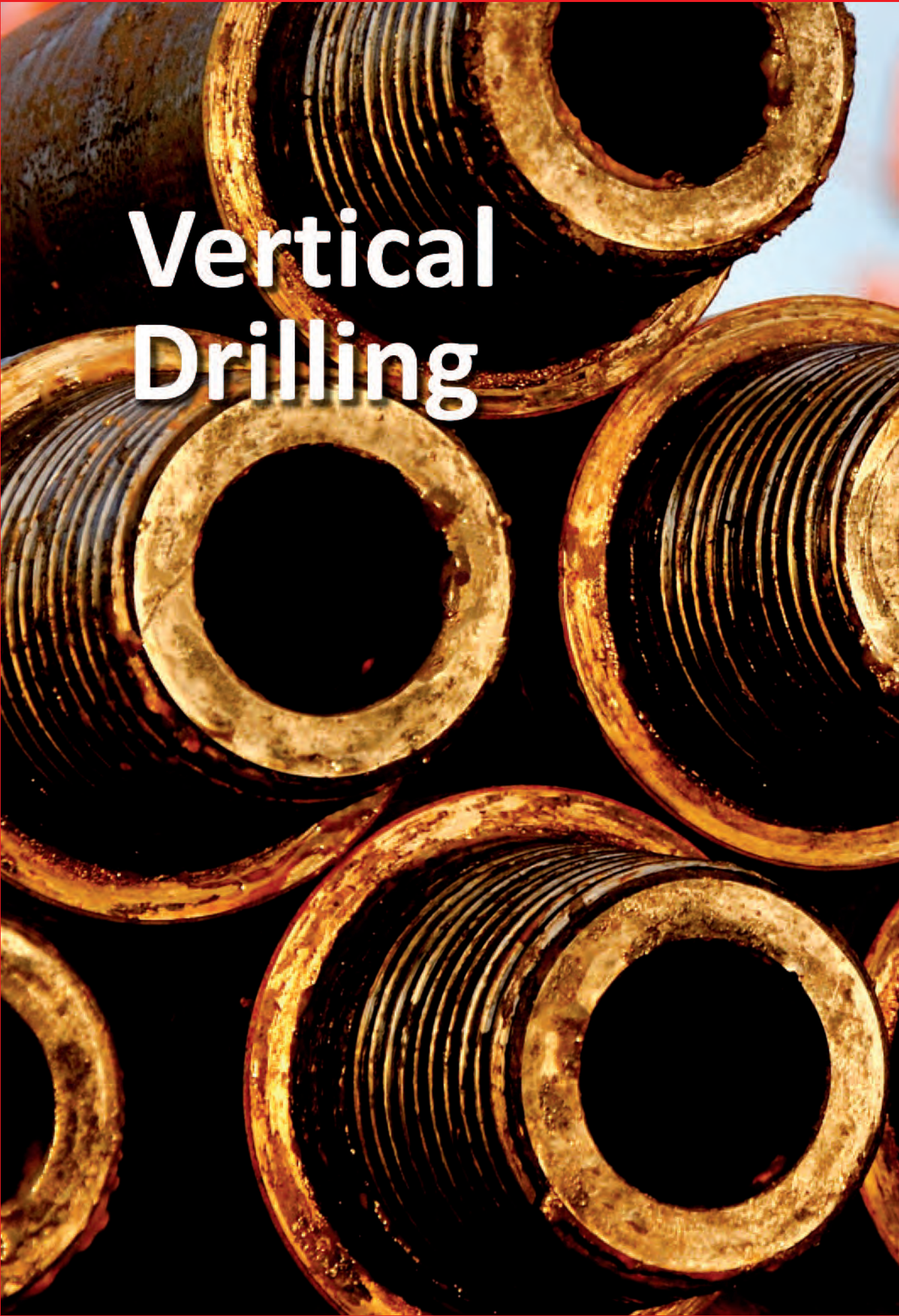
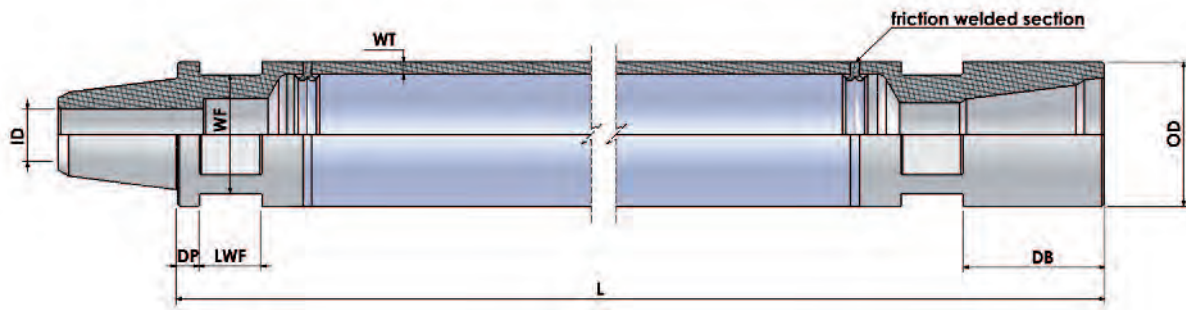






Vertical Drilling

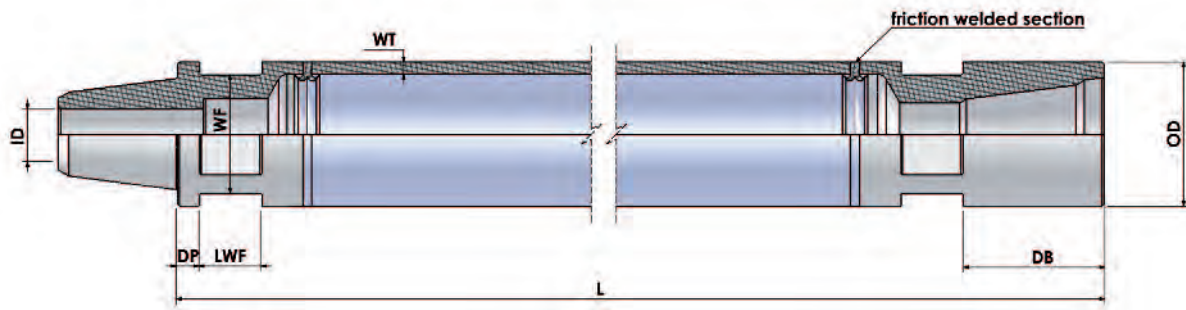


FRICTION WELDED DRILL PIPE API THREAD

UNDER FATIGUE
SAFETY CONDITIONS

OD	WT	connection	Lenght	WEIGHT (each)	ID	WRANCH FLATS					Grade	Max Torque (WITHOUT Pullback)	Max Thrust Pullback (WITHOUT Torque)	CS
						n°	WF	LWF	DP	DB				
							mm							
mm	mm		mm	kg	mm							Nm	kN	
76,1	5	2 3/8 AR	1000	12	29	4	75	40	15,3	91,5	S - 135	7.718	452	PI
			1500	17										
			2000	21										
			3000	30										
			4500	44										
			6000	57										
	6,3		1000	14	29	4	75	40	15,3	91,5	S - 135	7.718	560	PI
			1500	20										
			2000	25										
			3000	36										
			4500	53										
			6000	70										
88,9	5	2 3/8 AR	1000	16	29	4	75	40	17,8	94	S - 135	7.718	534	PI
			1500	21										
			2000	27										
			3000	37										
			4500	53										
			6000	69										
	6,3		1000	19	29	4	75	40	17,8	94	S - 135	7.718	662	PI
			1500	24,5										
			2000	31										
			3000	44										
			4500	64										
			6000	84										
88,9	5	2 3/8 IF	1000	17	38	4	75	40	17,8	94	S - 135	11.163	534	PI
			1500	22										
			2000	28										
			3000	38										
			4500	54										
			6000	70										
	6,3		1000	18,5	38	4	75	40	17,8	94	S - 135	11.163	662	PI
			1500	25										
			2000	32										
			3000	45										
			4500	64,5										
			6000	84										

FRICTION WELDED DRILL PIPE API THREAD												UNDER FATIQUE SAFETY CONDITIONS			
OD	WT	connection	Lenght	WEIGHT <i>(each)</i>	ID	WRANCH FLATS					Grade	Max Torque (WITHOUT Pullback)	Max Thrust Pullback (WITHOUT Torque)	CS	
						n°	WF	LWF	DP	DB					
mm	mm		mm	kg	mm		mm						Nm	kN	
88,9	5	2 7/8 AR	1000	17	32	4	75	40	13,1	102	S - 135	12.244	534	II	
			1500	22											
			2000	28											
			3000	38											
			4500	54											
			6000	70											
	6,3		1000	19	32	4	75	40	13,1	102	S - 135	13.259	662	PI	
			1500	26											
			2000	32											
			3000	45											
			4500	64,5											
			6000	84											
101,6	6,3	2 7/8 AR	1000	24	32	4	90	40	13,1	102	S - 135	13.259	764	PI	
			1500	32											
			2000	39											
			3000	54											
			4000	70											
			4500	77											
			5000	85											
			6000	100											
	8,8		1000	28	32	4	90	40	13,1	102	S - 135	13.259	1.039	PI	
			1500	38											
			2000	49											
			3000	69											
			4000	90											
			4500	100											
			5000	110											
			6000	131											

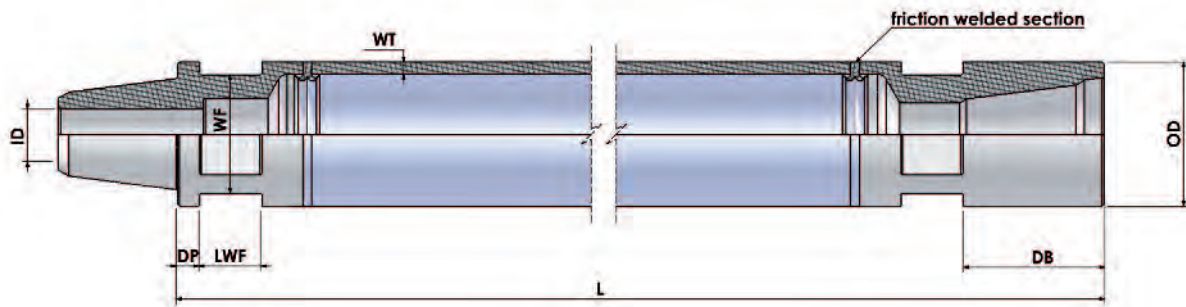


FRICTION WELDED DRILL PIPE API THREAD

UNDER FATIGUE
SAFETY CONDITIONS

OD	WT	connection	Lenght	WEIGHT (each)	ID	WRANCH FLATS					Grade	Max Torque (WITHOUT Pullback)	Max Thrust Pullback (WITHOUT Torque)	CS
						n°	WF	LWF	DP	DB				
mm	mm		mm	kg	mm	mm					Nm	kN		
101,6	6,3	2 7/8 IF	1000	24	44	4	90	40	25	114	S - 135	19.799	764	PI I
			1500	32										
			2000	39										
			3000	54										
			4000	70										
			4500	77										
			5000	85										
			6000	100										
	8,8		1000	28	44	4	90	40	25	114	S - 135	20.154	1.039	PI
			1500	38										
			2000	49										
			3000	69										
			4000	90										
			4500	100										
			5000	110										
			6000	131										
114,3	6,3	3 1/2 AR	1000	29	38	4	75	40	14,75	110	S - 135	22.655	866	PI
			1500	38										
			2000	46,5										
			3000	64										
			4500	90										
			6000	116										
	8		1000	32,3	38	4	90	40	14,75	110	S - 135	22.655	1.082	PI
			1500	43										
			2000	54										
			3000	75,3										
			4500	107,5										
			6000	140										

