

ELEBOR^R

ELEBOR S.A.

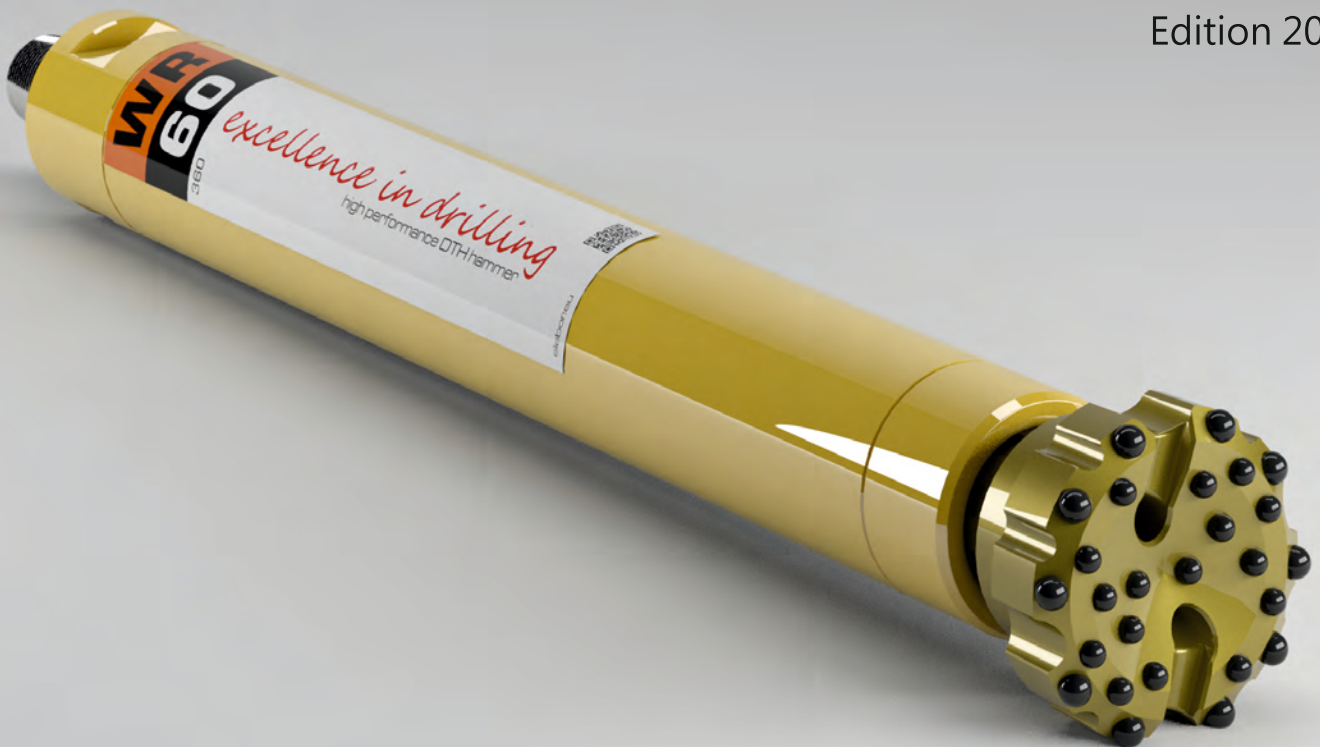
HELLENIC GEOTECHNICAL EQUIPMENT



Catalogue

Down-The-Hole drilling tools

Edition 2023



Boring - Drilling - Tunnelling - Mining - Construction - Geotechnical



ELEBOR DTH drilling tools



**a complete line
of D.T.H. drilling tools**



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WR-series

“Hammers designed for lower air consumption demanding less fuel without compromising the power.”



Internal parts are manufactured to precise tolerances to achieve highest efficiency and minimum wear.

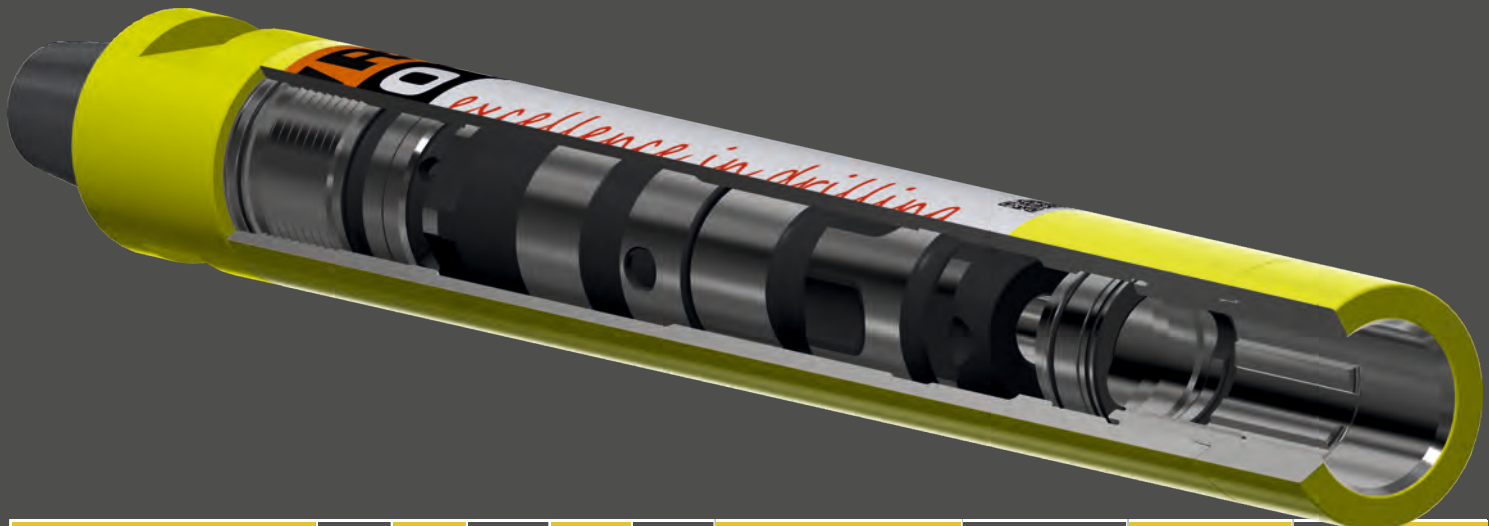
Design has been focused on optimizing air distribution while reducing the number of holes on the cylinder. This results in achieving penetration rates increased up to 30% in relation to similar design hammers in the market.

Piston is designed to achieve a high mass with a high impacting power. It is made of heat-treated alloy steel with tight tolerances in order to reduce wear and maintain highest efficiency over entire life of the hammer.

Casing is made of heat-treated alloy steel of a high strength and a very good wear resistant surface contributing to the overall reliability and life of the hammer.

Driver chuck is made up also from heat-treated steel to resist abrasion from the cuttings and from the reciprocating bit.

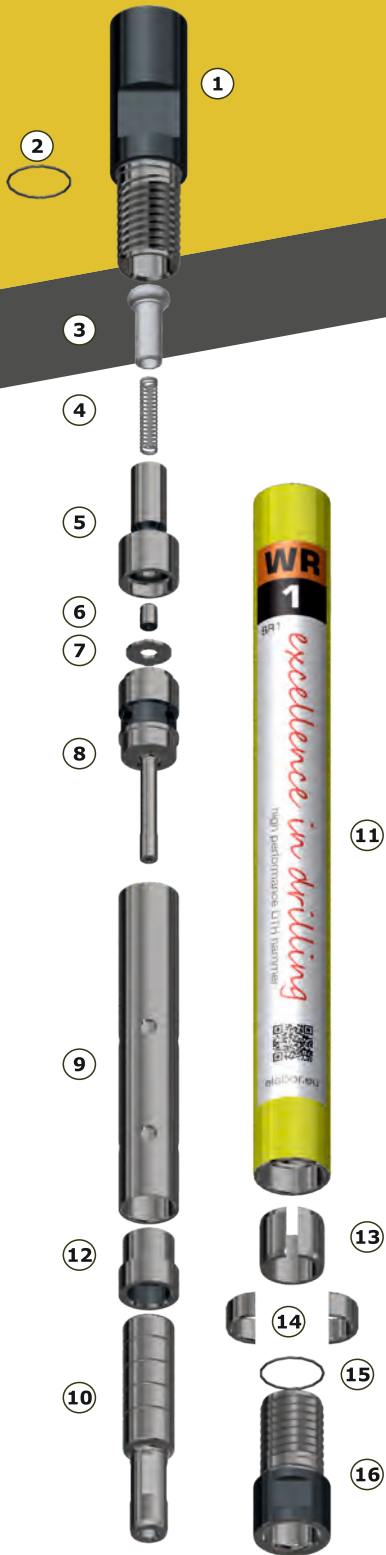
As standard, three-start threads are precision CNC machined on the chuck to achieve best fitment and retainment to the casing whilst enabling smooth disassembly for bit changes.



		1	2	20	30	35	40			50	60		80	112		
Hammer nom. diam.		1"	2"	2.5"	3"	3.5"	4"			5"	6"		8"	12"		
Length (without bit)	mm	708	868	806	909	808	881	881	955	992	972	1.135	1.080	1.228	1.895	
	(inch)	27,9	34,2	31,7	35,8	31,8	34,7	34,7	37,6	39,1	38,3	44,7	42,5	48,3	74,6	
External diameter	mm	54	63	70	80	80	99	102	99	126	126	144	144	182	272	
	(inch)	2,1	2,5	2,8	3,1	3,1	3,9	4,0	3,9	5,0	5,0	5,7	5,7	7,2	10,7	
Weight (without bit)	kg	9	15	18	23	23	38	41	39	74	74	112	110	180	620	
	(lbs)	0,3	0,6	0,7	0,9	0,9	1,5	1,6	1,5	2,9	2,9	4,4	4,3	7,1	24,4	
Piston weight	kg	1,0	2,7	4,0	5,1	5,1	8,2	8,2	9,0	14,6	14,6	23,9	23,9	41,3	120,3	
	(lbs)	0,0	0,1	0,2	0,2	0,2	0,3	0,3	0,4	0,6	0,6	0,9	0,9	1,6	4,7	
Bit shank		BR1	BR2	R20	M30	DHD 3.5	DHD 340A	DHD 340A	M40	DHD 350R	QL50	DHD 360	QL60	DHD 380	SD12	
Top sub thread		Rd40	Rd50	BWJ	2.3/8" REG	2.3/8" REG	2.3/8" REG	2.3/8" REG	2.3/8" REG	3.1/2" REG	3.1/2" REG	3.1/2" REG	3.1/2" REG	4.1/2" REG	6.5/8" REG	
Bit diameter	Min	mm (inch)	60 2.3/8"	70 2.3/4"	76 3"	90 3.1/2"	90 3.1/2"	105 4.1/8"	105 4.1/8"	105 4.1/8"	133 5.1/4"	133 5.1/4"	0 0,0	0 6"	200 7.7/8"	305 12"
	Max	mm (inch)	76 3"	80 3.1/8"	90 3.1/2"	105 4.1/8"	105 4.1/8"	140 5.1/2"	140 5.1/2"	140 5.1/2"	152 6"	152 6"	0 0,0	254 0,0	305 12"	445 17.1/2"

WR-1

1" hammer

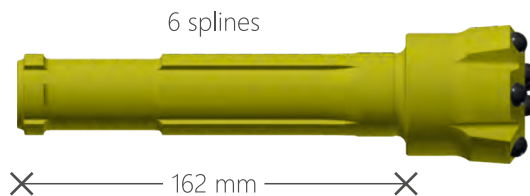
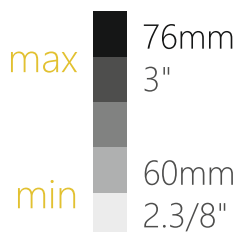


External diameter	Length (without bit)	Weight (without bit)
54 mm 2.1"	708 mm 27.9"	8.7 kg 19.2 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, Rd40-6 BOX	1,60 kg	DHD-WR100BR1001
2	Top sub O-ring	0,01 kg	DHD-WR100BR1002
3	Check valve dart	0,05 kg	DHD-WR100BR1003
4	Check valve spring	0,05 kg	DHD-WR100BR1004
5	Air distributor sleeve	0,30 kg	DHD-WR100BR1005
6	Valve pin	0,01 kg	DHD-WR100BR1006
7	Valve	0,01 kg	DHD-WR100BR1007
8	Air distributor	0,60 kg	DHD-WR100BR1008
9	Cylinder	0,70 kg	DHD-WR100BR1009
10	Piston	0,95 kg	DHD-WR100BR1010
11	Casing	3,40 kg	DHD-WR100BR1011
12	Guide sleeve	0,20 kg	DHD-WR100BR1012
13	Retainer spacer	0,10 kg	DHD-WR100BR1013
14	Bit retainer ring pair	0,10 kg	DHD-WR100BR1014
15	O-ring	0,01 kg	DHD-WR100BR1015
16	Driver chuck	0,65 kg	DHD-WR100BR1016

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
101,5	7,1	7	45,9	21,7	1,3
200,2	14,1	13,8	158,9	75,0	4,5
249,5	17,5	17,2	310,8	146,7	8,8

Drill bit sizes



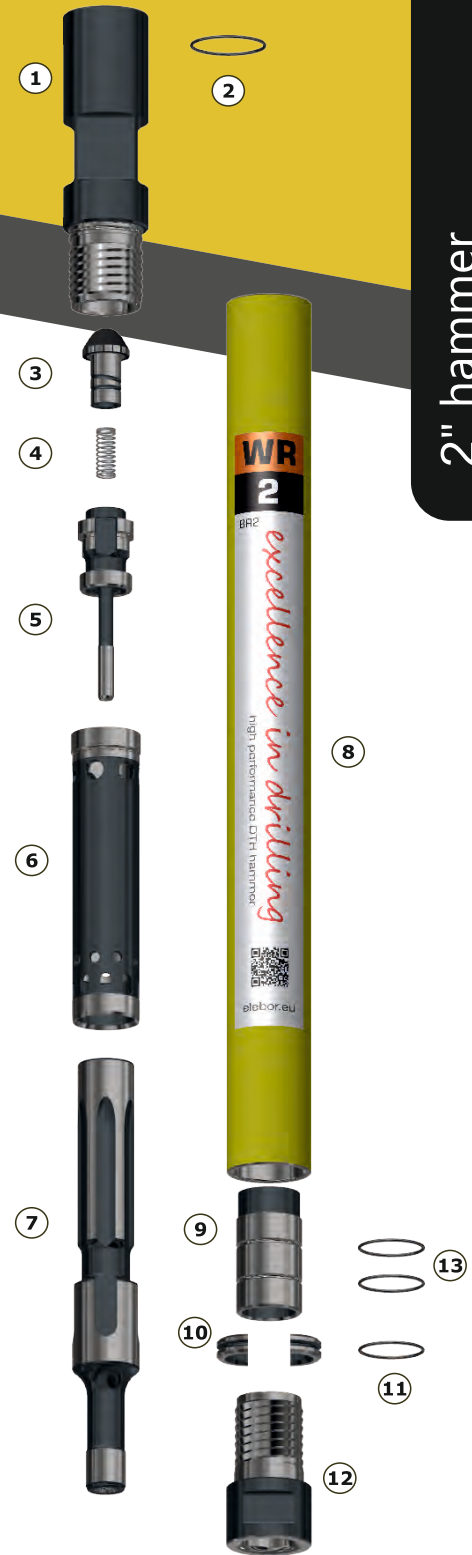
Bit shank
BR1

WR-2

External diameter	Length (without bit)	Weight (without bit)
63 mm 2.5"	867.5 mm 34.2"	14.5 kg 32 lbs

