

NON MAG DRILL COLLAR

Style of connection	OD		ID		Length mm	Bevel diameter mm	Bending strength ratio
	mm	in	mm	in			
NC23-31	79.4	3 1/8	31.8	1 1/4	9150	76.2	2.57:1
NC26-35(23/8IF)	88.9	3 1/2	38.1	1 1/2	9150	82.9	2.42:1
NC31-41(27/8IF)	104.8	4 1/8	50.8	2	9150	100.4	2.43:1
NC35-47	120.7	4 3/4	50.8	2	9150	114.7	2.58:1
NC3850(31/2IF)	127.0	5	57.2	2 1/4	9150	121.0	2.38:1
NC44-60	152.4	6	57.2	2 1/4	9150 or 9450	144.5	2.49:1
NC44-60	152.4	6	57.2	2 1/4	9150 or 9450	144.5	2.49:1
NC44-62	158.8	6 1/4	57.2	2 1/4	9150 or 9450	149.2	2.91:1
NC46-62(4IF)	158.8	6 1/4	71.4	2 13/16	9150 or 9450	150.0	2.63:1
NC46-65(4IF)	165.1	6 1/2	57.2	2 1/4	9150 or 9450	154.8	2.76:1
NC46-65(4IF)	165.1	6 1/2	71.4	2 13/16	9150 or 9450	154.8	3.05:1
NC46-67(4IF)	171.4	6 3/4	57.2	2 1/4	9150 or 9450	159.5	3.18:1
NC50-67(41/2IF)	171.4	6 3/4	71.4	2 13/16	9150 or 9450	159.5	2.37:1
NC50-70(41/2IF)	177.8	7	57.2	2 1/4	9150 or 9450	164.7	2.54:1
NC50-70(41/2IF)	177.8	7	71.4	2 13/16	9150 or 9450	164.7	2.73:1

NC50-72(41/2IF)	184.2	7 1/4	71.4	2 13/16	9150 or 9450	169.5	3.12:1
NC50-77	196.8	7 3/4	71.4	2 13/16	9150 or 9450	185.3	2.70:1
NC50-80	203.2	8	71.4	2 13/16	9150 or 9450	190.1	3.02:1
6 5/8REG	209.6	8 1/4	71.4	2 13/16	9150 or 9450	195.7	2.93:1
NC61-90	228.6	9	71.4	2 13/16	9150 or 9450	212.7	3.17:1
7 5/8REG	241.3	9 1/2	76.2	3	9150 or 9450	223.8	2.81:1
NC70-97	247.6	9 3/4	76.2	3	9150 or 9450	232.6	2.57:1
NC70-100	254.0	10	76.2	3	9150 or 9450	237.3	2.81:1
8 5/8REG	279.4	11	76.2	3	9150 or 9450	260.7	2.84:1

Mechanical property

Range for outer diameter		$\sigma_{0.2}$ MPa	σ_b MPa	δ_4 %
mm	in	Yield intensity	Tensile intensity	Elongation
79.4~171.4	3 1/8~6 3/4	≥758	≥827	≥18
177.8~279.4	7~11	≥689	≥758	≥20

Magnetic property (magnetic field = $1 \times 10^5 / 4 \pi \text{A/m}$)

1. Average : $U_r < 1.010$ 2. Magnetic field gradient : $\Delta B \leq 0.05 \text{Mt}$ Mechanical property

NON MAG INTEGRAL HEAVY WEIGHT DRILL PIPE

Size(in)	O.D. (in)	I.D. (in)	Tool Joint O.D. (in)	Tool Joint I.D. (in)	Connection	Max.elevator diameter (in)	Central upset dia. (in)	Min.drift dia.size(in)
3 1/2	3 1/2	2 1/4	4 3/4 (4 7/8, 5)	2 1/4	NC38	3 7/8	4	2
		2 1/16		2 1/16				1 13/16
4	4	2 1/2	5 1/4	2 1/2	NC40	4 3/16	4 1/2	2 1/4
		2 9/16		2 9/16				2 5/16
4 1/2	4 1/2	2 11/16	6 1/4	2 11/16	NC46	4 11/16	5	2 7/16
		2 3/4		2 3/4				2 1/2
		2 13/16		2 13/16				2 9/16
5	5	3	6 5/8	3	NC50	5 1/8	5 1/2	2 3/4
5 1/2	5 1/2	3 1/4	7 (7 1/4, 7 1/2)	3 1/4	5 1/2 FH	5 11/16	6	3
		3 3/8		3 3/8				3 1/8
		3 7/8		3 7/8				3 5/8
		4		4				3 3/4
6 5/8	6 5/8	4	8 (8 1/4, 8 1/2)	4	6 5/8 FH	6 15/16	7 1/8	3 3/4
		4 1/2		4 1/2				4 1/4
		5		5				4 3/4

Mechanical property

Range for outer diameter		$\sigma_{0.2}$ MPa	σ_b MPa	δ_4 %
mm	in	Yield intensity	Tensile intensity	Elongation
79.4~171.4	3 1/8~6 3/4	≥758	≥827	≥18
177.8~279.4	7~11	≥689	≥758	≥20

Magnetic property (magnetic field = $1 \times 10^5 / 4\pi$ A/m)

1. Average : $U_r < 1.010$ 2. Magnetic field gradient: $\Delta B \leq 0.05$ Mt Mechanical property

COMPRESSIVE SERVICE DRILL PIPE

Size(in)	O.D. (in)	I.D. (in)	Tool Joint O.D. (in)	Tool Joint I.D. (in)	Connection	Max.elevator diameter (in)	Central upset dia. (in)	Min.drift dia.size(in)
3 1/2	3 1/2	2 1/4	4 3/4 (4 7/8, 5)	2 1/4	NC38	3 7/8	4	2
		2 1/16		2 1/16				1 13/16
4	4	2 1/2	5 1/4	2 1/2	NC40	4 3/16	4 1/2	2 1/4
		2 9/16		2 9/16				2 5/16
4 1/2	4 1/2	2 11/16	6 1/4	2 11/16	NC46	4 11/16	5	2 7/16
		2 3/4		2 3/4				2 1/2
		2 13/16		2 13/16				2 9/16
5	5	3	6 5/8	3	NC50	5 1/8	5 1/2	2 3/4
5 1/2	5 1/2	3 1/4	7 (7 1/4, 7 1/2)	3 1/4	5 1/2 FH	5 11/16	6	3
		3 3/8		3 3/8				3 1/8
		3 7/8		3 7/8				3 5/8
		4		4				3 3/4
6 5/8	6 5/8	4	8 (8 1/4, 8 1/2)	4	6 5/8 FH	6 15/16	7 1/8	3 3/4
		4 1/2		4 1/2				4 1/4
		5		5				4 3/4

Mechanical property

Range for outer diameter		$\sigma_{0.2}$ MPa	σ_b MPa	δ_4 %
mm	in	Yield intensity	Tensile intensity	Elongation
79.4~171.4	3 1/8~6 3/4	≥758	≥827	≥18
177.8~279.4	7~11	≥689	≥758	≥20

Magnetic property (magnetic field = $1 \times 10^5 / 4\pi$ A/m)

1. Average : $U_r < 1.010$ 2. Magnetic field gradient: $\Delta B \leq 0.05$ Mt Mechanical property