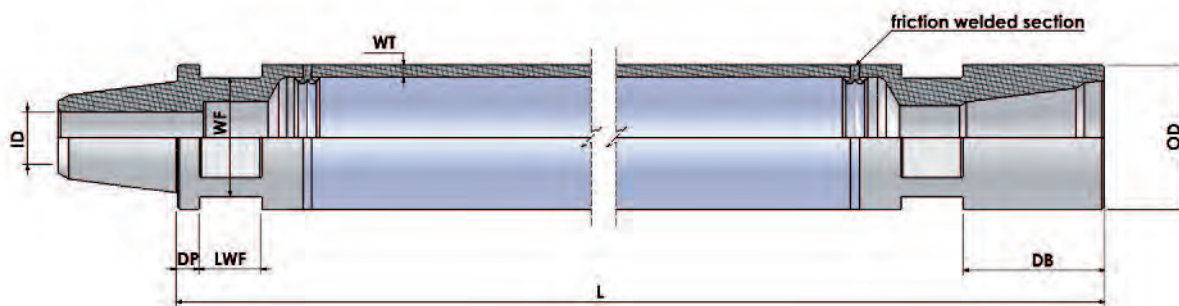
FRICTION WELDED DRILL PIPE API THREAD												UNDER FATIQUE SAFETY CONDITIONS			
OD	WT	connection	Lenght	WEIGHT <i>(each)</i>	ID	WRANCH FLATS					Grade	Max Torque (WITHOUT Pullback)	Max Thrust Pullback (WITHOUT Torque)	CS	
						n°	WF	LWF	DP	DB					
<i>mm</i>	<i>mm</i>		<i>mm</i>	<i>kg</i>	<i>mm</i>		<i>mm</i>						<i>Nm</i>	<i>kN</i>	
114,3	6,3	3 1/2 IF	1000	25	65	4	90	40	18,4	110	S - 135	25.589	866	II	
			1500	34											
			2000	43											
			3000	60											
			4500	86											
			6000	112											
	8		1000	28,5	65	4	90	40	18,4	120	S - 135	31.054	1.082	PI	
			1500	39											
			2000	50											
			3000	71,5											
			4500	104											
			6000	136											
127	6,3	3 1/2 IF	1000	32,3	65	4	105	40	23	125	S - 135	30.672	968	PI	
			1500	41,6											
			2000	50,9											
			3000	69,7											
			4500	98											
			6000	126											
	8,0		1000	37	65	4	105	40	23	125	S - 135	30.672	1.211	PI	
			1500	49											
			2000	61											
			3000	85											
			4500	121											
			6000	154											
139,7	6,3	4 1/2 AR	1000	38,6	60	4	120	40	17	125	S - 135	39.409	1.069	II	
			1500	49											
			2000	59,4											
			3000	80,1											
			4500	111											
			6000	142,2											
	8,0		1000	45	60	4	120	40	17	125	S - 135	48.224	1.341	II	
			1500	59											
			2000	73											
			3000	100											
			4500	140											
			6000	185											



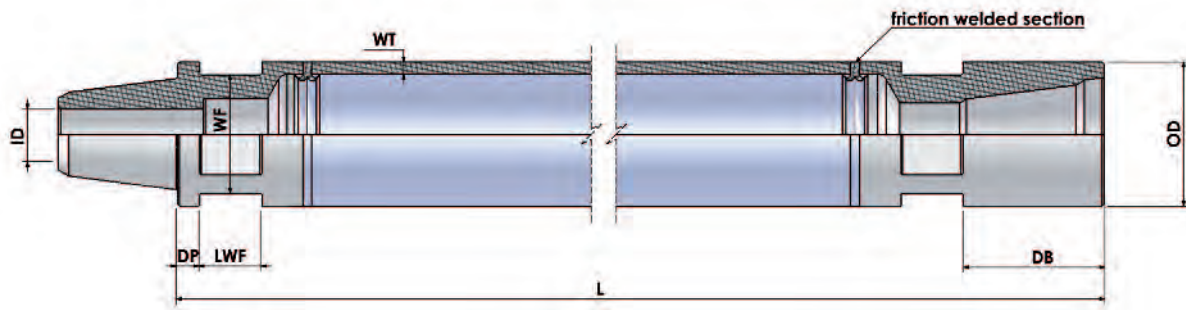
FRICTION WELDED DRILL PIPE API THREAD

UNDER FATIGUE
SAFETY CONDITIONS

OD	WT	connection	Lenght	WEIGHT (each)	ID	WRANCH FLATS					Grade	Max Torque (WITHOUT Pullback)	Max Thrust Pullback (WITHOUT Torque)	CS
						n°	WF	LWF	DP	DB				
mm	mm		mm	kg	mm							Nm	kN	
139,7	6,3	4 FH	1000	38,6	50,8	4	120	40	21	135	S - 135	39.409	1.069	II
			1500	49										
			2000	59,4										
			3000	80,1										
			4500	111										
			6000	142,2										
	8,0		1000	45	50,8	4	120	40	21	135	S - 135	46.528	1.341	PI
			1500	59										
			2000	73										
			3000	100										
			4500	140										
			6000	185										
152,4	8,8	4 1/2 IF	1500	81	60	2	130	40	20	138	N - 80	48.259	1.231	II
			2000	98										
			3000	130										
			4000	165										
			4500	180										
			5000	196										
			6000	226										
	8,8	4 IF	1500	81	70	2	130	40	26	140	N - 80	48.259	1.231	II
			2000	98										
			3000	130										
			4000	165										
			4500	180										
			5000	196										
			6000	226										
	8,8	4 1/2 IF	1500	81	89	2	130	40	26	140	N - 80	48.259	1.231	II
			2000	98										
			3000	130										
			4000	165										
			4500	180										
			5000	196										
			6000	226										



FRICTION WELDED DRILL PIPE API THREAD												UNDER FATIGUE SAFETY CONDITIONS		
OD	WT	connection	Lenght	WEIGHT <i>(each)</i>	ID	WRANCH FLATS					Grade	Max Torque (WITHOUT Pullback)	Max Thrust Pullback (WITHOUT Torque)	CS
<i>mm</i>	<i>mm</i>		<i>mm</i>	<i>kg</i>	<i>mm</i>	n°	WF	LWF	DP	DB				
168,3	8,8	4 1/2 AR	1500	92	60	2	145	50	30	138	N - 80	55.216	1.367	PI
			2000	107										
			3000	140										
			4000	172										
			4500	182										
			5000	203										
			6000	235										
	8,8	4 1/2 IF	1500	92	89	2	145	50	24	138	N - 80	59.840	1.367	II
			2000	107										
			3000	140										
			4000	172										
			4500	182										
			5000	203										
			6000	235										
177,8	8,8	4 1/2 IF	1500	98	89	2	160	50	24	138	N - 80	67.356	1.449	II
			2000	115										
			3000	150										
			4000	182										
			5000	216										
			6000	25										
	8,8	6 5/8 AR	1500	98	100	2	160	50	30	157	N - 80	67.356	1.449	II
			2000	115										
			3000	150										
			4000	182										
			5000	216										
			6000	252										

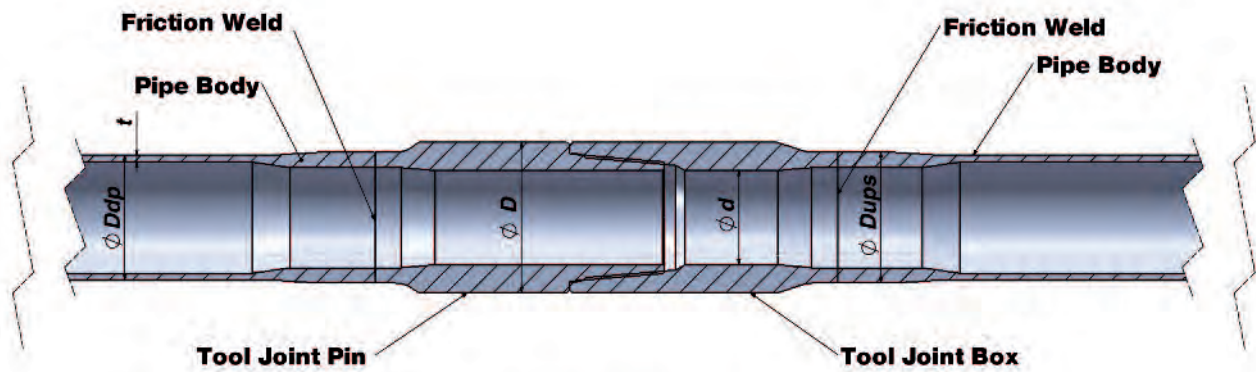


FRICTION WELDED DRILL PIPE API THREAD

UNDER FATIGUE
SAFETY CONDITIONS

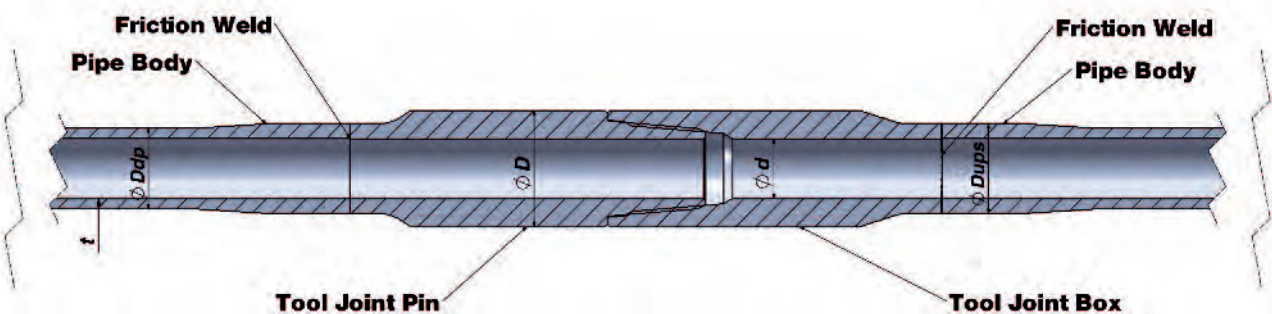
OD	WT	connection	Lenght	WEIGHT (each)	ID	WRANCH FLATS					Grade	Max Torque (WITHOUT Pullback)	Max Thrust Pullback (WITHOUT Torque)	CS
						n°	WF	LWF	DP	DB				
mm	mm		mm	kg	mm	mm					Nm	kN		
193,7	8,8	4 1/2 AR	1500	125	60	2	170	50	30	138	N - 80	55.216	1.585	PI
			2000	150										
			3000	180										
			4000	220										
			5000	260										
			6000	300										
	8,8	6 5/8 AR	1500	125	100	2	170	50	30	157	N - 80	80.935	1.585	II
			2000	150										
			3000	180										
			4000	220										
			5000	260										
			6000	300										
203,2	8,8	6 5/8 AR	1500	132	100	2	180	50	30	157	N - 80	89.648	1.666	II
			2000	160										
			3000	195										
			4000	238										
			5000	287										
			6000	329										
219	8,8	6 5/8 AR	1500	140	100	2	190	50	30	175	N - 80	105.121	1.802	II
			2000	160										
			3000	208										
			4000	253										
			5000	299										
			6000	344										





**Drill Pipe IEU
(Internal and External Upset)**

DRILL PIPE IEU



**Drill Pipe EU
(External Upset)**

DRILL PIPE EU

CODE						Outside Diameter Tube OD.	Wall thickness tube	Outside Diameter upset area Dte	Welding wall thickness	Tool Joint			
Label 1	Label 2	Grade	Upset type	RSC type	RSC type	mm	mm	mm	mm	OD	Pin ID	Pin OD length	Box OD length
2 3/8	6,65	E	EU	NC26	2 3/8 IF	60,325	7,11	65,10	10,30	85,7	44,5	177,8	203,2
2 3/8	6,65	X,G	EU	NC26	2 3/8 IF	60,325	7,11	65,10	10,30	87,5	44,5	177,8	203,2
2 7/8	10,40	E	EU	NC31	2 7/8 IF	73,025	9,19	81,00	13,50	104,8	54	177,8	228,6
2 7/8	10,40	X,G	EU	NC31	2 7/8 IF	73,025	9,19	81,00	15,10	104,8	50,8	177,8	228,6
2 7/8	10,40	S	EU	NC31	2 7/8 IF	73,025	9,19	81,00	15,89	111,1	41,3	177,8	228,6
3 1/2	9,50	E	EU	NC38	3 1/2 IF	88,900	6,45	98,40	15,05	120,7	68,3	203,2	266,7
3 1/2	13,30	E	EU	NC38	3 1/2 IF	88,900	9,35	98,40	15,05	120,7	68,3	203,2	266,7
3 1/2	13,30	X	EU	NC38	3 1/2 IF	88,900	9,35	98,40	16,65	127	65,1	203,2	266,7
3 1/2	13,30	G	EU	NC38	3 1/2 IF	88,900	9,35	98,40	18,25	127	61,9	203,2	266,7
3 1/2	13,30	S	EU	NC38	3 1/2 IF	88,900	9,35	98,40	22,20	127	54	203,2	266,7
3 1/2	15,50	E	EU	NC38	3 1/2 IF	88,900	11,40	98,40	16,65	127	65,1	203,2	266,7
3 1/2	15,50	X	EU	NC38	3 1/2 IF	88,900	11,40	98,40	18,25	127	61,9	203,2	266,7
3 1/2	15,50	G	EU	NC38	3 1/2 IF	88,900	11,40	98,40	22,20	127	54	203,2	266,7
3 1/2	15,50	S	EU	NC40	4 FH	88,900	11,40	98,40	20,60	139,7	57,2	203,2	266,7
4	14,00	E	EU	NC46	4 IF	101,600	8,38	114,30	15,85	152,4	82,6	177,8	254
4	14,00	X,G	EU	NC46	4 IF	101,600	8,38	114,30	15,85	152,4	82,6	177,8	254
4	14,00	S	EU	NC46	4 IF	101,600	8,38	114,30	19,05	152,4	76,2	177,8	254
4 1/2	13,75	E	EU	NC50	4 1/2 IF	114,300	6,88	127,00	15,85	168,3	95,3	177,8	254
4 1/2	16,60	E	EU	NC50	4 1/2 IF	114,300	8,56	127,00	15,85	168,3	95,3	177,8	254
4 1/2	16,60	X,G	EU	NC50	4 1/2 IF	114,300	8,56	127,00	15,85	168,3	95,3	177,8	254
4 1/2	16,60	S	EU	NC50	4 1/2 IF	114,300	8,56	127,00	19,05	168,3	88,9	177,8	254
4 1/2	20,00	E	EU	NC50	4 1/2 IF	114,300	10,92	127,00	17,45	168,3	92,1	177,8	254
4 1/2	20,00	X,G	EU	NC50	4 1/2 IF	114,300	10,92	127,00	19,05	168,3	88,9	177,8	254
4 1/2	20,00	S	EU	NC50	4 1/2 IF	114,300	10,92	127,00	25,40	168,3	76,2	177,8	254
4 1/2	16,60	E	IEU	N46	4 IF	114,300	8,56	127,00	22,20	158,8	82,6	177,8	254
4 1/2	16,60	X,G	IEU	NC46	4 IF	114,300	8,56	119,10	21,45	158,8	76,2	177,8	254
4 1/2	16,60	S	IEU	NC46	4 IF	114,300	8,56	119,10	23,04	158,8	69,9	177,8	254
4 1/2	20,00	E	IEU	NC46	4 IF	114,300	10,92	119,10	21,45	158,8	76,2	177,8	254
4 1/2	20,00	X	IEU	NC46	4 IF	114,300	10,92	119,10	24,60	158,8	69,9	177,8	254
4 1/2	20,00	G	IEU	NC46	4 IF	114,300	10,92	119,10	27,80	158,8	63,5	177,8	254
4 1/2	20,00	S	IEU	NC 46	4 IF	114,300	10,92	119,10	30,95	158,8	57,2	177,8	254