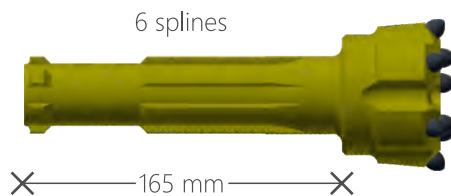
Nr.	Part description	Weight	Part Nr.
1	Top sub, Rd50-6 BOX	2,95 kg	DHD-WR200BR2001
2	Top sub O-ring	0,01 kg	DHD-WR200BR2002
3	Check valve dart	0,10 kg	DHD-WR200BR2003
4	Check valve spring	0,05 kg	DHD-WR200BR2004
5	Air distributor	0,40 kg	DHD-WR200BR2005
6	Cylinder	0,90 kg	DHD-WR200BR2006
7	Piston	2,70 kg	DHD-WR200BR2007
8	Casing	5,35 kg	DHD-WR200BR2008
9	Guide sleeve	0,55 kg	DHD-WR200BR2009
10	Bit retainer ring pair	0,01 kg	DHD-WR200BR2010
11	Bit retainer ring O-ring	0,10 kg	DHD-WR200BR2011
12	Driver chuck	1,10 kg	DHD-WR200BR2012
13	Guide sleeve O-rings	0,10 kg	DHD-WR200BR2013

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
101,5	7,1	7	70,6	33,3	2
200,2	14,1	13,8	194,2	91,7	5,5
249,5	17,5	17,2	282,5	133,3	8

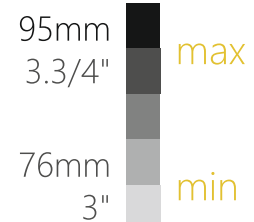


2" hammer

Bit shank
BR2

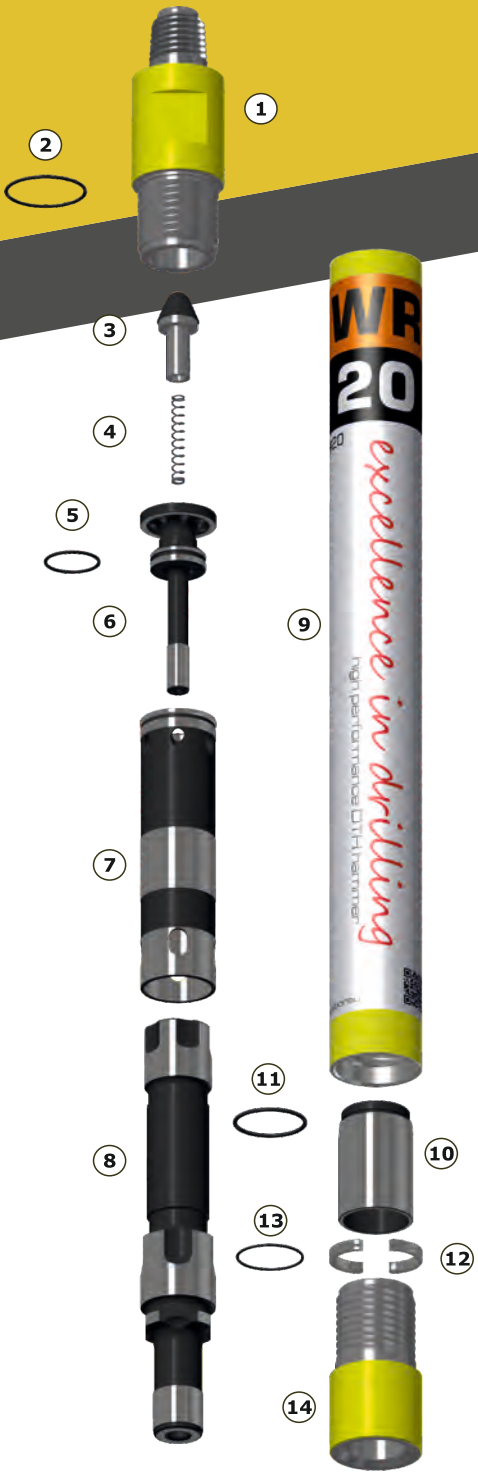


Drill bit sizes



WR-20

2.5" hammer

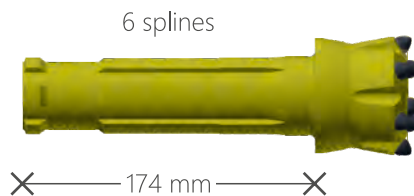
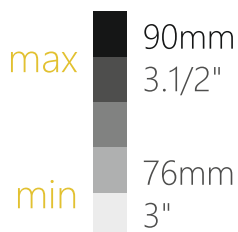


External diameter	Length (without bit)	Weight (without bit)
70 mm 2.8"	806 mm 31.7"	17.5 kg 38.6 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, BWJ PIN REG	3,35 kg	DHD-WR020R20101
2	Top sub O-ring	0,01 kg	DHD-WR020R20002
3	Check valve dart	0,10 kg	DHD-WR020R20003
4	Check valve spring	0,02 kg	DHD-WR020R20004
5	Air distributor	0,45 kg	DHD-WR020R20005
6	Air distributor O-ring	0,01 kg	DHD-WR020R20006
7	Cylinder	0,97 kg	DHD-WR020R20007
8	Piston	4,00 kg	DHD-WR020R20008
9	Casing	5,96 kg	DHD-WR020R20009
10	Guide sleeve	0,55 kg	DHD-WR020R20010
11	Guide sleeve O-ring	0,01 kg	DHD-WR020R20011
12	Bit retainer ring pair	0,06 kg	DHD-WR020R20012
13	O-ring	0,01 kg	DHD-WR020R20013
14	Driver chuck	1,74 kg	DHD-WR020R20014
A	Seal kit (2, 7, 10, 12)	0,03 kg	DHD-WR020R20020
B	Rebuild kit (1, 9, 14 & A)	11,05 kg	DHD-WR020R20030
	Top sub, Rd50-6 BOX	3,00 kg	DHD-WR020R20001

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	70,6	33,3	2
261,1	18,4	18	141,3	66,7	4
348,1	24,5	24	211,9	100,0	6

Drill bit sizes



Bit shank
R20

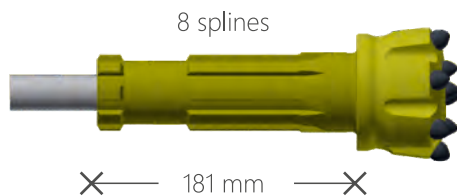
WR-35

External diameter	Length (without bit)	Weight (without bit)
80 mm 3.1"	808 mm 31.8"	22.6 kg 50 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 2.3/8" REG	5,08 kg	DHD-WR030003501
2	Top sub O-ring	0,01 kg	DHD-WR030003502
3	Check valve dart	0,14 kg	DHD-WR030003503
4	Check valve spring	0,02 kg	DHD-WR030003504
5	Steel washer	0,01 kg	DHD-WR030003505
6	Air distributor	0,82 kg	DHD-WR030003506
7	Air distributor O-ring	0,01 kg	DHD-WR030003507
8	Cylinder	1,20 kg	DHD-WR030003508
9	Piston	5,08 kg	DHD-WR0351R3509
10	Casing	8,24 kg	DHD-WR0351R3510
11	Bit retainer ring pair	0,12 kg	DHD-WR0351R3511
12	O-ring	0,01 kg	DHD-WR0351R3512
13	Driver chuck	1,79 kg	DHD-WR0351R3513
A	Seal kit (2, 7, 12)	0,03 kg	DHD-WR0351R3520
B	Rebuild kit (1, 10, 13 & A)	15,14 kg	DHD-WR0351R3530

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	158,9	75,0	4,5
261,1	18,4	18	335,5	158,3	9,5
348,1	24,5	24	441,4	208,3	12,5

Bit shank
IR DH3.5



3" hammer

Drill bit sizes

105mm 4.1/8"	max
90mm 3.1/2"	min

WR-30

M30

3" hammer

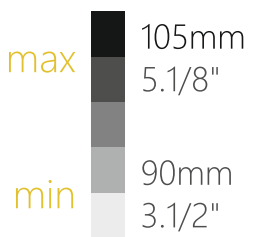


External diameter	Length (without bit)	Weight (without bit)
80 mm 3.1"	909 mm 35.8"	23 kg 50.7 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 2.3/8" REG	5,08 kg	DHD-WR030003501
2	Top sub O-ring	0,01 kg	DHD-WR030003502
3	Check valve dart	0,14 kg	DHD-WR030003503
4	Check valve spring	0,01 kg	DHD-WR030003504
5	Steel washer	0,15 kg	DHD-WR030003505
6	Air distributor	0,82 kg	DHD-WR030003506
7	Air distributor O-ring	0,01 kg	DHD-WR030003507
8	Cylinder	1,20 kg	DHD-WR030003508
9	Piston	5,08 kg	DHD-WR030MS3009
10	Casing	8,24 kg	DHD-WR030MS3010
11	Guide sleeve	0,82 kg	DHD-WR030MS3014
12	O-ring	0,01 kg	DHD-WR030MS3015
13	Retainer sleeve	0,30 kg	DHD-WR030MS3016
14	Bit retainer ring pair	0,12 kg	DHD-WR030MS3011
15	O-ring	0,01 kg	DHD-WR030MS3012
16	Driver chuck	1,79 kg	DHD-WR030MS3013
A	Seal kit (2, 7, 12)	0,04 kg	DHD-WR030MS3020
B	Rebuild kit (1, 10, 16 & A)	15,16 kg	DHD-WR030MS3030

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	134,2	63,3	3,8
261,1	18,4	18	282,5	133,3	8
348,1	24,5	24	406,1	191,7	11,5

Drill bit sizes



Bit shank
M30

WR-40

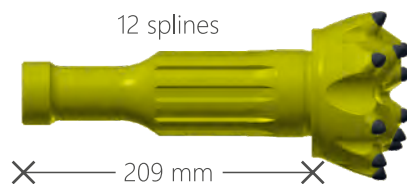
M40

External diameter	Length (without bit)	Weight (without bit)
99 mm 3.9"	955 mm 37.6"	38.5 kg 85 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 2.3/8" REG	7,00 kg	DHD-WR040004001
2	Top sub O-ring	0,01 kg	DHD-WR040004002
3	Check valve dart	0,30 kg	DHD-WR040004003
4	Check valve spring	0,05 kg	DHD-WR040004004
5	Steel washer	0,15 kg	DHD-WR040004005
6	Air distributor	1,40 kg	DHD-WR040MS4006
7	Air distributor O-ring	0,01 kg	DHD-WR040004007
8	Cylinder	2,00 kg	DHD-WR040004008
9	Piston	9,04 kg	DHD-WR040MS4009
10	Casing	15,70 kg	DHD-WR040MS4010
11	Guide sleeve	1,05 kg	DHD-WR040MS4014
12	Bit retainer ring pair	0,48 kg	DHD-WR040MS4011
13	O-ring	0,01 kg	DHD-WR040MS4012
14	Driver chuck	3,13 kg	DHD-WR040MS4013
A	Seal kit (2, 7, 12)	0,03 kg	DHD-WR040MS4020
B	Rebuild kit (1, 10, 16 & A)	26,46 kg	DHD-WR040MS4030

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	158,9	75,0	4,5
261,1	18,4	18	317,8	150,0	9
348,1	24,5	24	494,4	233,3	14

Bit shank
M40



4" hammer

Drill bit sizes

140mm	max
5.1/2"	
105mm	min
4.1/8"	

WR-40

IR DHD340A

4" hammer

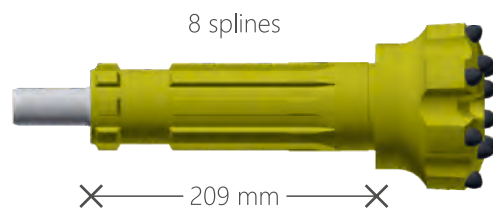
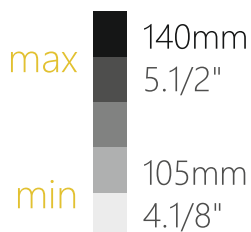


External diameter	Length (without bit)	Weight (without bit)
99 mm 3.9"	881 mm 34.7"	38 kg 84 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 2.3/8" REG	6,50 kg	DHD-WR040004001
2	Top sub O-ring	0,01 kg	DHD-WR040004002
3	Check valve dart	0,30 kg	DHD-WR040004003
4	Check valve spring	0,05 kg	DHD-WR040004004
5	Steel washer	0,15 kg	DHD-WR040004005
6	Air distributor	1,40 kg	DHD-WR040IR4006
7	Air distributor O-ring	0,01 kg	DHD-WR040004007
8	Cylinder	2,00 kg	DHD-WR040004008
9	Piston	8,20 kg	DHD-WR040IR4009
10	Casing	15,00 kg	DHD-WR040IR4010
11	Bit retainer ring pair	0,34 kg	DHD-WR040IR4011
12	O-ring	0,01 kg	DHD-WR040IR4012
13	Driver chuck	4,00 kg	DHD-WR040IR4014
A	Seal kit (2, 7, 12)	0,03 kg	DHD-WR040IR4020
B	Rebuild kit (1, 10, 13 & A)	25,53 kg	DHD-WR040IR4030

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	176,6	83,3	5
261,1	18,4	18	360,2	170,0	10,2
348,1	24,5	24	529,7	250,0	15

Drill bit sizes



Bit shank
IR DHD340A

WR-40HD

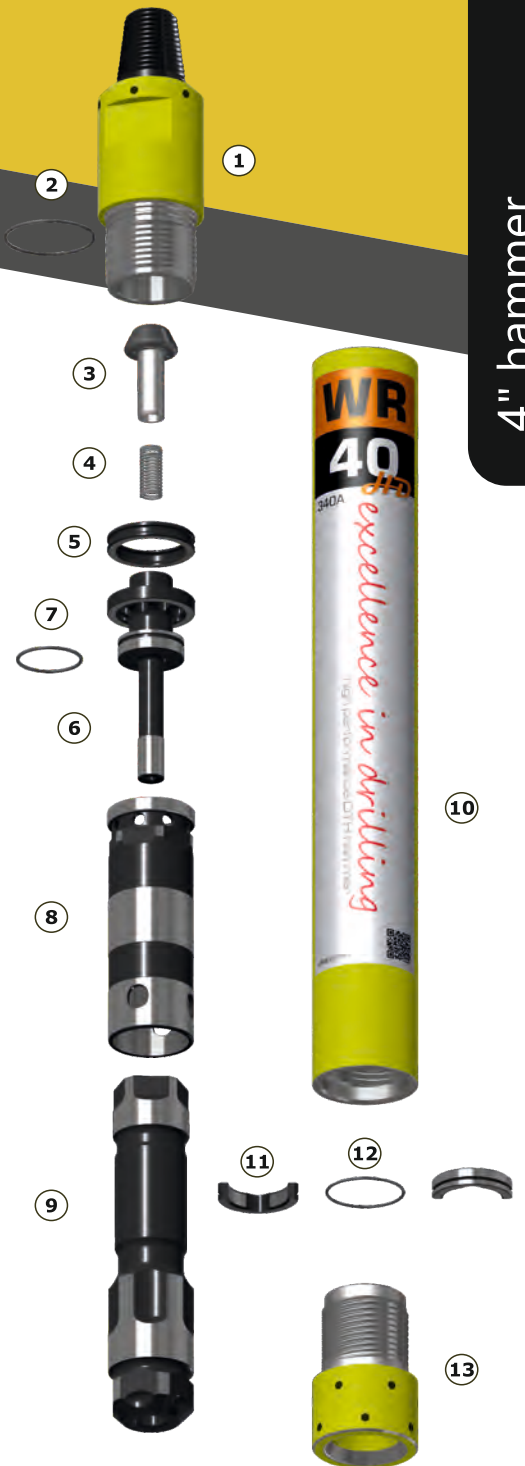
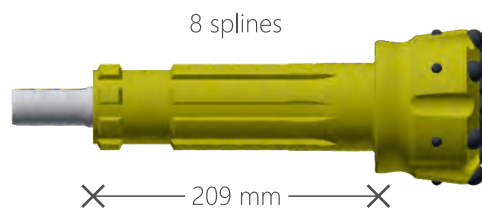
IR DHD340A

