

We will exceed your expectations

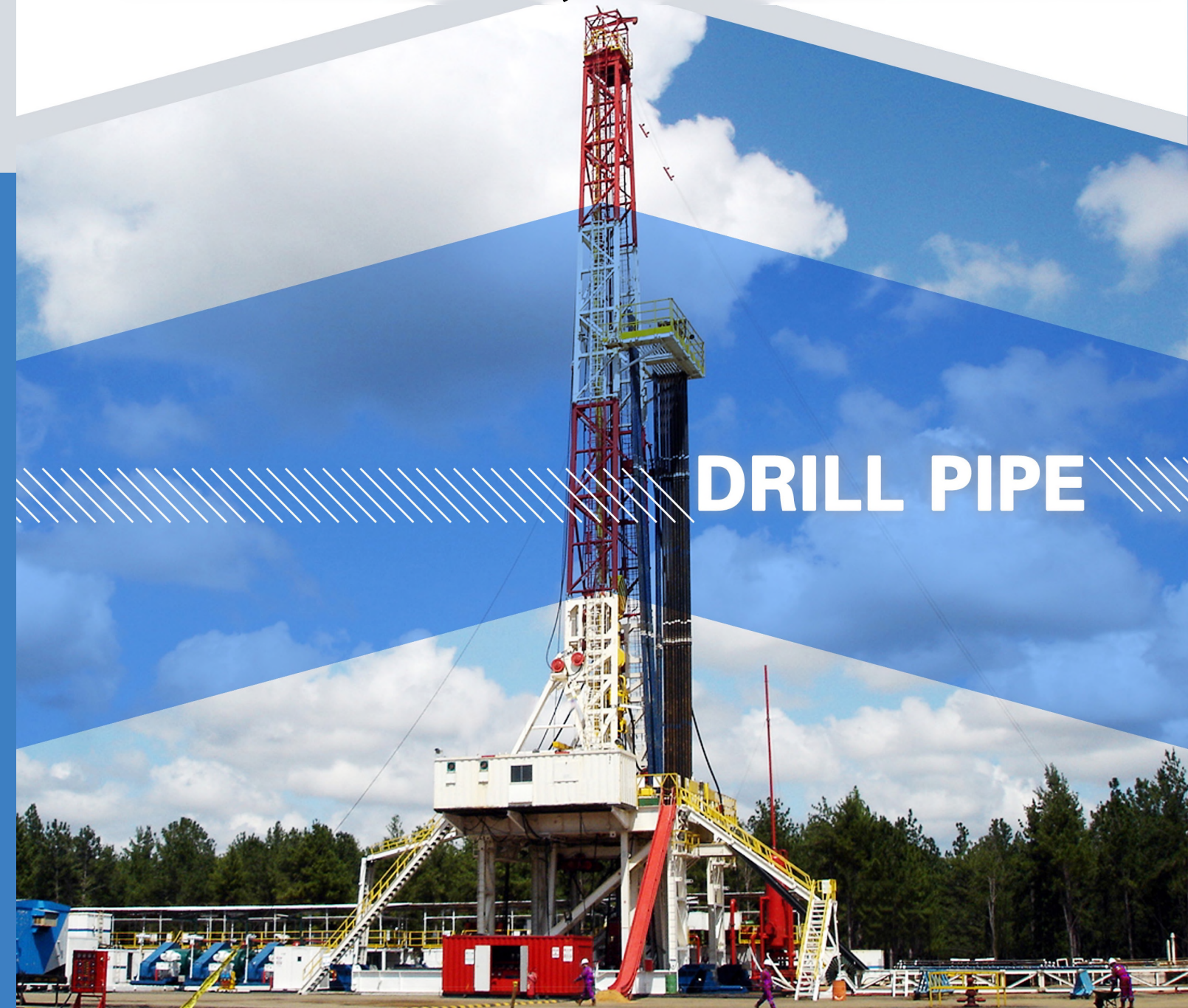


**INDUSTRIAL AND ENGINEERING
TECHNOLOGY Co., Limited**

Add. 8 Floor, China Hong Kong Tower, 8-12
Hennessy Road, Wan Chai, Hong Kong
International Contact Hong Kong
WhatsApp / WeChat:
+852 5473 6914
E-mail: business@iet-hongkong.com



**INDUSTRIAL AND
ENGINEERING TECHNOLOGY
Co., Limited**





Main Production & Inspection Equipment

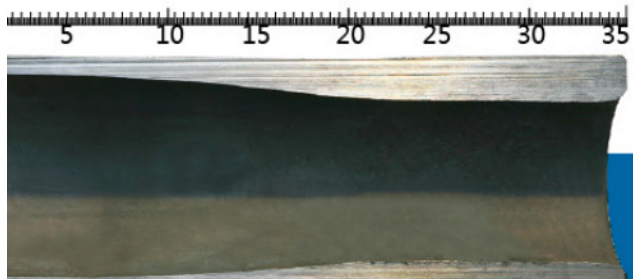
Item	Equipment	Type	No.	Property	Time for Use	Remark
1	Upset Machine	GDT-1000	2	Domestic Advanced (DA)	2009、8	
2	Straightening Machine	KJ180	1	DA	2009、8	
3	Heat Treatment Equipment	GGT180	1	DA	2009、8	
4	Ultrasonic Test Equipment	QCS180	1	DA	2009、8	
5	Flux Leakage Test Equipment	EMT-D60/180	1	DA	2009、8	
6	Friction Welding Machine	MTI-320BX	1	World-level	2009、8	America
7	Friction Welding Machine	HSMZ125	1	DA	2007、2	Japan
8	Electric Hydraulic Universal Testing Machine	WEW-600D	1	DA	2007、2	Test Equipment (TE)
9	Impact Testing Machine	JB-300B	1	DA	2007、2	TE
10	Rockwell Hardness Tester	HR-150A	1	DA	2007、2	TE
11	Direct Reading Spectrometer Instrument	TY-9610	1	DA	2007、2	TE
12	Metallographic Microscope	MM-2C	2	DA	2007、2	TE
13	Ultrasonic Test Equipment	CTS-22A	5	DA	2007、2	TE
14	Impact test Specimen Low Temperature Instrument	COK-30	1	DA	2007、2	TE
15	Polishing Equipment	PC-1	1	DA	2007、2	TE
16	Magnetic Test Machine	CDG-3000	2	DA	2007、2	
17	NC Lathe	Q1319	6	DA	2007、2	
18	Medium Frequency Weld-seam Heat-treatment Equipment	KGPS160/0.3-0.5A-GS	6	DA	2007、2	
19	NC Lathe	CK7840	2	DA	2007.2	
20	NC Lathe	CK7863	2	DA	2007.2	
21	NC Lathe	CK7163	6	DA	2007.2	
22	Outside Copying Lathe	CE7120	2	DA	2007.2	
23	Inside Copying Lathe	CB7250	1	DA	2007.2	
24	Well Type Tempering Furnace	RJ650° C	3	DA	2007.2	
25	Well Type Quenching Furnace	RJ950° C	3	DA	2007.2	
26	AC-DC Magnetic Test Machine	CDG-6000E	2	DA	2007.2	
27	Intelligent Ultrasonic Test Machine	PXUT-27	4	DA	2007.2	
28	Hard-band welding Machine	NZC-600KH	1	DA	2007.2	
29	Stress Straightening Machine	Y41-250T	2	DA	2007.2	
30	Gas Producer	CGQ2	1		2009.8	

Equipment
Capacity



Main Equipment

1. Pipe End Upsetting Machine



- Profile of smooth intermediate and length of overlong intermediate.



- Continuous pipe end upsetting line can upset pipe with outside diameter from 2 3/8 to 6 5/8 inch and finish upset two ends of one pipe within 1.5 minutes.

2. Tempering Heat Treatment



- New drill pipe body step by step continuous tempering furnace heat treatment can handle pipe with outside diameter from 2 3/8 to 7 inch and the length up to 12.5 m.



3. Straightening Machine



- The pipe body straightness deviation is less than 0.1% after using on-line six roller hot straightening machine, far above the standard requirement of API.

4. The Friction Welding Machine



- Assembly line with inertia friction welding machine 320BX produced by MTI satisfy the welding demand of pipe with inch from 2 3/8 to 5 1/2.