CODE						Outside Diameter Tube OD.	Wall thickness tube	Outside Diameter upset area Dte	Welding wall thickness	Tool Joint			
Label 1	Label 2	Grade	Upset type	RSC type	RSC type					OD	Pin ID	Pin OD length	Box OD length
mm	mm					mm	mm	mm	mm	mm	mm	mm	mm
5	19,50	E	IEU	NC50	4 1/2 IF	127,000	9,19	130,20	17,45	168,3	95,3	177,8	254
5	19,50	X	IEU	NC50	4 1/2 IF	127,000	9,19	130,20	20,65	168,3	88,9	177,8	254
5	19,50	G	IEU	NC50	4 1/2 IF	127,000	9,19	130,20	19,87	168,3	82,6	177,8	254
5	19,50	S	IEU	NC50	4 1/2 IF	127,000	9,19	130,20	19,87	168,3	69,9	177,8	254
5	19,50	E	IEU	5 1/2 FH	51/2 FH	127,000	9,19	130,20	17,45	177,8	95,3	203,2	254
5	19,50	X,G	IEU	5 1/2 FH	51/2 FH	127,000	9,19	130,20	17,45	177,8	95,3	203,2	254
5	19,50	S	IEU	5 1/2 FH	51/2 FH	127,000	9,19	130,20	20,65	184,2	88,9	203,2	254
5	25,60	E	IEU	NC50	4 1/2 IF	127,000	12,70	130,20	20,65	168,3	88,9	177,8	254
5	25,60	X	IEU	NC50	4 1/2 IF	127,000	12,70	130,20	27,00	168,3	76,2	177,8	254
5	25,60	G	IEU	NC50	4 1/2 IF	127,000	12,70	130,20	30,15	168,3	69,9	177,8	254
5	25,60	E	IEU	5 1/2 FH	51/2 FH	127,000	12,70	130,20	20,65	177,8	88,9	203,2	254
5	25,60	X	IEU	5 1/2 FH	51/2 FH	127,000	12,70	130,20	20,65	177,8	88,9	203,2	254
5	25,60	G	IEU	5 1/2 FH	51/2 FH	127,000	12,70	130,20	20,65	184,2	88,9	203,2	254
5	25,60	S	IEU	5 1/2 FH	51/2 FH	127,000	12,70	130,20	23,80	184,2	82,6	203,2	254
5 1/2	21,90	E	IEU	5 1/2 FH	51/2 FH	139,700	9,17	144,50	21,45	177,8	101,6	203,2	254
5 1/2	21,90	X	IEU	5 1/2 FH	51/2 FH	139,700	9,17	144,50	24,60	177,8	95,3	203,2	254
5 1/2	21,90	G	IEU	5 1/2 FH	51/2 FH	139,700	9,17	144,50	27,80	184,2	88,9	203,2	254
5 1/2	21,90	S	IEU	5 1/2 FH	51/2 FH	139,700	9,17	144,50	34,15	190,5	76,2	203,2	254
5 1/2	24,70	E	IEU	5 1/2 FH	51/2 FH	139,700	10,54	144,50	21,45	177,8	101,6	203,2	254
5 1/2	24,70	X,G	IEU	5 1/2 FH	51/2 FH	139,700	10,54	144,50	27,80	184,2	88,9	203,2	254
5 1/2	24,70	S	IEU	5 1/2 FH	51/2 FH	139,700	10,54	144,50	34,15	190,5	76,2	203,2	254
6 5/8	25,20	E	IEU	6 5/8 FH	6 5/8 FH	168,275	8,38	176,20	24,60	203,2	127	203,2	279,4
6 5/8	25,20	X	IEU	6 5/8 FH	6 5/8 FH	168,275	8,38	176,20	24,60	203,2	127	203,2	279,4
6 5/8	25,20	G	IEU	6 5/8 FH	6 5/8 FH	168,275	8,38	176,20	27,75	209,6	120,7	203,2	279,4
6 5/8	25,20	S	IEU	6 5/8 FH	6 5/8 FH	168,275	8,38	176,20	34,10	215,9	108	203,2	279,4
6 5/8	27,70	E	IEU	6 5/8 FH	6 5/8 FH	168,275	9,19	176,20	24,60	203,2	127	203,2	279,4
6 5/8	27,70	X,G	IEU	6 5/8 FH	6 5/8 FH	168,275	9,19	176,20	20,60	209,6	120,7	203,2	279,4
6 5/8	27,70	S	IEU	6 5/8 FH	6 5/8 FH	168,275	9,19	176,20	34,10	215,9	108	203,2	279,4
4	14,00	E	IU	NC40	4 FH	101,600	8,38	106,40	17,50	133,4	71,4	177,8	254
4	14,00	X	IU	NC40	4 FH	101,600	8,38	106,40	19,05	133,4	68,3	177,8	254
4	14,00	G	IU	NC40	4 FH	101,600	8,38	106,40	22,25	139,7	61,9	177,8	254
4	14,00	S	IU	NC40	4 FH	101,600	8,38	106,40	27,80	139,7	50,8	177,8	254
4 1/2	13,75	E	IU	NC46	4 IF	114,300	6,88	119,10	16,70	152,4	85,7	177,8	254

API (Licensing and Certification) Program

12291, Towns, WV
 Monday - FR 8:00AM-4:00PM
 USA
 Telephone: 202.962.4911
 Fax: 202.962.4870
 Email: api@api.org
www.api.org

IDT INTERNATIONAL DRILLING TOOLS
 Via Dei Bucaneve- Zona ASI
 Modugno, Bari 70026
 Italy

March 28, 2012

ATTENTION: Simona Introna

RE: API MONOGRAM LICENSE NO. SDP-0180
 API MONOGRAM LICENSE NO. 7-1-0963
 APIQR REGISTRATION NO. 1561 FOR ISO 9001:2008
 APIQR REGISTRATION NO. Q1-1385 FOR API SPEC Q1
 APIQR REGISTRATION NO. TS-1279 FOR ISO/TS 29001

We have completed our review of your quality program and found it acceptable.

You may apply the API Monogram and APIQR Marks in accordance with marking requirements as stated in the API License Agreements/APIQR Registration Agreements.

IDT INTERNATIONAL DRILLING TOOLS, Via Dei Bucaneve- Zona ASI, Modugno, Bari 70026, Italy will be listed on the [API Composite List Website](http://API.CompositeList.Website).

Very truly yours,

AMERICAN PETROLEUM INSTITUTE

W. De Wittaker
 W. De Wittaker
 Manager - Monogram Program/APIQR
 DW/kr

Facility ID: TMS

API is an equal opportunity employer.

API QMS REGISTERED

Certificate of Registration

1561

This certifies that the quality management system of
IDT INTERNATIONAL DRILLING TOOLS
 Via Dei Bucaneve- Zona ASI
 Modugno, Bari
 Italy

has been assessed by the American Petroleum Institute-Quality Register (APIQR) and
 found it to be in compliance with the following standard:

ISO 9001:2008

The scope of the certification and the approved quality management system applies to the
 Manufacture of Tool Joints, Drill Pipes and Drill Stem Submersibles
 for the Oil and Gas Industry.

APIQR approves the registration, certification, and certification
 Section 7.3, Design and Development; Section 7.5.4,
 Customer Property.

Effective Date: March 28, 2012
 Expiration Date: March 28, 2015
 Registration Since: March 28, 2012

W. De Wittaker
 Manager of Registrations, APIQR

API QUALITY REGISTER

API REGISTRATION NO. TS-1279

Certificate of Registration

The American Petroleum Institute (API) certifies that the quality management system of
IDT INTERNATIONAL DRILLING TOOLS
 Via Dei Bucaneve- Zona ASI
 Modugno, Bari
 Italy

has been assessed by the American Petroleum Institute and found it to be in compliance
 with the following:

ISO/TS 29001

The scope of this registration and the approved quality management system applies to the
 Manufacture of Tool Joints, Drill Pipes and Drill Stem Submersibles
 for the Oil and Gas Industry.

API approves the registration, certification, and certification
 Section 7.3, Design and Development; Section 7.5.4,
 Customer Property.

Effective Date: March 28, 2012
 Expiration Date: March 28, 2015
 Registration Since: March 28, 2012

W. De Wittaker
 Manager of Registrations, APIQR

API ISO/TS 29001 Registered

API REGISTRATION NO. Q1-1385

Certificate of Registration

The American Petroleum Institute (API) certifies that the quality management system of
IDT INTERNATIONAL DRILLING TOOLS
 Via Dei Bucaneve- Zona ASI
 Modugno, Bari
 Italy

has been assessed by the American Petroleum Institute and found it to be in compliance
 with the following:

API Specification Q1

The scope of this registration and the approved quality management system applies to the
 Manufacture of Tool Joints, Drill Pipes and Drill Stem Submersibles
 for the Oil and Gas Industry.

API approves the registration, certification, and certification
 Section 7.3, Design and Development; Section 7.5.4,
 Customer Property.

Effective Date: March 28, 2012
 Expiration Date: March 28, 2015
 Registration Since: March 28, 2012

W. De Wittaker
 Manager of Registrations, APIQR

API Spec Q1 Registered

API LICENSE NUMBER: SDP-0180

Certificate of Authority to use the Official API Monogram

The American Petroleum Institute (API) certifies that the quality management system of
IDT INTERNATIONAL DRILLING TOOLS
 Via Dei Bucaneve- Zona ASI
 Modugno, Bari
 Italy

has been assessed by the American Petroleum Institute and found it to be in compliance
 with the following:

API Specification Q1

The scope of this registration and the approved quality management system applies to the
 Manufacture of Tool Joints, Drill Pipes and Drill Stem Submersibles
 for the Oil and Gas Industry.

API approves the registration, certification, and certification
 Section 7.3, Design and Development; Section 7.5.4,
 Customer Property.

Effective Date: March 28, 2012
 Expiration Date: March 28, 2015

To verify the authenticity of this license, go to www.api.org/monogram.

W. De Wittaker
 Manager of Registrations, APIQR

American Petroleum Institute

API LICENSE NUMBER: 7-1-0963

Certificate of Authority to use the Official API Monogram

The American Petroleum Institute (API) certifies that the quality management system of
IDT INTERNATIONAL DRILLING TOOLS
 Via Dei Bucaneve- Zona ASI
 Modugno, Bari
 Italy

has been assessed by the American Petroleum Institute and found it to be in compliance
 with the following:

API Specification Q1

The scope of this registration and the approved quality management system applies to the
 Manufacture of Tool Joints, Drill Pipes and Drill Stem Submersibles
 for the Oil and Gas Industry.