External diameter	Length (without bit)	Weight (without bit)
101.5 mm 4"	881 mm 34.7"	41 kg 90.4 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 2.3/8" REG, HD	6,60 kg	DHD-WR040004101
2	Top sub O-ring	0,01 kg	DHD-WR040004002
3	Check valve dart	0,30 kg	DHD-WR040004003
4	Check valve spring	0,05 kg	DHD-WR040004004
5	Steel washer	0,15 kg	DHD-WR040004005
6	Air distributor	1,40 kg	DHD-WR040IR4006
7	Air distributor O-ring	0,01 kg	DHD-WR040004007
8	Cylinder	2,00 kg	DHD-WR040004008
9	Piston	8,20 kg	DHD-WR040IR4009
10	Casing, HD	17,72 kg	DHD-WR040IR4110
11	Bit retainer ring pair	0,34 kg	DHD-WR040IR4011
12	O-ring	0,01 kg	DHD-WR040IR4012
13	Driver chuck, HD	4,20 kg	DHD-WR040IR4114
A	Seal kit (2, 7, 12)	0,03 kg	DHD-WR040IR4020
B	Rebuild kit (1, 10, 13 & A)	28,55 kg	DHD-WR040IR4130

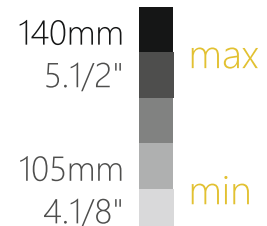
Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	176,6	83,3	5
261,1	18,4	18	360,2	170,0	10,2
348,1	24,5	24	529,7	250,0	15

Bit shank
IR DHD340A



4" hammer

Drill bit sizes



WR-50

QL50

5" hammer

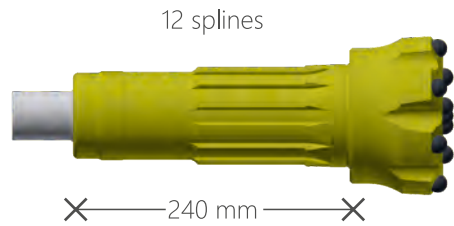
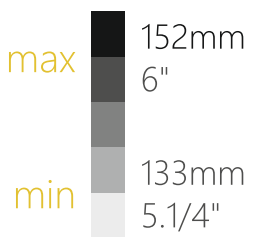


External diameter	Length (without bit)	Weight (without bit)
126 mm 5"	972 mm 38.3"	74 kg 163 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 3.1/2" REG	19,50 kg	DHD-WR050005001
2	Top sub O-ring	0,01 kg	DHD-WR050005002
3	Check valve dart	0,30 kg	DHD-WR040004003
4	Check valve spring	0,05 kg	DHD-WR040004004
5	Steel washer	0,27 kg	DHD-WR050005005
6	Air distributor	2,82 kg	DHD-WR050IR5006
7	Air distributor O-ring	0,01 kg	DHD-WR050005007
8	Cylinder	3,15 kg	DHD-WR050005008
9	Piston	14,58 kg	DHD-WR050QL5009
10	Casing	25,11 kg	DHD-WR050QL5010
11	Bit retainer ring pair	0,33 kg	DHD-WR050QL5011
12	O-ring	0,01 kg	DHD-WR050QL5012
13	Driver chuck	6,96 kg	DHD-WR050QL5013
14	Piston retinaer	0,59 kg	DHD-WR050QL5014
15	Piston retinaer O-ring	0,01 kg	DHD-WR050QL5015
A	Seal kit (2, 7, 12)	0,04 kg	DHD-WR050QL5020
B	Rebuild kit (1, 10, 13 & A)	51,11 kg	DHD-WR050QL5030

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	264,9	125,0	7,5
261,1	18,4	18	519,1	245,0	14,7
348,1	24,5	24	688,6	325,0	19,5

Drill bit sizes



Bit shank
QL50

WR-50

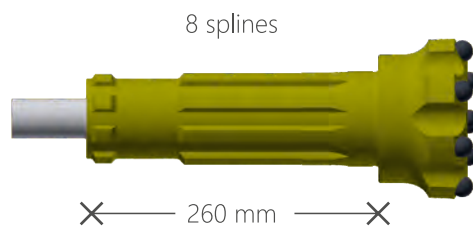
IR DHD350R

External diameter	Length (without bit)	Weight (without bit)
126 mm 5"	992 mm 39.1"	74 kg 163 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 3.1/2" REG	19,50 kg	DHD-WR050005001
2	Top sub O-ring	0,01 kg	DHD-WR050005002
3	Check valve dart	0,30 kg	DHD-WR040004003
4	Check valve spring	0,05 kg	DHD-WR040004004
5	Steel washer	0,27 kg	DHD-WR050005005
6	Air distributor	2,82 kg	DHD-WR050IR5006
7	Air distributor O-ring	0,01 kg	DHD-WR050005007
8	Cylinder	3,15 kg	DHD-WR050005008
9	Piston	14,58 kg	DHD-WR050IR5009
10	Casing	25,11 kg	DHD-WR050IR5010
11	Bit retainer ring pair	0,33 kg	DHD-WR050IR5011
12	O-ring	0,01 kg	DHD-WR050IR5012
13	Driver chuck	6,96 kg	DHD-WR050IR5013
14	Piston retinaer	0,59 kg	DHD-WR050IR5014
15	Piston retainer O-ring	0,01 kg	DHD-WR050IR5015
A	Seal kit (2, 7, 12)	0,04 kg	DHD-WR050IR5020
B	Rebuild kit (1, 10, 13 & A)	51,11 kg	DHD-WR050IR5030

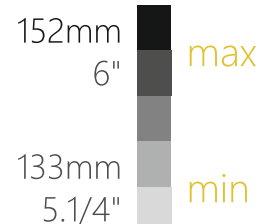
Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	264,9	125,0	7,5
261,1	18,4	18	519,1	245,0	14,7
348,1	24,5	24	688,6	325,0	19,5

Bit shank
IR DHD350R



5" hammer

Drill bit sizes

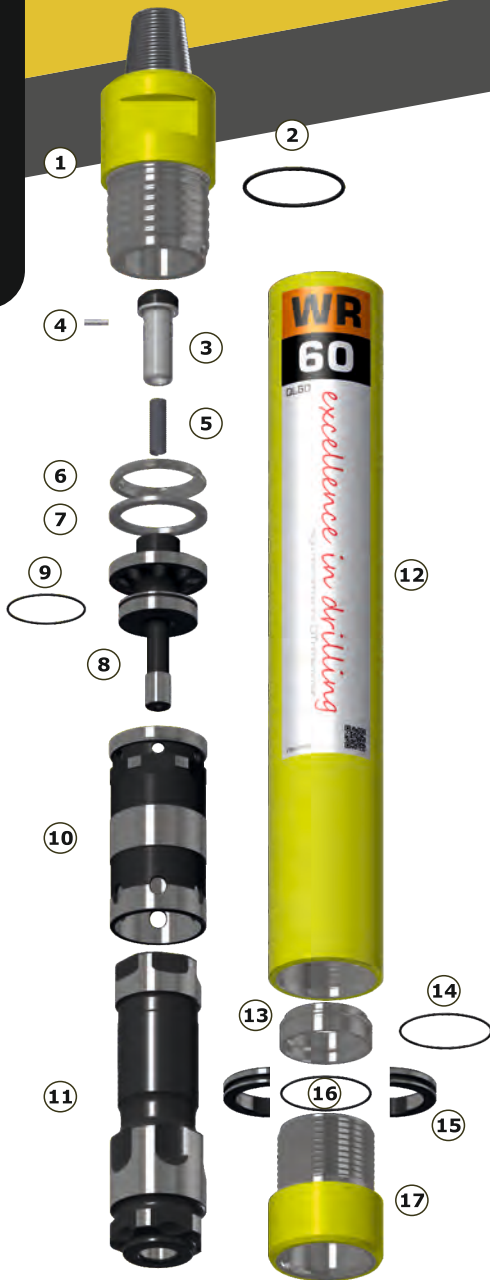


WR-60

QL60

6" hammer

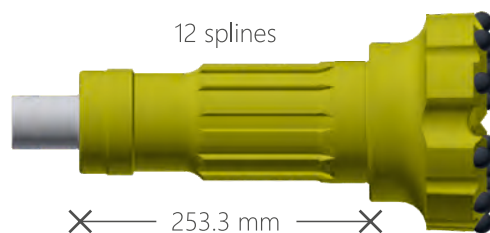
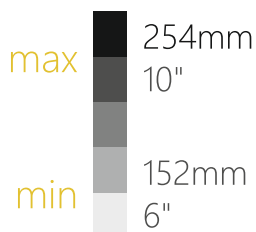
External diameter	Length (without bit)	Weight (without bit)
144 mm 5.7"	1.080 mm 42.5"	110 kg 242.5 lbs



Nr.	Part description	Weight	Part Nr.
1	Top sub, API 3.1/2" REG	22,14 kg	DHD-WR060006001
2	Top sub O-ring	0,01 kg	DHD-WR060006002
3	Check valve dart	0,80 kg	DHD-WR060006003
4	Choke blank	0,01 kg	DHD-WR060006017
5	Check valve spring	0,05 kg	DHD-WR060006004
6	Spring disc	0,35 kg	DHD-WR060006016
7	Steel washer	0,28 kg	DHD-WR060006005
8	Air distributor	3,52 kg	DHD-WR060006006
9	Air distributor O-ring	0,01 kg	DHD-WR060006007
10	Cylinder	4,45 kg	DHD-WR060006008
11	Piston	23,58 kg	DHD-WR060QL6009
12	Casing	30,52 kg	DHD-WR060QL6010
13	Piston retainer	1,20 kg	DHD-WR060QL6014
14	Piston retainer O-rings	0,01 kg	DHD-WR060QL6015
15	Bit retainer ring pair	0,58 kg	DHD-WR060QL6011
16	O-ring	0,01 kg	DHD-WR060QL6012
17	Driver chuck	7,28 kg	DHD-WR060QL6013
A	Seal kit (2, 9, 14, 16)	0,04 kg	DHD-WR060QL6020
B	Rebuild kit (1, 12, 17 & A)	59,98 kg	DHD-WR060QL6030

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	307,2	145,0	8,7
261,1	18,4	18	512,1	241,7	14,5
348,1	24,5	24	882,9	416,7	25

Drill bit sizes



Bit shank
QL60

WR-60

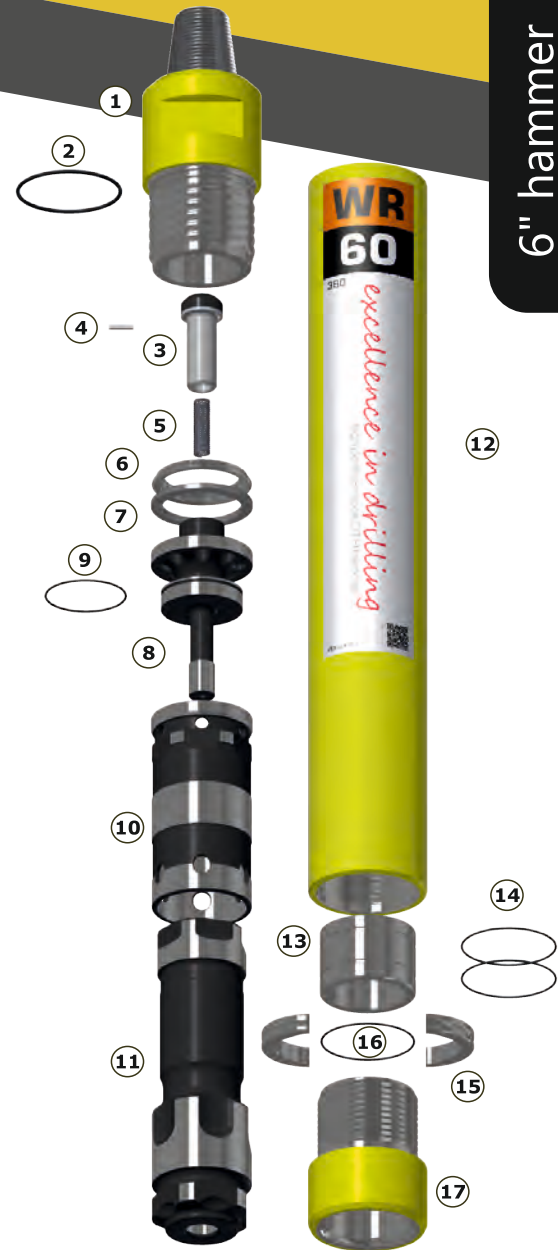
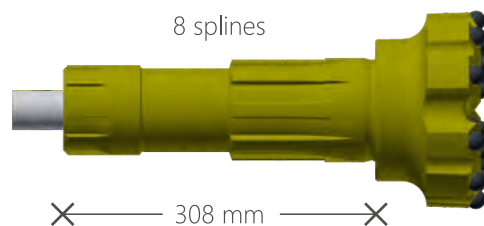
IR DHD360

External diameter	Length (without bit)	Weight (without bit)
144 mm 5.7"	1.135 mm 44.7"	112 kg 247 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 3.1/2" REG	22,14 kg	DHD-WR060006001
2	Top sub O-ring	0,01 kg	DHD-WR060006002
3	Check valve dart	0,80 kg	DHD-WR060006003
4	Choke blank	0,01 kg	DHD-WR060006017
5	Check valve spring	0,05 kg	DHD-WR060006004
6	Spring disc	0,35 kg	DHD-WR060006016
7	Steel washer	0,28 kg	DHD-WR060006005
8	Air distributor	3,52 kg	DHD-WR060006006
9	Air distributor O-ring	0,01 kg	DHD-WR060006007
10	Cylinder	4,45 kg	DHD-WR060006008
11	Piston	23,87 kg	DHD-WR060IR6009
12	Casing	32,57 kg	DHD-WR060IR6010
13	Piston retainer	2,62 kg	DHD-WR060IR6014
14	Piston retainer O-rings	0,02 kg	DHD-WR060IR6015
15	Bit retainer ring pair	0,84 kg	DHD-WR060IR6011
16	O-ring	0,01 kg	DHD-WR060IR6012
17	Driver chuck	8,94 kg	DHD-WR060IR6013
A	Seal kit (2, 9, 14, 16)	0,05 kg	DHD-WR060IR6020
B	Rebuild kit (1, 12, 17 & A)	63,70 kg	DHD-WR060IR6030

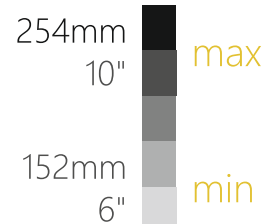
Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	307,2	145,0	8,7
261,1	18,4	18	512,1	241,7	14,5
348,1	24,5	24	882,9	416,7	25

Bit shank
IR DHD360



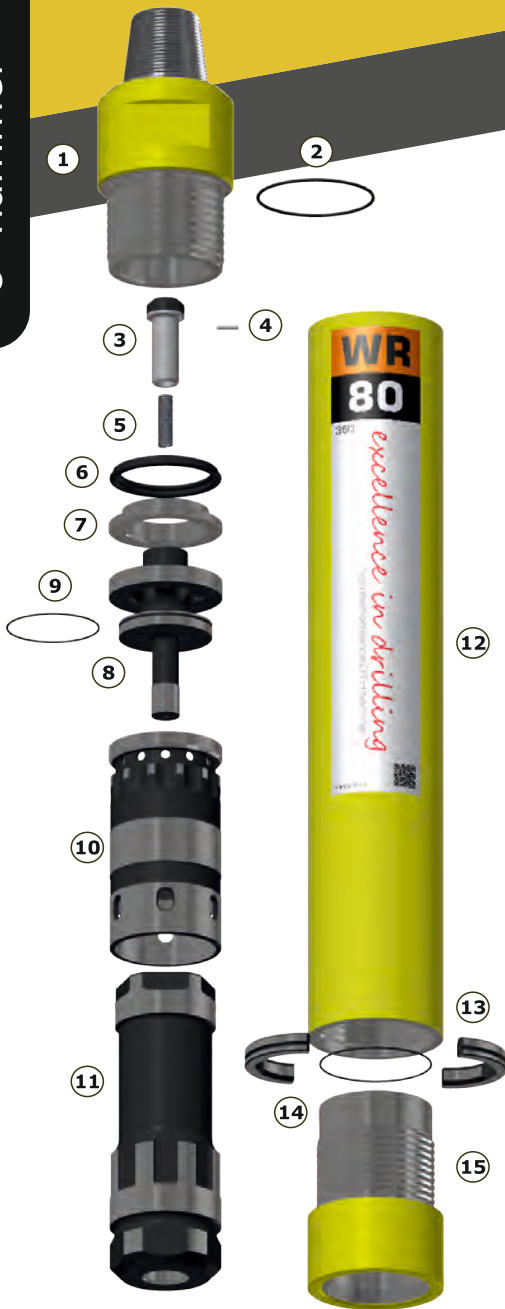
6" hammer

Drill bit sizes



WR-80

8" hammer

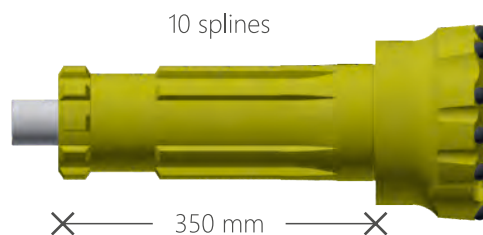
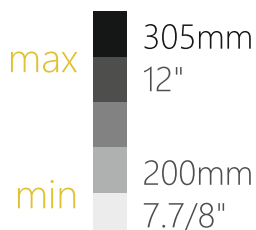


