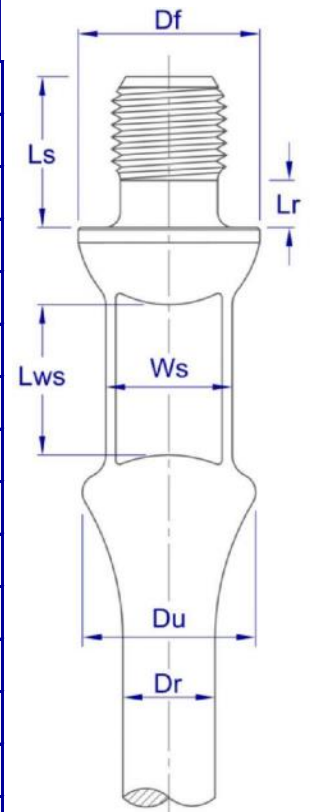


X-Torque High Strength Sucker & Pony Rod

Dimensions:

X-Torque is a Tenaris special connection designed to support high torques in progressive cavity pumping (PCP) operations.

Nominal Size		Units	Dr	Df	Ws	Lws (min)	DU	Lr	Ls
Rod	Pin								
1"	7/8"	in	1.00	1.63	1.00	1.25	1.50	0.39	1.91
			+0.009 -0.018	+0.005 -0.01	± 0.031		+0.004 -0.122	+0.031 -0	+0.039 -0.00
		mm	25.40	41.28	25.40	31.75	38.10	10.00	48.50
			+0.23 -0.46	+0.12 -0.25	±0.8		+0.1 -3.1	+0.8 -0	+1 -0
1 1/8"	7/8"	in	1.13	1.70	1.30	1.25	1.71	0.39	1.88
			+0.01 -0.02	+0.005 -0.01	± 0.047		+0.008 -0.141	+0.031 -0	+0.062 -0.00
		mm	28.58	43.26	33.00	31.80	43.40	10.00	47.63
			+0.25 -0.51	+0.12 -0.25	±1.2		+0.2 -3.6	+0.8 -0	+1.58 -0
1 1/8"	1"	in	1.13	2.00	1.52	1.50	1.90	0.61	1.88
			+0.01 -0.021	+0.005 -0.01	± 0.031		+0.008 -0.177	+0.031 -0	+0.062 -0.00
		mm	28.58	50.80	38.70	38.10	48.30	15.60	47.63
			+0.25 -0.51	+0.12 -0.25	±0.8		+0.2 -4.5	+0.8 -0	+1.58 -0
1 1/4"	1"	in	1.25	2.00	1.41	1.50	2.08	0.39	1.88
			+0.01 -0.021	+0.005 -0.01	± 0.037		+0.004 -0.232	+0.031 -0	+0.062 -0.00
		mm	31.75	50.80	35.75	38.10	52.90	10.00	47.63
			+0.25 -0.25	+0.12 -0.25	±1.25		+0.1 -5.9	+0.8 -0	+1.58 -0.00
1 1/4"	1 1/8"	in	1.25	2.25	1.49	1.63	2.19	0.39	2.13
			+0.01 -0.021	+0.015 -0.015	± 0.037		+0.004 -0.197	+0.031 -0	+0.062 -0.00
		mm	31.75	57.15	37.95	41.28	55.56	10.00	53.98
			+0.25 -0.25	+0.38 -0.38	±0.95		+0.1 -5.00	+0.8 -0	+1.58 -0
1 1/2"	1 1/8"	in	1.50	2.25	1.49	1.63	2.19	0.39	2.13
			+0.01 -0.02	+0.015 -0.015	± 0.037		+0.004 -0.197	+0.031 -0	+0.062 -0.00
		mm	38.10	57.15	37.95	41.28	55.56	10.00	53.98
			+0.25 -0.51	+0.38 -0.38	±0.95		+0.1 -5.00	+0.8 -0	+1.58 -0



Sucker Rods Nominal Lengths: 25, 30 ft (7.62, 9.14 m)

Pony Rods Nominal Lengths:* 2, 4, 6, 8, 10, 12 ft (0.61, 1.22, 1.83, 2.44, 3.05, 3.66 m)

*Other lengths might be available upon request.

Steel Grades:

Tenaris manufactures high-strength sucker rods from quality steel bars to be used in high-flow wells. Products meet the most stringent requirements for greater mechanical strength, thus ensuring quality performance in deep wells with very high loads.

Chemical Composition:

Typical chemical compositions (wt%) listed in the following table.