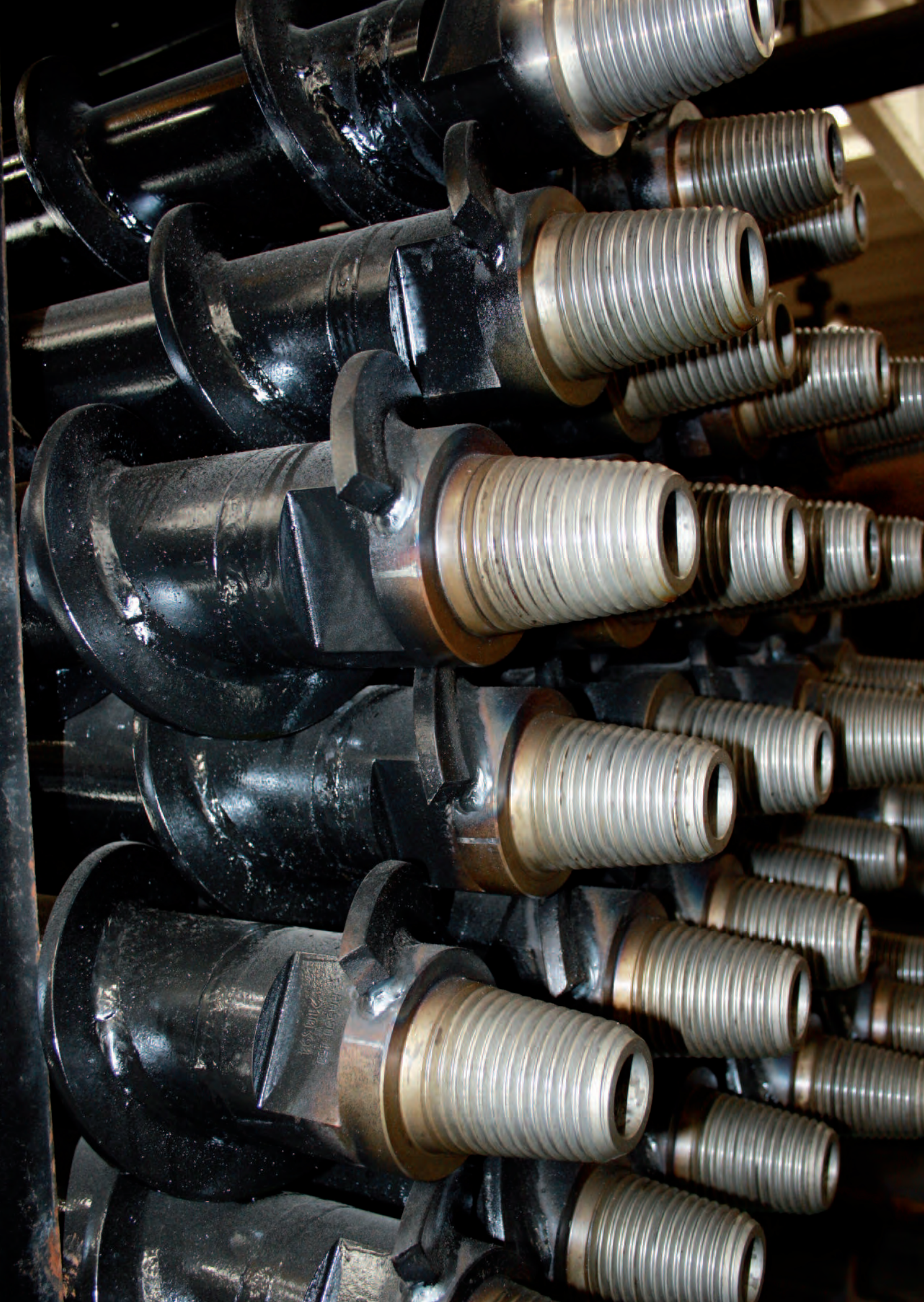
API approves the registration, certification, and certification
 Section 7.3, Design and Development; Section 7.5.4,
 Customer Property.

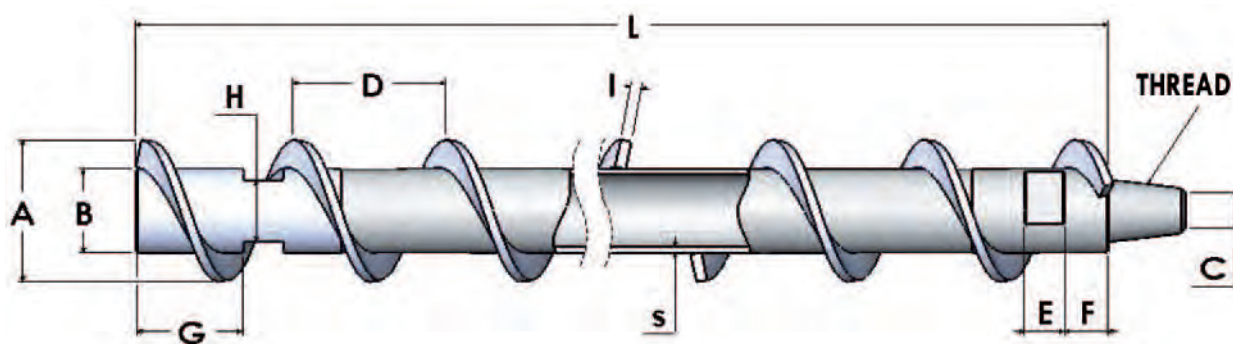
Effective Date: March 28, 2012
 Expiration Date: March 28, 2015

To verify the authenticity of this license, go to www.api.org/monogram.

W. De Wittaker
 Manager of Registrations, APIQR

American Petroleum Institute



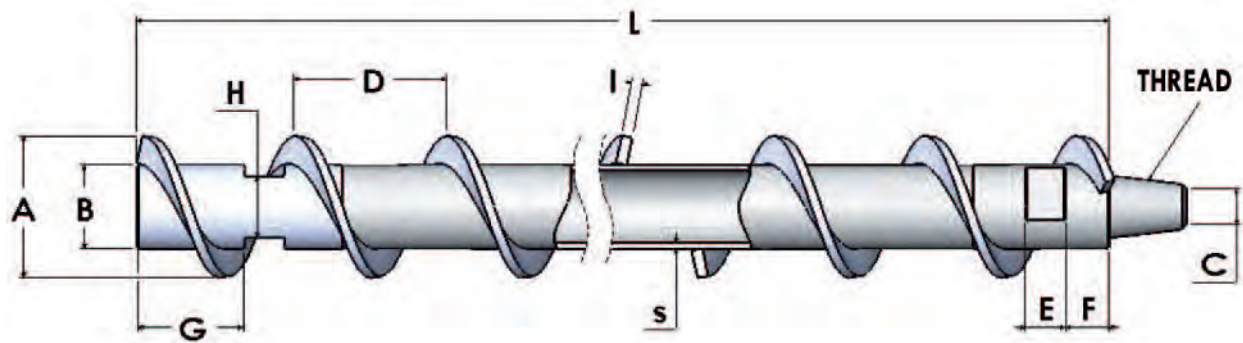


AUGERS WITH THREAD BWJ AND API 2 3/8 AR

A (mm)	L (mm)	B (mm)	THREAD	D (mm)	I (mm)	C (mm)	H (mm)	E (mm)	F (mm)	G (mm)	WEIGHT S=8 (Kg)			
											L			
											1000	1500	2000	3000
100	1000 - 3000	60	BWJ	100	8	22	50	32	20	80	15	20	27	38
120	1000 - 3000	76	2 3/8 AR	125	8	30	65	40	20	95	20	28	36	50
125				125	8						24	30	36	48
140				150	10						30	35	40	54
160				150	10						33	40	46	63
180				200	10						33	40	49	67
200				200	10						35	42	54	77
220				200	10						34	48	61	84

AUGERS WITH THREAD API 2 3/8 AR

A (mm)	L (mm)	B (mm)	THREAD	D (mm)	I (mm)	C (mm)	H (mm)	E (mm)	F (mm)	G (mm)	WEIGHT S=8 (Kg)			
											L			
											1000	1500	2000	3000
140	1000 - 3000	90	2 3/8 AR	150	10	30	65	40	20	111	30	38	47	64
150			2 3/8 AR	150	10						33	43	52	70
160			2 3/8 AR	150	10						35	45	55	74
180			2 3/8 AR	200	10						33	42	52	75
200			2 3/8 AR	200	10						35	45	64	82
220			2 3/8 AR	200	10						38	51	72	94
250			2 3/8 AR	250	10						46	61	78	106

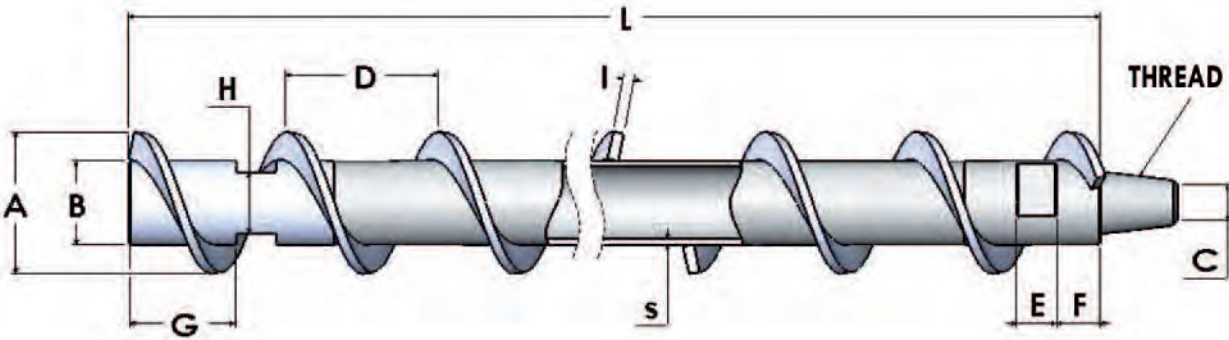


AUGERS WITH THREAD API 2 7/8 AR

A (mm)	L (mm)	B (mm)	THREAD	D (mm)	I (mm)	C (mm)	H (mm)	E (mm)	F (mm)	G (mm)	WEIGHT S=8 (Kg)			
											L			
											1000	1500	2000	3000
140	1000 - 3000	90	2 7/8 AR	150	10	30	65	40	20	111	30	38	47	64
150			2 7/8 AR	150	10						33	43	52	70
160			2 7/8 AR	150	10						35	45	55	74
180			2 7/8 AR	200	10						33	42	52	75
200			2 7/8 AR	200	10						35	45	64	82
220			2 7/8 AR	200	10						38	51	72	94
250			2 7/8 AR	250	10						46	61	78	106

AUGERS WITH THREAD API 2 3/8 IF

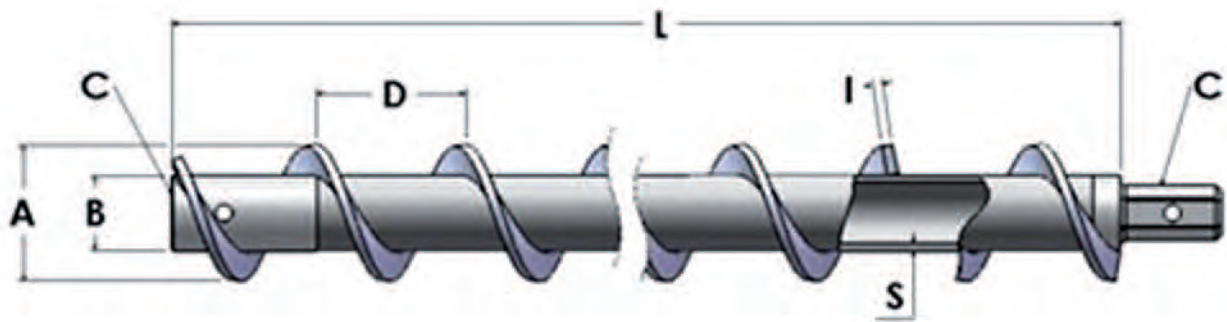
A (mm)	L (mm)	B (mm)	THREAD	D (mm)	I (mm)	C (mm)	H (mm)	E (mm)	F (mm)	G (mm)	WEIGHT S=8 (Kg)			
											L			
											1000	1500	2000	3000
140	1000 - 3000	90	2 3/8 IF	150	10	40	65	40	20	111	30	38	47	64
150			2 3/8 IF	150	10						33	43	52	70
160			2 3/8 IF	150	10						35	45	55	74
180			2 3/8 IF	200	10						33	42	52	75
200			2 3/8 IF	200	10						35	45	64	82
220			2 3/8 IF	200	10						38	51	72	94
250			2 3/8 IF	250	10						46	61	78	106