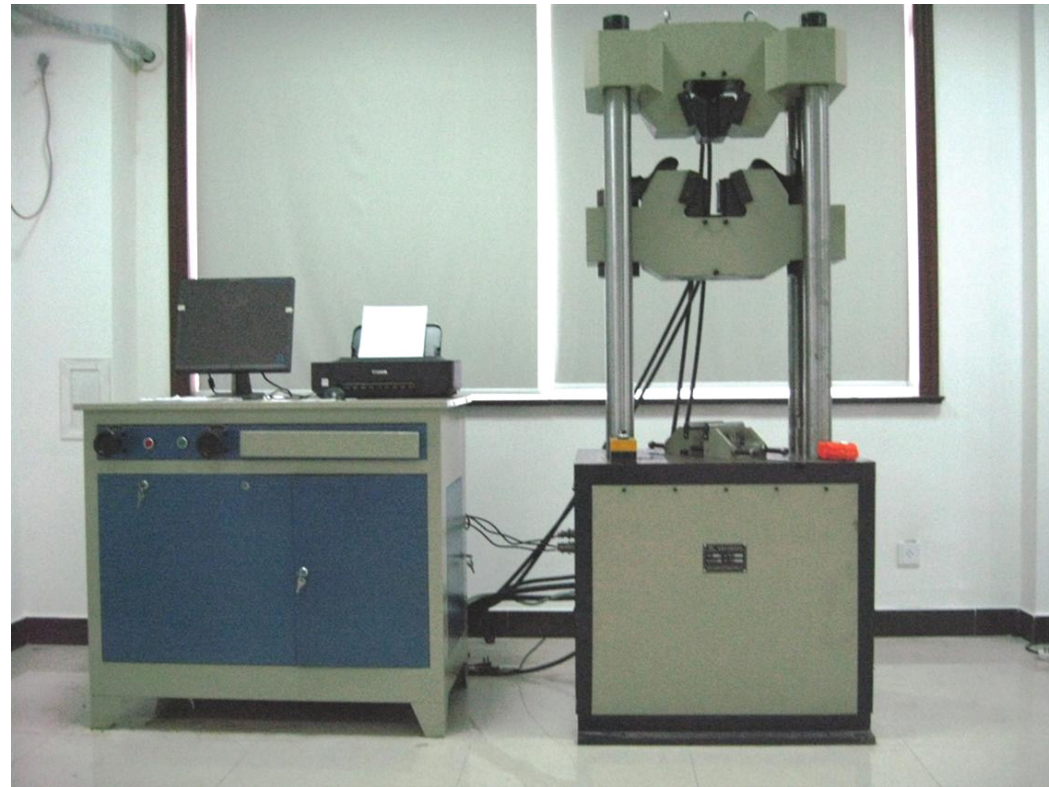


INDUSTRIAL AND ENGINEERING TECHNOLOGY Co.,Limited



INDUSTRIAL AND ENGINEERING TECHNOLOGY Co.,Limited

Equipment Capacity



Electric Hydraulic Universal Testing Machine



Digital Micro Hardness Tester



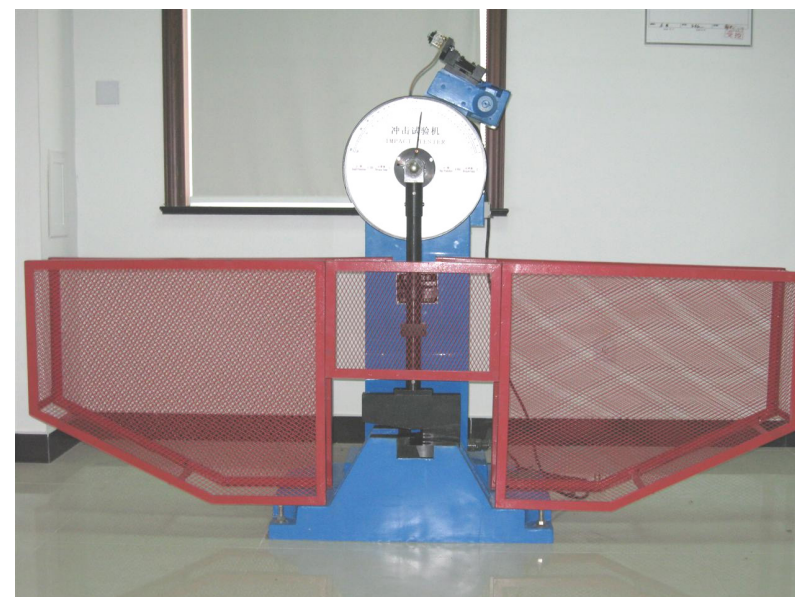
Manual Rockwell Hardness Tester



Direct Reading Spectrometer Instrument



Impact test Specimen Low Temperature Instrument



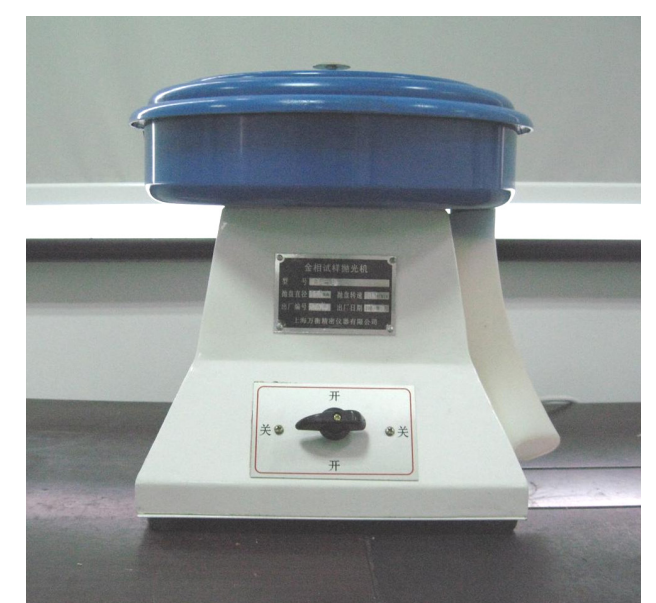
Impact Testing Machine



Electric Double Broach Bed



Impact Specimen Gap Projector



Metallographic Sample Polishing Machine

High quality raw materials is the foundation. Perfect technology is the precondition. Strict inspection is the security. **INDUSTRIAL AND ENGINEERING TECHNOLOGY Co., Limited** has a complete set of technology for inspection, for example, magnetic flux leakage and ultrasonic composite automatic test for whole pipe body, pipe end magnetic test, a complete set of physical and chemical test. Especially, magnetic flux leakage and ultrasonic composite automatic test for whole pipe body makes the whole pipe go through the equipment for one time. Double test and different means of test can draw on each other's strength to ensure the lest efficient and prevent the unqualified products from being into market. For many years, all the internal control property indicators of the **INDUSTRIAL AND ENGINEERING TECHNOLOGY Co, Limited** is stricter compared to API specification to ensure the high quality of each finished drill pipe. To ensure the sustainable and stable quality of the products, the employs the members of Sinopec oil casing quality inspection center to resident the plant and supervise the process of production. Moreover, the finished products are periodically inspected by American Huaxin company as a TPC.



INDUSTRIAL AND ENGINEERING TECHNOLOGY Co.,Limited

The Quality Control

Pipe Body Chemical Composition

(wt%)												
Item	Grade	Brand No.	C	Si	Mn	Cr	Mo	P	S	V	Cu	Ni
1	E75	33Mn2V	0.30~	0.20~	1.20~	-	-	≤	≤0.008	0.1~0.15	≤0.20	≤0.25
			0.35	0.35	1.50			0.015				
2	X95	30CrMo	0.27~	0.20~	0.45~	0.90~	0.15~	≤	≤0.008	-	≤0.20	≤0.25
	G105		0.33	0.35	0.70	1.10	0.25	0.015				
	G105	26CrMo4S/2	0.25~	0.20~	1.00~	0.80~	0.15~	≤	≤0.008	-	≤0.20	≤0.25
			0.30	0.35	1.20	1.05	0.25	0.015				
	S135	27CrMo4	0.25~	0.17~	0.80~	0.90~	0.40~	≤	≤0.008	-	≤0.20	≤0.25
		4S/1	0.30	0.35	1.05	1.05	0.45	0.015				



Pipe Body Mechanical Properties

1	2	3	4		5	6
Item	Grade	Total elongation of gauge (%)	Yield strength		Minimum Tensile strength	
			Mini	Max		
			Ib/in ² MPa	Ib/in ² MPa	Ib/in ² MPa	Ib/in ² MPa
1	E-75	0.5	75000 517	105000 724	100000 689	
3	X-95	0.5	95000 655	125000 862	105000 724	
	G-105	0.6	105000 724	135000 931	115000 793	
	S-135	0.7	135000 931	165000 1138	145000 1000	

Joint Chemical Composition :

(wt%)

C	Si	Mn	Cr	Mo	Ni	P	S	Cu	Ca
0.35-0.38	0.15-0.35	0.85-1.00	0.90-1.20	0.28-0.33	≤0.25	≤0.015	≤0.008	≤0.25	≤0.006

Joint Mechanical Properties

Tensile strength (MPa)	Yield strength (MPa)	Elongation (%)	Impact energy (J)	Hardness (HB)
≥965	827~1138	≥13	≥80(Average) ≥65(Single)	285~341





Drill Pipe Process Flow

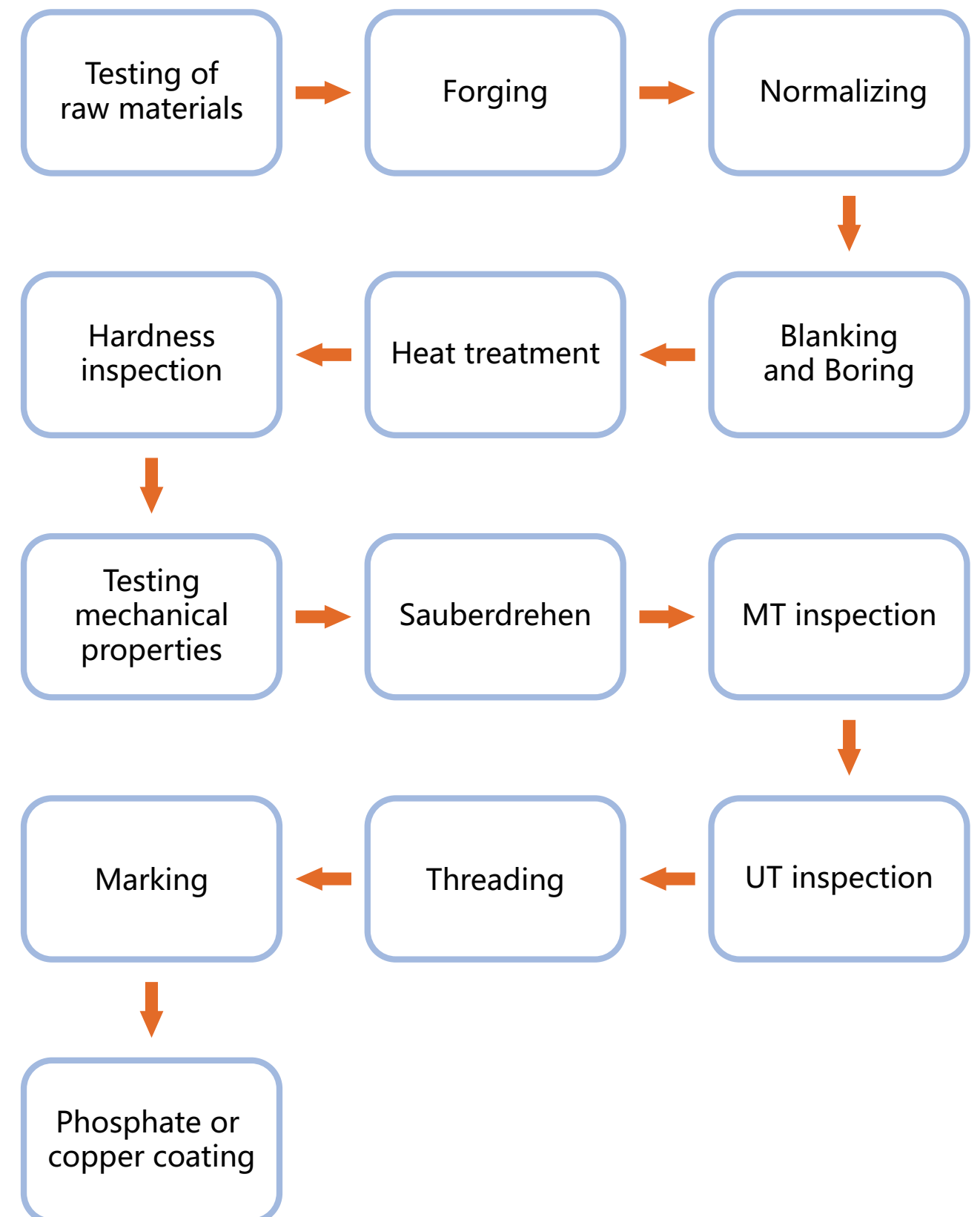




Joint Mill Overview



Joint Production Process





Heavy Weight Drill Pipe

spec.	OD of pipe body (+1/16-1/32)	ID of pipe body	OD of tool joint (+1/16-1/32)2	DF	ID of tool joint (+1/8,0)	Connection	Maximum diameter of elevator upset Deu(0,-08mm)	Diameter odcentral upset (+1/16, -1/32 Dcu)	Minimum diameter of drift
3-1/2	3-1/2	2-1/4	4-3/4 (120.7) (4-7/8,5)	116.3	2-1/4 (57.2)	NC38	3-7/8 (98.42)	4	2
		2-1/16			2-1/16				1-13/16
4	4	2-1/2	5-1/4 (133.4)	127.4	2-1/2	NC40	4-3/16	4-1/2	2-1/4
		2-9/16			2-9/16 (65 .09)				2-5/16
4-1/2	4-1/2	2-11/16	6-1/4	145.3	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	154	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 1/2)	170.7	3-1/4	5-1/2FH	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 1/2)	195.7	4	6-5/8FH	6-15/16	7-1/8	3-3/4
		4-1/2			4-1/2				4-1/4
		5			5				4-3/4

1. Maximum ID of pipe body is 1/8 times larger than theoretical size. Minimum ID of pipe body is controlled by drift requirement.
2. The optional tool joint OD of HWDP is listed in round brackets. It should be at the agreement of buyer and manufacturer.
3. Drift diameter is based on ID tolerance of pipe body central upset.

