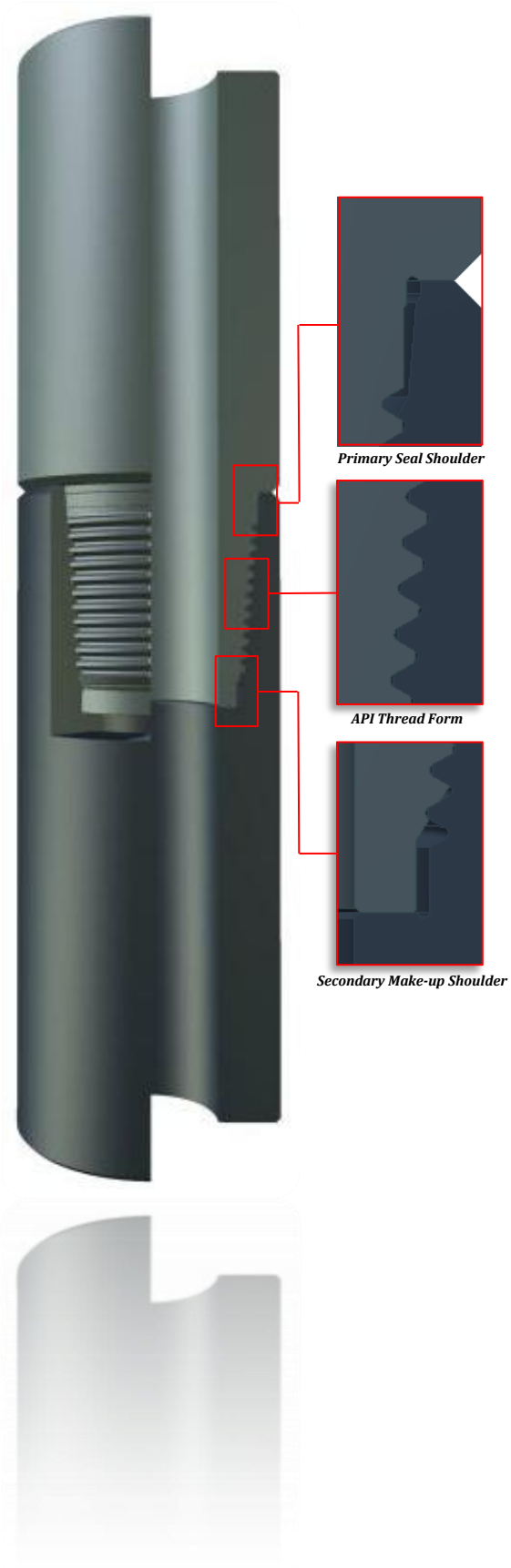
DP-Master MT Connection

The MT Master Torque connection was designed as a high performance rotary shouldered connection for use in very severe drilling operations. The MT connection delivers superior performance in Extended Reach Drilling (ERD), High Pressure High Temperature (HPHT) and Ultra Deep Drilling.

The design principles of the MT connection are based on an evolution of the original DS connection. The increased torsional strength is derived from changing some geometry at critical areas of the connection and adding more steel for increased strength. However the API taper and thread form have not been changed thereby allowing the MT connection to make up just like an API or DS connection. This makes the MT connection very operator friendly and economical over the life cycle.

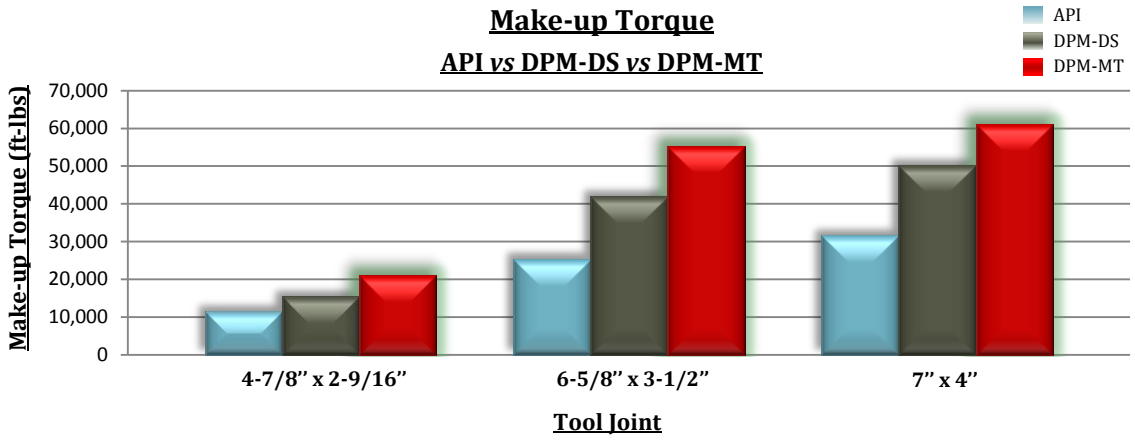


Benefits of the MT connections:

