Pulsar[™] Collar Connection

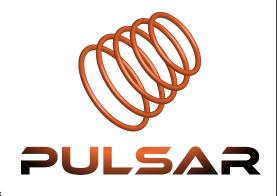
Unlock unparalleled performance with PULSAR™ - the **industry's first** engineered, BHA specific, double shouldered MWD and BHA collar connection. Redefining industry standards, PULSAR™ presents a sleek design with a smaller relative OD and a larger relative ID compared to standard API connections facilitating enhanced fluid flow efficiency.

PULSAR™ offers optimized torsional capacity, ensuring heightened efficiency and durability in demanding drilling operations. Its seamless connection bore minimizes the risk of fluid erosion by eliminating steps in the ID, ensuring a consistently smooth internal surface. Engineered for longevity, PULSAR™ is meticulously designed and validated through rigorous full scale rotating and bending testing to provide reliability under the most challenging conditions.

In a world where precision and endurance are non-negotiable, PULSAR $^{\text{TM}}$ stands as a testament to innovation, setting new benchmarks for reliability, efficiency, and durability in MWD and BHA collar connections. Elevate your drilling experience with PULSAR $^{\text{TM}}$ - where excellence meets evolution.

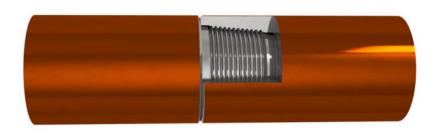


- Superior torque transmission: The innovative double shouldered design enhances torque transmission, ensuring efficient power transfer. Provides performance in extended-reach laterals and challenging well environments.
- User friendly design: Enjoy the convenience of conventional shoulder and thread connection, which effortlessly spins until shouldered to the MUT.
- Sleek profile: Increased torsional strength that allows for streamlined tool joint OD and ID dimensions, resulting in improved hydraulic performance.
- Seamless internal diameter: Zero-gap or change in ID from box to pin, greatly reducing erosion during high internal flow conditions.
- Enhanced fatigue resistance: Designed to withstand repetitive stress and fatigue, leading to a longer operational lifespan and reduced maintenance needs.
- Design validated: Connection design validated through Finite Element Analysis and verified through exhaustive fatigue and torque testing.





Collar Specifications			
OD (in)	ID (in)	Grade (ksi)	Connection Name
5.375	3.250	140	Pulsar45G
6.500	3.750	140	Pulsar52G
6.750	4.250	140	Pulsar56G
8.000	4.500	140	Pulsar64









USA

BLACK DIAMOND CORPORATE

15425 N. Freeway, Suite 350 Houston, Texas 77090 1.281.443.0062

BLACK DIAMOND BROUSSARD

1173 Old Spanish Trail, Hwy 182 N Broussard, LA 70518 1.337.359.1994

BLACK DIAMOND CONROE

4205 FM 1485 Conroe, TX 77306 1.936.441.1480

BLACK DIAMOND MWD

2418 N Frazier Street #100 Conroe, Texas 77303

BLACK DIAMOND WEST TEXAS

3510 N. County Rd 1148 Midland, TX 79705 1.432.689.0076

CANADA

BLACK DIAMOND EDMONTON

Wenzel Downhole Tools 3115 – 93 Street NW Edmonton, AB T6N 1L7 1.780.440.4220

GUYANA

BLACK DIAMOND GEORGETOWN

Plantation "A"
Houston District
East Bank Demerara
Georgetown, Guyana

MEXICO

BLACK DIAMOND VILLAHERMOSA

Avenida San Lucas Manzana 2 Bodega 3 y 4 Parque Logistico Industrial Tabasco Rancheria Anacleto Canabal 4ta. Seccion. Centrol, Tabasco C.P. 86287 +52 993 688 8579

BLACK DIAMOND TAMPICO

Carretera federal 20 de Noviembre km 18.7 Congregacion Anahuac Pueblo Viejo, Ver., C.P. 92035 +52 993 688 8579

MIDDLE EAST

BLACK DIAMOND ABU DHABI

Wenzel Downhole Tools Al Markaz Industrial Area Waha Land, LT01 B25-32 Abu Dhabi, U.A.E. +971 2 585 2800