Technology Parameter



Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
2 3/8	6.65	E-75 EU	6,300	138,200	0.280	1.815	1.843	0.867	1.733	15,474	15,599	NC26	3 3/8	1 3/4	6,900	313,700	3,900	1.10	9	10
	6.65	E-75 EU	6,300	138,200	0.280	1.815	1.843	0.867	1.733	15,474	15,599	ELT-HT26	3 3/8	1 3/4	8,700	313,700	5,200	1.38	9	12
	6.65	E-75 EU	6,300	138,200	0.280	1.815	1.843	0.867	1.733	15,474	15,599	2-3/8 SLH90	3 1/4	1 13/16	6,900	270,200	3,700	1.10	9	10
2 3/8	6.65	X-95 EU	7,900	175,100	0.280	1.815	1.843	0.867	1.733	19,600	19,759	NC26	3 3/8	1 3/4	6,900	313,700	3,900	0.87	9	10
	6.65	X-95 EU	7,900	175,100	0.280	1.815	1.843	0.867	1.733	19,600	19,759	ELT-HT26	3 3/8	1 3/4	8,700	313,700	5,200	1.10	9	12
	6.65	X-95 EU	7,900	175,100	0.280	1.815	1.843	0.867	1.733	19,600	19,759	2-3/8 SLH90	3 1/4	1 13/16	6,900	270,200	3,700	0.87	9	10
2 3/8	6.65	G-105 EU	8,800	193,500	0.280	1.815	1.843	0.867	1.733	21,663	21,839	NC26	3 3/8	1 3/4	6,900	313,700	3,900	0.78	9	10
	6.65	G-105 EU	8,800	193,500	0.280	1.815	1.843	0.867	1.733	21,663	21,839	ELT-HT26	3 3/8	1 3/4	8,700	313,700	5,200	0.99	9	12
	6.65	G-105 EU	8,800	193,500	0.280	1.815	1.843	0.867	1.733	21,663	21,839	2-3/8 SLH90	3 1/4	1 13/16	6,900	270,200	3,700	0.78	9	10
2 3/8	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079	NC26	3 5/8	1 1/2	9,000	390,300	4,900	0.80	9	10
	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079	ELT-HT26	3 3/8	1 5/8	9,500	353,400	5,700	0.84	9	12
	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079	2-3/8 SLH90	3 1/4	1 11/16	7,700	311,500	4,200	0.68	9	10
	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079	DS26	3 1/2	1 11/16	9,700	333,900	5,800	0.86	9	10
2 7/8	6.85	E-75 IU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467	NC26	3 3/8	1 3/4	6,900	313,700	3,900	0.85	9	10
	6.85	E-75 IU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467	ELT-HT26	3 3/8	1 3/4	8,700	313,700	5,200	1.07	9	12
	6.85	E-75 EU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467	NC31	4 1/8	2 5/32	11,500	434,500	6,200	1.42	9	11
	6.65	E-75 IU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467	ET26	3 3/8	1 3/4	11,500	290,900	6,900	1.42	10	15
	6.85	E-75 EU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467	ELT-HT31	4	2 5/32	14,900	434,500	8,900	1.84	9	13
	6.85	E-75 EU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467	ET31	4	2 3/8	13,200	309,100	7,900	1.63	10	15
2 7/8	6.85	X-95 IU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940	NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.86	9	10
	6.85	X-95 IU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940	ELT-HT26	3 3/8	1 3/4	8,700	313,700	5,200	0.85	9	12
	6.85	X-95 EU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940	NC31	4 1/8	2 5/32	11,500	434,500	6,200	1.13	9	11
	6.65	X-95 IU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940	ET26	3 3/8	1 3/4	11,500	290,900	6,900	1.13	10	15
	6.85	X-95 EU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940	ELT-HT31	4	2 5/32	14,900	434,500	8,900	1.46	9	13
	6.85	X-95 EU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940	ET31	4	2 3/8	13,200	309,100	7,900	1.29	10	15
2 7/8	6.85	G-105 IU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020	NC26	3 5/8	1 3/4	7,200	313,700	3,900	0.64	9	10
	6.85	G-105 IU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020	ELT-HT26	3 3/8	1 3/4	8,700	313,700	5,200	0.77	9	12
	6.85	G-105 EU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020	NC31	4 1/8	2 5/32	11,500	434,500	6,200	1.02	9	11
	6.65	G-105 IU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020	ET26	3 3/8	1 3/4	11,500	290,900	6,900	1.02	10	15
	6.85	G-105 EU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020	ELT-HT31	4	2 5/32	14,900	434,500	8,900	1.32	9	13
	6.85	G-105 EU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020	ET31	4	2 3/8	13,200	309,100	7,900	1.17	10	15
2 7/8	6.85	S-135 IU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034	NC26	3 5/8	1 1/2	9,000	390,300	4,900	0.62	9	10
	6.85	S-135 IU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034	ELT-HT26	3 1/2	1 1/2	12,100	390,300	7,300	0.83	9	12
	6.85	S-135 EU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034	NC31	4 1/8	2 1/8	11,900	447,100	6,400	0.82	9	11
	6.65	S-135 IU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034	ET26	3 3/8	1 3/4	11,500	290,900	6,900	0.79	10	15
	6.85	S-135 EU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034	ELT-HT31	4	2 5/32	14,900	434,500	8,900	1.03	9	13
	6.85	S-135 EU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034	ET31	4	2 3/8	13,200	309,100	7,900	0.91	10	15
2 7/8	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509	NC31	4 1/8	2 1/8	11,900	447,100	6,400	1.03	9	11
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509	NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.76	9	10
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509	2-7/8 SLH90	3 7/8	2	13,100	444,000	6,900	1.13	9	11
	10.40	E-75 IU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509	ELT-HT26	3 1/2	1 1/2	12,100	390,300	7,300	1.04	9	12
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509	ELT-HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.43	9	13
	10.40	E-75 IU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509	ET26	3 1/2	1 1/2	14,800	367,400	8,900	1.28	10	15

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509	ET31	3 7/8	2 1/8	16,600	415,100	10,000	1.43	10	15
2 7/8	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911	NC31	4 1/8	2	13,200	495,700	7,100	0.90	9	11
	10.40	X-95 IU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911	NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.60	9	10
	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911	2-7/8 SLH90	3 7/8	2	13,100	444,000	6,900	0.90	9	11
	10.40	X-95 IU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911	ELT-HT26	3 1/2	1 1/2	12,100	390,300	7,300	0.83	9	12
	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911	ELT-HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.14	9	13
	10.40	X-95 IU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911	ET26	3 1/2	1 1/2	14,800	367,400	8,900	1.01	10	15
	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911	ET31	3 7/8	2 1/8	16,600	415,100	10,000	1.14	10	15
2 7/8	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112	NC31	4 1/8	2	13,200	495,700	7,100	0.81	9	11
	10.40	G-105 IU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112	NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.54	9	10
	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112	2-7/8 SLH90	3 7/8	2	13,100	444,000	6,900	0.81	9	11
	10.40	G-105 IU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112	ELT-HT26	3 5/8	1 1/2	13,100	390,300	7,900	0.81	9	12
	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112	ELT-HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.02	9	13
	10.40	G-105 IU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112	ET26	3 1/2	1 1/2	14,800	367,400	8,900	0.91	10	15
	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112	ET31	3 7/8	2 1/8	16,600	415,100	10,000	1.02	10	15
2 7/8	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	NC31	4 1/8	2	13,200	495,700	7,100	0.63	9	11
	10.40	S-135 IU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	NC26	3 5/8	1 1/2	9,000	390,300	4,900	0.43	9	10
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	2-7/8 SLH90	3 7/8	2	13,100	444,000	6,900	0.63	9	11
	10.40	S-135 IU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	ELT-HT26	3 5/8	1 1/2	13,100	390,300	7,900	0.63	9	12
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	ELT-HT31	4 1/8	2	18,900	495,700	11,300	0.91	9	13
	10.40	S-135 IU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	ET26	3 1/2	1 3/8	15,900	401,300	9,500	0.76	10	15
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	ET31	3 7/8	2 1/8	16,600	415,100	10,000	0.80	10	15
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716	DS31	4 1/8	2	17,200	495,700	10,300	0.83	9	11
3 1/2	9.50	E-75 EU	14,100	194,300	0.254	2.992	2,590	1.961	3.923	9,525	10,001	NC38	4 3/4	2 11/16	18,100	587,300	9,700	1.28	10	12.5
	9.50	E-75 IU	14,100	194,300	0.254	2.992	2,590	1.961	3.923	9,525	10,001	NC31	4 1/8	2 1/8	11,900	447,100	6,400	0.84	9	11
	9.50	E-75 IU	14,100	194,300	0.254	2.992	2,590	1.961	3.923	9,525	10,001	ELT-HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.18	9	13
	9.50	E-75 EU	14,100	194,300	0.254	2.992	2,590	1.961	3.923	9,525	10,001	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.79	10	15.5
	9.50	E-75 EU	14,100	194,300	0.254	2.992	2,590	1.961	3.923	9,525	10,001	3-1/2 SLH90	4 3/4	2 11/16	18,688	534,200	11,100	1.33	10	12.5
	9.50	E-75 IU	14,100	194,300	0.254	2.992	2,590	1.961	3.923	9,525	10,001	ET31	4	2 1/8	18,600	415,100	11,200	1.32	10	15
	9.50	E-75 EU	14,100	194,300	0.254	2.992	2,590	1.961	3.923	9,525	10,001	ET38	4 3/4	2 13/16	23,900	473,000	14,300	1.70	10	15
3 1/2	9.50	X-95 EU	17,900	246,100	0.254	2.992	2,590	1.961	3.923	12,065	12,077	NC38	4 3/4	2 11/16	18,100	587,300	9,700	1.01	10	12.5
	9.50	X-95 IU	17,900	246,100	0.254	2.992	2,590	1.961	3.923	12,065	12,077	NC31	4 1/8	2	13,200	495,700	7,100	0.74	9	11
	9.50	X-95 IU	17,900	246,100	0.254	2.992	2,590	1.961	3.923	12,065	12,077	ELT-HT31	4 1/8	2 1/8	16,600	447,100	10,000	0.93	9	13
	9.50	X-95 EU	17,900	246,100	0.254	2.992	2,590	1.961	3.923	12,065	12,077	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.41	10	15.5
	9.50	X-95 EU	17,900	246,100	0.254	2.992	2,590	1.961	3.923	12,065	12,077	3-1/2 SLH90	4 3/4	2 11/16	18,700	534,200	11,100	1.04	10	12.5
	9.50	X-95 IU	17,900	246,100	0.254	2.992	2,590	1.961	3.923	12,065	12,077	ET31	4	2 1/8	18,600	415,100	11,200	1.04	10	15
	9.50	X-95 EU	17,900	246,100	0.254	2.992	2,590	1.961	3.923	12,065	12,077	ET38	4 3/4	2 13/16	23,900	473,000	14,300	1.34	10	15
3 1/2	9.50	G-105 EU	19,800	272,000	0.254	2.992	2,590	1.961	3.923	13,335	13,055	NC38	4 3/4	2 11/16	18,100	587,300	9,700	0.91	10	12.5
	9.50	G-105 IU	19,800	272,000	0.254	2.992	2,590	1.961	3.923	13,335	13,055	NC31	4 1/8	2	13,200	495,700	7,100	0.67	9	11
	9.50	G-105 IU	19,800	272,000	0.254	2.992	2,590	1.961	3.923	13,335	13,055	ELT-HT31	4 1/8	2	18,900	495,700	11,300	0.95	9	13
	9.50	G-105 EU	19,800	272,000	0.254	2.992	2,590	1.961	3.923	13,335	13,055	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.28	10	15.5
	9.50	G-105 EU	19,800	272,000	0.254	2.992	2,590	1.961	3.923	13,335	13,055	3-1/2 SLH90	4 3/4	2 11/16	18,700	534,200	11,100	0.94	10	12.5
	9.50	G-105 IU	19,800	272,000	0.254	2.992	2,590	1.961	3.923	13,335	13,055	ET31	4	2 1/8	18,600	415,100	11,200	0.94	10	15