External diameter	Length (without bit)	Weight (without bit)
182 mm 7.2"	1.228 mm 48.3"	180 kg 397 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 4.1/2" REG	40,48 kg	DHD-WR080008001
2	Top sub O-ring	0,01 kg	DHD-WR080008002
3	Check valve dart	0,80 kg	DHD-WR060006003
4	Choke blank	0,01 kg	DHD-WR060006017
5	Check valve spring	0,05 kg	DHD-WR060006004
6	Spring disc	0,80 kg	DHD-WR080008016
7	Steel washer	1,13 kg	DHD-WR080008005
8	Air distributor	8,15 kg	DHD-WR080008006
9	Air distributor O-ring	0,01 kg	DHD-WR080008007
10	Cylinder	7,30 kg	DHD-WR080008008
11	Piston	41,31 kg	DHD-WR080IR8009
12	Casing	59,85 kg	DHD-WR080008010
13	Bit retainer ring pair	1,52 kg	DHD-WR080IR8011
14	O-ring	0,01 kg	DHD-WR080IR8012
15	Driver chuck	18,21 kg	DHD-WR080IR8013
A	Seal kit (2, 9, 14)	0,03 kg	DHD-WR080IR8020
B	Rebuild kit (1, 12, 15)	118,57 kg	DHD-WR080IR8030

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
145,0	10,2	10	423,8	200,0	12
261,1	18,4	18	918,2	433,3	26
348,1	24,5	24	1236,0	583,3	35

Drill bit sizes



Bit shank
DHD380

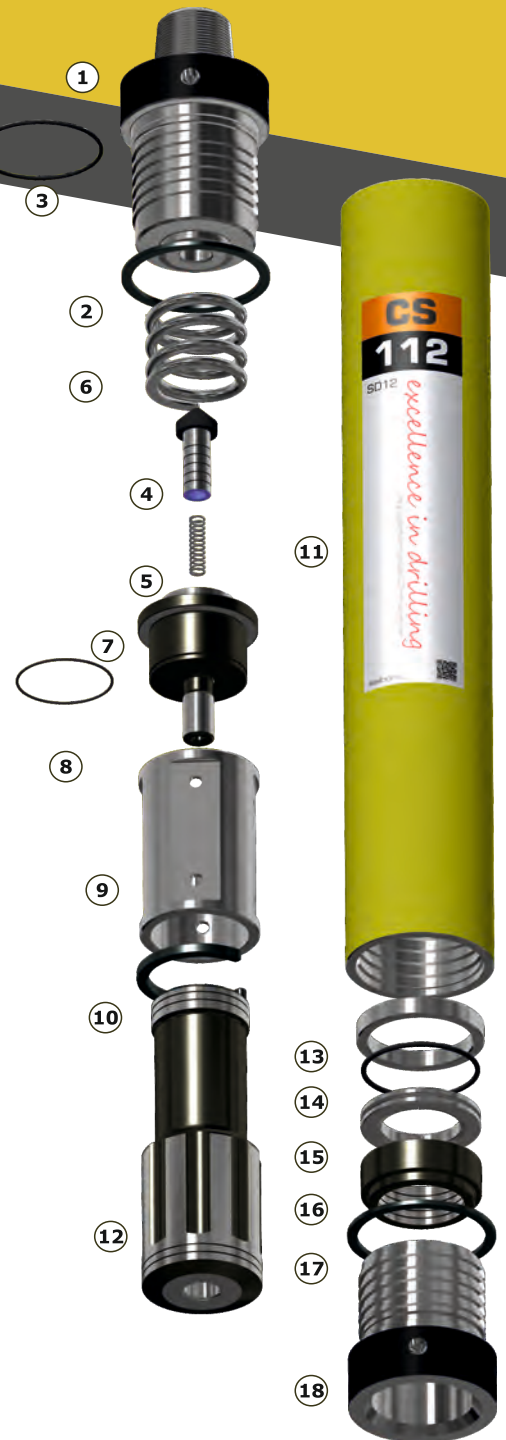
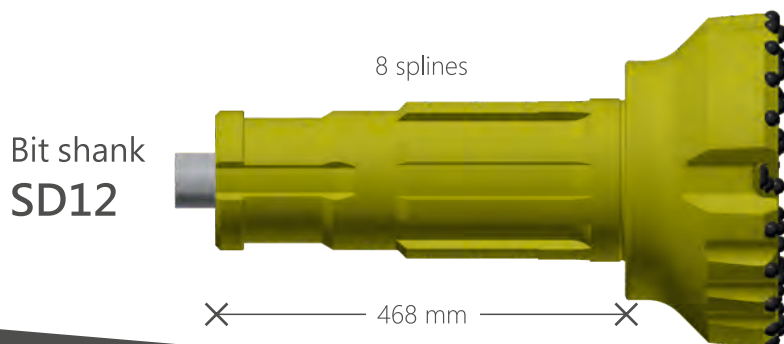
CS-112

SD12

External diameter	Length (without bit)	Weight (without bit)
272 mm 10.7"	1.895 mm 74.6"	620 kg 1.367 lbs

Nr.	Part description	Weight	Part Nr.
1	Top sub, API 6.5/8" REG	122,30 kg	DHD-CS112S12401
2	Top sub washer	1,10 kg	DHD-CS112S12402
3	Top sub O-ring	0,04 kg	DHD-CS112S12403
4	Check valve dart	0,50 kg	DHD-CS112S12404
5	Check valve spring	0,10 kg	DHD-CS112S12405
6	Buffer spring	8,00 kg	DHD-CS112S12406
7	Air distributor	31,10 kg	DHD-CS112S12407
8	Air distributor O-ring	0,01 kg	DHD-CS112S12408
9	Cylinder	26,40 kg	DHD-CS112S12409
10	Cylinder stop ring	1,40 kg	DHD-CS112S12410
11	Casing	222,00 kg	DHD-CS112S12411
12	Piston	120,30 kg	DHD-CS112S12412
13	Piston stop ring	0,50 kg	DHD-CS112S12413
14	Bit retainer O-ring	0,01 kg	DHD-CS112S12414
15	Bit retainer ring pair	4,60 kg	DHD-CS112S12415
16	Bit guide bush	10,30 kg	DHD-CS112S12416
17	Chuck washer	1,10 kg	DHD-CS112S12417
18	Driver chuck	44,70 kg	DHD-CS112S12418

Working pressure			Air consumption		
psi	kg/cm ²	bar	CFM	lt/sec	m ³ /min
100,1	7,0	6,9	600,3	283,3	17
249,5	17,5	17,2	1451,4	685,0	41,1
349,5	24,6	24,1	2069,4	976,7	58,6



12" hammer

Drill bit sizes

445mm 17.1/2"	max
305mm 12"	min

DTH Drilling

Shock absorbers



Shock absorbers

Shock absorbers are devices that are installed at the top of the DTH drill string and are typically connected directly to the drill rig rotary head. They serve the purpose to damp any vibrations or back-hammering percussion originating from the DTH hammer operation. This dampening effect protects the rotary head and the drill rig mast from damages as well as yields a smooth and silent DTH drilling operation.

		SA-35	SA-40	SA-45	SA-55	SA-65	SA-70
Nominal diameter		3"	4"	5"	6"	7"	8"
Length (without bit)	mm	540	540	800	780	780	800
	(inch)	21,3	21,3	31,5	30,7	30,7	31,5
External diameter	mm	80	95	115	140	160	180
	(inch)	3,1	3,7	4,5	5,5	6,3	7,1
Weight (without bit)	kg	15	22	50	65	86	100
	(lbs)	0,6	0,9	2,0	2,6	3,4	3,9
Top sub thread		2.3/8" REG	2.3/8" REG	3.1/2" REG	3.1/2" REG	3.1/2" REG	4.1/2" REG

Down-The-Hole drill bits



Parabolic buttons



Ballistic buttons



Spherical buttons



high speed front

Is the best choice for drilling medium hard non-abrasive formations, e.g. limestone, shale etc. when objective is the increase of productivity. Specially designed bit front for achieving maximum penetration rate dressed with ballistic or parabolic shaped buttons, a combination resulting in high speed drilling. The special face design allows buttons to wear evenly and permit easy regrinding.

convex front

Is the primary choice for drilling medium hard non-abrasive formations, e.g. limestone, shale etc.

Specially designed bit front for achieving maximum penetration rate dressed with ballistic shaped buttons and featuring a protruding central front section.

It can be alternatively selected for use in hard abrasive formations when high penetration rate is the main

flat front

Is the standard front design featuring large spherical gauge buttons.

Flushing holes are discharged at the cutting face providing efficient cuttings removal.

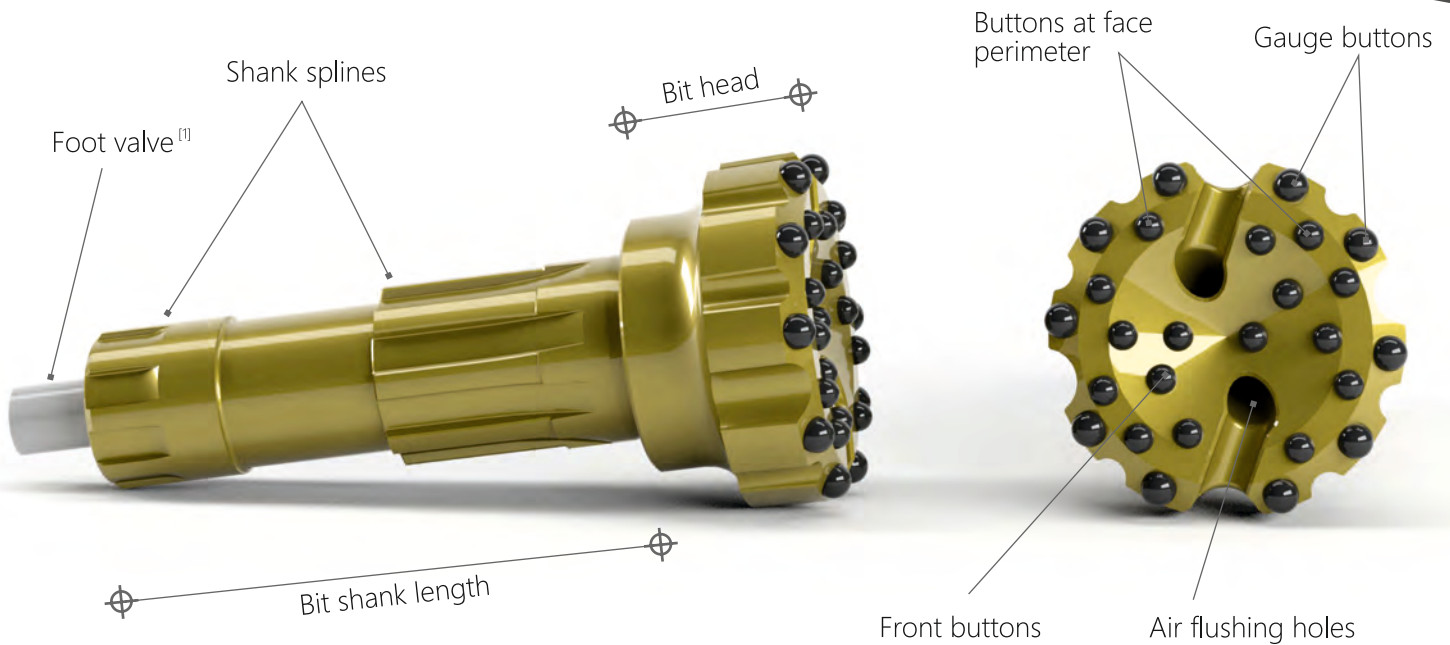
Bits fitted with flat front are suitable for hard and abrasive formations, e.g. granite, hard limestone, basalt etc.

concave front

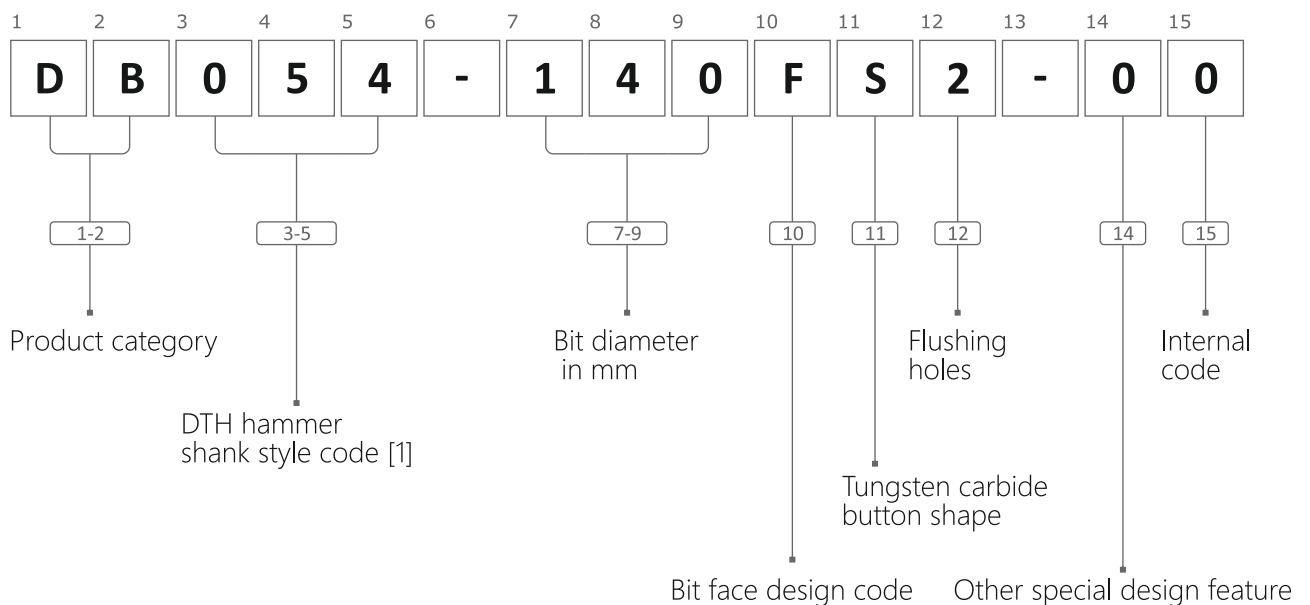
Ideal choice for medium hard to hard but less abrasive and fractured formations, e.g. granite, limestone, basalt etc. The cutting head is dressed with spherical buttons and the central section of the front is depressed. Offers good control over the hole deviation.

