

## Vrtné trubky – Drill Pipe

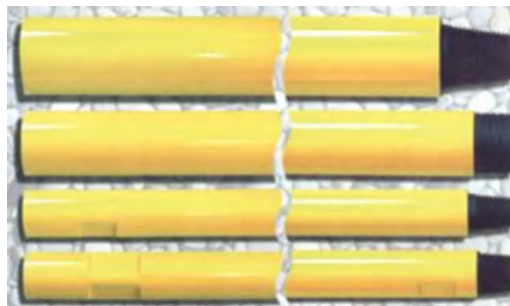
Outside diameter		Wall thickness		Nominal weight of pipe		Grade	End finish
<i>In</i>	<i>mm</i>	<i>Inch</i>	<i>mm</i>	<i>lb/ft</i>	<i>kg/m</i>		
2 7/8	73	0,362	9,19	10,40	15,49	E, X, G	EUE
3 1/2	88,9	0,368	9,35	13,30	19,81	E, X, G	EUE
		0,449	11,40	15,50	23,09	E, X, G	EUE / IUE
5	127,0	0,362	9,19	19,50	29,05	E, X, G	EUE / IUE

### VRTNÉ ROURY

- zušlechtné závity
- vysoká kvalita těla roury
- svařeno třením
- vysoká přímost vrtných tyčí
- závity dle STN, API, DIN a GOST
- délky dle přání zákazníka



Průměr	Délka	Druh spojení	Tloušťka stěny	Váha
mm	mm		mm	kg
42	500	API, REG API, FH API, IF RD WIRTH TR SVJ	4	15
↓	↓		↓	↓
120	6000		10	140



## Drill collars

The drill collars are made of modified AISI 4145H chromium molybdenum alloy steel. These drill collar bars are full-length heat treated and water quenched to obtain ASTM A-370 mechanical properties. Full mechanical and chemical mill test certifications are supplied with all drill collars. These mill test certifications guarantee a hardness range of 285 to 341 BHN and an impact value of 40 ft.-lbs. at room temperature one inch below the surface.

To ensure close tolerance bores, all drill collar bars are trepanned then drifted to API specifications. Bar surface finish is "as rolled" which is original mill finish.

**CONNECTIONS:** All connections are precision-machined to API specifications. API relief groove pin and bore back box stress relief are available on request. Thread roots are cold-worked to offer a greater resistance to fatigue. All connections are phosphated to minimize galling during makeup and applied with thread storage compound. Thread protectors are installed to ensure adequate joint protection during shipment.



## Spiral drill collars

The spiral cut is added to a drill collar to prevent the likelihood of differential wall-sticking by reducing wall contact between the drill collar and the wall of the hole. The box end of the spiral collar is left uncut from 79 inches from box shoulder and the pin end is left uncut 30 inches from the pin shoulder.

**When ordering or requesting quotations on drill collars, please specify:**

Out side diameter, bore and length

- Size and type of connection: each end of collar and special joint features
- Slick or Spiral

Other special features: slip and elevator recesses and/or hard band type.