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
	9.50	G-105 EU	19,800	272,000	0.254	2.992	2,590	1.961	3.923	13,335	13,055	ET38	4 3/4	2 13/16	23,900	473,000	14,300	1.21	10	15
3 1/2	9.50	S-135 EU	25,500	349,700	0.254	2.992	2,590	1.961	3.923	17,145	15,748	NC38	4 7/8	2 9/16	20,200	649,200	10,700	0.79	10	12.5
	9.50	S-135 IU	25,500	349,700	0.254	2.992	2,590	1.961	3.923	17,145	15,748	NC31	4 1/8	2	13,200	495,700	7,100	0.52	9	11
	9.50	S-135 IU	25,500	349,700	0.254	2.992	2,590	1.961	3.923	17,145	15,748	ELT-HT31	4 1/8	2	18,900	495,700	11,300	0.74	9	13
	9.50	S-135 EU	25,500	349,700	0.254	2.992	2,590	1.961	3.923	17,145	15,748	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	0.99	10	15.5
	9.50	S-135 EU	25,500	349,700	0.254	2.992	2,590	1.961	3.923	17,145	15,748	3-1/2 SLH90	4 3/4	2 9/16	20,900	596,100	12,400	0.82	10	12.5
	9.50	S-135 IU	25,500	349,700	0.254	2.992	2,590	1.961	3.923	17,145	15,748	ET31	4	2	20,400	463,700	12,200	0.80	10	15
	9.50	S-135 EU	25,500	349,700	0.254	2.992	2,590	1.961	3.923	17,145	15,748	ET38	4 3/4	2 13/16	23,900	473,000	14,300	0.94	10	15
3 1/2	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113	NC38	4 3/4	2 11/16	18,100	587,300	9,700	0.97	10	12.5
	13.30	E-75 IU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113	NC31	4 1/8	2	13,200	495,700	7,100	0.71	9	11
	13.30	E-75 IU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113	ELT-HT31	4 1/8	2 1/8	16,600	447,100	10,000	0.89	9	13
	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.36	10	15.5
	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113	3-1/2 SLH90	4 3/4	2 11/16	18,700	534,200	11,100	1.01	10	12.5
	13.30	E-75 IU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113	ET31	4	2 1/8	18,600	415,100	11,200	1.00	10	15
	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113	ET38	4 3/4	2 11/16	27,700	537,800	16,600	1.49	10	15
3 1/2	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877	NC38	5	2 9/16	20,300	649,200	10,700	0.86	10	12.5
	13.30	X-95 IU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877	NC31	4 1/8	2	13,200	495,700	7,100	0.56	9	11
	13.30	X-95 IU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877	ELT-HT31	4 1/8	2	18,900	495,700	11,300	0.80	9	13
	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.08	10	15.5
	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877	3-1/2 SLH90	4 3/4	2 11/16	18,700	534,200	11,100	0.80	10	12.5
	13.30	X-95 IU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877	ET31	4	2 1/8	18,600	415,100	11,200	0.79	10	15
	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877	ET38	4 3/4	2 11/16	27,700	537,800	16,600	1.18	10	15
3 1/2	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758	NC38	5	2 7/16	22,200	708,100	11,700	0.85	10	12.5
	13.30	G-105 IU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758	NC31	4 1/8	2	13,200	495,700	7,100	0.51	9	11
	13.30	G-105 IU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758	ELT-HT31	4 1/8	2	18,900	495,700	11,300	0.73	9	13
	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	0.97	10	15.5
	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758	3-1/2 SLH90	4 3/4	2 9/16	20,900	596,100	12,400	0.80	10	12.5
	13.30	G-105 IU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758	ET31	4 1/8	2	21,100	463,700	12,700	0.81	10	15
	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758	ET38	4 3/4	2 11/16	27,700	537,800	16,600	1.07	10	15
3 1/2	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	NC38	5	2 1/8	26,500	842,400	14,000	0.79	10	12.5
	13.30	S-135 IU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	NC31	4 1/8	2	13,200	495,700	7,100	0.40	9	11
	13.30	S-135 IU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	ELT-HT31	4 1/8	2	18,900	495,700	11,300	0.57	9	13
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	ELT-HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.81	10	15.5
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	3-1/2 SLH90	4 3/4	2 9/16	20,900	596,100	12,400	0.63	10	12.5
	13.30	S-135 IU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	ET31	4 1/8	1 7/8	23,400	509,400	14,000	0.70	10	15
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	ET38	4 3/4	2 11/16	27,700	537,800	16,600	0.83	10	15
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404	DS38	4 7/8	2 9/16	25,700	649,200	15,400	0.77	10	12.5
3 1/2	15.50	E-75 EU	21,100	322,800	0.449	2.602	4.304	2.923	5.847	16,838	16,774	NC38	5	2 9/16	20,300	649,200	10,700	0.96	10	12.5
	15.50	E-75 EU	21,100	322,800	0.449	2.602	4.304	2.923	5.847	16,838	16,774	ELT-HT38	4 3/4	2 9/16	26,900	649,200	16,100	1.27	10	15.5
	15.50	E-75 EU	21,100	322,800	0.449	2.602	4.304	2.923	5.847	16,838	16,774	ET38	4 3/4	2 9/16	31,300	599,600	18,800	1.48	10	15
3 1/2	15.50	X-95 EU	26,700	408,800	0.449	2.602	4.304	2.923	5.847	21,328	21,247	NC38	5	2 7/16	22,200	708,100	11,700	0.83	10	12.5
	15.50	X-95 EU	26,700	408,800	0.449	2.602	4.304	2.923	5.847	21,328	21,247	ELT-HT38	4 3/4	2 9/16	26,900	649,200	16,100	1.01	10	15.5
	15.50	X-95 EU	26,700	408,800	0.449	2.602	4.304	2.923	5.847	21,328	21,247	ET38	4 3/4	2 9/16	31,300	599,600	18,800	1.17	10	15

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
3 1/2	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484	NC38	5	2 1/8	26,500	842,400	14,000	0.90	10	12.5
	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484	ELT-HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.91	10	15.5
	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484	NC40	5 1/4	2 9/16	27,800	838,300	14,600	0.94	9	12
	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484	ET38	4 3/4	2 9/16	31,300	599,600	18,800	1.06	10	15
3 1/2	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194	NC38	5	2 1/8	26,500	842,400	14,000	0.70	10	12.5
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194	ELT-HT38	4 3/4	2 7/16	28,400	708,100	17,000	0.75	10	15.5
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194	NC40	5 1/2	2 1/4	32,900	980,000	17,100	0.87	10	12.5
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194	GMXT38	4 3/4	2 7/16	34,200	658,500	20,500	0.90	10	15
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194	ET39	4 7/8	2 7/16	38,500	788,600	23,100	1.01	10	15
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194	DS38	5	2 7/16	29,200	708,100	17,500	0.77	10	12.5
4	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381	NC40	5 1/4	2 13/16	23,500	711,600	12,400	1.21	9	12
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381	4 SH	4 3/4	2 9/16	15,300	512,000	8,100	0.78	9	12
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.30	10	15.5
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381	ET38	4 3/4	2 11/16	27,700	537,800	16,600	1.42	10	15
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381	ET39	4 7/8	2 13/16	32,900	603,000	19,700	1.69	10	15
4	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978	NC40	5 1/4	2 13/16	23,500	711,600	12,400	0.95	9	12
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978	4 SH	4 3/4	2 9/16	15,300	512,000	8,100	0.62	9	12
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.02	10	15.5
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978	ET38	4 3/4	2 11/16	27,700	537,800	16,600	1.12	10	15
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978	ET39	4 7/8	2 13/16	32,900	603,000	19,700	1.33	10	15
4	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708	NC40	5 1/4	2 13/16	23,500	711,600	12,400	0.86	9	12
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708	4 SH	4 3/4	2 9/16	15,300	512,000	8,100	0.56	9	12
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708	ELT-HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.99	10	15.5
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708	ET38	4 3/4	2 11/16	27,700	537,800	16,600	1.01	10	15
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708	ET39	4 7/8	2 13/16	32,900	603,000	19,700	1.21	10	15
4	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618	NC40	5 1/2	2 9/16	28,100	838,300	14,600	0.80	9	12
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618	4 SH	4 3/4	2 9/16	15,300	512,000	8,100	0.44	9	12
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618	ELT-HT38	4 3/4	2 7/16	28,400	708,100	17,000	0.81	10	15.5
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618	ET38	4 3/4	2 11/16	27,700	537,800	16,600	0.79	10	15
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618	ET39	4 7/8	2 13/16	32,900	603,000	19,700	0.94	10	15
4	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354	NC40	5 1/4	2 13/16	23,500	711,600	12,400	1.01	9	12
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354	ELT-HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.09	10	15.5
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354	4 SH	4 3/4	2 7/16	17,100	570,900	9,100	0.73	9	12
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354	ELT-HT40	5 1/4	2 13/16	31,900	711,600	19,100	1.37	9	15
	14.00	E-75 EU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354	NC46	6	3 1/4	33,600	901,200	17,600	1.44	9	12
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354	ET38	4 3/4	2 11/16	27,700	537,800	16,600	1.19	10	15
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354	ET39	4 7/8	2 13/16	32,900	603,000	19,700	1.41	10	15
4	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382	NC40	5 1/4	2 11/16	25,700	776,400	13,500	0.87	9	12
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382	ELT-HT38	4 3/4	2 11/16	25,300	587,600	15,200	0.86	10	15.5
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382	4 SH	4 3/4	2 7/16	17,100	570,900	9,100	0.58	9	12
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382	ELT-HT40	5 1/4	2 13/16	31,900	711,600	19,100	1.08	9	15
	14.00	X-95 EU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382	NC46	6	3 1/4	33,600	901,200	17,600	1.14	9	12
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382	ET38	4 3/4	2 11/16	27,700	537,800	16,600	0.94	10	15