A Heavy-Duty (HD) version featuring larger gauge buttons is available as an alternative choice when drilling in medium hard to hard but also abrasive and fractured formations. This version is available for bits

bit terminology

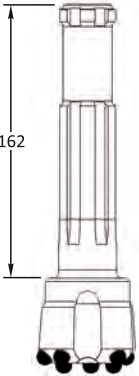


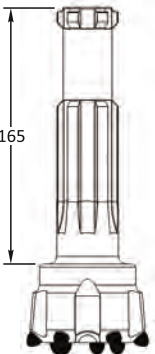
guide to coding system

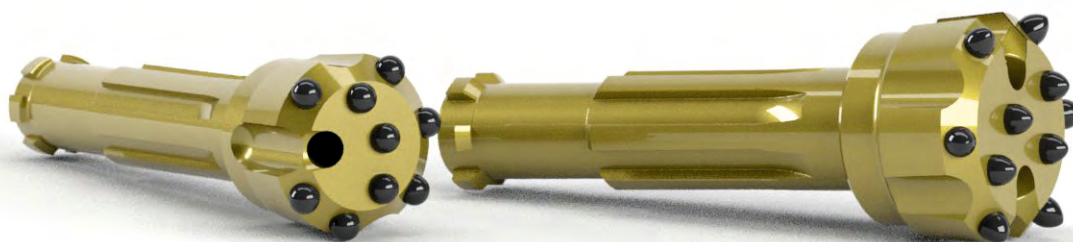


[1] Some bit types does not feature foot valve

DTH drill bits for 1"-2" hammers

Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight kg
	mm	inch		Gauge	Perimet.	Centre			
BR 1	Flat face design								
 6 Splines 162	60	2-3/8"	DB010-060FH1-01	6 X 10	3 X 10	45°	1	1,8	
	64	2-1/4"	DB010-064FH1-01	6 X 10	3 X 10	45°	1	1,9	
BULROC 1									

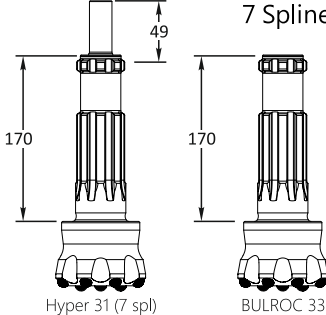
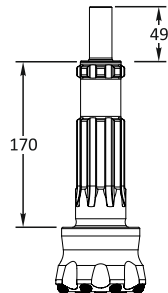
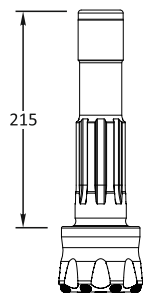
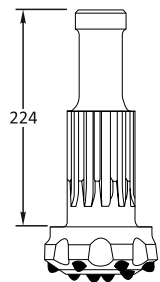
Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight kg
	mm	inch		Gauge	Perimet.	Centre			
BR 2	Flat face design								
 6 Splines 165	70	2-3/4"	DB020-070FH2-01	6 X 10	4 X 10	45°	2	2,5	
	70	2-3/4"	DB020-070FP2-01	6 X 10	4 X 10	45°	2	2,5	
	76	3"	DB020-076FH2-01	6 X 10	4 X 10	45°	2	2,6	
	76	3"	DB020-076FP2-01	6 X 10	4 X 10	45°	2	2,6	
	80	3-1/8"	DB020-080FH2-01	6 X 10	4 X 10	45°	2	2,7	
	80	3-1/8"	DB020-080FP2-01	6 X 10	4 X 10	45°	2	2,7	
BULROC 2									



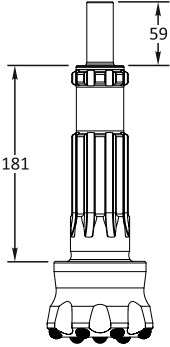
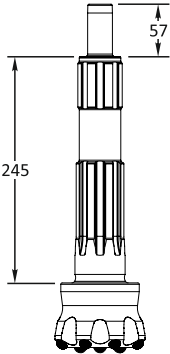


**“Down-The-Hole bits
designed to match your drilling needs”**

for 3" hammers

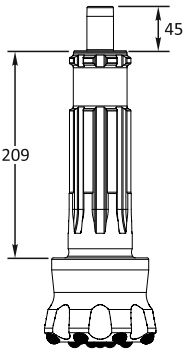
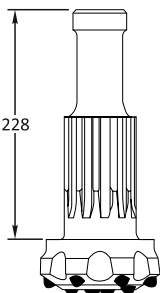
Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight
	mm	inch		Gauge	Perimet.	Centre			kg
BR33 / Hyper 31 (7 spline)									
 <p>7 Splines</p> <p>Hyper 31 (7 spl)</p> <p>BULROC 33</p>	Convex face design								
	90	3-1/2"	DB031-090VP2-01	6 X 11	4 X 9	3 X 9	45°	2	3,6
	90	3-1/2"	DB033-090VP2-01	6 X 11	4 X 9	3 X 9	45°	2	3,6
	95	3-3/4"	DB031-095VP2-01	6 X 11	4 X 9	3 X 9	45°	2	3,9
	95	3-3/4"	DB033-095VP2-01	6 X 11	4 X 9	3 X 9	45°	2	3,9
	100	3-15/16"	DB031-100VP2-01	6 X 11	4 X 11	3 X 11	45°	2	4,2
	100	3-15/16"	DB033-100VP2-01	6 X 11	4 X 11	3 X 11	45°	2	4,2
			DB031-FV1	Foot Valve					
Mach 33 / 303, Hyper 31									
 <p>8 Splines</p> <p>Mach 303</p> <p>Hyper 31</p>	Convex face design								
	85	3-3/8"	DB038-085VP2-01	6 X 11	4 X 9	3 X 9	45°	2	3,6
	90	3-1/2"	DB038-090VP2-01	6 X 11	4 X 9	3 X 9	45°	2	3,6
	95	3-3/4"	DB038-095VP2-01	6 X 11	4 X 9	3 X 9	45°	2	3,9
	100	3-15/16"	DB038-100VP2-01	6 X 11	4 X 11	3 X 11	45°	2	4,2
			DB038-FV0	Foot Valve					
			DB038-FV1	Foot Valve					
COP 32									
 <p>8 Splines</p> <p>COP 32</p>	Flat face design								
	90	3-1/2"	DB032-090FS2-00	8 X 12		5 X 12	30°	2	4,7
	95	3-3/4"	DB032-095FS2-00	8 X 12		6 X 12	30°	2	4,8
	100	3-15/16"	DB032-100FS2-00	8 X 14		7 X 12	35°	2	4,9
	102	4"	DB032-102FS2-00	8 X 14		7 X 12	35°	2	4,9
	Convex face design								
	90	3-1/2"	DB032-090VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,7
	90	3-1/2"	DB032-090VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,7
	95	3-3/4"	DB032-095VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,8
	95	3-3/4"	DB032-095VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,8
100	3-15/16"	DB032-100VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,9	
100	3-15/16"	DB032-100VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,9	
102	4"	DB032-102VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,9	
102	4"	DB032-102VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,9	
M30									
 <p>8 Splines</p> <p>MISSION 30</p> <p>RH550r 3"</p>	Flat face design								
	90	3-1/2"	DB030-090FS2-06	8 X 11		5 X 11	30°	2	4,7
	95	3-3/4"	DB030-095FS2-06	8 X 12		6 X 12	30°	2	4,7
	100	3-15/16"	DB030-100FS2-06	8 X 13		7 X 13	35°	2	5,3
	105	4-1/8"	DB030-105FS2-06	8 X 14		7 X 14	35°	2	5,3
Convex face design									
90	3-1/2"	DB030-090VB2-06	8 X 12	4 X 12	2 X 12	20/40°	2	4,7	
95	3-3/4"	DB030-095VB2-06	8 X 12	4 X 12	2 X 12	20/40°	2	4,7	
100	3-15/16"	DB030-100VB2-06	8 X 13	4 X 13	2 X 13	20/40°	2	5,3	
105	4-1/8"	DB030-105VB2-06	6 X 14	4 X 14	2 X 14	20/40°	2	5,3	

DTH drill bits for 3" hammers

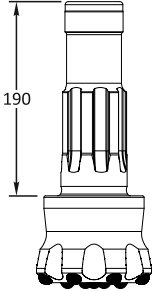
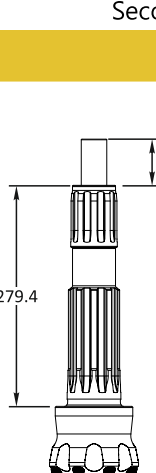
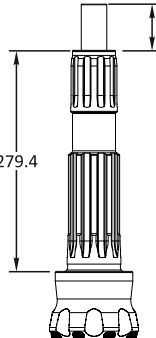
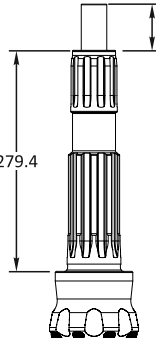
Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight
	mm	inch		Gauge	Perimet.	Centre			
DHD 3.5	Flat face design								
8 Splines 	90	3-1/2"	DB035-090FS2-00	8 X 12		5 X 12	30°	2	4,7
	95	3-3/4"	DB035-095FS2-00	8 X 12		6 X 12	30°	2	4,8
	100	3-15/16"	DB035-100FS2-00	8 X 14		7 X 12	35°	2	4,9
	102	4"	DB035-102FS2-00	8 X 14		7 X 12	35°	2	4,9
Convex face design									
IR DHD3.5 TD 35 Hyper 31/XL3* Mincon 3.5	90	3-1/2"	DB035-090VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,7
	90	3-1/2"	DB035-090VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,7
	95	3-3/4"	DB035-095VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,8
	95	3-3/4"	DB035-095VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,8
	100	3-15/16"	DB035-100VP2-01	6 X 11	4 X 11	3 X 11	20/40°	2	4,4
	100	3-15/16"	DB035-100VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,9
	100	3-15/16"	DB035-100VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,9
	102	4"	DB035-102VB2-00	6 X 12	4 X 12	2 X 12	20/40°	2	4,9
	102	4"	DB035-102VB2-10	6 X 13	4 X 12	2 X 12	20/40°	2	4,9
				DB035-FV0				Foot Valve	
			DB035-FV1				Foot Valve		
COP 34	Flat face design								
8 Splines 	90	3-1/2"	DB034-090FS2-02	8 X 13		7 X 11	35°	2	5,7
	92	3-5/8"	DB034-092FS2-02	8 X 13		7 X 11	35°	2	5,7
	95	3-3/4"	DB034-095FS2-02	8 X 13		7 X 11	35°	2	5,8
	100	3-15/16"	DB034-100FS2-02	8 X 13		7 X 13	35°	2	6,0
	105	4-1/8"	DB034-105FS2-02	8 X 14		7 X 13	35°	2	6,2
Convex face design									
Secoroc COP 34	92	3-5/8"	DB034-092VB2-02	7 X 13	4 X 13	2 X 13	20/40°	2	5,5
	95	3-3/4"	DB034-095VB2-02	7 X 13	4 X 13	2 X 13	20/40°	2	5,6
	100	3-15/16"	DB034-100VB2-02	7 X 13	4 X 13	2 X 13	20/40°	2	5,7
	105	4-1/8"	DB034-105VB2-02	7 X 14	4 X 14	2 X 14	20/40°	2	5,9
			DB034-FV2				Foot Valve		



DTH drill bits for 4" hammers

Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight kg	
	mm	inch		Gauge	Perimet.	Centre				
DHD 340A										
 <p>8 Splines</p>	Flat face design									
	105	4-1/8"	DB044-105FS2-00	8 X 14		7 X 12	35°	2	8,6	
	110	4-5/16"	DB044-110FS2-00	8 X 14		7 X 12	35°	2	8,7	
	114	4-1/2"	DB044-114FS2-00	8 X 14		8 X 12	35°	2	9,0	
	121	4-3/4"	DB044-121FS2-00	8 X 14		8 X 12	35°	2	9,7	
	127	5"	DB044-127FS2-00	8 X 16		7 X 14	35°	2	10,6	
	133	5-1/4"	DB044-133FS2-00	8 X 16		8 X 14	35°	2	11,0	
	140	5-1/2"	DB044-140FS2-00	8 X 16		8 X 16	35°	2	11,5	
	Convex face design									
	105	4-1/8"	DB044-105VB2-00	8 X 12	4 X 12	3 X 12	20/40°	2	8,6	
105	4-1/8"	DB044-105VB2-10	8 X 14	4 X 12	3 X 12	20/40°	2	8,6		
108	4-1/4"	DB044-108VP2-01	7 X 11	4 X 11	4 X 11	20/40°	2	8,6		
110	4-5/16"	DB044-110VB2-00	8 X 12	4 X 12	3 X 12	20/40°	2	8,7		
110	4-5/16"	DB044-110VB2-10	8 X 14	4 X 12	3 X 12	20/40°	2	8,7		
114	4-1/2"	DB044-114VB2-00	8 X 12	4 X 12	4 X 12	20/40°	2	9,0		
114	4-1/2"	DB044-114VB2-10	8 X 14	4 X 12	4 X 12	20/40°	2	9,0		
121	4-3/4"	DB044-121VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	9,7		
121	4-3/4"	DB044-121VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	9,7		
127	5"	DB044-127VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	10,6		
127	5"	DB044-127VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	10,6		
133	5-1/4"	DB044-133VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	11,0		
133	5-1/4"	DB044-133VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	11,0		
140	5-1/2"	DB044-140VB2-00	8 X 16	4 X 16	4 X 16	20/40°	2	11,5		
IR DHD340A	140	5-1/2"	DB044-140VB2-10	8 X 19	4 X 16	4 X 16	20/40°	2	11,5	
DHD4	Concave face design									
DH4	121	4-3/4"	DB044-121CS2-04	8 X 12	5 X 12	2 X 12	35°	2	9,7	
Secoroc COP44	124	4-7/8"	DB044-124CS2-04	8 X 20	5 X 20	2 X 20	35°	2	10,2	
Numa 4	130	5-1/8"	DB044-130CS2-04	8 X 20	6 X 20	2 X 20	35°	2	11,0	
Mincon 4HR, 4	140	5-1/2"	DB044-140CS2-04	8 X 20	6 X 20	3 X 20	35°	2	11,5	
Hyper 41				DB044-FV0			Foot Valve			
ELEBOR WR-40				DB044-FV1			Foot Valve			
M40										
 <p>12 Splines</p>	Flat face design									
	110	4-5/16"	DB040-110FS2-06	8 X 14		7 X 14	35°	2	8,0	
	115	4-1/2"	DB040-115FS2-06	8 X 14		8 X 14	35°	2	8,4	
	115	4-1/2"	DB040-115FS2-36	8 X 14		8 X 14	35°	2	8,4	
	121	4-3/4"	DB040-121FS2-06	8 X 14		8 X 14	35°	2	8,4	
	127	5"	DB040-127FS2-06	8 X 14		8 X 14	35°	2	12,0	
	127	5"	DB040-127FS2-36	8 X 14		8 X 14	35°	2	12,0	
	130	5-1/8"	DB040-130FS2-06	8 X 16		8 X 14	35°	2	14,0	
	133	5-1/4"	DB040-133FS2-06	8 X 16		8 X 14	35°	2	15,0	
	Convex face design									
110	4-5/16"	DB040-110VB2-06	8 X 14	4 X 14	3 X 14	20/40°	2	8,0		
115	4-1/2"	DB040-115VB2-06	8 X 14	4 X 14	4 X 14	20/40°	2	8,4		
115	4-1/2"	DB040-115VB2-46	8 X 14	4 X 14	4 X 14	20/40°	2	8,4		
121	4-3/4"	DB040-121VB2-06	8 X 14	4 X 14	4 X 14	20/40°	2	11,0		
127	5"	DB040-127VB2-06	8 X 14	4 X 14	4 X 14	20/40°	2	12,0		
127	5"	DB040-127VB2-46	8 X 14	4 X 14	4 X 14	20/40°	2	12,0		
MISSION 40	130	5-1/8"	DB040-130VB2-06	9 X 16	4 X 14	4 X 14	20/40°	2	14,0	
RH550r 4"	133	5-1/4"	DB040-133VB2-06	9 X 16	4 X 14	4 X 14	20/40°	2	15,0	

