

Sucker Rod Coupling Characteristics

Tenaris produces API as well as Ultra High Strength (UHS) Couplings, also with a full integrated manufacturing process since the raw material (seamless pipes) is produced in any Tenaris seamless pipe mill.

Couplings are manufactured from quenched and tempered micro alloyed steels.

API couplings are furnished in two classes: Class T and Class SM (Spray Metal). The later has a superficial hardening process (based in nickel, chrome, boron and silicon) that provides better erosion and corrosion resistance.

Following the development of High Strength Grades sucker rods and the field necessity of having couplings with higher mechanical strength, Tenaris developed special couplings to withstand high service loads (UHS). This coupling is also recommended when Slim Hole (SH) couplings are required due to the tubing internal diameter limitations.

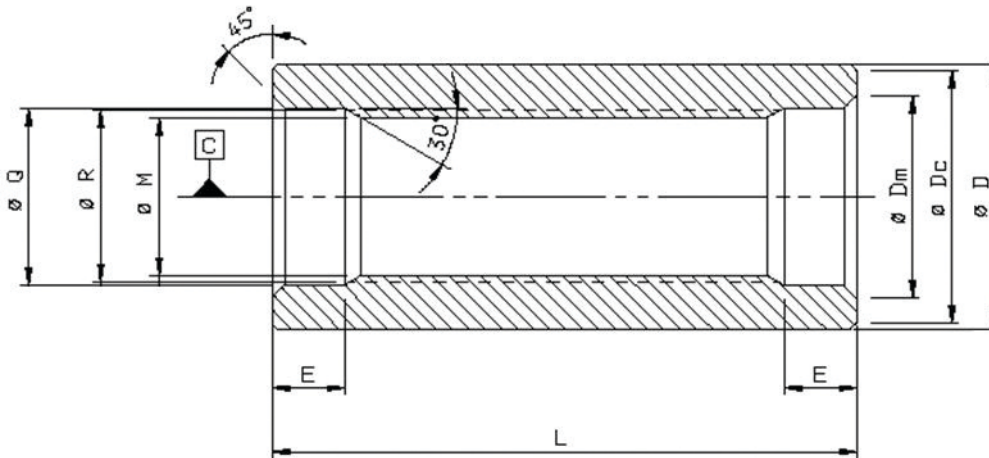
MECHANICAL PROPERTIES

COUPLING	STEEL	HARDNESS - HRA -	SURFACE HARDNESS	MIN. YS* -KSI (MPA)-	UTS* -KSI (MPA)-
API T Coupling*	AISI 4142 M AISI 8630 M	56 - 62	NA	95 (655)	(860)
API SM Coupling*	AISI 1530 M AISI 1530 M	56 - 62	595 HV200 Min	95 (655)	(860)
UHS Coupling	AISI 8630 M	64 - 68	NA	NA	(980)

(*)IT and SM couplings hardness are specified in Spec. API 11B.

YS (Yield Strength) and UTS (Ultimate Tensile Strength) are referential values.

Sucker Rods are furnished in the sizes and lengths shown below:



SUCKER ROD COUPLINGS DIMENSIONAL CHARACTERISTICS

DIAM. / DIMENSIONS [MM]	R	M	Q	DM	DC		D		E	L
					FS	SH	FS	SH		
5/8"	15/16"x10	21.1	24.26	28.2	36.5	30.2	37.85	31.55	11.11	101.60
		21.6	24.50	28.5			38.23	31.93	12.70	103.17
3/4"	1 1/16"x10	24.3	27.43	31.9	39.7	36.5	41.05	37.85	11.11	101.60
		24.7	27.68	32.2			41.43	38.23	12.70	103.17
7/8"	1 3/16"x10	27.5	30.61	35.0	44.4	39.7	45.75	41.05	11.11	101.60
		27.9	30.85	35.3			46.13	41.43	12.70	103.17
1"	1 3/8"x10	32.2	35.38	39.8	54.4	49.2	55.35	50.55	11.11	101.60
		32.7	35.63	40.1			55.73	50.93	12.70	103.17
1 1/8"	1 9/16"x10	37.0	40.13	44.6	58.7	NA	60.05	NA	11.11	114.30
		37.4	40.38	44.9			60.43		12.70	115.87