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382	ET39	4 7/8	2 13/16	32,900	603,000	19,700	1.12	10	15
4	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896	NC40	5 1/2	2 7/16	30,100	897,200	15,600	0.92	9	12
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896	ELT-HT38	5	2 9/16	29,600	649,200	17,800	0.91	10	15.5
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896	4 SH	4 3/4	2 7/16	17,100	570,900	9,100	0.52	9	12
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896	ELT-HT40	5 1/4	2 13/16	31,900	711,600	19,100	0.98	9	15
	14.00	G-105 EU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896	NC46	6	3 1/4	33,600	901,200	17,600	1.03	9	12
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896	ET38	4 3/4	2 11/16	27,700	537,800	16,600	0.85	10	15
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896	ET39	4 7/8	2 13/16	32,900	603,000	19,700	1.01	10	15
4	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	NC40	5 1/2	2	36,400	1,080,100	18,900	0.87	9	12
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	ELT-HT38	5	2 7/16	33,000	708,100	19,800	0.79	10	15.5
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	4 SH	4 3/4	2 7/16	17,100	570,900	9,100	0.41	9	12
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	ELT-HT40	5 1/4	2 11/16	35,900	776,400	21,500	0.86	9	15
	14.00	S-135 EU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	NC46	6	3	39,200	1,048,400	20,500	0.94	9	12
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	ET38	4 3/4	2 9/16	31,300	599,600	18,800	0.75	10	15
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	ET39	4 7/8	2 9/16	37,000	729,700	22,200	0.88	10	15
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141	DS40	5 1/4	2 11/16	32,700	776,400	19,600	0.78	9	12
4	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896	NC40	5 1/4	2 13/16	23,500	711,600	12,400	0.91	9	12
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896	ELT-HT40	5 1/4	2 13/16	31,900	711,600	19,100	1.24	9	15
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896	4 H90	5 1/2	2 13/16	35,400	913,700	20,400	1.37	9	12
	15.70	E-75 EU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896	NC46	6	3	39,200	1,048,400	20,500	1.52	9	12
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896	ET39	4 7/8	2 9/16	37,000	729,700	22,200	1.43	10	15
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896	ET40	5 1/4	2 13/16	44,000	751,600	26,400	1.71	10	15
4	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335	NC40	5 1/4	2 9/16	27,800	838,300	14,600	0.85	9	12
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335	ELT-HT40	5 1/4	2 13/16	31,900	711,600	19,100	0.98	9	15
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335	4 H90	5 1/2	2 13/16	35,400	913,700	20,400	1.08	9	12
	15.70	X-95 EU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335	NC46	6	3	39,200	1,048,400	20,500	1.20	9	12
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335	ET39	4 7/8	2 9/16	37,000	729,700	22,200	1.13	10	15
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335	ET40	5 1/4	2 13/16	44,000	751,600	26,400	1.35	10	15
4	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055	NC40	5 1/2	2 7/16	30,100	897,200	15,600	0.83	9	12
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055	ELT-HT40	5 1/4	2 13/16	31,900	711,600	19,100	0.88	9	15
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055	4 H90	5 1/2	2 13/16	35,400	913,700	20,400	0.98	9	12
	15.70	G-105 EU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055	NC46	6	3	39,200	1,048,400	20,500	1.09	9	12
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055	ET39	4 7/8	2 9/16	37,000	729,700	22,200	1.02	10	15
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055	ET40	5 1/4	2 13/16	44,000	751,600	26,400	1.22	10	15
4	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213	NC40	5 1/2	2	36,400	1,080,100	18,900	0.78	9	12
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213	ELT-HT40	5 1/4	2 9/16	39,500	838,300	23,700	0.85	9	15
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213	4 H90	5 3/4	2 11/16	38,400	987,500	21,800	0.83	9	12
	15.70	S-135 EU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213	NC46	6	3	39,200	1,048,400	20,500	0.84	9	12
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213	ET39	4 7/8	2 9/16	37,000	729,700	22,200	0.80	10	15
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213	ET40	5 1/4	2 13/16	44,000	751,600	26,400	0.95	10	15
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213	DS40	5 1/4	2 9/16	36,400	838,300	21,800	0.78	9	12
4 1/2	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	NC46	6 1/4	3 1/4	34,000	901,200	17,600	1.10	9	12
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	4-1/2 OH	5 7/8	3 3/4	27,300	714,000	14,600	0.89	9	12

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	4-1/2 FH	6	3	34,800	976,200	17,600	1.13	9	12
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	4-1/2 H90	6	3 1/4	39,000	938,400	18,800	1.27	9	12
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	ELT-HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.55	9	15
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	NC50	6 5/8	3 3/4	38,100	939,100	19,800	1.24	9	12
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	ELT-HT50	6 1/4	3 3/4	52,700	939,100	31,600	1.71	9	15
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	ET40	6 1/4	3	37,400	648,900	22,400	1.21	10	15
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	ET46	6	3 1/2	58,100	910,300	34,900	1.89	10	15
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392	ET50	6 3/8	3 3/4	75,200	1,085,500	45,100	2.44	10	15
4 1/2	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	NC46	6 1/4	3 1/4	34,000	901,200	17,600	0.87	9	12
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	4-1/2 OH	5 7/8	3 1/2	33,900	884,800	18,200	0.87	9	12
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	4-1/2 FH	6	3	34,800	976,200	17,600	0.89	9	12
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	4-1/2 H90	6	3 1/4	39,000	938,400	18,800	1.00	9	12
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	ELT-HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.22	9	15
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	NC50	6 5/8	3 3/4	38,100	939,100	19,800	0.98	9	12
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	ELT-HT50	6 1/4	3 3/4	52,700	939,100	31,600	1.35	9	15
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	ET40	6 1/4	3	37,400	648,900	22,400	0.96	10	15
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	ET46	6	3 1/2	58,100	910,300	34,900	1.49	10	15
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765	ET50	6 3/8	3 3/4	75,200	1,085,500	45,100	1.93	10	15
4 1/2	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	NC46	6 1/4	3	39,700	1,048,400	20,500	0.92	9	12
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	4-1/2 OH	6	3 1/4	40,300	1,043,800	21,500	0.94	9	12
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	4-1/2 FH	6 1/4	2 3/4	40,200	1,111,600	20,100	0.93	9	12
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	4-1/2 H90	6	3 1/4	39,000	938,400	18,800	0.90	9	12
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	ELT-HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.10	9	15
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	NC50	6 5/8	3 3/4	38,100	939,100	19,800	0.88	9	12
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	ELT-HT50	6 1/4	3 3/4	52,700	939,100	31,600	1.22	9	15
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	ET40	6 1/4	3	37,400	648,900	22,400	0.87	10	15
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	ET46	6	3 1/2	58,100	910,300	34,900	1.35	10	15
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825	ET50	6 3/8	3 3/4	75,200	1,085,500	45,100	1.74	10	15
4 1/2	16.60	S-135 IEU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	NC46	6 1/4	2 3/4	44,900	1,183,900	23,200	0.81	9	12
	16.60	S-135 EU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	4-1/2 OH	6	3	43,400	1,191,100	24,600	0.78	9	12
	16.60	S-135 IEU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	4-1/2 FH	6 1/4	2 3/4	40,200	1,111,600	20,100	0.72	9	12
	16.60	S-135 IEU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	4-1/2 H90	6 1/4	2 3/4	51,500	1,221,100	24,600	0.93	9	12
	16.60	S-135 IEU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	ELT-HT46	6 1/4	3 1/4	47,600	901,200	28,600	0.86	9	15
	16.60	S-135 EU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.81	9	12
	16.60	S-135 EU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	ELT-HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	1.18	9	15
	16.60	S-135 IEU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	ET40	5 1/4	2 13/16	44,000	751,600	26,400	0.79	10	15
	16.60	S-135 IEU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	ET46	6	3 1/2	58,100	910,300	34,900	1.05	10	15
	16.60	S-135 EU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	ET50	6 3/8	3 3/4	75,200	1,085,500	45,100	1.35	10	15
	16.60	S-135 IEU	55,500	59,500	0.337	3.826	4.407	4.271	8.543	17,693	16,773	DS46	6 1/4	3 1/4	43,300	901,200	26,000	0.78	9	12
4 1/2	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	NC46	6 1/4	3	39,700	1,048,400	20,500	1.08	9	12
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	4-1/2 OH	6	3 1/2	34,100	884,800	18,200	0.92	9	12
	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	4-1/2 H90	6	3 1/4	39,000	938,400	18,800	1.06	9	12
	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	ELT-HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.29	9	15

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	NC50	6 5/8	3 5/8	41,700	1,026,000	21,600	1.13	9	12
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	ELT-HT50	6 1/4	3 5/8	59,200	1,026,000	35,500	1.60	9	15
	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	ET46	6	3 1/2	58,100	910,300	34,900	1.57	10	15
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964	ET50	6 3/8	3 1/2	81,200	1,256,300	48,700	2.20	10	15
4 1/2	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	NC46	6 1/4	3	39,700	1,048,400	20,500	0.85	9	12
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	4-1/2 OH	6 1/4	3 1/4	40,700	1,043,800	21,500	0.87	9	12
	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	4-1/2 H90	6	3 1/4	39,000	938,400	18,800	0.84	9	12
	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	ELT-HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.02	9	15
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.97	9	12
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	ELT-HT50	6 1/4	3 1/2	62,700	1,109,900	37,600	1.34	9	15
	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	ET46	6	3 1/2	58,100	910,300	34,900	1.24	10	15
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421	ET50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.74	10	15
4 1/2	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	NC46	6 1/4	2 3/4	44,900	1,183,900	23,200	0.87	9	12
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	4-1/2 OH	6 1/4	3	46,600	1,191,100	24,600	0.90	9	12
	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	4-1/2 H90	6 1/4	3	45,700	1,085,700	21,800	0.88	9	12
	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	ELT-HT46	6 1/4	3 1/4	47,600	901,200	28,600	0.92	9	15
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.87	9	12
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	ELT-HT50	6 1/4	3 1/2	62,700	1,109,900	37,600	1.21	9	15
	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	ET46	6	3 1/2	58,100	910,300	34,900	1.12	10	15
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149	ET50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.57	10	15
4 1/2	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	NC46	6 1/4	2 3/4	44,900	1,183,900	23,200	0.68	9	12
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	4-1/2 OH	6 3/8	2 3/4	52,200	1,326,600	27,400	0.79	9	12
	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	4-1/2 H90	6 3/8	2 3/4	51,700	1,221,100	24,600	0.78	9	12
	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	ELT-HT46	6 1/4	3	57,700	1,048,400	34,600	0.87	9	15
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	NC50	6 5/8	3 1/4	51,700	1,269,000	26,800	0.78	9	12
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	ELT-HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	0.99	9	15
	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	ET46	6	3 1/4	64,800	1,069,300	38,900	0.98	10	15
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	ET50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.22	10	15
	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335	DS46	6 1/4	3	53,400	1,048,400	32,000	0.80	9	12
5	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962	NC50	6 5/8	3 3/4	38,100	939,100	19,800	0.92	9	12
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962	ELT-HT50	6 5/8	3 3/4	53,300	939,100	32,000	1.29	9	15
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962	5-1/2 FH	7	3 3/4	62,900	1,448,400	33,400	1.53	10	12
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962	ET46	6	3 1/2	36,500	910,300	21,900	0.89	10	15
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962	ET50	6 1/2	4	38,700	902,900	23,200	0.94	10	15
5	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026	NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.87	9	12
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026	ELT-HT50	6 5/8	3 3/4	53,300	939,100	32,000	1.02	9	15
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026	5-1/2 FH	7	3 3/4	62,900	1,448,400	33,400	1.21	10	12
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026	ET46	6	3 1/2	58,100	910,300	34,900	1.12	10	15
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026	ET50	6 1/2	4	62,500	902,900	37,500	1.20	10	15
5	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999	NC50	6 5/8	3 1/4	51,700	1,269,000	26,800	0.90	9	12
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999	ELT-HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	1.15	9	15
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999	5-1/2 FH	7	3 3/4	62,900	1,448,400	33,400	1.09	10	12
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999	ET46	6	3 1/2	58,100	910,300	34,900	1.01	10	15