DTH drill bits for 4" hammers

Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight
	mm	inch		Gauge	Perimet.	Centre			
COP 42									
7 Splines									
Flat face design									
	105	4-1/8"	DB042-105FS2-00	8 X 14		7 X 12	35°	2	8,6
	110	4-5/16"	DB042-110FS2-00	8 X 14		7 X 12	35°	2	8,7
	114	4-1/2"	DB042-114FS2-00	8 X 14		8 X 12	35°	2	9,0
	121	4-3/4"	DB042-121FS2-00	8 X 14		8 X 12	35°	2	9,7
	127	5"	DB042-127FS2-00	8 X 16		7 X 14	35°	2	10,6
Convex face design									
	105	4-1/8"	DB042-105VB2-00	8 X 12	4 X 12	3 X 12	20/40°	2	8,6
	105	4-1/8"	DB042-105VB2-10	8 X 14	4 X 12	3 X 12	20/40°	2	8,6
	110	4-5/16"	DB042-110VB2-00	8 X 12	4 X 12	3 X 12	20/40°	2	8,7
	110	4-5/16"	DB042-110VB2-10	8 X 14	4 X 12	3 X 12	20/40°	2	8,7
	114	4-1/2"	DB042-114VB2-00	8 X 12	4 X 12	4 X 12	20/40°	2	9,0
	114	4-1/2"	DB042-114VB2-10	8 X 14	4 X 12	4 X 12	20/40°	2	9,0
	121	4-3/4"	DB042-121VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	9,7
	121	4-3/4"	DB042-121VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	9,7
	127	5"	DB042-127VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	10,6
	127	5"	DB042-127VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	10,6
	Secoroc COP42								
QL 40									
10 Splines									
Flat face design									
	105	4-1/8"	DB046-105FS2-00	8 X 14		7 X 12	35°	2	8,6
	110	4-5/16"	DB046-110FS2-00	8 X 14		7 X 12	35°	2	8,7
	114	4-1/2"	DB046-114FS2-00	8 X 14		8 X 12	35°	2	9,0
	121	4-3/4"	DB046-121FS2-00	8 X 14		8 X 12	35°	2	9,7
	127	5"	DB046-127FS2-00	8 X 16		7 X 14	35°	2	10,6
	133	5-1/4"	DB046-133FS2-00	8 X 16		8 X 14	35°	2	11,0
	140	5-1/2"	DB046-140FS2-00	8 X 16		8 X 16	35°	2	11,5
Convex face design									
	105	4-1/8"	DB046-105VB2-00	8 X 12	4 X 12	3 X 12	20/40°	2	8,6
	105	4-1/8"	DB046-105VB2-10	8 X 14	4 X 12	3 X 12	20/40°	2	8,6
	110	4-5/16"	DB046-110VB2-00	8 X 12	4 X 12	3 X 12	20/40°	2	8,7
	110	4-5/16"	DB046-110VB2-10	8 X 14	4 X 12	3 X 12	20/40°	2	8,7
	114	4-1/2"	DB046-114VB2-00	8 X 12	4 X 12	4 X 12	20/40°	2	9,0
	114	4-1/2"	DB046-114VB2-10	8 X 14	4 X 12	4 X 12	20/40°	2	9,0
	121	4-3/4"	DB046-121VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	9,7
	121	4-3/4"	DB046-121VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	9,7
	127	5"	DB046-127VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	10,6
	127	5"	DB046-127VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	10,6
	133	5-1/4"	DB046-133VB2-00	8 X 14	4 X 14	4 X 14	20/40°	2	11,0
	133	5-1/4"	DB046-133VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	11,0
	140	5-1/2"	DB046-140VB2-00	8 X 16	4 X 16	4 X 16	20/40°	2	11,5
	140	5-1/2"	DB046-140VB2-10	8 X 19	4 X 16	4 X 16	20/40°	2	11,5
IR QL40									
			DB046-FV0				Foot Valve		

DTH drill bits for 5" hammers

Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight kg
	mm	inch		Gauge	Perimet.	Centre			

DHD 350R

8 Splines

Flat face design

133	5-1/4"	DB054-133FS2-10	8 X 16		8 X 14	35°	2	16,0
140	5-1/2"	DB054-140FS2-00	8 X 15		8 X 15	35°	2	16,4
140	5-1/2"	DB054-140FS2-10	8 X 16		9 X 14	35°	2	16,4
146	5-3/4"	DB054-146FS2-00	8 X 18		8 X 15	35°	2	16,8
146	5-3/4"	DB054-146FS2-10	8 X 19		8 X 16	35°	2	16,8
152	6"	DB054-152FS2-00	8 X 16		8 X 14	35°	2	18,1
152	6"	DB054-152FS2-10	8 X 19		10 X 16	35°	2	18,1

Convex face design

133	5-1/4"	DB054-133VB2-10	8 X 16	4 X 14	4 X 14	20/40°	2	16,0
140	5-1/2"	DB054-140VB2-10	8 X 16	4 X 14	6 X 14	20/40°	2	16,4
140	5-1/2"	DB054-140VB2-13	8 X 16	4 X 12	4 X 12	20/40°	2	16,2
146	5-3/4"	DB054-146VB2-10	8 X 16	4 X 14	6 X 14	20/40°	2	16,8
146	5-3/4"	DB054-146VS2-53	8 X 16	4 X 12	5 X 12	20/40°	2	17,5
152	6"	DB054-152VB2-10	8 X 19	4 X 16	6 X 16	20/40°	2	18,1

Concave face design

140	5-1/2"	DB054-140CS2-04	8 X 15	4 X 13	4 X 13	20/40°	2	16,4
140	5-1/2"	DB054-140CS2-03	8 X 12	4 X 12	4 X 12	20/40°	2	16,4
146	5-3/4"	DB054-146CS2-04	8 X 15	4 X 13	6 X 13	20/40°	2	16,8

Mincon 5
Digger 5
Numa 5
Hyper 51
IR DH5

Compare Vol500
Drillquip T35350
Secoroc COP54
ELEBOR WR-50
IR DHD350R

DB054-FV0
DB054-FV3
DB054-FV4

Foot Valve
Foot Valve
Foot Valve

QL 50

12 Splines

Flat face design

133	5-1/4"	DB056-133FS2-00	8 X 16		8 X 14	35°	2	16,0
140	5-1/2"	DB056-140FS2-00	8 X 16		9 X 14	35°	2	16,4
146	5-3/4"	DB056-146FS2-00	8 X 19		8 X 16	35°	2	16,8
152	6"	DB056-152FS2-00	8 X 19		10 X 16	35°	2	18,1

Convex face design

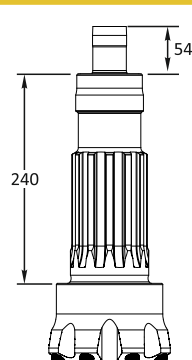
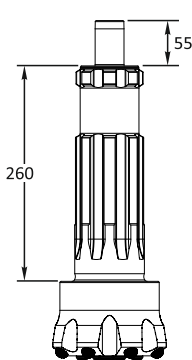
133	5-1/4"	DB056-133VB2-00	8 X 16	4 X 14	4 X 14	20/40°	2	16,0
140	5-1/2"	DB056-140VB2-00	8 X 16	4 X 14	6 X 14	20/40°	2	16,4
146	5-3/4"	DB056-146VB2-00	8 X 16	4 X 14	6 X 14	20/40°	2	16,8
152	6"	DB056-152VB2-00	8 X 19	4 X 16	6 X 16	20/40°	2	18,1

IR TD50

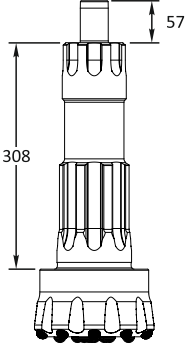
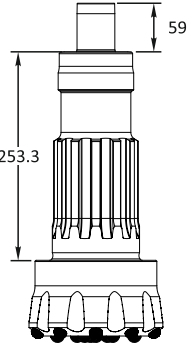
COP54 Gold
IR QL50

DB056-FV0

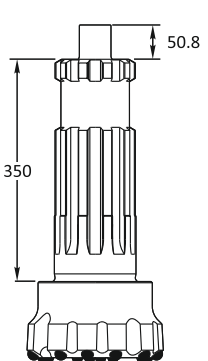
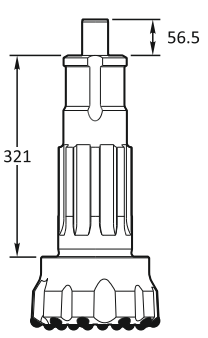
Foot Valve



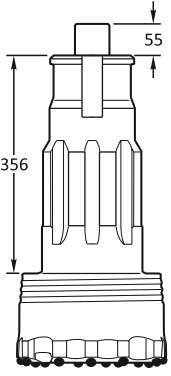
DTH drill bits for 6" hammers

Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight
	mm	inch		Gauge	Perimet.	Centre			
DHD 360									
Concave face design									
 <p>8 Splines</p>	152	6"	DB064-152CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,0
	152	6"	DB064-152CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,0
	156	6-1/8"	DB064-156CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,4
	156	6-1/8"	DB064-156CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,4
	159	6-1/4"	DB064-159CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,6
	159	6-1/4"	DB064-159CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,6
	165	6-1/2"	DB064-165CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,8
	165	6-1/2"	DB064-165CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,8
	171	6-3/4"	DB064-171CS2-00	8 X 17	6 X 16	6 X 16	35°	2	25,4
	171	6-3/4"	DB064-171CS2-10	8 X 19	6 X 16	6 X 16	35°	2	25,4
	178	7"	DB064-178CS2-00	10 X 17	6 X 16	6 X 16	35°	2	26,1
	178	7"	DB064-178CS2-10	10 X 19	8 X 16	8 X 16	35°	2	26,3
	191	7-1/2"	DB064-191CS2-00	10 X 17	8 X 16	8 X 16	35°	2	26,6
	191	7-1/2"	DB064-191CS2-10	10 X 19	8 X 16	8 X 16	35°	2	26,6
	200	7-7/8"	DB064-200CS2-00	10 X 17	8 X 16	8 X 16	35°	2	29,5
	200	7-7/8"	DB064-200CS2-10	10 X 19	8 X 16	8 X 16	35°	2	29,5
	203	8"	DB064-203CS2-00	10 X 17	8 X 16	8 X 16	35°	2	29,9
	203	8"	DB064-203CS2-10	10 X 19	8 X 16	8 X 16	35°	2	29,9
	216	8-1/2"	DB064-216CS2-00	12 X 17	8 X 16	10 X 16	35°	2	35,0
	216	8-1/2"	DB064-216CS2-10	12 X 19	8 X 16	10 X 16	35°	2	35,0
IR DHD360 COP64 Mincon 6 Minroc 6 Hyper 61/66			DB064-FV0				Foot Valve		
QL 60									
Concave face design									
 <p>12 Splines</p>	152	6"	DB066-152CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,0
	152	6"	DB066-152CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,0
	156	6-1/8"	DB066-156CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,4
	156	6-1/8"	DB066-156CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,4
	159	6-1/4"	DB066-159CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,6
	159	6-1/4"	DB066-159CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,6
	165	6-1/2"	DB066-165CS2-03	8 X 15	4 X 15	4 X 15	35°	2	24,8
	165	6-1/2"	DB066-165CS2-00	8 X 17	6 X 16	4 X 16	35°	2	24,8
	165	6-1/2"	DB066-165CS2-10	8 X 19	6 X 16	4 X 16	35°	2	24,8
	171	6-3/4"	DB066-171CS2-00	8 X 17	6 X 16	6 X 16	35°	2	25,4
	171	6-3/4"	DB066-171CS2-10	8 X 19	6 X 16	6 X 16	35°	2	25,4
	178	7"	DB066-178CS2-00	10 X 17	6 X 16	6 X 16	35°	2	26,1
	178	7"	DB066-178CS2-10	10 X 19	6 X 16	6 X 16	35°	2	26,1
	191	7-1/2"	DB066-191CS2-00	10 X 17	8 X 16	8 X 16	35°	2	26,6
	191	7-1/2"	DB066-191CS2-10	10 X 19	8 X 16	8 X 16	35°	2	26,6
	200	7-7/8"	DB066-200CS2-00	10 X 17	8 X 16	8 X 16	35°	2	29,5
	200	7-7/8"	DB066-200CS2-10	10 X 19	8 X 16	8 X 16	35°	2	29,5
	203	8"	DB066-203CS2-00	10 X 17	8 X 16	8 X 16	35°	2	29,9
	203	8"	DB066-203CS2-10	10 X 19	8 X 16	8 X 16	35°	2	29,9
	216	8-1/2"	DB066-216CS2-00	12 X 17	8 X 16	10 X 16	35°	2	35,0
216	8-1/2"	DB066-216CS2-10	12 X 19	8 X 16	10 X 16	35°	2	35,0	
IR QL60			DB066-FV0				Foot Valve		
IR DH6/SF6 Numa 6 Digger 6 Drillquip T36 ELEBOR WR-60			DB066-FV0				Foot Valve		

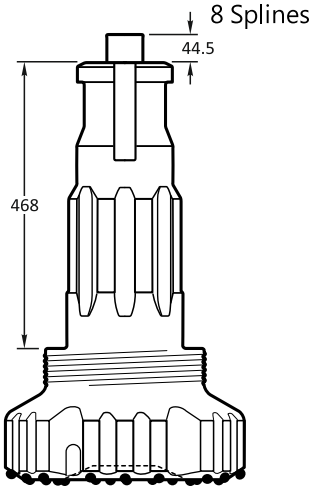
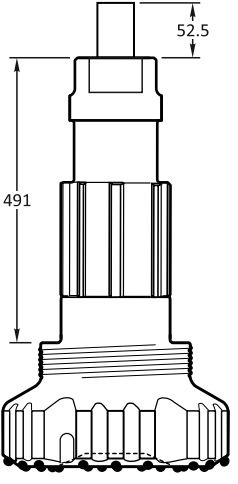
DTH drill bits for 8" hammers