Grade	C	Mn	Si	S	P	Cr	Ni	Mo	Others
MMS	0.36-0.43	1.00-1.40	0.20-0.40	0.025 max	0.025 max	0.50-1.00	0.30 max	0.25-0.50	V: 0.04-0.08, Nb: 0.05 max
UHS	0.29-0.37	0.70-0.95	0.15-0.35	0.025 max	0.025 max	0.80-1.10	1.65-2.00	0.20-0.30	V: 0.04-0.08

Mechanical Properties:

Mechanical properties are listed in the following table.

Grade	Yield Strength (0.2% offset)	Ultimate Tensile Stress	Elongation (8")	Reduction of area	Hardness
MMS	Min 115 kpsi (Min 793 Mpa)	138 to 155 kpsi (951 to 1069 MPa)	8% Min	30% Min	32 HRC
UHS	Min 115 kpsi (Min 793 Mpa)	140 to 160 kpsi (965 to 1103 MPa)	10% Min	40% Min	34 HRC

Performance Data:

Maxium operative torque:

The maximum operative torque values were determined in full-scale tests.

Tenaris recommends the end user to determine the von mises effective stress of each application and not to exceed the rod body yielding stress.

Tenaris recommends the use of a 0.75 Service Factor depending on the operative conditions (dynamic loading and environment).

Nominal Size		Maxium Operative Torque	
Rod	Pin	MMS	UHS
1"	7/8"	1284 Lb.ft (1740 N.m)	1284 Lb.ft (1740 N.m)
1 1/8"	7/8"	1284 Lb.ft (1740 N.m)	1284 Lb.ft (1740 N.m)
1 1/8"	1"	1958 Lb.ft (2654 N.m)	1958 Lb.ft (2654 N.m)
1 1/4"	1"	2675 Lb.ft (3626 N.m)	2675 Lb.ft (3626 N.m)
1 1/4"	1 1/8"	2675 Lb.ft (3626 N.m)	2675 Lb.ft (3626 N.m)
1 1/2"	1 1/8"	3210 Lb.ft (4352 N.m)	3210 Lb.ft (4352 N.m)

Maxium Pulling Force:

Grade	Rod Outer Diameter				
	1"	1 1/8"	1 1/8"	1 1/4"	1 1/2"
MMS	72.3 klb (32.8 Ton)	91.4 klb (41.4 Ton)	91.4 klb (41.4 Ton)	112.93 klb (51.2 Ton)	162.6 klb (73.7 Ton)
UHS	72.3 klb (32.8 Ton)	91.4 klb (41.4 Ton)	91.4 klb (41.4 Ton)	112.93 klb (51.2 Ton)	162.6 klb (73.7 Ton)

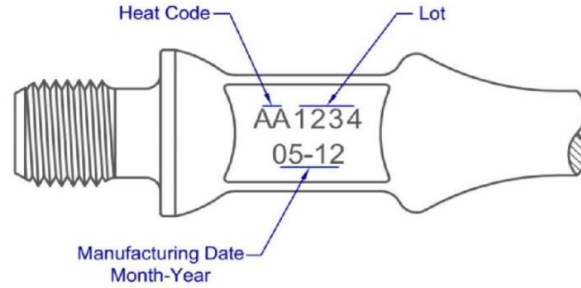
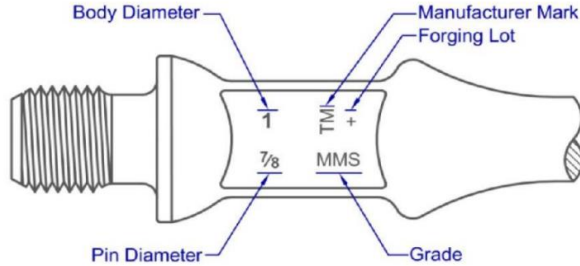
Color Code:

Rod's ends are painted according to the following table:

Grade	Color Code
MMS	Green
UHS	Purple

*Displayed colors are for guidance only.

Marking:



Labeling:*



Metalmecánica S.A.
Ruta 55 Km. 754,1
Villa Mercedes (San Luis)
Made in Argentina

BOX N°		QTY:
PRODUCT: SUCKER RODS		DATE:
SAP CODE:		
SPECIFICATION:		
ROD DIAM:	NET WEIGHT: (kg)	
END DIAM:		
GRADE:		
LENGTH: (ft)		
SALES ORDER:		PACKAGING TYPE:
DESTINATION:		THREAD PROTECTIO

*Image for reference only.

Non Destructive Testing:

All raw material is carefully inspected using electromagnetic and/or ultrasonic methods to ensure the soundness of the final product.

Ordering Information:

When placing an order please attach the following information:

PDS: SRXTHS
Product Family: Sucker Rod (or Pony Rod)
Body Diameter: 1"
Pin Diameter: 7/8"
Grade: UHS
Length: 25 ft

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