AUGERS WITH THREAD API 3 1/2 AR

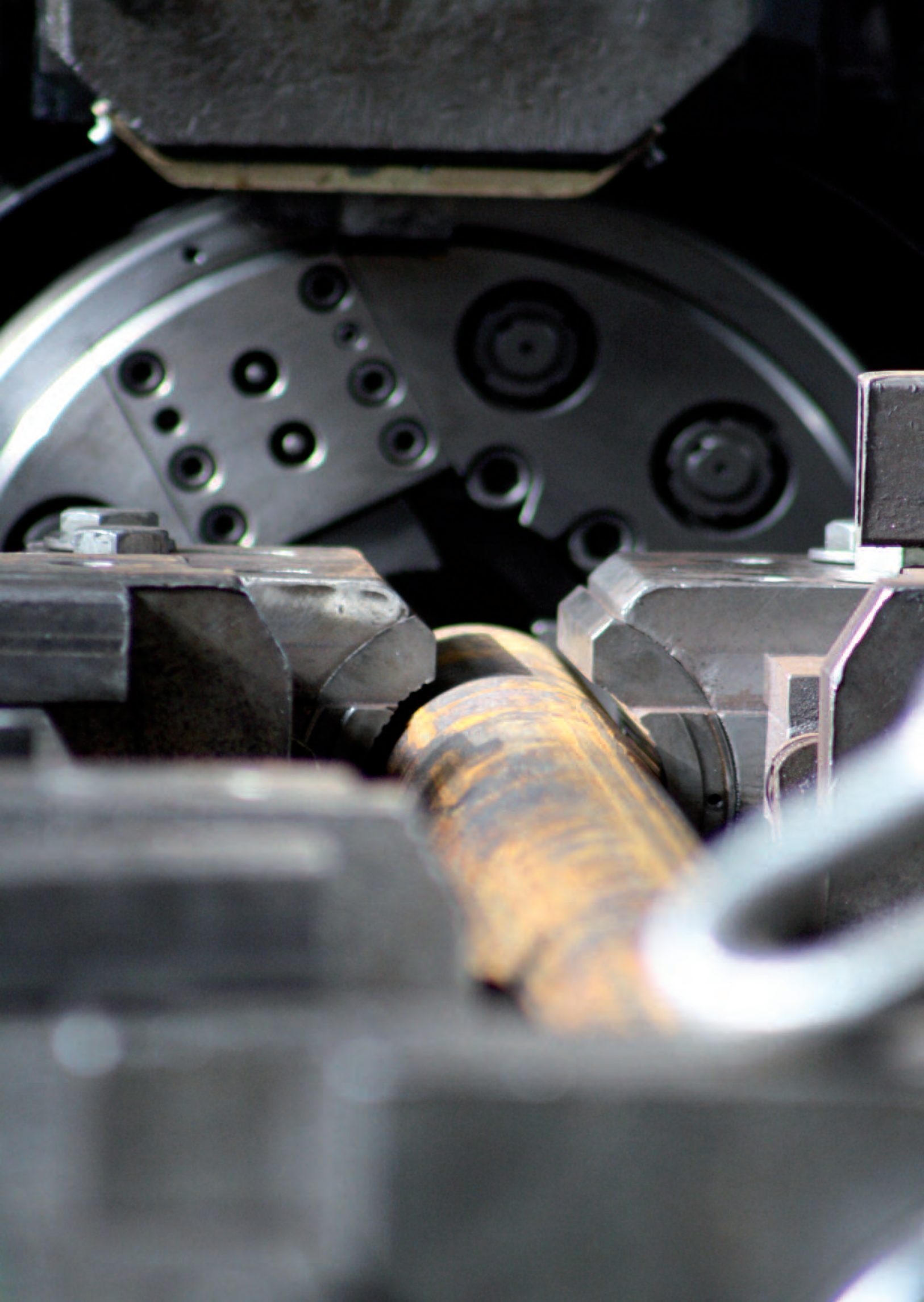
A (mm)	L (mm)	B (mm)	THREAD	D (mm)	I (mm)	C (mm)	H (mm)	E (mm)	F (mm)	G (mm)	WEIGHT S=8 (Kg)			
											L			
											1000	1500	2000	3000
200	1000 - 3000	114	3 1/2 AR								36	45	60	90
220				200	10						45	56	70	100
250											50	70	91	133

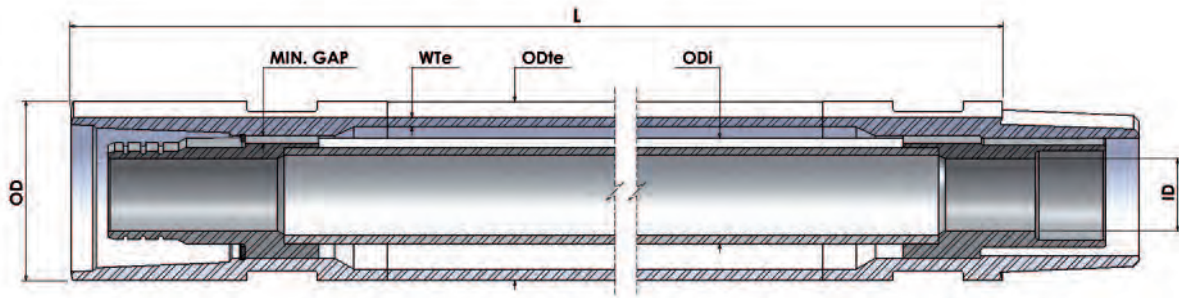




AUGERS

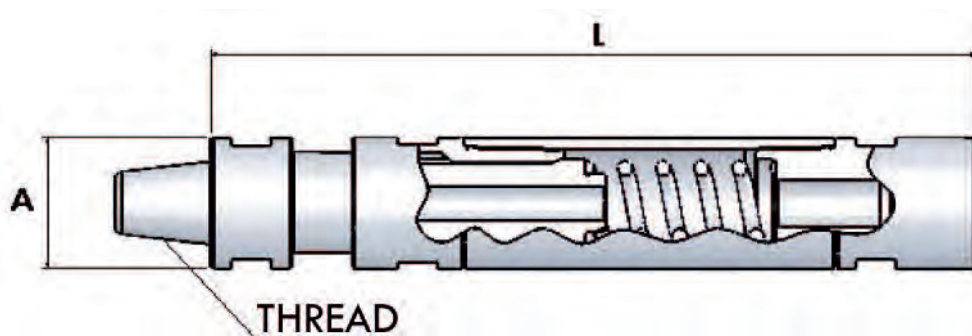
A (mm)	L (mm)	B (mm)	C	D (mm)	I (mm)	WEIGHT S=8 (Kg)			
						L			
						1000	1500	2000	3000
100	1000 - 3000	60	CH 41	100	8	17	22	29	40
120	1000 - 3000	76	CH 41	125	8	28	34	37	52
125				125	8	30	32	38	52
140				150	10	31	37	43	57
160				150	10	33	39	46	62
180				200	10	34	42	49	63
120	1000 - 3000	76	CH 50	125	8	28	31	37	48
125				125	8	30	34	40	52
140				150	10	31	37	43	57
160				150	10	33	41	47	63
180				200	10	34	42	50	69
200				200	10	37	45	56	79
220				200	10	40	48	61	84
160	1000 - 3000	90	CH 60	150	10	32	40	48	71
180				200	10	34	42	60	76
200				200	10	36	48	68	88
220				200	10	38	51	72	94
250				250	10	50	61	78	106
200	1000 - 3000	114	CH 70	200	10	38	49	63	90
220				200	10	42	53	67	96
250				250	10	44	56	70	105





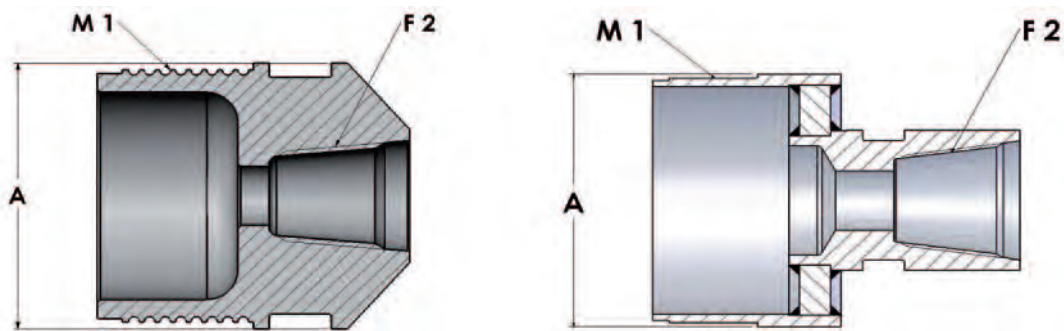
REVERSE CIRCULATION DRILL PIPES

OD (mm)	L (mm)	THREAD	ODi (mm)	ODte (mm)	WTe (mm)	Idi (mm)	MIN GAP (mm)	WEIGHT (Kg)
102	3000	REMET 4"	60.3	101.6	6.3	45	5.6	72
127	3000	REMET 4" 1/2	76.1	127.3	6.3	50	6.5	105
180	6000	5 1/2 IF	101.6	152.4	8.0	90	8.0	300
228	6000	8 5/8 AR	139.7	219.1	8.8	127	7.3	448



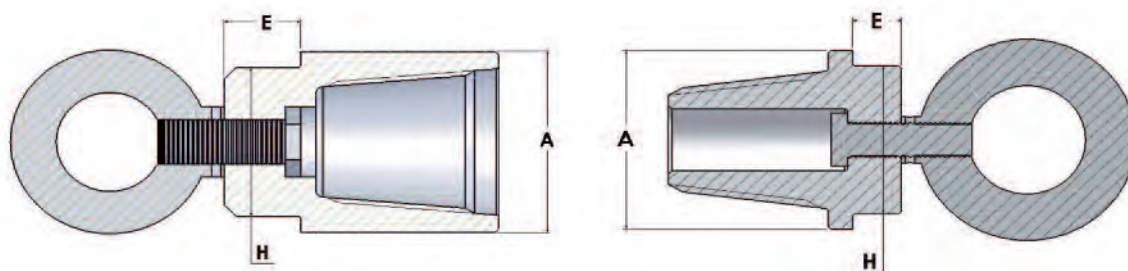
SHOCK ABSORBER

A (mm)	L (mm)	THREAD	WEIGHT (Kg)
80	530	2 3/8 AR	15
93	550	2 3/8 AR	26
114	780	3 1/2 AR	55
140	780	3 1/2 AR	65
160	780	4 1/2 AR	86
178	800	4 1/2 AR	130
200	800	6 5/8 AR	160
220	800	6 5/8 AR	198
254	800	6 5/8 AR	255
273	800	6 5/8 AR	295



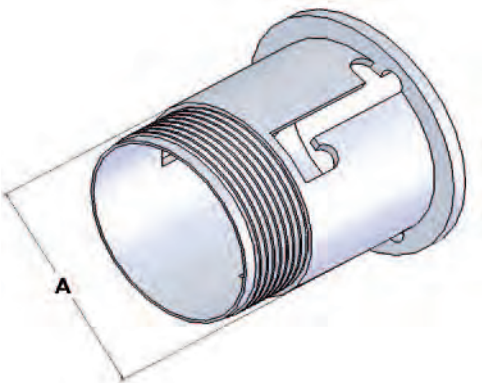
MOVEMENT HEADS

A (mm)	M1	F2
127	1/2 ROPE THREAD	2 3/8 AR
140	1/2 ROPE THREAD	2 3/8 AR
152	1/2 ROPE THREAD	2 3/8 IF
	1/2 ROPE THREAD	2 3/8 AR
168	1/2 ROPE THREAD	2 3/8 IF
	1/2 ROPE THREAD	2 3/8 AR
180	1/2 ROPE THREAD	2 3/8 AR
	1/2 ROPE THREAD	3 1/2 AR
194	1/2 ROPE THREAD	3 1/2 IF
	1/2 ROPE THREAD	3 1/2 AR
203	1/2 ROPE THREAD	3 1/2 AR
	1/2 ROPE THREAD	4 1/2 AR
220	1/2 ROPE THREAD	3 1/2 AR
	1/2 ROPE THREAD	4 1/2 AR
244	1/2 ROPE THREAD	3 1/2 AR
	1/2 ROPE THREAD	4 1/2 AR
254	1/2 ROPE THREAD	3 1/2 AR
	1/2 ROPE THREAD	4 1/2 AR
274	1/2 ROPE THREAD	3 1/2 AR
	1/2 ROPE THREAD	4 1/2 AR



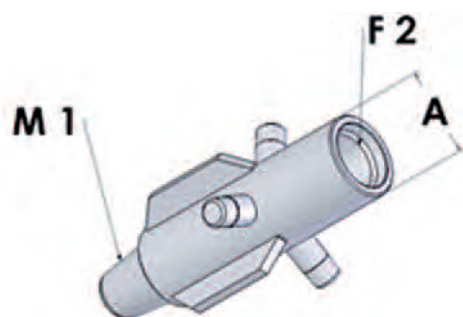
SWIVELS

A		THREAD	E	H
76	M	2 3/8 AR	29	65
	M	2 3/8 IF	29	65
90	M	2 3/8 AR	29	65
114	M	3 1/2 AR	29	95
	F	3 1/2 AR	50	95
127	M	3 1/2 IF	33	105
	F	3 1/2 IF	50	105
140	M	4 1/2 AR	27	120
	F	4 1/2 AR	50	120
168	M	4 1/2 IF	27	145
	F	4 1/2 IF	50	145