- Substantial increase in Torque over API & DS connections
- Tool Joint OD/ID can be streamlined for optimum hydraulic efficiency
- Connection make up as fast as an API or DS because of the 2"/foot taper and minimum tool joint loss during recut
- Cost effective because less stabbing damage, fewer connection rejects, fast make up and economical to repair
- Qualified licensee network globally

Increased Torque

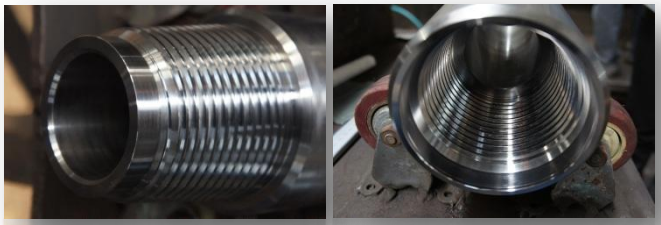
Torque capacity of DPM-MT connection averages up to 2 times than that of API and DPM-DS connections. This is made possible by well-designed secondary make-up shoulder and added steel in the critical areas of the connection for increased strength.



*** Data comparison based on API RP 7G & DPM connections*

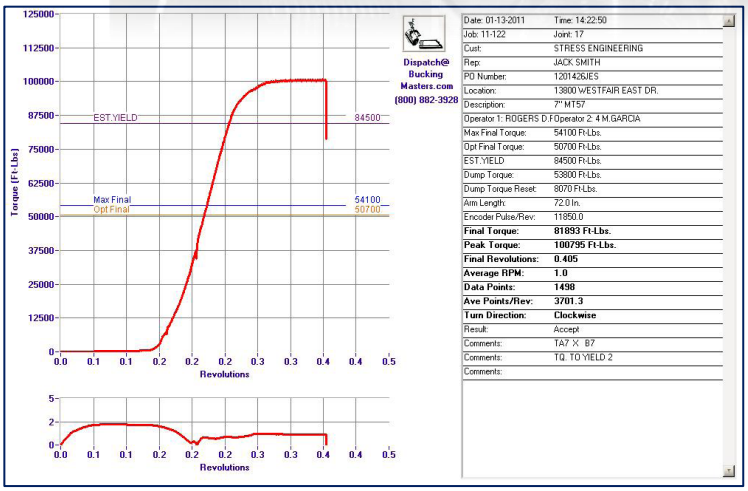
Great Torsional Strength

DPM-MT connection uses API thread form and taper yet offers additional torsional capability which allows significant performance in the most challenging well drilling applications.



DPM-MT was subjected to stringent engineering design review by TH Hill Associates, Inc. to DS-1 Standard. DP-Master also commissioned Stress Engineering Services, Inc. in Houston to perform rigorous torsional tests with expected good results.

DPM-MT connection has truly lived up to its name as exceptionally robust rotary-shouldered connection.



DPM-MT57 Torque to Yield by Stress Engineering

Physical Connection Yielded According to Design Torsional Strength

Streamlined Profile

One of the many benefits of DPM-MT connection is the ability to configure changes to the OD & ID for improved hydraulic performance or fishing ability without compromising torsional capacity. This configuration is possible due to DPM-MT increased torsional strength when compared with standard API connections.

DPM-MT pin and box connection made up without gap or change in ID transition at the secondary make-up shoulder. This allows smoother fluid flow with minimized turbulence and energy loss inside the connection.

DPM-MT Mechanical Characteristics

Connection	OD		ID		Tensile Capacity		Torsional Capacity		Make-up Torque Maximum	
	(in)	(mm)	(in)	(mm)	(lbs)	(daN)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
DPM-MT39	4-7/8	124	2-9-16	65	811,400	360,911	32,500	44,064	21,100	28,608
DPM-MT50	6-5/8	168	3-1/4	83	1,374,700	611,467	80,400	109,008	52,300	70,909
DPM-MT54	6-5/8	168	4	102	1,245,200	553,865	71,500	96,941	45,300	61,419
DPM-MT57	7-1/4	178	4	102	1,579,700	702,651	102,400	138,836	66,600	90,297
	7	178	4-1/4	108	1,369,100	608,976	84,500	114,567	54,100	73,350
	7	178	4	102	1,579,700	702,651	94,000	127,447	61,100	82,840
	7-1/4	184	3-3/4	95	1,777,500	790,632	118,600	160,800	77,100	104,534

*** Kindly contact DP-Master for other OD & ID combinations*