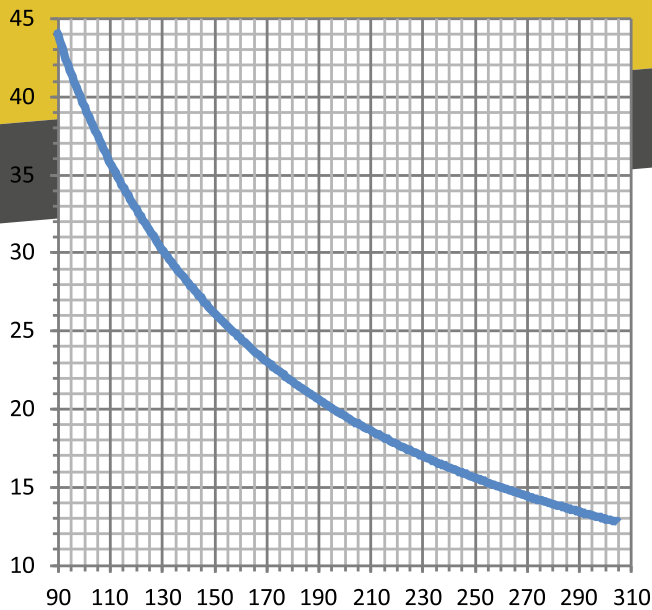
Shank style		Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight
		mm	inch		Gauge	Perimet.	Centre			kg
DHD 380		Concave face design								
10 Splines		203	8"	DB084-203CS2-00	10 X 17	8 X 16	8 X 16	35°	2	49,5
		203	8"	DB084-203CS2-10	10 X 19	8 X 16	8 X 16	35°	2	49,5
		216	8-1/2"	DB084-216CS2-03	12 X 16	8 X 16	10 X 16	35°	2	52,7
		216	8-1/2"	DB084-216CS2-04	10 X 15	8 X 15	8 X 15	35°	2	52,7
		216	8-1/2"	DB084-216CS2-00	12 X 17	8 X 16	10 X 16	35°	2	52,7
		216	8-1/2"	DB084-216CS2-10	12 X 19	8 X 16	10 X 16	35°	2	52,7
		219	8-5/8"	DB084-219CS2-04	10 X 19	8 X 19	8 X 19	35°	2	53,0
		225	8-7/8"	DB084-225CS2-00	12 X 17	8 X 16	11 X 16	35°	2	53,1
		225	8-7/8"	DB084-225CS2-10	12 X 19	8 X 16	11 X 16	35°	2	53,1
		229	9"	DB084-229CS2-04	12 X 15	8 X 15	10 X 15	35°	2	53,3
		229	9"	DB084-229CS2-00	12 X 17	8 X 16	11 X 16	35°	2	53,3
229	9"	DB084-229CS2-10	12 X 19	8 X 16	11 X 16	35°	2	53,3		
254	10"	DB084-254CS2-00	12 X 17	10 X 16	14 X 16	35°	2	54,0		
254	10"	DB084-254CS2-10	12 X 19	10 X 16	14 X 16	35°	2	54,0		
270	10-5/8"	DB084-270GS2-23	12 X 18	10 X 15	12 X 15	35°	2	72,3		
270	10-5/8"	DB084-270CS2-00	12 X 17	10 X 16	14 X 16	35°	2	72,3		
270	10-5/8"	DB084-270CS2-10	12 X 19	10 X 16	14 X 16	35°	2	72,3		
279	11"	DB084-279CS2-00	12 X 17	10 X 16	19 X 16	35°	2	75,0		
279	11"	DB084-279CS2-10	12 X 19	10 X 16	19 X 16	35°	2	75,0		
IR DHD380	Secoroc 8"	305	12"	DB084-305CS2-03	12 X 18	10 X 18	16 X 18	35°	2	84,3
IR DHD8	COP84	305	12"	DB084-305GS3-10	15 X 19	21 X 16	20 X 16	35°	3	84,3
Digger 8	Drillquip T38			DB084-FV0			Foot Valve			
Numa 8	Drillquip T38			DB084-FV3			Foot Valve			
Hyper 81	ELEBOR WR-80			DB084-FV4			Foot Valve			
SD 8		Concave face design								
8 Splines		203	8"	DB081-203CS2-00	10 X 17	8 X 16	8 X 16	35°	2	49,5
		203	8"	DB081-203CS2-10	10 X 19	8 X 16	8 X 16	35°	2	49,5
		216	8-1/2"	DB081-216CS2-03	12 X 18	8 X 15	11 X 15	35°	2	52,7
		216	8-1/2"	DB081-216CS2-00	12 X 17	8 X 16	10 X 16	35°	2	52,7
		216	8-1/2"	DB081-216CS2-10	12 X 19	8 X 16	10 X 16	35°	2	52,7
		225	8-7/8"	DB081-225CS2-00	12 X 17	8 X 16	11 X 16	35°	2	53,1
		225	8-7/8"	DB081-225CS2-10	12 X 19	8 X 16	11 X 16	35°	2	53,1
		229	9"	DB081-229CS2-00	12 X 17	8 X 16	11 X 16	35°	2	53,3
		229	9"	DB081-229CS2-10	12 X 19	8 X 16	11 X 16	35°	2	53,3
		254	10"	DB081-254CS2-00	12 X 17	10 X 16	14 X 16	35°	2	54,0
		254	10"	DB081-254CS2-10	12 X 19	10 X 16	14 X 16	35°	2	54,0
254	10"	DB081-254CS2-03	12 X 18	10 X 15	13 X 15	35°	2	54,0		
270	10-5/8"	DB081-270CS2-03	12 X 16	10 X 16	12 X 16	35°	2	72,3		
270	10-5/8"	DB081-270CS2-00	12 X 17	10 X 16	14 X 16	35°	2	72,3		
270	10-5/8"	DB081-270CS2-10	12 X 19	10 X 16	14 X 16	35°	2	72,3		
279	11"	DB081-279CS2-00	12 X 17	10 X 16	19 X 16	35°	2	75,0		
279	11"	DB081-279CS2-10	12 X 19	10 X 16	19 X 16	35°	2	75,0		
Mission SD8	Drillquip T17	305	12"	DB081-305CS3-20	15 X 19	21 X 16	20 X 16	35°	3	84,3
COP84L	Hyper 81/SD8			DB081-FV0			Foot Valve			
Digger 7	Bulroc BR8V			DB081-FV3			Foot Valve			

DTH drill bits for 10" hammers

Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight kg
	mm	inch		Gauge	Perimet.	Centre			
SD 10	Concave face design								
 <p>8 Splines</p>	254	10"	DB100-254CS2-00	12 X 17	10 X 16	14 X 16	35°	2	54,0
	254	10"	DB100-254CS2-10	12 X 19	10 X 16	14 X 16	35°	2	54,0
	270	10-5/8"	DB100-270CS2-03	12 X 16	10 X 16	16 X 16	35°	2	72,3
	270	10-5/8"	DB100-270CS2-00	12 X 17	10 X 16	14 X 16	35°	2	72,3
	270	10-5/8"	DB100-270CS2-10	12 X 19	10 X 16	14 X 16	35°	2	72,3
	279	11"	DB100-279CS2-00	12 X 17	10 X 16	19 X 16	35°	2	75,0
	279	11"	DB100-279CS2-10	12 X 19	10 X 16	19 X 16	35°	2	75,0
	305	12"	DB100-305GS3-10	15 X 19	21 X 16	20 X 16	35°	3	84,3
	311	12-1/4"	DB100-311GS3-10	15 X 19	21 X 16	20 X 16	35°	3	130,0
	Mission SD10								
Hyper 101			DB100-FV0					Foot Valve	
ELEBOR-CS100			DB100-FV3					Foot Valve	

for 12" hammers

Shank style	Diameter		Part Nr.	Buttons Nr. x Diam. (mm)			Gauge angle	Flush Holes	Weight
	mm	inch		Gauge	Perimet.	Centre			kg
SD 12	Concave face design								
 <p>8 Splines 44.5 468</p>	311	12-1/4"	DB121-311GS3-10	15 X 19	21 X 16	20 X 16	35°	3	130,0
	381	15"	DB121-381GS3-10	18 X 19	21 X 18	20 X 18	35°	3	200,0
	381	15"	DB121-381GS3-03	15 X 18	20 X 18	20 X 18	35°	3	200,0
	406	16"	DB121-406GS3-10	18 X 19	21 X 18	20 X 18	35°	3	209,0
	406	16"	DB121-406GS3-14	15 X 20	24 X 18	20 X 18	35°	3	209,0
	444	17-1/2"	DB121-444GS3-10	18 X 19	21 X 18	20 X 18	35°	3	250,0
	444	17-1/2"	DB121-444GS2-63	18 X 19	30 X 19	24 X 19	35°	2	250,0
A100-115									
Mach 120									
Mission SD12									
Drillquip T1120A			DB121-FV0						Foot Valve
Hyper 121/SD12			DB121-FV3						Foot Valve
ELEBOR CS-112/SD12			DB121-FV4						Foot Valve
DHD112	Concave face design								
 <p>8 Splines Pin drive 52.5 491</p>	311	12-1/4"	DB112-311CS3-20	15 X 19	21 X 16	20 X 16	35°	3	130,0
	381	15"	DB112-381CS3-20	18 X 19	21 X 18	20 X 18	35°	3	200,0
	406	16"	DB112-406CS3-20	18 X 19	21 X 18	20 X 18	35°	3	209,0
	444	17-1/2"	DB112-444CS3-20	18 X 19	21 X 18	20 X 18	35°	3	250,0
	IR DHD112								
Drillquip T1120-112									
Hyper 121/DHD112			DB112-FV0						Foot Valve
ELEBOR CS-112/DHD112			DB112-FV3						Foot Valve



Bit rotation speed

Above graph illustrates the approx. recommended rotation speeds depending on drill bit diameter. This should only be used as a primary guidance. The larger the bit diameter, the slower the required rotation speed. The faster a bit is rotated the higher the penetration rate. However, this is also causing increased wear and especially affects the condition of the gauge buttons. Correctly chosen rotation speed should produce an acceptable penetration rate obtained with smooth feed and reduced vibration.

“Rotate the DTH drill string at recommended RPM”

As a rule of thumb, one can calculate starting recommended rotation as :

$$\text{Rotation speed (RPM)} = \frac{3900}{\text{Bit diameter (mm)}}$$

replacing a damaged foot valve

The worn or fractured foot valve must be removed for proper operation of the hammer. A knife or hacksaw blade can be used to cut the damaged valve into pieces and then remove the pieces with pliers. To aid foot valve removal, heating at 50-70°C can be applied.

The new foot valve must be inserted into the specially machined seat at the back neck of the bit shank. It is recommended that a special fitting tool with appropriate slotted splines is employed that will guarantee appropriate guidance of the foot valve during insertion but also the achievement of the correct valve neck protrusion. To aid the insertion process, the valve should be preheated at 20-60°C e.g. either by immersion in hot water or by using the heat of an operating machine. It is recommended to coat the part of the valve that will be pressed into the seat with a lubricant to aid the insertion. Rubber glue is an ideal choice as it will have a dual effect as lubricant during insertion but will also act as an additional fixing glue. Alternatively, if rubber glue is not available, one can use silicone based grease or some other similar lubricant.

Hammering directly the foot valve must be avoided. There are great risks of either fracturing the new valve or to a misaligned insertion which will eventually result in breaking by the piston during operation. It is recommended that the foot valve is pressed gently into position (e.g. by the use of some kind of hydraulic press).

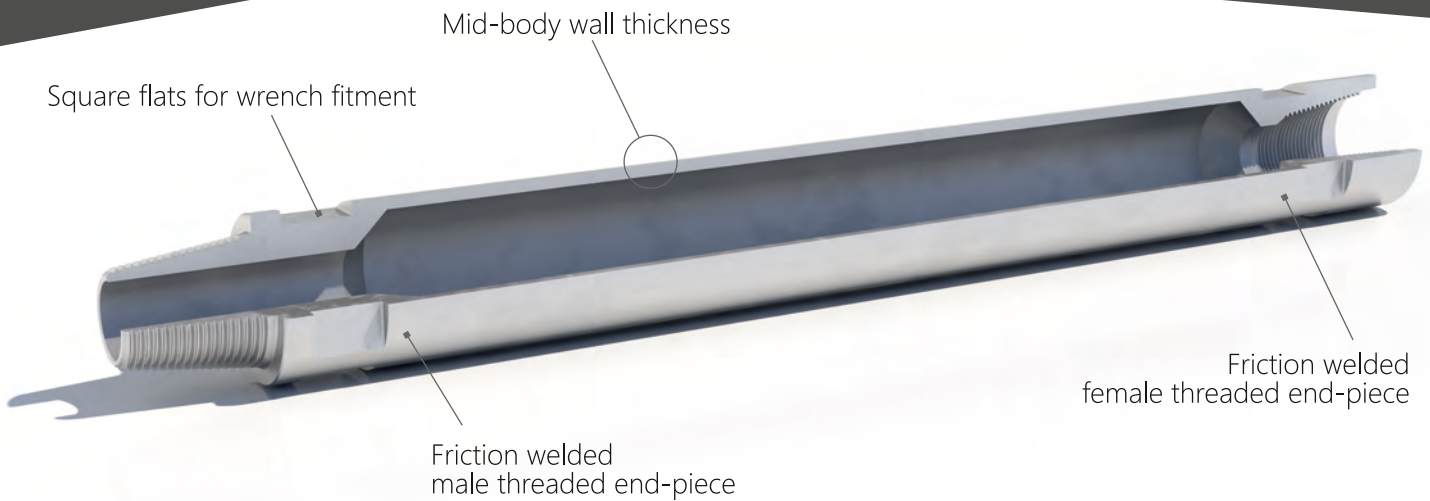


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Drill rods

DTH drill rods features

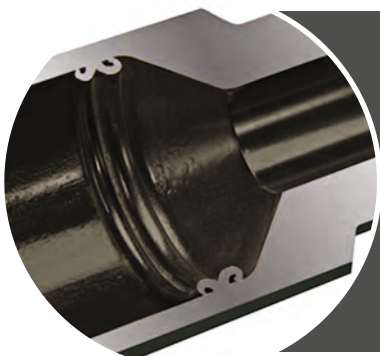


high strength threaded ends

The threaded ends are made of a high grade steel offering exceptional strength and wear resistance. In addition, the ends are subjected to heat treatment to further increase the wear resistance of the threads.

Heavy-Duty construction

The drill rods feature friction welded threaded ends. Both the threaded ends as well as the main body of the rods are made of high grade steels. Thin walled steel body may be used to minimize the drill string weight so that rods can be utilized by low pull-up force drill rigs.

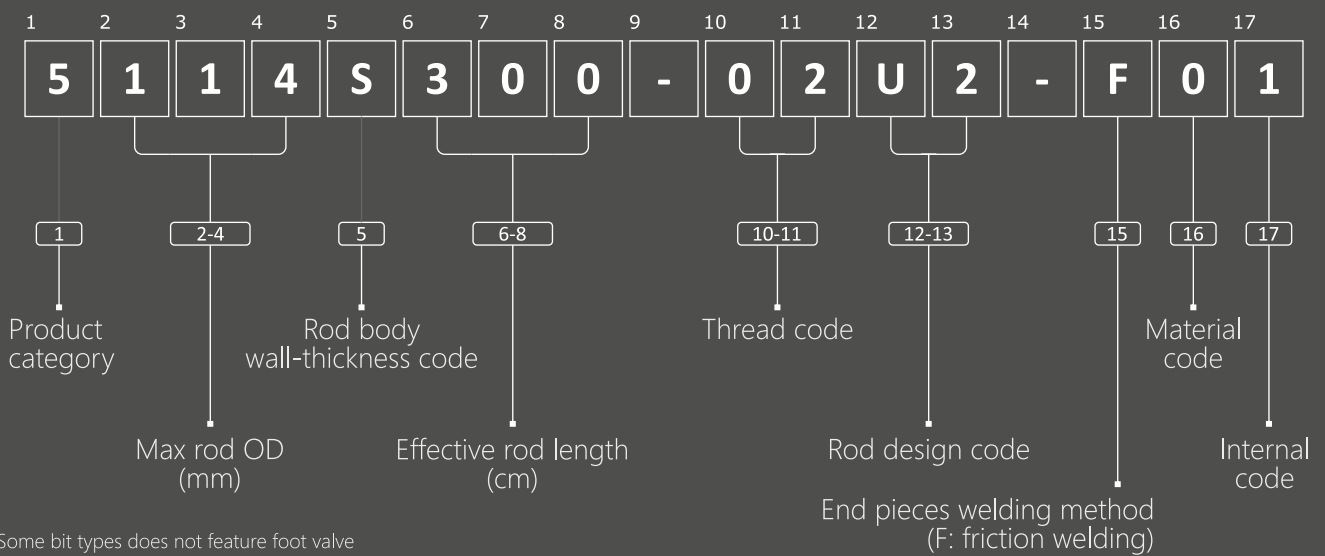


friction welded threaded ends

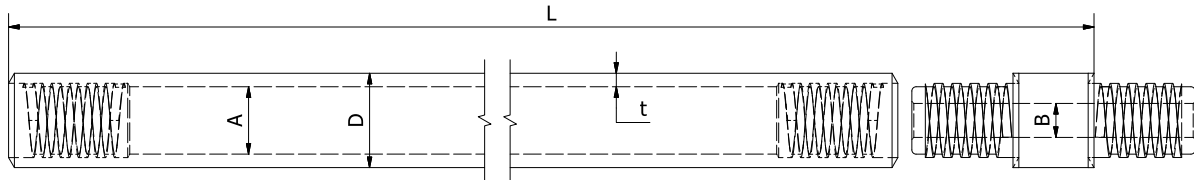
The threaded ends are friction welded to the tubular rod body. Welding is achieved at an atomic level by the frictional heat that is generated when the threaded-end pieces and the rod-body are pressed against each other while rotated at high speed. With friction welding process the highest possible strength is achieved at the welding zone. In addition, this method permits the use of different type of steel for the body and the threaded end-pieces.



guide to coding system



Rotary rods with couplers



Metric range

Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Body ID A mm	Coupler ID B mm	Weight kg
33,5	500	CR33.5	4,90	5033L050-16CR-M00	23,7	15,0	2,0
33,5	1.000	CR33.5	4,90	5033L100-16CR-M00	23,7	15,0	3,8
33,5	1.500	CR33.5	4,90	5033L150-16CR-M00	23,7	15,0	5,8
33,5	2.000	CR33.5	4,90	5033L200-16CR-M00	23,7	15,0	7,0
33,5	3.000	CR33.5	4,90	5033L300-16CR-M00	23,7	15,0	10,6
42	500	CR42	4,90	5042L050-17CR-M00	32,2	22,0	2,5
42	1.000	CR42	4,90	5042L100-17CR-M00	32,2	22,0	4,5
42	1.500	CR42	4,90	5042L150-17CR-M00	32,2	22,0	7,0
42	2.000	CR42	4,90	5042L200-17CR-M00	32,2	22,0	8,7
42	3.000	CR42	4,90	5042L300-17CR-M00	32,2	22,0	13,1
50	500	CR50	6,50	5050N050-18CR-M00	37,0	22,0	4,0
50	1.000	CR50	6,50	5050N100-18CR-M00	37,0	22,0	7,3
50	1.500	CR50	6,50	5050N150-18CR-M00	37,0	22,0	11,5
50	2.000	CR50	6,50	5050N200-18CR-M00	37,0	22,0	14,2
50	3.000	CR50	6,50	5050N300-18CR-M00	37,0	22,0	21,8

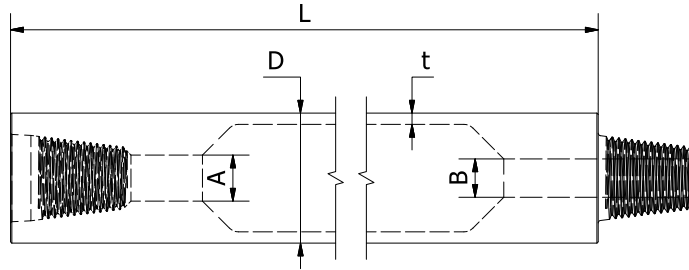
DCDMA Range

Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Body ID A mm	Coupler ID B mm	Weight kg
44,4	1.000	AW	6,35	5044N100-AWCR-M00	31,7	16,0	7,0
44,4	1.500	AW	6,35	5044N150-AWCR-M00	31,7	16,0	10,0
44,4	3.000	AW	6,35	5044N300-AWCR-M00	31,7	16,0	19,0

Typical use in conventional core drilling.