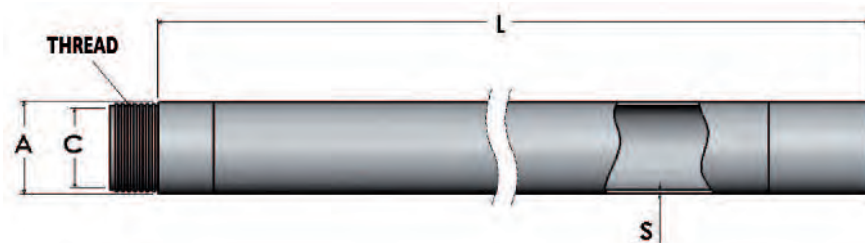
EXTERNAL DRIVERS

A	THREAD
114	1/2 ROPE THREAD 3 START RIGHT
127	1/2 ROPE THREAD 3 START RIGHT
133	1/2 ROPE THREAD 3 START RIGHT
140	1/2 ROPE THREAD 3 START RIGHT
152	1/2 ROPE THREAD 3 START RIGHT
168	1/2 ROPE THREAD 3 START RIGHT
178	1/2 ROPE THREAD 3 START RIGHT
194	1/2 ROPE THREAD 3 START RIGHT
203	1/2 ROPE THREAD 3 START RIGHT
220	1/2 ROPE THREAD 3 START RIGHT
244	1/2 ROPE THREAD 3 START RIGHT
254	1/2 ROPE THREAD 3 START RIGHT
274	1/2 ROPE THREAD 3 START RIGHT
300	1/2 ROPE THREAD 3 START RIGHT
323	1/2 ROPE THREAD 3 START RIGHT



INTERNAL DRIVERS

A	EXTERNAL	M 1	F 2
76	114	2 3/8 AR	2 3/8 AR
	127	2 3/8 AR	2 3/8 AR
	133	2 3/8 AR	2 3/8 AR
	140	2 3/8 AR	2 3/8 AR
90	140	2 3/8 AR	2 3/8 AR
	152	2 3/8 AR	2 3/8 AR
	168	2 3/8 AR	2 3/8 AR
114	168	3 1/2 AR	3 1/2 AR
	178	3 1/2 AR	3 1/2 AR
	194	3 1/2 AR	3 1/2 AR
	203	3 1/2 AR	3 1/2 AR
	220	3 1/2 AR	3 1/2 AR
	244	3 1/2 AR	3 1/2 AR
	254	3 1/2 AR	3 1/2 AR
	273	3 1/2 AR	3 1/2 AR
	300	3 1/2 AR	3 1/2 AR
127	194	3 1/2 IF	3 1/2 IF
	203	3 1/2 IF	3 1/2 IF
	220	3 1/2 IF	3 1/2 IF
	244	3 1/2 IF	3 1/2 IF
	254	3 1/2 IF	3 1/2 IF
	274	3 1/2 IF	3 1/2 IF
	300	3 1/2 IF	3 1/2 IF
140	203	4 1/2 AR	4 1/2 AR
	220	4 1/2 AR	3 1/2 AR
	220	4 1/2 AR	4 1/2 AR
	244	4 1/2 AR	4 1/2 AR
	254	4 1/2 AR	4 1/2 AR
	273	4 1/2 AR	4 1/2 AR



CASING WITH S 6,3

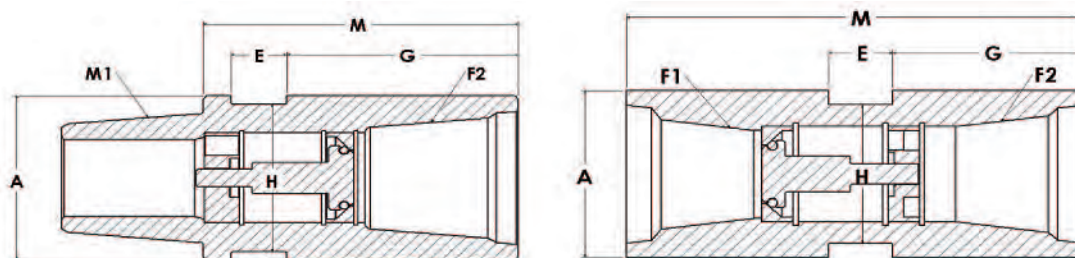
A	L (mm)	THREAD	S (mm)	C (mm)	WEIGHT (Kg)			
					S=6,3			
					1000	1500	2000	3000
127	1000 - 1500 - 2000 - 3000	1/2 ROPE THREAD 3 START RIGHT	6,3	110	21	32	42	64
133	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	6,3	113	28	42	56	84
140	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	6,3	120	34	51	68	102

CASING WITH S 8,8

A	L (mm)	THREAD	S (mm)	C (mm)	WEIGHT (Kg)			
					S=6,3			
					1000	1500	2000	3000
152	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	8,8	132	50	75	100	150
168	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	8,8	146	56	84	112	168
178	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	8,8	158	59	88,5	118	177
194	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	8,8	169	64	96	128	192
203	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	8,8	178	68	102	136	204
219	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	8,8	194	73	109,5	146	146
244	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	8,8	219	82	123	164	246

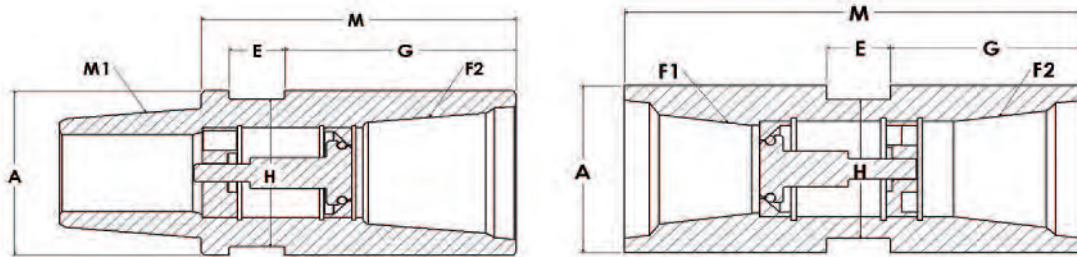
CASING WITH S 10

A	L (mm)	THREAD	S (mm)	C (mm)	WEIGHT (Kg)			
					S=6,3			
					1000	1500	2000	3000
254	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	10	229	97	145,5	194	291
273	1000 - 3000	1/2 ROPE THREAD 3 START RIGHT	10	248	104	156	208	312



NO RETURN VALVES

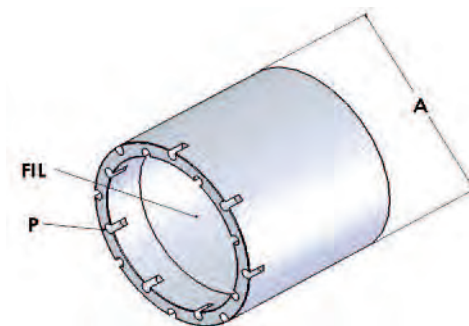
A	THREAD		M	H	E	G	AIR FLOW ENTRANCE
76	M 1	2 3/8 AR	180	65	40	120	FEMALE
	F 2	2 3/8 AR					MALE
	F 1	2 3/8 AR	267	65	40	110	FEMALE
	F 2	2 3/8 AR					
90	M 1	2 3/8 IF	180	65	40	120	FEMALE
	F 2	2 3/8 IF					MALE
	M 1	2 3/8 AR	180	65	40	120	FEMALE
	F 2	2 3/8 AR					MALE
	M 1	2 3/8 AR	180	65	40	120	FEMALE
	F 2	2 3/8 AR					MALE
	F 1	2 3/8 AR	267	65	40	120	FEMALE
	F 2	2 3/8 AR					
	M 1	2 3/8 AR	280	65	40	120	FEMALE 2 7/8 AR
	F 2	7/8 AR					FEMALE 2 3/8 AR
	F 1	2 3/8 AR	267	65	40	120	FEMALE 2 3/8 IF
	F 2	2 3/8 IF					
	F 1	2 7/8 AR	280	65	40	120	FEMALE 2 3/8 IF
	F 2	2 3/8 AR					
114	M 1	3 1/2 AR	200	95	40	140	FEMALE
	F 2	3 1/2 AR	190			130	MALE
	F 1	3 1/2 AR	308	95	40	140	FEMALE
	F 2	3 1/2 AR					



NO RETURN VALVES

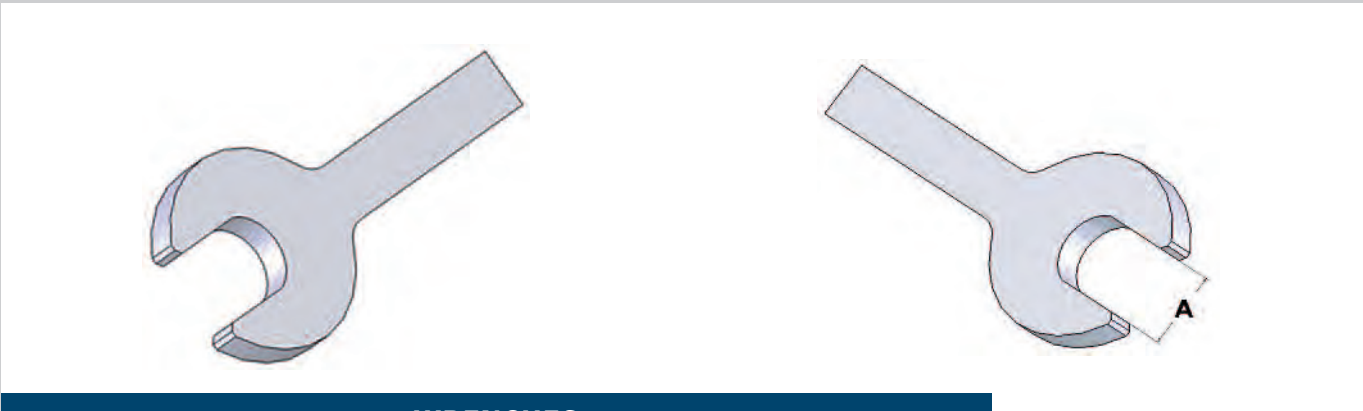
NO RETURN VALVES

A	THREAD		M	H	E	G	AIR FLOW ENTRANCE
128	M 1	3 1/2 IF	226	105	40	80/166	FEMALE
	F 2	3 1/2 IF					
	M 1	3 1/2 IF	186	105	40	126	MALE
	F 2	3 1/2 IF					
	M 1	3 1/2 AR	190	105	40	130	MALE
	F 2	3 1/2 AR					
	F 1	3 1/2 AR	323	105	40	140	FEMALE 3 1/2 IF
	F 2	3 1/2 IF					
140	M 1	4 1/2 AR	193	120	40	130	MALE
	F 2	4 1/2 AR					
	M 1	3 1/2 AR	190	120	40	130	MALE
	F 2	3 1/2 AR					
	F 1	4 1/2 AR	347	120	40	130	FEMALE
	F 2	4 1/2 AR					



CROWNS

A	THREAD	N. PRISMS	P (Prisms dim.)
127	1/2 ROPE THREAD 3 START RIGHT	14	7,5
133	1/2 ROPE THREAD 3 START RIGHT	14	7,5
140	1/2 ROPE THREAD 3 START RIGHT	16	7,5
	1/2 ROPE THREAD 3 START LEFT	16	7,5
	P 20	16	7,5
152	1/2 ROPE THREAD 3 START RIGHT	16	10
	1/2 ROPE THREAD 3 START LEFT	16	10
168	1/2 ROPE THREAD 3 START RIGHT	16	10
180	1/2 ROPE THREAD 3 START RIGHT	18	10
194	1/2 ROPE THREAD 3 START RIGHT	18	10
203	1/2 ROPE THREAD 3 START RIGHT	18	10
220	1/2 ROPE THREAD 3 START RIGHT	20	10
244	1/2 ROPE THREAD 3 START RIGHT	22	10
254	1/2 ROPE THREAD 3 START RIGHT	24	10
273	1/2 ROPE THREAD 3 START RIGHT	26	10K



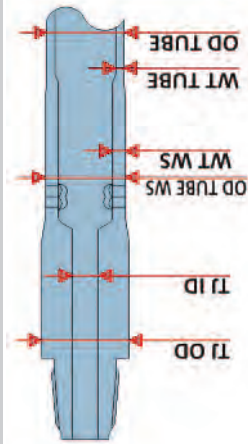
WRENCHES

A mm
50
65
75
80
85
90
95
100
105
115
120
125

Horizontal Directional Drilling

We offer Standard Friction Welded (SFW), Forged-Friction Welded (FFW) and Forged-One-Piece (FOP) standard and customized drill pipes for Horizontal Directional Drilling suitable for the most diffused HDD drill rigs.