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999	ET50	6 1/2	4	62,500	902,900	37,500	1.09	10	15
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999	DS50	6 5/8	3 1/2	60,400	1,110,200	36,200	1.05	9	12
5	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672	NC50	6 5/8	2 3/4	63,400	1,551,700	32,900	0.86	9	12
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672	ELT-HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.89	9	15
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672	5-1/2 FH	7 1/4	3 1/2	72,500	1,619,200	37,400	0.98	10	12
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672	ET46	6	3 1/2	58,100	910,300	34,900	0.78	10	15
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672	ET50	6 1/2	3 3/4	77,000	1,085,500	46,200	1.04	10	15
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672	DS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.82	9	12
5	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500	NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.86	9	12
	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500	ELT-HT50	6 5/8	3 3/4	53,300	939,100	32,000	1.02	9	15
	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500	5-1/2 FH	7	3 1/2	62,900	1,619,200	37,400	1.20	10	12
	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500	ET50	6 5/8	3 3/4	77,300	1,085,500	46,400	1.48	10	15
5	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100	NC50	6 5/8	3	57,800	1,416,200	30,000	0.87	9	12
	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100	ELT-HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	1.00	9	15
	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100	5-1/2 FH	7	3 1/2	62,900	1,619,200	37,400	0.95	10	12
	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100	ET50	6 5/8	3 3/4	77,300	1,085,500	46,400	1.17	10	15
5	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900	NC50	6 5/8	2 3/4	63,400	1,551,700	32,900	0.87	9	12
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900	ELT-HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.90	9	15
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900	5-1/2 FH	7 1/4	3 1/2	72,500	1,619,200	37,400	0.99	10	12
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900	ET50	6 5/8	3 3/4	77,300	1,085,500	46,400	1.06	10	15
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900	DS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.83	9	12
5	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300	NC50	6 5/8	2 3/4	63,400	1,551,700	32,900	0.67	9	12
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300	ELT-HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.70	9	15
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300	5-1/2 FH	7 1/4	3 1/4	78,700	1,778,300	41,200	0.84	10	12
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300	ET50	6 5/8	3 1/2	90,700	1,256,300	54,400	0.96	10	15
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300	DS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.64	9	12
5 1/2	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,615	8,413	5-1/2 FH	7	4	57,900	1,265,800	31,200	1.14	10	12
	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,615	8,413	ELT-HT55	7	4	77,200	1,265,800	46,300	1.52	10	15
	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,615	8,413	ET54	6 3/4	4 1/4	70,400	960,700	42,200	1.39	10	15
	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,615	8,413	ET57	7	4 1/4	94,300	1,208,700	56,600	1.86	10	15
5 1/2	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,912	10,019	5-1/2 FH	7	3 3/4	65,100	1,448,400	35,700	1.01	10	12
	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,912	10,019	ELT-HT55	7	4	77,200	1,265,800	46,300	1.20	10	15
	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,912	10,019	ET54	6 3/4	4 1/4	70,400	960,700	42,200	1.10	10	15
	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,912	10,019	ET57	7	4 1/4	94,300	1,208,700	56,600	1.47	10	15
5 1/2	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	12,061	10,753	5-1/2 FH	7 1/4	3 1/2	75,000	1,619,200	40,000	1.06	10	12
	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	12,061	10,753	ELT-HT55	7	4	77,200	1,265,800	46,300	1.09	10	15
	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	12,061	10,753	ET54	6 3/4	4 1/4	70,400	960,700	42,200	0.99	10	15
	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	12,061	10,753	ET57	7	4 1/4	94,300	1,208,700	56,600	1.33	10	15
	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	12,061	10,753	DS55	7	4	74,200	1,292,500	44,500	1.05	10	12
5 1/2	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	15,507	12,679	5-1/2 FH	7 1/2	3	902,000	1,925,500	47,700	0.99	10	12
	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	15,507	12,679	ELT-HT55	7	4	77,200	1,265,800	46,300	0.85	10	15
	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	15,507	12,679	ET54	6 3/4	4 1/4	70,400	960,700	42,200	0.77	10	15
	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	15,507	12,679	ET57	7	4 1/4	94,300	1,208,700	56,600	1.03	10	15

Threads/connections of API

Pipe Body												Tool Joint for Drill Pipe								
OD (in)	PPF (LB/FT)	Steel Grade and Upset type	Torsional Strength (FT·LB)	Tensile Strength (LB)	WT (INCH)	ID (INCH)	CSA (INCH ²)	The Ratio of the Cross- Sectional Area	Polar modulus of section (INCH ³)	Strength Against Internal Pressure (PSI)	Collapsin g Strength (PSI)	Connection type	OD (INCH)	ID (INCH)	Torsional Strength (FT·LB)	Tensile Strength (LB)	make up torque (FT·LB)	Torsional strength of joint to drill pipe	Lenght of Pin Tong (INCH)	Length of Box Tong (INCH)
	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	15,507	12,679	DS55	7	4	74,200	1,292,500	44,500	0.81	10	12
5 1/2	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	9,903	10,464	5-1/2 FH	7	4	57,900	1,265,800	31,200	1.02	10	12
	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	9,903	10,464	ELT-HT55	7	4	77,200	1,265,800	46,300	1.36	10	15
	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	9,903	10,464	ET54	6 3/4	4 1/4	70,400	960,700	42,200	1.24	10	15
	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	9,903	10,464	ET57	7	4 1/4	94,300	1,208,700	56,600	1.67	10	15
5 1/2	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,544	12,933	5-1/2 FH	7 1/4	3 1/2	75,000	1,619,200	40,000	1.05	10	12
	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,544	12,933	ELT-HT55	7	4	77,200	1,265,800	46,300	1.08	10	15
	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,544	12,933	ET54	6 3/4	4 1/4	70,400	960,700	42,200	0.98	10	15
	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,544	12,933	ET57	7	4 1/4	94,300	1,208,700	56,600	1.32	10	15
5 1/2	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	13,865	14,013	5-1/2 FH	7 1/4	3 1/2	75,000	1,619,200	40,000	0.95	10	12
	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	13,865	14,013	ELT-HT55	7	4	77,200	1,265,800	46,300	0.97	10	15
	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	13,865	14,013	ET54	6 3/4	4 1/4	70,400	960,700	42,200	0.89	10	15
	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	13,865	14,013	ET57	7	4 1/4	94,300	1,208,700	56,600	1.19	10	15
	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	13,865	14,013	DS55	7	4	74,200	1,292,500	44,500	0.94	10	12
5 1/2	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,826	17,023	5-1/2 FH	7 1/2	3	90,200	1,925,500	47,700	0.89	10	12
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,826	17,023	ELT-HT55	7	4	77,200	1,265,800	46,300	0.76	10	15
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,826	17,023	ET54	6 3/4	4	86,600	1,155,100	42,200	0.85	10	15
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,826	17,023	ET57	7	4 1/4	94,300	1,208,700	56,600	0.93	10	15
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,826	17,023	DS55	7	4	74,200	1,292,500	44,500	0.73	10	12
5 7/8	23.40	E-75 IEU	58,600	469,000	0.361	5.153	6.254	8.125	16.251	8,065	7,453	ET57	7	4 1/4	94,300	1,208,700	56,600	1.61	10	15
	23.40	X-95 IEU	74,200	594,100	0.361	5.153	6.254	8.125	16.251	10,216	8,775	ET57	7	4 1/4	94,300	1,208,700	56,600	1.27	10	15
	23.40	G-105 IEU	82,000	656,600	0.361	5.153	6.254	8.125	16.251	11,291	9,362	ET57	7	4 1/4	94,300	1,208,700	56,600	1.15	10	15
	23.40	S-135 IEU	105,500	844,200	0.361	5.153	6.254	8.125	16.251	14,517	10,825	ET57	7	4 1/4	94,300	1,208,700	56,600	0.89	10	15
	26.30	E-75 IEU	65,500	533,900	0.415	5.045	7.119	9.083	18.165	9,271	9,558	ET57	7	4 1/4	94,300	1,208,700	56,600	1.44	10	15
	26.30	X-95 IEU	83,000	676,300	0.415	5.045	7.119	9.083	18.165	11,744	11,503	ET57	7	4 1/4	94,300	1,208,700	56,600	1.14	10	15
	26.30	G-105 IEU	91,700	747,400	0.415	5.045	7.119	9.083	18.165	12,980	12,414	ET57	7	4 1/4	94,300	1,208,700	56,600	1.03	10	15
	26.30	S-135 IEU	117,900	961,000	0.415	5.045	7.119	9.083	18.165	16,688	14,892	ET57	7	4 1/4	94,300	1,208,700	56,600	0.80	10	15
	TW0.625 34.21	S-135 IEU	159,200	1,391,600	0.625	4.625	10.303	12.262	24.524	25,700	25,100	ET57	7	4 1/4	94,300	1,208,700	56,600	0.59	12	17
	TW0.75 41.05	S-135 IEU	186,400	1,629,300	0.750	4.375	12.069	13.785	27.570	30,090	29,390	ET57	7	4 1/4	94,300	1,208,700	56,600	0.51	12	17
6 5/8	25.20	E-75 IEU	70,600	489,500	0.330	5.965	6.526	9.786	19.572	6,538	4,788	ET65	8	5	135,300	1,543,700	81,200	1.92	10	15
	25.20	X-95 IEU	89,400	620,000	0.330	5.965	6.526	9.786	19.572	8,281	5,321	ET65	8	5	135,300	1,543,700	81,200	1.51	10	15
	25.20	G-105 IEU	98,800	685,200	0.330	5.965	6.526	9.786	19.572	9,153	5,500	ET65	8	5	135,300	1,543,700	81,200	1.37	10	15
	25.20	S-135 IEU	127,000	881,000	0.330	5.965	6.526	9.786	19.572	11,768	6,036	ET65	8	5	135,300	1,543,700	81,200	1.07	10	15
	27.70	E-75 IEU	76,300	534,200	0.362	5.901	7.123	10.578	21.156	7,172	5,894	ET65	8	5	135,300	1,543,700	81,200	1.77	10	15
	27.70	X-95 IEU	96,600	676,700	0.362	5.901	7.123	10.578	21.156	9,084	6,755	ET65	8	5	135,300	1,543,700	81,200	1.40	10	15
	27.70	G-105 IEU	106,800	747,900	0.362	5.901	7.123	10.578	21.156	10,040	7,103	ET65	8	5	135,300	1,543,700	81,200	1.27	10	15
	27.70	S-135 IEU	137,300	961,600	0.362	5.901	7.123	10.578	21.156	12,909	7,813	ET65	8	5	135,300	1,543,700	81,200	0.99	10	15