Size OD	Bore		Connection Style and Size				Approx. weight
	Standard	Optional	For standard bore		For optional bore		31 ft. Lbs.
			NC	API	NC	API	
3 3/8	1 1/4	1	NC 23			2 3/8 Reg.	660
3 1/2	1 1/2	1 1/4	NC 26	2 3/8 IF	NC 26	2 3/8 IF	801
4 1/8	2	1 3/4	NC 31	2 3/8 IF	NC 31	2 3/8 IF	1043
4 3/4	2 1/4	2	NC 38	3 1/2 IF	NC 38	3 1/2 IF	1043
5	2 1/4	2	NC 38	3 1/2 IF	NC 38	3 1/2 IF	1451
6	2 1/4	2 13/16	NC 44		NC 40	4 1/2 FH	2561
6 1/4	2 1/4	2 13/16	NC 46	4 IF	NC 46	4 IF	2806
6 1/2	2 1/4	2 13/16	NC 46	4 IF	NC 50	4 1/2 IF	3085
6 3/4	2 1/4	2 13/16	NC 46	4 IF	NC 50	4 1/2 IF	3364
7	2 13/16	2 1/4	NC 50	4 1/2 IF	NC 50	4 1/2 IF	3643
7 1/4	2 13/16	3	NC 50	4 1/2 IF		5 1/2 FH	3714
7 3/4	2 13/16	3	NC 56	6 3/8 Reg.	NC 56	6 3/8 Reg.	4337
8	2 13/16	3	NC 56	6 3/8 Reg.	NC 56	6 3/8 Reg.	4675
8 1/4	2 13/16	3		6 3/8 Reg.		6 3/8 Reg.	5016
8 1/2	2 13/16	3		6 3/8 Reg.		6 3/8 Reg.	5337
9	3	2 13/16	NC 61	7 3/8 Reg.	NC 61	7 3/8 Reg.	6070
9 1/2	3	2 13/16		7 3/8 Reg.		7 3/8 Reg.	6727
10	3	2 13/16	NC 70	8 3/8 Reg.	NC 70	8 3/8 Reg.	7532
11	3	2 13/16	NC 77	8 3/8 Reg.	NC 77	8 3/8 Reg.	9269

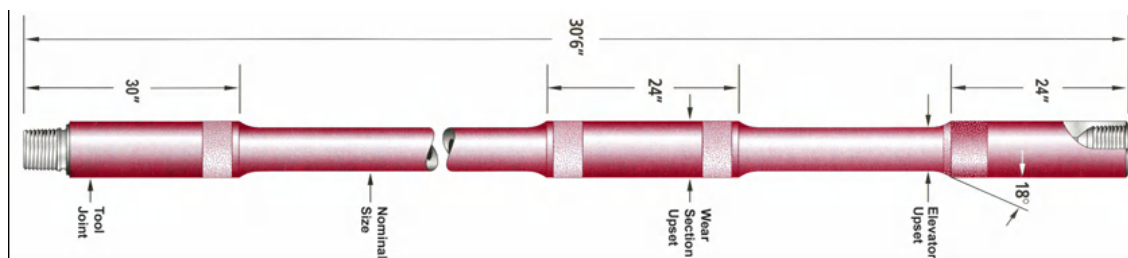
## Heavy weight drill pipe

Improve drill string performance with the recommended use of Heavy weight drill pipe.

Heavy Weight Drill Pipe is the industry standard for an intermediate weight drill stem member and is available in standard, spiraled and non-magnetic designs making it useful in a number of applications. It has drill pipe dimensions for easier handling. Heavy weight drill pipe utilizes a unique centre upset or wear pad to increase tube life, reduce hole drag and differential sticking problems.

### HEAVY WEIGHT DRILL PIPE Vs MAXIMUM HOLE SIZE (When used as bit weight in vertical hole)

Heavy Weight size	3½	4	4½	5	5½	6%
Max. Hole size	7	8%	9½	10½	11	13½



## Spiral heavy weight drill pipe

### QUALITY CONTROL

Each piece of Integral Spiral Heavy Weight Drill Pipe is 100% dimensionally inspected and the material is full length ultrasonically inspected. All connections are 100% inspected to conform to latest API standards. Full material certifications are provided with each piece of Integral Spiral Heavy Weight Drill Pipe.

### HARDBANDING

To optimize wear resistance, hardbanding is standard on tool joint connections and central upset. This heavy-duty hardmetal application is a closely controlled welding process applied with an automatic hardbanding machine. Hardbanding is applied 4" on the box tool joint, 4" on the pin tool joint, 1" on 18 tapered shoulder of box tool joint and two 3" band on center upset. Tungsten carbide, Arnco 100XT, Arnco 200XT, Arnco 300XT, Smooth X, ARMACOR-M and TCS TITANIUM Hardbandings are available.

