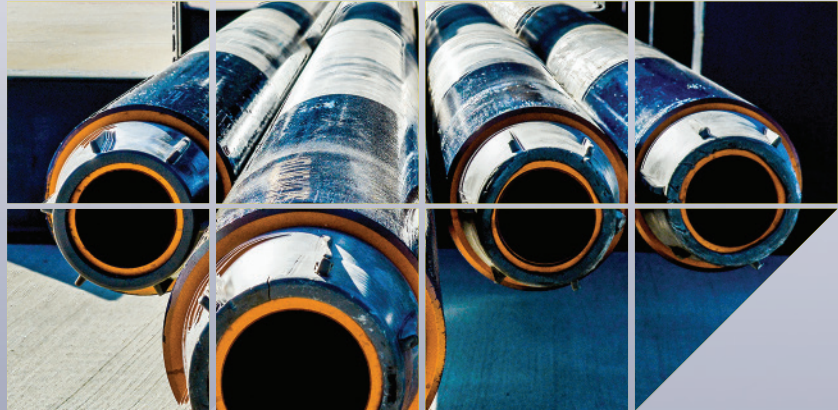


DRILL COLLARS



NON-MAGNETIC DRILL COLLARS

When drilling in areas closer to the earth's magnetic poles, it is essential to use a non-magnetic drill collar. Drilling Tools International's (DTI) non-mag drill collars offer strength and hardness while neutralizing magnetic interference. Compatible with standard drill string tools and stabilizers, these non-mag drill collars are manufactured to API Spec 7-1. Inventory includes: • Slick • Flex • Spiral • Pony

DTI treats its non-mag material ID with a shot peening operation to compress the inside diameter which prevents stress corrosion while drilling in H2S environments.

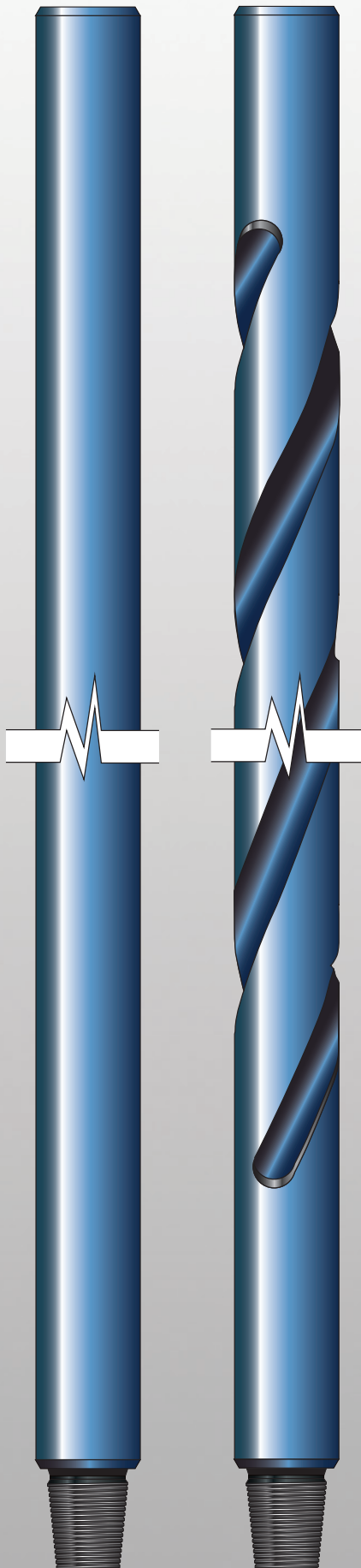
- Resistant to stress corrosion in sour gas environments
- Compatible with standard drill string tools and stabilizers
- Spiraling available on request

MECHANICAL PROPERTIES

Room Temperature. ASTM A 370								
Drill Collar OD Range (in)	Min. Yield Strength (at 0.2%)		Min. Tensile Strength		Min. Elongation %	Min. Reduction %	Impact Test CHARPY V. notch	
	MPa	PSI	MPa	PSI			J (min.)	ft-lbs.(min.)
3 1/2" through 6 7/8"	760	110 000	900	130 000	25	50		
7" through 11"	690	100 000	830	120 000	25	50	81	60
Larger than 7"	620	90 000	760	110 000	25	50		

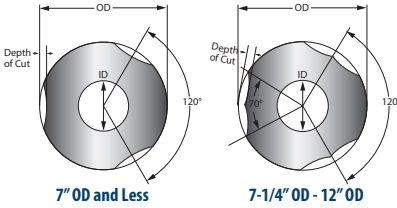
SPECIFICATIONS

Common Connections	OD (in)	ID (in)	Approximate Weight (lbs)
2 7/8 Reg	3 1/2 to 3 7/8"	1 1/4 to 1 3/4"	760–1114
3 1/2 Reg	4 1/8 to 4 1/2"	1 1/4 to 2 1/4"	989–1490
3 1/2 IF NC38	4 3/4 to 5 1/2"	1 3/4 to 2 13/16"	1350–2250
4 FH NC40	5 to 6"	1 3/4 to 2 13/16"	1552–2726
4 1/2 FH	5 1/2 to 6 1/2"	2 to 3"	1759–3166
4 1/2 XH NC 46	5 3/4 to 6 3/4"	2 1/4 to 3"	1992–3352
4 1/2 IF NC 50	6 1/4 to 7 1/2"	2 1/4 to 3 1/4"	2359–4237
5 1/2 FH NC 56	7 to 7 3/4"	2 1/4 to 3 1/4"	3182–4552
6 3/8 Reg	7 1/4 to 8"	2 1/2 to 3 1/4"	3476–4780
6 3/8 FH	7 1/2 to 8 1/4"	2 1/2 to 3 1/4"	3782–5116
7 3/8 Reg	8 1/2 to 9 1/2"	2 1/2 to 3 3/4"	4816–6953