SFW Standard Friction Welded
the best solution for standard applications



FFW Forged-Friction Welded
the most advanced solution for HDD drill pipes



FOP Forged-One-Piece
the most proven high-resistant drill pipe

RIG BRAND	DRILL PIPE MODEL	OUT. Dia of Tool Joint (mm)		INT. Dia of Tool Joint (mm)		OUT. Dia of tube (mm) on welding section, section (mm)		Wall thickness of tube (mm)		OUT. Dia of tube (mm)		Wall thickness of tube (mm)		OUT. Dia of ORIGINAL tube (mm)		Working length (mm)		Weight (Kg)		Max Torque (Nm)		Max Torque (ft.lbs)		Pullback (Ton)		Pullback (lbs)		Original Minimum Bending Radius - MBR (m)	
		TJ OD	mm	TJ ID	mm	OD TUBE WS	mm	WT WS	mm	OD TUBE	mm	WT TUBE	mm	OD ORIG. T	mm	mm	Kg	Nm	ft.lb	Nm	ib	m	m	mm	mm	mm	mm	mm	

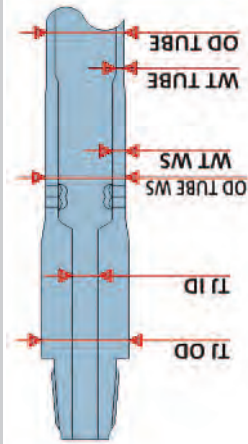
DITCH WITCH

DITCH WITCH® is a trademark registered by Charles Machine Works inc. There is no affiliation between Charles Machine Works inc. and Colli Drill S.p.A.

JT 520	JT 520	45	8	32	6	6	32	6	28	1.500	7	813	600	22	2	5.000	21
JT 920	JT 920	51	10	38	6	6	38	6	34	2.000	12	1.491	1.100	38	4	8.600	26
JT 920 L	JT 920 L	51	10	38	6	6	38	6	40	3.000	17	1.491	1.100	38	4	8.600	30
JT 921	JT 920	51	10	38	6	6	38	6	40	2.000	12	1.491	1.100	40	4	9.000	32
JT 921S	JT 920	51	10	38	6	6	38	6	40	2.000	12	1.491	1.100	53	5	12.000	32
JT 922	JT 922	51	10	38	6	6	38	6	40	1.829	11	1.491	1.100	40	4	9.000	32
JT 922	JT 922	51	10	42,4	7	7,1	42,4	7,1	40	1.829	13	1.491	1.100	40	4	9.000	32
JT 2320	JT 2320	57	17	54	12	12	48,3	6,45	48	3.000	24	1.763	1.300	104	11	23.420	40
JT 1220 MACH 1	JT 1220 FFW	60	14	54	12	12	48,3	6,45	46	3.048	24	1.898	1.400	53	5	12.000	32
JT 1720 MACH 1	JT 1720 FFW	63	17	58,6	12	12	54	6,45	52	3.000	28	2.440	1.800	76	8	17.000	40
JT 2020 MACH 1	JT 2020 FFW	68	17	58,6	12	12	54	6,45	52	3.048	29	2.983	2.200	89	9	20.000	40
JT 2720	JT 2720 FFW	70	17	58,6	12	12	54	6,45	52	3.000	29	4.474	3.300	120	12	27.000	40
JT 2720	JT 2720 FFW	70	17	62,5	11	11	60,3	7,0	52	3.000	34	4.474	3.300	120	12	27.000	40
JT 2720 MACH 1	JT 2720 MACH1 FFW	76	17	62,5	11	11	60,3	7,0	60,3	3.000	35	4.339	3.200	120	12	27.000	53
JT 3020 MACH 1	JT 3020 MACH1 FFW	76	17	62,5	11	11	60,3	7,0	60,3	3.000	35	5.423	4.000	133	14	30.000	53
JT 3020 ALL TERRAIN	EXT. JT 3020 AT (2 3/8 IF SH) FFW	83	40	62,5	11	11	60,3	7,0	57	2.855	36	5.423	4.000	133	14	30.000	53
JT 4020	JT 4020 FFW	82,5	29	79	12,5	12,5	76,1	6,3	66	4.500	66	6.779	5.000	178	18	40.000	46
JT 4020 MACH 1	JT 4020 MACH1 FFW	90	34	79	12,5	12,5	76,1	6,3	71	4.500	66	6.779	5.000	178	18	40.000	58
JT 4020 ALL TERRAIN	EXT. JT 4020 AT (2 7/8 IF SH) FFW	102	55	92,5	13,5	13,5	88,9	8,8	92,2	4.345	90	6.779	5.000	178	18	40.000	91
JT 7020 MACH 1	JT 7020 MACH 1 FFW	102	38	92,5	14	14	88,9	8,8	92,2	4.500	100	13.558	10.000	311	32	70.000	70
JT 8020 MACH 1	JT 8020 MACH 1 FFW	102	38	92,5	14	14	88,9	8,8	92,2	4.500	100	13.558	10.000	356	36	80.000	70
JT 100 MACH 1	JT 100 MACH 1 FFW	102	38	92,5	14	14	88,9	8,8	92,2	4.500	100	16.270	12.000	445	45	100.000	70



RIG BRAND	DRILL PIPE MODEL	OUT. Dia of Tool Joint (mm)	INT. Dia of Tool Joint (mm)	OUT. Dia of tube (mm) on welding section	Wall thickness of welding section (mm)	OUT. Dia of tube (mm)	Wall thickness of tube (mm)	OUT. Dia of ORIGINAL tube (mm)	Working length (mm)	Weight (Kg)	Max Torque (Nm)	Max Torque (ft.lbs)	Pullback (Ton)	Pullback (lbs)	Original Minimum Bending Radius - MBR (in)	
		TJ OD	TJ ID	OD TUBE	WT W/S	OD TUBE	WT TUBE	OD ORIG. T								
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	ft.lb	kN	ib	m	
VERMEER® is a trademark registered by Vermeer Manufacturing Company. There is no affiliation between Vermeer Manufacturing Company and Colli Drill S.p.A.																
VERMEER D7x11 SERIES II	D7x11 (F120 #200)	48	17	38	6	38	6,45	42,2	1.829	11	1.763	1.300	40	4	9.000	29
VERMEER D7x11 SERIES II	D7x11 (F120 #200)	48	17	42,4	7	42,4	7,1	42,2	1.829	13	1.763	1.300	40	4	9.000	29
VERMEER D9x13 SERIES II	D7x11 (F120 #200)	48	17	42,4	7	42,4	7,1	42,2	1.829	13	1.763	1.300	40	4	9.000	29
VERMEER D10x14	D10x15 (F120 #200)	48	17	42,4	7	42,4	7,1	42,2	3.048	21	1.898	1.400	43	4	9.600	29
VERMEER D10x15	D10x15 (F120 #200)	48	17	42,4	7	42,4	7,1	42,2	3.048	21	2.034	1.500	44	5	10.000	29
VERMEER D16x20 SERIES II	D16x20 FFW 48 (F125 #250)	55	20	54	12	48,3	6,45	48,3	3.048	25	2.712	2.000	71	7	16.000	30
VERMEER D20x22 SERIES II	D16x20 FFW 48 (F125 #250)	55	20	54	12	48,3	6,45	48,3	3.048	25	2.983	2.200	89	9	20.000	30
VERMEER D20x22 SERIES II	D24A FFW 48 (F140 #400)	57,15	20	54	12	48,3	6,45	52,3	3.048	25	2.983	2.200	89	9	20.000	36
VERMEER D20x22 SERIES II	D24A FFW 54 (F140 #400)	60	20	58,6	12	54	6,45	52,3	3.048	29	2.983	2.200	89	9	20.000	36
VERMEER D20x22FX SERIES II	D24A FFW 54 (F140 #400)	60	20	58,6	12	54	6,45	52,3	3.048	29	2.983	2.200	89	9	20.000	36
VERMEER D24A	D24A FFW 48 (F140 #400)	57,15	20	54	12	48,3	6,45	52,3	3.048	25	3.227	2.380	106	11	23.800	36
VERMEER D24A	D24A FFW 54 (F140 #400)	60	20	58,6	12	54	6,45	52,3	3.048	28	3.227	2.380	106	11	23.800	36
VERMEER D24x26	D24A FFW 48 (F140 #400)	57,15	20	54	12	48,3	6,45	52,3	3.048	25	3.227	2.380	106	11	23.800	36
VERMEER D24x26	D24A FFW 54 (F140 #400)	60	20	58,6	12	54	6,45	52,3	3.048	28	3.525	2.600	106	11	23.800	36
VERMEER D24x40 SERIES II	D24x40 FFW F1 (F160 #600)	68	20	62,5	11	60,3	7,0	60,3	3.048	35	5.423	4.000	107	11	24.000	33
VERMEER D24x40 SERIES II	D24x40 FOP F1 (F160 #600)	68	20	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3.048	35	5.423	4.000	107	11	24.000	33
VERMEER D33x44	D33x44 FFW (F260)	70	32	62,5	11	60,3	7,0	60,3	3.048	36	5.966	4.400	147	15	33.000	33
VERMEER D33x44	D33x44 FFW (F260)	70	32	62,5	11	60,3	7,0	60,3	4.572	50	5.966	4.400	147	15	33.000	33
VERMEER D33x44	D33x44 FOP (F260)	70	32	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3.048	36	5.966	4.400	147	15	33.000	33
VERMEER D33x44	D33x44 FOP (F260)	70	32	ONE PIECE	ONE PIECE	60,3	7,0	60,3	4.572	50	5.966	4.400	147	15	33.000	33
VERMEER D33x44	D33x44 FFW (F165 #650)	70	24	62,5	11	60,3	7,0	60,3	3.048	36	5.966	4.400	147	15	33.000	33
VERMEER D33x44	D33x44 FFW (F165 #650)	70	24	62,5	11	60,3	7,0	60,3	4.572	50	5.966	4.400	147	15	33.000	33
VERMEER D33x44	D33x44 FOP (F165 #650)	70	24	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3.048	36	5.966	4.400	147	15	33.000	33

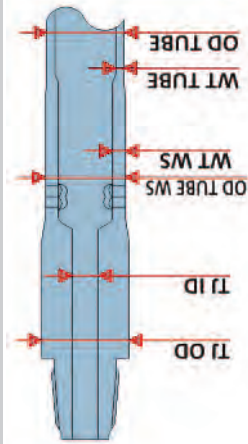


RIG BRAND	DRILL PIPE MODEL	OUT. Dia of Tool Joint (mm)	INT. Dia of Tool Joint (mm)	OUT. Dia of tube (mm) on welding section	Wall thickness of welding section (mm)	OUT. Dia of tube (mm)	Wall thickness of tube (mm)	OUT. Dia of ORIGINAL tube (mm)	Working length (mm)	Weight (kg)	Max Torque (Nm)	Max Torque (ft.lbs)	Pullback (kN)	Pullback (Ton)	Pullback (lbs)	Original Minimum Bending Radius - MBR (in)	
		TJ OD	TJ ID	OD TUBE WS	WT WS	OD TUBE	WT TUBE	OD ORIG. T									
		mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	Nm	ft.lb	kN	ib	m	m
VERMEER® is a trademark registered by Vermeer Manufacturing Company. There is no affiliation between Vermeer Manufacturing Company and Colli Drill S.p.A.																	
VERMEER D33x44	D33x44 FOP (F165 #650)	70	24	ONE PIECE	ONE PIECE	60,3	7,0	60,3	4.572	50	5.966	4.400	147	15	33.000	33	
VERMEER D33x44	CD72 FFW	72	29	62,5	11	60,3	7,0	60,3	3.048	36	5.966	4.400	147	15	33.000	33	
VERMEER D33x44	CD72 FFW	72	29	62,5	11	60,3	7,0	60,3	4.572	50	5.966	4.400	147	15	33.000	33	
VERMEER D33x44	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3.048	36	5.966	4.400	147	15	33.000	33	
VERMEER D33x44	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	4.572	50	5.966	4.400	147	15	33.000	33	
VERMEER D36x50 SERIES II	D36x50 FFW (F260)	70	32	62,5	11	60,3	7,0	60,3	3.048	36	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	D36x50 FFW (F260)	70	32	62,5	11	60,3	7,0	60,3	4.572	50	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	D33x44 FOP (F260)	70	32	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3.048	36	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	D33x44 FOP (F260)	70	32	ONE PIECE	ONE PIECE	60,3	7,0	60,3	4.572	50	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	D36x50 FFW (F165 #650)	70	24	62,5	11	60,3	7,0	60,3	3.048	36	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	D36x50 FFW (F165 #650)	70	24	62,5	11	60,3	7,0	60,3	4.572	50	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	D33x44 FOP (F165 #650)	70	24	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3.048	36	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	D33x44 FOP (F165 #650)	70	24	ONE PIECE	ONE PIECE	60,3	7,0	60,3	4.572	50	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	CD72 FFW	72	29	62,5	11	60,3	7,0	60,3	3.048	36	6.772	4.995	160	16	36.000	33	
VERMEER D36x50 SERIES II	CD72 FFW	72	29	62,5	11	60,3	7,0	60,3	4.572	50	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3.048	36	6.772	4.995	160	16	36.000	44	
VERMEER D36x50 SERIES II	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	4.572	50	6.772	4.995	160	16	36.000	44	
VERMEER D50x100A	ALTERNATIVE D50 FFW (F190 #900)	82,5	29	79	12,5	76,1	6,3	73	4.572	66	12.202	9.000	222	23	50.000	51	
VERMEER D50x100A	D80x100 FFW F1 (F180 #800)	93	38	92,5	14	89	9	88,9	4.572	95	13.558	10.000	222	23	50.000	60	
VERMEER D55x100	D80x100 FFW F1 (F180 #800)	93	38	92,5	14	89	9	88,9	4.572	95	13.558	10.000	245	25	55.000	60	
VERMEER D50x100 SERIES II	D80x100 FFW F1 (F180 #800)	93	38	92,5	14	89	9	88,9	4.572	95	13.558	10.000	356	36	80.000	60	
VERMEER D80x100 SERIES II	D80x100 FFW F1 (F180 #80)	93	38	92,5	14	89	9	88,9	4.572	95	13.558	10.000	356	36	80.000	60	
VERMEER D100x120 SERIES II	D100x120 FFW (F289)	108	55	92,5	14	89	9	88,9	6.096	130	16.270	12.000	445	45	100.000	60	