### CONNECTION FEATURES

API stress relief groove on pins and boreback relief feature on boxes are standard on the 4½" and 5" Spiral Heavy Weight Drill Pipes. All connections are kemplated, coated with lubricant and provided with thread protectors. Thread roots are cold rolled on all sizes.

Nom. Size	Tool Joint OD	Nom. ID	Wall Thickness	Centre Upset OD	Centre Upset Length (ft.)	Elevator Upset	Connection Size	Approx. Overall Length Pin/Box	Approx. Overall Length (ft.)	Weight Per Foot	Weight Per Joint 30 ft.	Make Up Torque ft.-lbs
3½	4¼	2¼	0.625	4	18.5	3%	NC 38 (3½ IF)	25/23	30.5	26.7	600	9,900
4	5¼	2 <sup>9</sup> / <sub>16</sub>	0.719	4½	18.5	4 <sup>1</sup> / <sub>8</sub>	4 FH	25/23	30.5	30	900	14,5
4½	6¼	2 <sup>13</sup> / <sub>16</sub>	0.875	5	18.5	4%	NC 46 (4 IF)	25/23	30.5	45	1,35	21,8
5	6½	3	1.000	5½	18.5	5%	NC 50 (4½ IF)	25/23	30.5	54	1,62	29,4
5½	7	3½	1.063	6	18.5	5 <sup>11</sup> / <sub>16</sub>	5½ FH	25/23	30.5	62.7	1,88	33,2
6%	8	4	1.312	7%	18.5	6%	6% FH	25/23	30.5	77	2,31	46,9

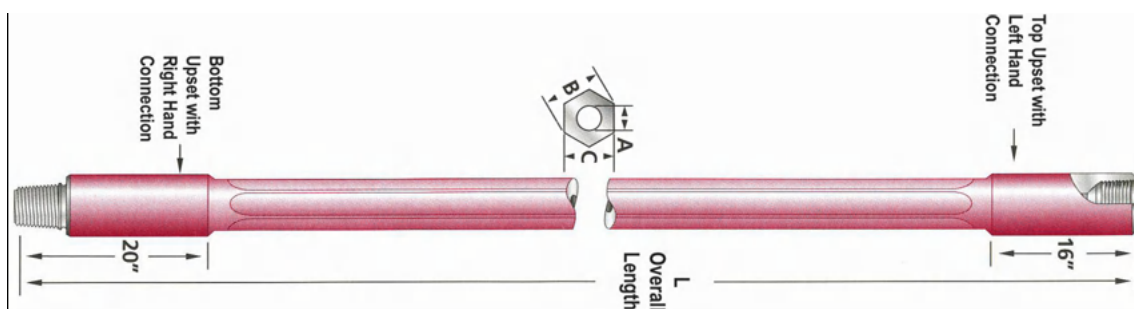
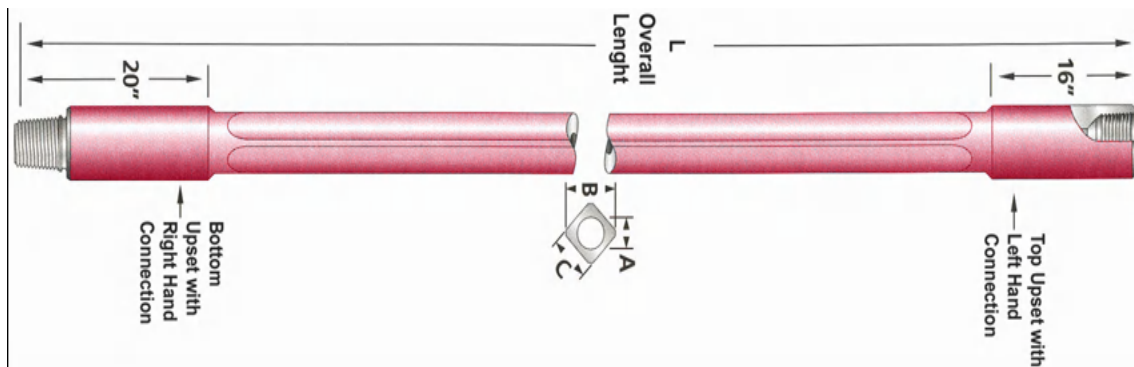