NON-MAGNETIC
SLICK
DRILL COLLAR

NON-MAGNETIC
SPIRAL
DRILL COLLAR



MECHANICAL PROPERTIES

(4145 H Modified)

Ultimate tensile strength (UTS)	PSI Mpa	135,000 to 140,000 938 to 973
Yield Strength (YS)	PSI Mpa	100,000 to 110,000 695 to 764
Elongation (L = 4 D)	%	13 min
Impact strength (ASTM A 370 Charpy - V)	J (54 J)	40 ft-lbs
Hardness (Brinell) (one inch below surface)	BHN	285 to 341

We can provide you with the technical assistance necessary to assist you in properly using drill collars in the bottom hole assembly.

- Stress relieved connections
- Spiraling on OD (RH standard)
- Hardbanding
- Slip and elevator recesses
- Manufactured to DS-1 specifications

North America Land Operations

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281.645.2010

Offshore/International & Manufacturing

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337.856.0333

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Corporate

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STEEL DRILL COLLARS

Used to add weight to the bit and stiffness to bottom hole assembly, Drilling Tools' drill collars are an invaluable downhole tool.

To keep operations drilling in the right direction, run DTI drill collars in combination with DTI stabilizers to resist buckling. Manufactured from an AISI 4145H modified heat treated alloy steel,

DTI's strict quality assurance guidelines assure metallurgical integrity of each and every bar.

Drilling Tools' drill collar bars are batch or continuous line heat treated and have both cold-worked and phosphate coated connections.

STANDARD SPECIFICATIONS FOR SLICK OR SPIRAL DRILL COLLARS

O.D. (in)	I.D. (in)	Weight in Air (lbs)	Unit Weight (lbs/ft)	Standard End Connections
3 1/2"	1 1/2"	826.8	26.7	NC-26 thru 35
4 1/8"	2"	1076.2	34.7	NC-31 thru 41
4 3/4"	2 1/4"	1447.0	46.7	NC-38 thru 47
5"	2 1/4"	1648.5	53.2	NC-38 thru 50
6"	2 1/4"	2558.0	82.5	NC-44 thru 60
6"	2 13/16"	2322.3	74.9	NC-44 thru 60
6 1/4"	2 1/4"	2811.2	90.7	NC-44 thru 62
6 1/4"	2 13/16"	2575.6	83.1	NC-46 thru 65
6 1/2"	2 1/4"	3074.8	99.2	NC-46 thru 65
6 1/2"	2 13/16"	2839.1	91.6	NC-46 thru 65
6 3/4"	2 1/4"	3348.7	108.0	NC-46 thru 67
7"	2 1/4"	3632.9	117.2	NC-50 thru 70
7"	2 13/16"	3397.2	109.6	NC-50 thru 70
7 1/4"	2 13/16"	3691.8	119.1	NC-50 thru 72
8"	2 13/16"	4637.5	149.6	6 3/8 Reg
8 1/4"	2 13/16"	4973.4	160.4	6 3/8 Reg
9 1/2"*	3"	6718.0	216.7	7 3/8 Reg
9 3/4"*	3"	7116.0	229.5	7 3/8 Reg
11"*	3"	9260.6	298.7	8 3/8 Reg

*Low torque face available

RECOMMENDED SLIP AND ELEVATOR RECESS DIAMETERS FOR DRILL COLLARS

Collar O.D. (in)	Elevator Recess Dia (in)	Slip Recess Dia (in)	Elevator Recess Radius (in)	Top Elevator Bore (in)	Lower Half Elevator Bore (in)
4 1/8"	3 11/16"	3 3/4"	1/8"	3 13/16"	4 1/4"
4 3/4"	4 1/4"	4 3/8"	1/8"	4 3/8"	4 7/8"
5"	4 1/2"	4 5/8"	1/8"	4 5/8"	5 1/8"
6"	5 3/8"	5 1/2"	1/8"	5 1/2"	6 1/8"
6 1/4"	5 5/8"	5 3/4"	1/8"	5 3/4"	6 3/8"
6 1/2"	5 7/8"	6"	1/8"	6"	6 5/8"
6 3/4"	6"	6 1/4"	3/16"	6 3/16"	6 7/8"
7"	6 1/4"	6 1/2"	3/16"	6 7/16"	7 1/8"
7 1/4"	6 1/2"	6 3/4"	3/16"	6 11/16"	7 3/8"
8"	7 1/4"	7 1/2"	3/16"	7 7/16"	8 1/8"
8 1/4"	7 1/2"	7 3/4"	3/16"	7 11/16"	8 3/8"
9 1/2"	8 5/8"	9"	1/4"	8 7/8"	9 5/8"
9 3/4"	8 7/8"	9 1/4"	1/4"	9 1/8"	9 7/8"
11"	10 1/8"	10 1/2"	1/4"	10 3/8"	11 1/8"

Drilling Tools International, Inc. is a leading provider of downhole tools to the land and offshore drilling markets. For more than 30 years our company has been guided by the principals of Strength, Innovation and Performance. We consistently deliver world class customer service while providing quality products that meet the demanding drilling applications of today's market.

Our Quality Management System is certified in compliance to ISO 9001, and API Spec Q1 and our manufacturing is licensed to API Spec 7-1. Our Quality Management System governs all of our processes from planning, to process control, to delivery. This ensures that we consistently manufacture products that not only meet API standards but also meet the ever-changing needs of our customers.