Drill Pipe - Main Dimensions and Mass

Designations ^a					Pipe Body OD	Pipe Wall Thickness	Drill Pipe Weld Neck	Tool Joint				RSC Bevel Diameter	Approx, Mass ^c
								OD	Pin ID	Pin OD Length	Box OD Length		
Label 1	Label 2	Grade	Upset Type	RSC Type ^d	D_{dp} in.	t in.	D_{te} ^b in.	D in.	d_p in.	L_{pb} in.	L_b in.	D_f in.	w_{dp} lb/ft
					see Table C.2	−12.5 %	max	±0.031	+0.016 −0.031	±0.250	±0.250	±0.016	calculated
					1	2	3	4	5	6	7	8	9
External Upset (EU)													
2 ³ / ₈	6.65	E	EU	NC26	2.375	0.280	2.563	3.375	1.750	9.000	10.000	3.266	7.04
2 ³ / ₈	6.65	X, G	EU	NC26	2.375	0.280	2.563	3.375	1.750	9.000	10.000	3.266	7.04
2 ⁷ / ₈	10.40	E	EU	NC31	2.875	0.362	3.188	4.125	2.125	9.000	11.000	3.953	10.95
2 ⁷ / ₈	10.40	X, G	EU	NC31	2.875	0.362	3.188	4.125	2.000	9.000	11.000	3.953	11.03
2 ⁷ / ₈	10.40	S	EU	NC31	2.875	0.362	3.188	4.375	1.625	9.000	11.000	3.953	11.56
3 ¹ / ₂	9.50	E	EU	NC38	3.500	0.254	3.875	4.750	2.688	10.000	12.500	4.578	10.72
3 ¹ / ₂	13.30	E	EU	NC38	3.500	0.368	3.875	4.750	2.688	10.000	12.500	4.578	14.05
3 ¹ / ₂	13.30	X	EU	NC38	3.500	0.368	3.875	5.000	2.563	10.000	12.500	4.578	14.57
3 ¹ / ₂	13.30	G	EU	NC38	3.500	0.368	3.875	5.000	2.438	10.000	12.500	4.578	14.68
3 ¹ / ₂	13.30	S	EU	NC38	3.500	0.368	3.875	5.000	2.125	10.000	12.500	4.578	14.91
3 ¹ / ₂	15.50	E	EU	NC38	3.500	0.449	3.875	5.000	2.563	10.000	12.500	4.578	16.71
3 ¹ / ₂	15.50	X	EU	NC38	3.500	0.449	3.875	5.000	2.438	10.000	12.500	4.578	16.81
3 ¹ / ₂	15.50	G	EU	NC38	3.500	0.449	3.875	5.000	2.125	10.000	12.500	4.578	16.77
3 ¹ / ₂	15.50	S	EU	NC40	3.500	0.449	3.875	5.500	2.250	9.000	12.000	5.016	17.33
4	14.00	E	EU	NC46	4.000	0.330	4.500	6.000	3.250	9.000	12.000	5.719	15.89
4	14.00	X, G	EU	NC46	4.000	0.330	4.500	6.000	3.250	9.000	12.000	5.719	15.89
4	14.00	S	EU	NC46	4.000	0.330	4.500	6.000	3.000	9.000	12.000	5.719	16.08

Drill Pipe - Main Dimensions and Mass

Designations ^a					Pipe Body OD	Pipe Wall Thickness	Drill Pipe Weld Neck	Tool Joint				RSC Bevel Diameter	Approx, Mass ^c
								OD	Pin ID	Pin OD Length	Box OD Length		
Label 1	Label 2	Grade	Upset Type	RSC Type ^d	D_{dp} in.	t in.	D_{te}^b in.	D in.	d_p in.	L_{pb} in.	L_b in.	D_f in.	w_{dp} lb/ft
					see Table C.2	−12.5 %	max	±0.031	+0.016 −0.031	±0.250	±0.250	±0.016	calculated
1	2	3	4	5	6	7	8	9	10	11	12	13	14
External Upset (Continued)													
4 ^{1/2}	13.75	E	EU	NC50	4.500	0.271	5.000	6.625	3.750	9.000	12.000	6.063	15.92
4 ^{1/2}	16.60	E	EU	NC50	4.500	0.337	5.000	6.625	3.750	9.000	12.000	6.063	18.48
4 ^{1/2}	16.60	X, G	EU	NC50	4.500	0.337	5.000	6.625	3.750	9.000	12.000	6.063	18.48
4 ^{1/2}	16.60	S	EU	NC50	4.500	0.337	5.000	6.625	3.500	9.000	12.000	6.063	18.70
4 ^{1/2}	20.00	E	EU	NC50	4.500	0.430	5.000	6.625	3.625	9.000	12.000	6.063	22.16
4 ^{1/2}	20.00	X, G	EU	NC50	4.500	0.430	5.000	6.625	3.500	9.000	12.000	6.063	22.27
4 ^{1/2}	20.00	S	EU	NC50	4.500	0.430	5.000	6.625	3.000	9.000	12.000	6.063	22.66
Internal Upset (IU)													
4	14	E	IU	NC40	4.000	0.330	4.188	5.252	2.813	9.000	12.000	5.016	14.93
4	14	X	IU	NC40	4.000	0.330	4.188	5.252	2.688	9.000	12.000	5.016	15.01
4	14	G	IU	NC40	4.000	0.330	4.188	5.500	2.438	9.000	12.000	5.016	15.55
4	14	S	IU	NC40	4.000	0.330	4.188	5.500	2.000	9.000	12.000	5.016	15.78
4 ^{1/2}	13.75	E	IU	NC46	4.500	0.271	4.688	6.000	3.375	9.000	12.000	5.719	14.99
Internal-External Upset (IEU)													
4 ^{1/2}	16.60	E	IEU	NC46	4.500	0.337	4.688	6.250	3.250	9.000	12.000	5.719	18.61
4 ^{1/2}	16.60	X, G	IEU	NC46	4.500	0.337	4.688	6.250	3.000	9.000	12.000	5.719	18.79
4 ^{1/2}	16.60	S	IEU	NC46	4.500	0.337	4.688	6.250	2.750	9.000	12.000	5.719	18.97
4 ^{1/2}	20.00	E	IEU	NC46	4.500	0.430	4.688	6.250	3.000	9.000	12.000	5.719	18.61

Drill Pipe - Main Dimensions and Mass

Designations ^a					Pipe Body OD	Pipe Wall Thickness	Drill Pipe Weld Neck	Tool Joint				RSC Bevel Diameter	Approx, Mass ^c
Label 1	Label 2	Grade	Upset Type	RSC Type ^d				OD	Pin ID	Pin OD Length	Box OD Length		
					D_{dp} in.	t in.	D_{te} ^b in.	D in.	d_p in.	L_{pb} in.	L_b in.	D_f in.	w_{dp} lb/ft
					see Table C.2	−12.5 %	max	±0.031	+0.016 −0.031	±0.250	±0.250	±0.016	calculated
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Internal-external Upset (Continued)													
4 ^{1/2}	20.00	X	IEU	NC46	4.500	0.430	4.688	6.250	2.750	9.000	12.000	5.719	22.26
4 ^{1/2}	20.00	G	IEU	NC46	4.500	0.430	4.688	6.250	2.500	9.000	12.000	5.719	22.44
4 ^{1/2}	20.00	S	IEU	NC46	4.500	0.430	4.688	6.250	2.250	9.000	12.000	5.719	22.59
5	19.50	E	IEU	NC50	5.000	0.362	5.125	6.625	3.750	9.000	12.000	6.063	21.37
5	19.50	X	IEU	NC50	5.000	0.362	5.125	6.625	3.500	9.000	12.000	6.063	21.89
5	19.50	G	IEU	NC50	5.000	0.362	5.125	6.625	3.250	9.000	12.000	6.063	22.14
5	19.50	S	IEU	NC50	5.000	0.362	5.125	6.625	2.750	9.000	12.000	6.719	22.58
5	19.50	E	IEU	5 ^{1/2} FH	5.000	0.362	5.125	7.000	3.750	10.000	12.000	6.719	22.32
5	19.50	X, G	IEU	5 ^{1/2} FH	5.000	0.362	5.125	7.000	3.750	10.000	12.000	6.719	22.58
5	19.50	S	IEU	5 ^{1/2} FH	5.000	0.362	5.125	7.250	3.500	10.000	12.000	6.719	23.44
5	25.60	E	IEU	NC50	5.000	0.500	5.125	6.625	3.500	9.000	12.000	6.063	27.36
5	25.60	X	IEU	NC50	5.000	0.500	5.125	6.625	3.000	9.000	12.000	6.063	27.75
5	25.60	G	IEU	NC50	5.000	0.500	5.125	6.625	2.750	9.000	12.000	6.063	27.93
5	25.60	E	IEU	5 ^{1/2} FH	5.000	0.500	5.125	7.000	3.500	10.000	12.000	6.719	28.29
5	25.60	X	IEU	5 ^{1/2} FH	5.000	0.500	5.125	7.000	3.500	10.000	12.000	6.719	28.29
5	25.60	G	IEU	5 ^{1/2} FH	5.000	0.500	5.125	7.250	3.500	10.000	12.000	6.719	28.86
5	25.60	S	IEU	5 ^{1/2} FH	5.000	0.500	5.125	7.250	3.250	10.000	12.000	6.719	29.08
5	TW 0.750	S	IEU	5 ^{1/2} FH	5.000	0.750	5.125	7.250	3.250	10.000	12.000	6.719	38.44

Drill Pipe - Main Dimensions and Mass

Designations ^a					Pipe Body OD	Pipe Wall Thickness	Drill Pipe Weld Neck	Tool Joint				RSC Bevel Diameter	Approx, Mass ^c
								OD	Pin ID	Pin OD Length	Box OD Length		
Label 1	Label 2	Grade	Upset Type	RSC Type ^d	D_{dp} in.	t in.	D_{te}^b in.	D in.	d_p in.	L_{pb} in.	L_b in.	D_f in.	w_{dp} lb/ft
					see Table C.2	−12.5 %	max	±0.031	+0.016 −0.031	±0.250	±0.250	±0.016	calculated
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Internal-external Upset (Continued)													
5 ¹ / ₂	21.90	E	IEU	5 ¹ / ₂ FH	5.500	0.361	5.688	7.000	4.000	10.000	12.000	6.719	24.10
5 ¹ / ₂	21.90	X	IEU	5 ¹ / ₂ FH	5.500	0.361	5.688	7.000	3.750	10.000	12.000	6.719	24.35
5 ¹ / ₂	21.90	G	IEU	5 ¹ / ₂ FH	5.500	0.361	5.688	7.250	3.500	10.000	12.000	6.719	25.12
5 ¹ / ₂	21.90	S	IEU	5 ¹ / ₂ FH	5.500	0.361	5.688	7.500	3.000	10.000	12.000	7.094	26.12
5 ¹ / ₂	24.70	E	IEU	5 ¹ / ₂ FH	5.500	0.415	5.688	7.000	4.000	10.000	12.000	6.719	26.57
5 ¹ / ₂	24.70	X G	IEU	5 ¹ / ₂ FH	5.500	0.415	5.688	7.250	3.500	10.000	12.000	6.719	27.58
5 ¹ / ₂	24.70	S	IEU	5 ¹ / ₂ FH	5.500	0.415	5.688	7.500	3.000	10.000	12.000	7.094	28.57
5 ¹ / ₂	TW 0.500	S	IEU	5 ¹ / ₂ FH	5.500	0.500	5.688	7.250	3.500	10.000	12.000	6.719	31.11
5 ¹ / ₂	TW 0.625	S	IEU	5 ¹ / ₂ FH	5.500	0.625	5.688	7.250	3.125	10.000	12.000	6.719	36.67
5 ¹ / ₂	TW 0.750	S	IEU	5 ¹ / ₂ FH	5.500	0.750	5.688	7.500	3.000	10.000	12.000	7.094	42.24
5 ⁷ / ₈	23.40	E	IEU	5 ¹ / ₂ FH	5.875	0.361	6.000	7.000	4.000	10.000	12.000	6.719	25.40
5 ⁷ / ₈	23.40	X	IEU	5 ¹ / ₂ FH	5.875	0.361	6.000	7.250	3.500	10.000	12.000	6.719	26.44
5 ⁷ / ₈	23.40	G	IEU	5 ¹ / ₂ FH	5.875	0.361	6.000	7.250	3.500	10.000	12.000	6.719	26.44
5 ⁷ / ₈	23.40	S	IEU	5 ¹ / ₂ FH	5.875	0.361	6.000	7.250	3.000	10.000	12.000	6.719	26.88
5 ⁷ / ₈	26.30	E	IEU	5 ¹ / ₂ FH	5.875	0.415	6.000	7.000	3.250	10.000	12.000	6.719	28.80
5 ⁷ / ₈	26.30	X, G	IEU	5 ¹ / ₂ FH	5.875	0.415	6.000	7.250	3.500	10.000	12.000	6.719	29.10
5 ⁷ / ₈	26.30	S	IEU	5 ¹ / ₂ FH	5.875	0.415	6.000	7.500	3.250	10.000	12.000	7.094	29.89
5 ⁷ / ₈	34.21	S	IEU	5 ¹ / ₂ FH	5.875	0.625	6.000	7.500	3.000	10.000	12.000	7.094	40.13