## Rotary kellys

The kellys are made from AISI 4145H modified alloy bars which are quenched and tempered full length. A hardness range of 285 to 341 BHN and a minimum impact value of 40 ft.-lbs. are maintained one below the surface at room temperature. All ends and center drive sections are machined. The kellys are precision-trepanned to provide true bores. The kellys are drifted to API specifications, all connections are precision-machined and quality-assurance inspected.

**When ordering or requesting quotations on kellys, please specify:**

- Hexagonal or Square Kelly.
- Nominal Size
- Bore
- Size and type of Top connection
- Size and type of Bottom connection
- Top upset OD
- Bottom upset OD
- Plain shipping scabbards are available.



## Square kellys

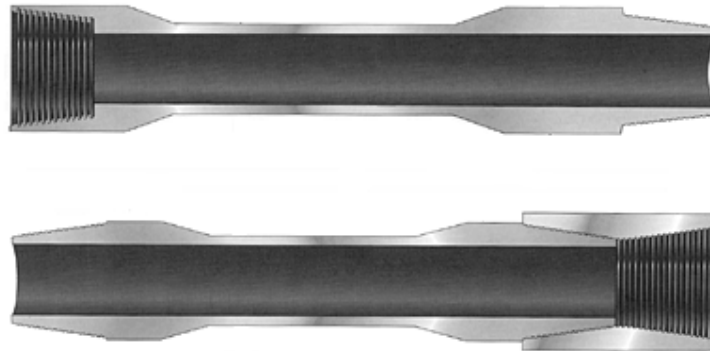
Nom. Size	Available Lengths (ft.) (L)	Top Upset		Bottom Upset		Bore (A)	Drive Section		Approx. wt. per 40 ft. (lbs)
		API Box Thread Left Hand	OD	Right Hand Connect-ion	OD		Across Corners (B)	Across Flats (C)	
3½	40, 42, 46	6% Reg.	7¾	NC 38	4¾	2¼	4.437	3½	1320
		4½ Reg.	5¾	(3½ IF)					
4¼	40, 42, 46	6% Reg.	7¾	NC 46 (4 IF)	6-6¾	2 <sup>13</sup> / <sub>16</sub>	5.500	4¼	1820
				NC 50 (4½ IF)	6¾-6¾				
5¼	40, 42, 46, 54	6% Reg.	7¾	NC 56 or 5½ FH	7	3	6.750	5¼	2780
6	40, 42, 46	6% Reg.	7¾	6% Reg.	7¾	3	7.625	6	3700

## Hexagonal kellys

Nominal Size	Available Lengths (ft.) (L)	Top Upset		Bottom Upset		Bore (A)	Drive Section		Approx. wt. per 40 ft. (lbs)
		API Box Thread Left Hand	OD	Right Hand Connect-ion	OD		Across Corners (B)	Across Flats (C)	
3½	40, 42, 46	6% Reg.	7¾	NC 31 (2¾ IF)	4¾	1¾	3.937	3½	1320
		4½ Reg.	5¾						1200
4¼	40, 42, 46	6% Reg.	7¾	NC 38 (3½ IF)	4¾	2¼	4.781	4¼	1740
5¼	40, 42, 46, 54	6% Reg.	7¾	NC 46 (4 IF)	6 - 6¾	2 <sup>13</sup> / <sub>16</sub>	5.900	5¼	2550
				NC 50 (4½ IF)	6¾-6¾				
6	40, 42, 46	6% Reg.	7¾	NC 56 or 5½ FH	7	3	6.812	6	3040

## Pup joints

Drill Pipe Pup Joints is important drill stem component for special drilling or testing operations. This short drill pipe section is used to locate the top box of the drill string at a specified distance from the rig floor.



## Couplings

Accessories where threaded and coupled pipes are joined.

