128	7874	390	1077	7524	376	975	6825	348	720	5077	278
12	1083	7566	398	1009	7063	377	862	6056	334	495	3538	227
14	1030	7202	403	930	6517	372	730	5147	310	230	1720	154
16	968	6783	403	838	5888	360	577	4098	274	Contact AFGlobal UK Engineering		
18	899	6307	398	734	5175	340	404	2909	224	Contact AFGlobal UK Engineering		

Retlock Standard Connector 25.25" Hub

Bore Size (Inch)	Load Limits			2,000 psi 13.8 MPa 138 bar			5,000 psi 34.5 MPa 345 bar			10,000 psi 69 MPa 690 bar		
	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)	BM at Pressure (kNm)	Axial Force at Pressure (kN)	Max TM at Pressure (kNm)
14	1549	7202	565	1449	6517	526	1249	5147	447	749	1720	250
16	1488	6783	560	1357	5888	506	1096	4098	398	Contact AFGlobal UK Engineering		
18	1418	6307	549	1253	5175	478	923	2909	335	Contact AFGlobal UK Engineering		
20	1341	5776	532	1137	4377	440	729	1580	255	Contact AFGlobal UK Engineering		
22	1255	5189	507	1008	3496	391	515	112	159	Contact AFGlobal UK Engineering		

Retlock Dimensions & Weight

Retlock Connector				
Hub Size	A (mm)	B (mm)	C (mm)	Weight (kg)
16 1/4"	760	579	732	900
19 1/4"	1120	1072	872	1316
25 1/4"	1300	1174	1040	2450