Drill Pipe - Main Dimensions and Mass

Designations ^a					Pipe Body OD	Pipe Wall Thickness	Drill Pipe Weld Neck	Tool Joint				RSC Bevel Diameter	Approx, Mass ^c
								OD	Pin ID	Pin OD Length	Box OD Length		
Label 1	Label 2	Grade	Upset Type	RSC Type ^d	D_{dp} in.	t in.	D_{te} ^b in.	D in.	d_p in.	L_{pb} in.	L_b in.	D_f in.	w_{dp} lb/ft
					see Table C.2	−12.5 %	max	±0.031	+0.016 −0.031	±0.250	±0.250	±0.016	calculated
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Internal-external Upset (Continued)													
5 ⁷ / ₈	41.05	S	IEU	5 ¹ / ₂ FH	5.875	0.750	6.000	7.500	3.000	10.000	12.000	7.094	45.54
5 ⁷ / ₈	TW 0.813	S	IEU	5 ¹ / ₂ FH	5.875	0.813	6.000	7.500	3.000	10.000	12.000	7.094	48.51
6 ⁵ / ₈	25.20	E	IEU	6 ⁵ / ₈ FH	6.625	0.330	6.938	8.000	5.000	10.000	13.000	7.703	27.49
6 ⁵ / ₈	25.20	X	IEU	6 ⁵ / ₈ FH	6.625	0.330	6.938	8.000	5.000	10.000	13.000	7.703	27.49
6 ⁵ / ₈	25.20	G	IEU	6 ⁵ / ₈ FH	6.625	0.330	6.938	8.250	4.750	10.000	13.000	7.703	28.45
6 ⁵ / ₈	25.20	S	IEU	6 ⁵ / ₈ FH	6.625	0.330	6.938	8.500	4.250	10.000	13.000	7.703	29.74
6 ⁵ / ₈	27.70	E	IEU	6 ⁵ / ₈ FH	6.625	0.362	6.938	8.000	5.000	10.000	13.000	7.703	29.32
6 ⁵ / ₈	27.70	X, G	IEU	6 ⁵ / ₈ FH	6.625	0.362	6.938	8.250	4.750	10.000	13.000	7.703	30.28
6 ⁵ / ₈	27.70	S	IEU	6 ⁵ / ₈ FH	6.625	0.362	6.938	8.500	4.250	10.000	13.000	7.703	31.56
6 ⁵ / ₈	TW 0.522	S	IEU	6 ⁵ / ₈ FH	6.625	0.522	6.938	8.500	4.250	10.000	13.000	7.703	38.53
6 ⁵ / ₈	TW 0.625	S	IEU	6 ⁵ / ₈ FH	6.625	0.625	6.938	8.500	4.250	10.000	13.000	7.703	45.17
6 ⁵ / ₈	TW 0.750	S	IEU	6 ⁵ / ₈ FH	6.625	0.750	6.938	8.500	4.250	10.000	13.000	7.703	52.39
6 ⁵ / ₈	TW 0.813	S	IEU	6 ⁵ / ₈ FH	6.625	0.813	6.938	8.500	4.250	10.000	13.000	7.703	55.88

^a Designations are shown for identification in ordering.

^b D_{te} is held to a maximum to ensure fit with elevator.

^c These values have been based on a drill pipe body length of 29.4 ft and are provided for information only; for other lengths, see API 7G for the method of calculation.

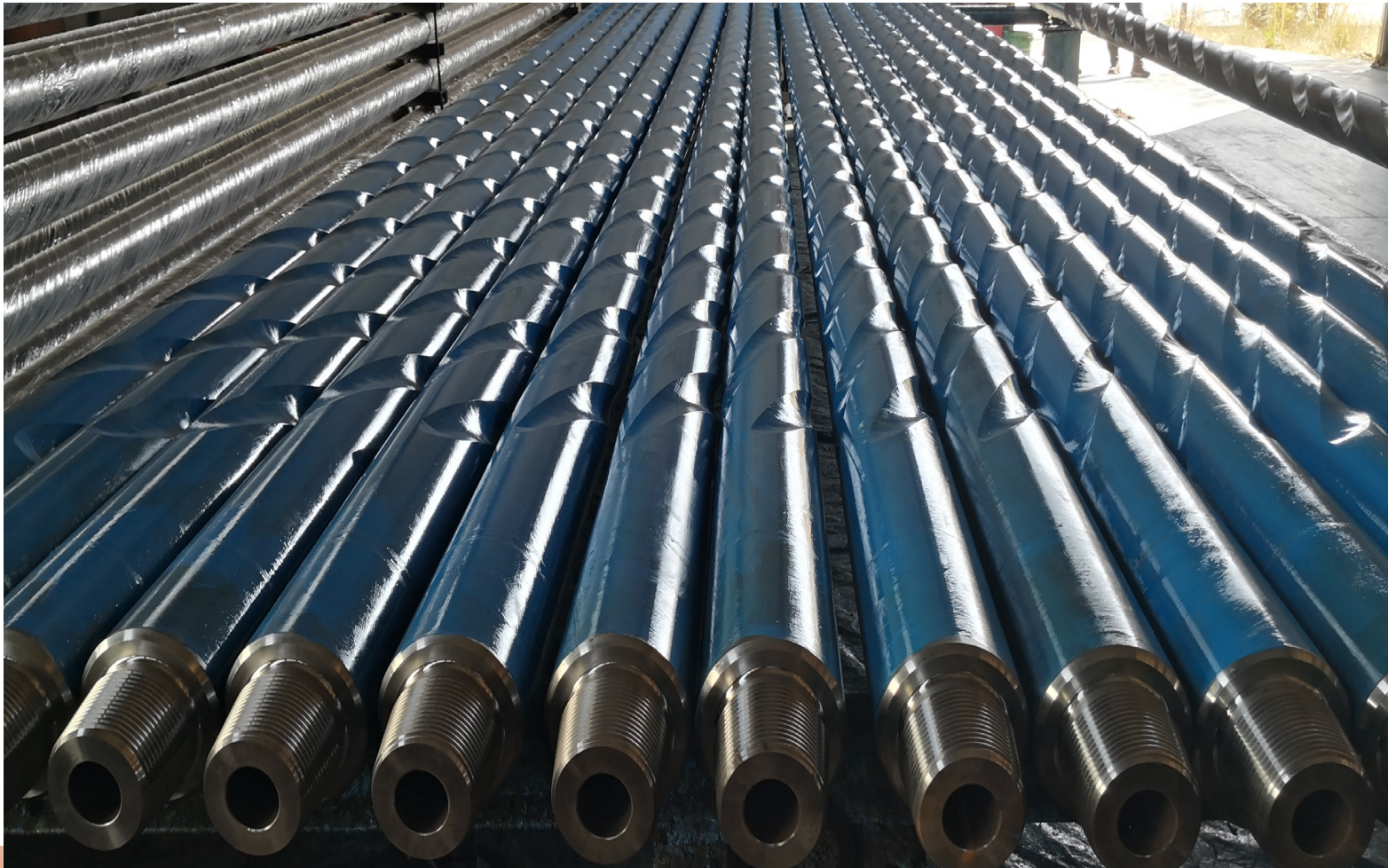
^d The RSC type indicates the size and style of the applicable RSC.



Drill Collar

Drill collar is mainly used to provide bit weight to drill bit so that drill pipe is in tension.especially drill collar can keep drill bit centralized and hole track by large rigidity.drill collar are manufactured strictly API 7-1 standard

Connection Style and Size	OD		ID		Length mm	D _F mm	Bending ratio
	mm	in	mm	in			
NC23	79.4	3 1/8	31.8	1 1/4	9150	76.2	2.57:1
NC26	88.9	3 1/2	38.1	1 1/2	9150	82.9	2.42:1
NC31	104.8	4 1/8	50.8	2	9150 or 9450	100.4	2.43:1
NC35	120.7	4 3/4	50.8	2	9150 or 9450	114.7	2.58:1
NC38	127	5	57.2	2 1/4	9150 or 9450	121	2.38:1
NC44	152.4	6	57.2	2 1/4	9150 or 9450	144.5	2.49:1
NC44	152.4	6	71.4	2 13/16	9150 or 9450	144.5	2.84:1
NC44	158.8	6 1/4	57.2	2 1/4	9150 or 9450	149.2	2.91:1
NC46	158.8	6 1/4	71.4	2 13/16	9150 or 9450	150	2.63:1
NC46	165.1	6 1/2	57.2	2 1/4	9150 or 9450	154.8	2.76:1
NC46	165.1	6 1/2	71.4	2 13/16	9150 or 9450	154.8	3.05:1
NC46	171.4	6 3/4	57.2	2 1/4	9150 or 9450	159.5	3.18:1
NC50	171.4	6 3/4	71.4	2 13/16	9150 or 9450	159.5	2.37:1
NC50	177.8	7	57.2	2 1/4	9150 or 9450	164.7	2.54:1
NC50	177.8	7	71.4	2 13/16	9150 or 9450	164.7	2.73:1
NC50	184.2	7 1/4	71.4	2 13/16	9150 or 9450	169.5	3.12:1
NC56	196.8	7 3/4	71.4	2 13/16	9150 or 9450	185.3	2.70:1
NC56	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	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	247.6	9 3/4	76.2	3	9150 or 9450	232.6	2.57:1
NC70	254	10	76.2	3	9150 or 9450	237.3	2.81:1
8 5/8REG	279.4	11	76.2	3	9150 or 9450	266.7	2.84:1



Our Products



INDUSTRIAL AND ENGINEERING TECHNOLOGY Co., Limited
Add: 8 Floor, China Hong Kong Tower, 8-12 Hennessy Road, Wan
Chai, Hong Kong

International Contact Hong Kong

WhatsApp / WeChat:

+852 5473 6914

E-mail: business@iet-hongkong.com