VERMEER

VERMEER® is a trademark registered by Vermeer Manufacturing Company. There is no affiliation between Vermeer Manufacturing Company and Colli Drill S.p.A.





RIG BRAND	DRILL PIPE MODEL	OUT. Dia of Tool Joint (mm)		INT. Dia of Tool Joint (mm)		OUT. Dia of tube (mm) on welding section		Wall thickness of welding section (mm)		OUT. Dia of tube (mm)		Wall thickness of tube (mm)		OUT. Dia of ORIGINAL tube (mm)		Working length (mm)		Weight (Kg)		Max Torque (Nm)		Max Torque (ft.lbs)		Pullback (kN)		Pullback (Ton)		Pullback (lbs)		Original Minimum Bending Radius - MBR (m)	
		TJ OD	TJ ID	TJ ID	TJ ID	OD TUBE WS	WT WS	WT WS	WT WS	OD TUBE	OD TUBE	WT TUBE	WT TUBE	OD ORIG. T	mm	mm	mm	mm	Kg	Kg	Nm	Nm	ft.lb	ft.lb	kN	ib	m	m			
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	

AMERICAN AUGERS®

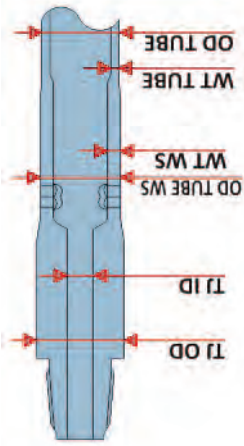
AMERICAN AUGERS® is a trademark registered by Charles Machine Works inc. There is no affiliation between Charles Machine Works inc. and Colli Drill S.p.A.

DD-1	DD1 6'	48	12	42,4	7	42,4	7,1	42,2	1,829	13	1.763	1.300	44	5	10.000	N.A.
DD-1	DD1 10'	48	12	42,4	7	42,4	7,1	42,2	3,048	21	1.763	1.300	44	5	10.000	N.A.
DD-4	IF DD4	78	29	76,1	7	76,1	7,3	73	3,048	44	5.423	4.000	149	15	33.500	N.A.
DD-4	IF DD4 FFW	78	29	62,5	11	60,3	7,0	73	3,048	36	5.423	4.000	149	15	33.500	N.A.
DD-4	CD72 FFW	72	29	62,5	11	60,3	7,0	73	3,048	36	5.423	4.000	149	15	33.500	N.A.
DD-4	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3,048	36	5.423	4.000	149	15	33.500	N.A.
DD-6	2 7/8 IF FFW	105	44	92,5	14	89	9	88,9	4,572	100	13.558	10.000	267	27	60.000	N.A.
DD-8	2 7/8 IF FFW	105	44	92,5	14	89	9	88,9	4,572	100	18.439	13.600	356	36	80.000	N.A.
DD-10 NEW	2 7/8 IF FFW	105	44	92,5	14	89	9	88,9	6,096	130	18.982	14.000	445	45	100.000	N.A.
DD-110/110S	2 7/8 IF FFW	105	44	92,5	14	89	9	88,9	6,096	130	18.982	14.000	489	50	110.000	N.A.
DD-10 OLD	3 1/2 IF FFW	118	65	92,5	14	89	9	101,6	6,096	135	20.337	15.000	423	43	95.000	N.A.

ASTEC®

ASTEC UNDERGROUND® is a trademark registered by Astec Industries inc. There is no affiliation between Astec Industries inc. and Colli Drill S.p.A.

DD-65 MINIMAX	1,25" ASTEC	44,5	8	31,8	6	31,8	6,3	31,75	1,500	7	678	500	27	3	6.000	21
DD-65 MINIMAX	JT 520 (OLD TIPE)	44,5	8	31,8	6	31,8	6,3	31,75	1,500	7	678	500	27	3	6.000	21
DD-1215	D16x20 FFW 48 (F125 #250)	55	20	54	12	48,3	6,45	48,3	3,048	25	2.034	1.500	53	5	12.000	N.A.
DD-1416	D16x20 FFW 48 (F125 #250)	55	20	54	12	48,3	6,45	48,3	3,048	25	2.169	1.600	62	6	14.000	N.A.
DD-2024	2" ASTEC FFW	57,2	16	54	12	48,3	6,45	52,3	3,048	25	3.254	2.400	89	9	20.000	N.A.
DD-2024	D16x20 FFW 48 (F125 #250)	57,2	20	54	12	48,3	6,45	52,3	3,048	25	3.254	2.400	89	9	20.000	N.A.
DD-2024	D24A FFW 54 (F140 #400)	60	20	58,6	12	54	6,45	52,3	3,048	29	3.254	2.400	89	9	20.000	N.A.
DD-3238	2" 3/8 ASTEC FFW	68	20	62,5	11	60,3	7,0	60,3	3,048	35	5.152	3.800	142	15	32.000	N.A.
DD-3238	D24x40 FFW F1 (F160 #600)	68	20	62,5	11	60,3	7,0	60,3	3,048	35	5.152	3.800	142	15	32.000	N.A.
DD-3238	CD72 FFW	72	29	62,5	11	60,3	7,0	60,3	3,048	35	5.152	3.800	142	15	32.000	N.A.
DD-3238	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3,048	36	5.152	3.800	142	15	32.000	N.A.
DD-4045	CD72 FFW	72	29	62,5	11	60,3	7,0	60,3	3,048	36	6.101	4.500	178	18	40.000	44
DD-4045	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3,048	36	6.101	4.500	178	18	40.000	44
DD-9014	2 7/8 IF FFW	105	44	92,5	14	89	9	88,9	6,096	130	18.439	13.600	400	41	90.000	N.A.



SFW Standard Friction Welded
the best solution for standard applications



FFW Forged-Friction Welded
the most advanced solution for HDD drill pipes



FOP Forged-One-Piece
the most proven high-resistant drill pipe

RIG BRAND	DRILL PIPE MODEL	OUT. Dia of Tool Joint (mm)	INT. Dia of Tool Joint (mm)	OUT. Dia of welding section (mm)	WT WS	OD TUBE WS	WT WS	OUT. Dia of tube (mm)	WT TUBE	OD TUBE	WT TUBE	OD ORIG. T	Working length (mm)	Weight (kg)	Max Torque (Nm)	Max Torque (ft.lbs)	Pullback (kN)	Pullback (ib)	Pullback (lbs)	Original Minimum Bending Radius - MBR (m)
		TJ OD	TJ ID	OD TUBE WS	WT WS	OD TUBE WS	WT WS	mm	mm	mm	mm	mm	mm	kg	Nm	ft.lbs	kN	ib	m	m
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm

TRACTO TECHNIK

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GRUNDODRILL 4X	D7x11 (F120 #200)	48	17	42,4	7	42,4	7,1	42,2	1,524	12	1,288	950	44	4	9.800	N.A.
GRUNDODRILL 7X PLUS TD	D10x15 (F120 #200)	48	17	42,4	7	42,4	7,1	48,3	3,000	21	1,695	1,250	100	10	22.500	33
GRUNDODRILL 10X(S) TD	TT RD49 SFW	60	20	54	6	54	6	54,2	3,000	27	2,983	2,200	100	10	22.500	42
GRUNDODRILL 10X(S) TD	TT RD49 FFW	60	20	58,6	12	54	6,45	54,2	3,000	27	2,983	2,200	100	10	22.500	42
GRUNDODRILL 13X TD	TT RD49 SFW	60	20	54	6	54	6	54,2	3,000	27	4,067	3,000	125	13	28.000	42
GRUNDODRILL 13X TD	TT RD49 FFW	60	20	58,6	12	54	6,45	54,2	3,000	27	4,067	3,000	125	13	28.000	42
GRUNDODRILL 15 X	TT RD49 FFW	60	20	58,6	12	54	6,45	54,2	3,000	28	4,203	3,100	147	15	33.000	42
GRUNDODRILL 15 X	D24x40 FFW F1 (F1 #600)	68	20	62,5	11	60,3	7,0	54,2	3,000	35	4,203	3,100	147	15	33.000	42
GRUNDODRILL 15 X	D24x40 FOP F1 (F160 #600)	68	20	ONE PIECE	ONE PIECE	60,3	7,0	54	3,000	35	4,203	3,100	147	15	33.000	42
GRUNDODRILL 15 XP	TT RD49 FFW	60	20	58,6	12	54	6,45	54,2	3,000	28	4,474	3,300	147	15	33.000	42
GRUNDODRILL 15 XP	D24x40 FFW F1 (F1 #600)	68	20	62,5	11	60,3	7,0	54,2	3,000	35	4,474	3,100	147	15	33.000	42
GRUNDODRILL 15 XP	D24x40 FOP F1 (F160 #600)	68	20	ONE PIECE	ONE PIECE	60,3	7,0	54	3,000	35	4,474	3,100	147	15	33.000	42
GRUNDODRILL 15 XP	CD72 FFW	72	29	62,5	11	60,3	7,0	63	3,000	36	4,203	3,100	147	15	33.000	42
GRUNDODRILL 15 XP	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3,000	36	4,474	3,100	147	15	33.000	42
GRUNDODRILL 15 N	CD72 FFW	72	29	62,5	11	60,3	7,0	63	3,000	36	7,050	5,200	169	17	38.000	55
GRUNDODRILL 15 N	CD72 FOP	72	29	ONE PIECE	ONE PIECE	60,3	7,0	60,3	3,000	36	7,050	5,200	169	17	38.000	55
GRUNDODRILL 20S	TD CD82 FFW	82,5	32	79	12,5	76,1	6,3	82,5	3,000	45	10,033	7,400	200	20	45.000	75
GRUNDODRILL 20S	TD D50 FFW (F190 #900)	82,5	32	79	12,5	76,1	6,3	82,5	3,000	45	10,033	7,400	200	20	45.000	75
GRUNDODRILL 25N	TD CD82 FFW	82,5	32	79	12,5	76,1	6,3	82,5	3,000	45	10,033	7,400	245	25	55.000	N.A.
GRUNDODRILL 25N	TD D50 FFW (F190 #900)	82,5	32	79	12,5	76,1	6,3	82,5	3,000	45	10,033	7,400	245	25	55.000	N.A.

CASE

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CASE 6010 TURBO	CASE 6010 SFW	57,2	20	48,3	6,45	48	6,45	52,3	3,048	23	2,034	1,500	51	5	11.500	43
CASE 6010 TURBO	CASE 6010 FFW	57,2	20	54	12	48,3	6,45	52,3	3,048	25	2,034	1,500	51	5	11.500	43
Bor-Mor 400 TX	CASE 6010 FFW	57,2	20	54	12	48,3	6,45	52,3	3,048	25	2,712	2,000	71	7	16.000	N.A.
CASE 6030 TURBO	CASE 6030 FFW	68	20	62,5	11	60,3	7,0	60,3	3,048	35	5,423	4,000	133	14	30.000	59