Drill rods with friction welded ends

Universal flush explorac range



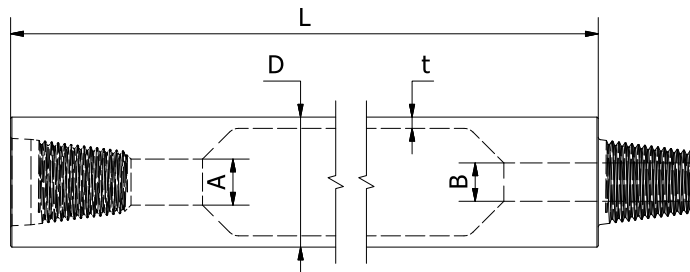
Metric range

Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Body ID A mm	Coupler ID B mm	Weight kg
60	500	CR60	6,00	5060N050-19FL-F00	48,0	25,0	5,0
60	1.000	CR60	6,00	5060N100-19FL-F00	48,0	25,0	9,0
60	1.500	CR60	6,00	5060N150-19FL-F00	48,0	25,0	13,5
60	2.000	CR60	6,00	5060N200-19FL-F00	48,0	25,0	18,0
60	3.000	CR60	6,00	5060N300-19FL-F00	48,0	25,0	28,0
with wrench flats on PIN end							
60	500	CR60	6,00	5060N050-19UP-F00	48,0	25,0	5,0
60	1.000	CR60	6,00	5060N100-19UP-F00	48,0	25,0	9,0
60	1.500	CR60	6,00	5060N150-19UP-F00	48,0	25,0	13,5
60	2.000	CR60	6,00	5060N200-19UP-F00	48,0	25,0	18,0
60	3.000	CR60	6,00	5060N300-19UP-F00	48,0	25,0	28,0

Drill rods with friction welded ends.
 Universal type flush drill rods (without wrench flats).
 Typical use in conventional core drilling.

Drill rods with friction welded ends

Universal flush explorac range



DCDMA Range

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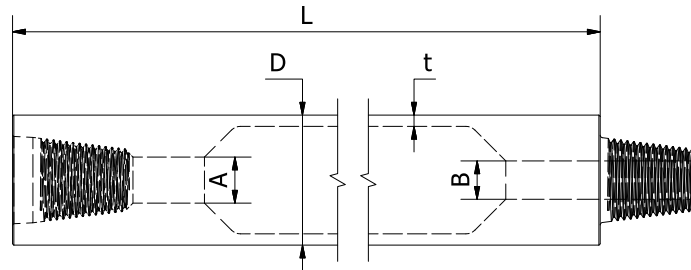
Diameter	Length	Thread	Wall thickness	Part Nr.	Body ID	Coupler ID	Weight
D	L		t		A	B	
mm	mm		mm		mm	mm	kg
44,4	610	AW	6,35	5044N061-AWFL-F00	31,7	16,0	4,0
44,4	1.524	AW	6,35	5044N152-AWFL-F00	31,7	16,0	8,5
44,4	3.048	AW	6,35	5044N305-AWFL-F00	31,7	16,0	16,5
44,4	1.000	AW	6,35	5044N100-AWFL-F00	31,7	16,0	6,0
44,4	1.500	AW	6,35	5044N150-AWFL-F00	31,7	16,0	8,0
44,4	3.000	AW	6,35	5044N300-AWFL-F00	31,7	16,0	15,0
44,4	610	AWJ	6,35	5044N061-AJFL-F00	31,7	16,0	4,5
44,4	1.524	AWJ	6,35	5044N152-AJFL-F00	31,7	16,0	9,6
44,4	3.048	AWJ	6,35	5044N305-AJFL-F00	31,7	16,0	18,6
44,4	1.000	AWJ	6,35	5044N100-AJFL-F00	31,7	16,0	9,6
44,4	1.500	AWJ	6,35	5044N150-AJFL-F00	31,7	16,0	10,0
44,4	3.000	AWJ	6,35	5044N300-AJFL-F00	31,7	16,0	18,6
54	610	BW	4,80	5054L061-BWFL-F00	44,4	19,0	5,0
54	1.524	BW	4,80	5054L152-BWFL-F00	44,4	19,0	9,5
54	3.048	BW	4,80	5054L305-BWFL-F00	44,4	19,0	18,2
54	1.000	BW	4,80	5054L100-BWFL-F00	44,4	19,0	6,5
54	1.500	BW	4,80	5054L150-BWFL-F00	44,4	19,0	9,5
54	3.000	BW	4,80	5054L300-BWFL-F00	44,4	19,0	18,2
54	610	BWJ	4,80	5054L061-BJFL-F00	44,4	19,0	5,0
54	1.524	BWJ	4,80	5054L152-BJFL-F00	44,4	19,0	9,5
54	3.048	BWJ	4,80	5054L305-BJFL-F00	44,4	19,0	18,2
54	1.000	BWJ	4,80	5054L100-BJFL-F00	44,4	19,0	6,5
54	1.500	BWJ	4,80	5054L150-BJFL-F00	44,4	19,0	12,0
54	3.000	BWJ	4,80	5054L300-BJFL-F00	44,4	19,0	20,0

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Drill rods with friction welded ends.
 Universal type flush drill rods (without wrench flats).
 Typical use in conventional core drilling.

Drill rods with friction welded ends

Universal flush explorac range



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DCDMA Range

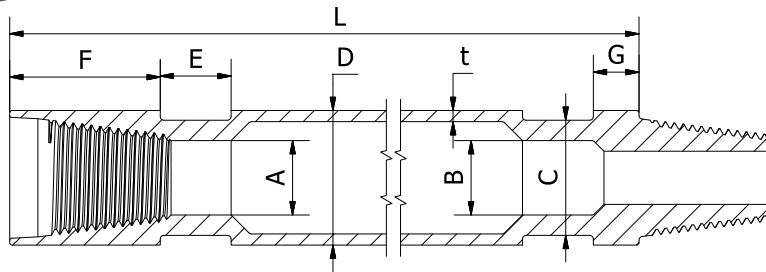
Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Body ID A mm	Coupler ID B mm	Weight kg
66,7	610	NW	4,75	5067L061-NWFL-F00	57,2	35,0	6,0
66,7	1.524	NW	4,75	5067L152-NWFL-F00	57,2	35,0	12,2
66,7	3.048	NW	4,75	5067L305-NWFL-F00	57,2	35,0	23,3
66,7	1.000	NW	4,75	5067L100-NWFL-F00	57,2	35,0	8,5
66,7	1.500	NW	4,75	5067L150-NWFL-F00	57,2	35,0	12,2
66,7	3.000	NW	4,75	5067L300-NWFL-F00	57,2	35,0	24,0
66,7	610	NWJ	4,75	5067L061-NJFL-F00	57,2	35,0	6,5
66,7	1.524	NWJ	4,75	5067L152-NJFL-F00	57,2	35,0	12,2
66,7	3.048	NWJ	4,75	5067L305-NJFL-F00	57,2	35,0	23,3
66,7	1.000	NWJ	4,75	5067L100-NJFL-F00	57,2	35,0	9,0
66,7	1.500	NWJ	4,75	5067L150-NJFL-F00	57,2	35,0	13,0
66,7	3.000	NWJ	4,75	5067L300-NJFL-F00	57,2	35,0	26,0

Ultra Light series DCDMA range

44,4	610	AWJ	4,75	5044L061-AJFL-F00	34,9	16,0	3,0
44,4	1.524	AWJ	4,75	5044L152-AJFL-F00	34,9	16,0	5,7
44,4	3.048	AWJ	4,75	5044L305-AJFL-F00	34,9	16,0	10,9
44,4	1.000	AWJ	4,75	5044L100-AJFL-F00	34,9	16,0	3,7
44,4	1.500	AWJ	4,75	5044L150-AJFL-F00	34,9	16,0	5,7
44,4	3.000	AWJ	4,75	5044L300-AJFL-F00	34,9	16,0	10,5
54	610	BWJ	4,80	5054L061-BJFL-F00	44,4	19,0	3,5
54	1.524	BWJ	4,80	5054L152-BJFL-F00	44,4	19,0	7,3
54	3.048	BWJ	4,80	5054L305-BJFL-F00	44,4	19,0	13,7
54	1.000	BWJ	4,80	5054L100-BJFL-F00	44,4	19,0	4,9
54	1.500	BWJ	4,80	5054L150-BJFL-F00	44,4	19,0	7,3
54	3.000	BWJ	4,80	5054L300-BJFL-F00	44,4	19,0	13,5

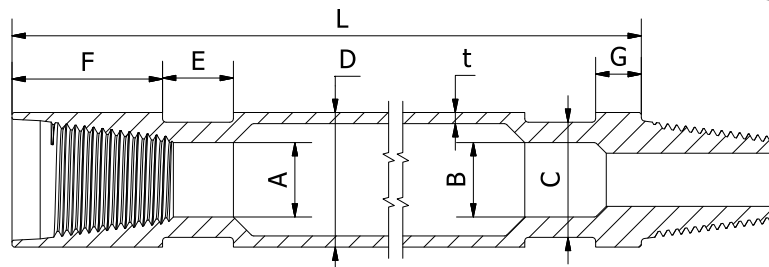
Drill rods with friction welded ends.
Universal type flush drill rods (without wrench flats).
Typical use in conventional core drilling.

Universal



Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats Cx E mm	Weight kg	Box ID A mm	Pin ID B mm
42	500	42 REG	6,3	5042N050-03U2-F05	35 X 40	3,0	20,0	15,0
42	1.000	42 REG	6,30	5042N100-03U2-F05	35 X 40	6,0	20,0	15,0
42	1.500	42 REG	6,3	5042N150-03U2-F05	35 X 40	9,0	20,0	15,0
42	3.000	42 REG	6,30	5042N300-03U2-F05	35 X 40	18,0	20,0	15,0
44,4	500	AWJ	6,4	5044N050-AJU2-F00	36 X 20	3,5	22,0	16,0
44,4	1.000	AWJ	6,35	5044N100-AJU2-F00	36 X 20	6,5	22,0	16,0
44,4	1.500	AWJ	6,4	5044N150-AJU2-F00	36 X 20	9,3	22,0	16,0
44,4	3.000	AWJ	6,35	5044N300-AJU2-F00	36 X 20	18,2	22,0	16,0
54	500	BWJ	4,8	5054L050-BJU2-F00	46 X 32	4,2	32,0	19,0
54	1.000	BWJ	4,80	5054L100-BJU2-F00	46 X 32	7,0	32,0	19,0
54	1.500	BWJ	4,8	5054L150-BJU2-F00	46 X 32	9,9	32,0	19,0
54	3.000	BWJ	4,80	5054L300-BJU2-F00	46 X 32	18,6	32,0	19,0
70	500	RD50-6	4,0	5070L050-52U2-F00	49 X 40	5,4	30,0	25,0
70	1.000	RD50-6	4,00	5070L100-52U2-F00	49 X 40	8,6	30,0	25,0
70	1.500	RD50-6	4,0	5070L150-52U2-F00	49 X 40	11,9	30,0	25,0
70	3.000	RD50-6	4,00	5070L300-52U2-F00	49 X 40	21,6	30,0	25,0
76	500	API 2.3/8" REG	4,3	5076L050-00U2-F00	65 X 40	7,7	42,0	30,0
76	1.000	API 2.3/8" REG	4,30	5076L100-00U2-F00	65 X 40	11,5	42,0	30,0
76	1.500	API 2.3/8" REG	4,3	5076L150-00U2-F00	65 X 40	15,3	42,0	30,0
76	2.000	API 2.3/8" REG	4,30	5076L200-00U2-F00	65 X 40	19,1	42,0	30,0
76	3.000	API 2.3/8" REG	4,3	5076L300-00U2-F00	65 X 40	26,6	42,0	30,0
76	500	API 2.3/8" REG	6,30	5076N050-00U2-F00	65 X 40	8,5	42,0	30,0
76	1.000	API 2.3/8" REG	6,3	5076N100-00U2-F00	65 X 40	13,9	42,0	30,0
76	1.500	API 2.3/8" REG	6,30	5076N150-00U2-F00	65 X 40	19,3	42,0	30,0
76	2.000	API 2.3/8" REG	6,3	5076N200-00U2-F00	65 X 40	24,6	42,0	30,0
76	3.000	API 2.3/8" REG	6,30	5076N300-00U2-F00	65 X 40	35,4	42,0	30,0
76	4.500	API 2.3/8" REG	6,3	5076N450-00U2-F00	65 X 40	51,5	42,0	30,0
76	6.000	API 2.3/8" REG	6,30	5076N600-00U2-F00	65 X 40	67,7	42,0	30,0
76	500	API 2.3/8" REG	8,0	5076S050-00U2-F00	65 X 40	10,2	42,0	30,0
76	1.000	API 2.3/8" REG	8,00	5076S100-00U2-F00	65 X 40	15,5	42,0	30,0
76	1.500	API 2.3/8" REG	8,0	5076S150-00U2-F00	65 X 40	22,5	42,0	30,0
76	2.000	API 2.3/8" REG	8,00	5076S200-00U2-F00	65 X 40	28,1	42,0	30,0
76	3.000	API 2.3/8" REG	8,0	5076S300-00U2-F00	65 X 40	44,0	42,0	30,0

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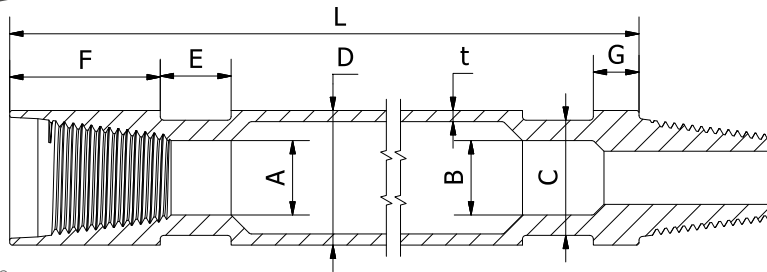
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Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats Cx E mm	Weight kg	Box ID A mm	Pin ID B mm
89	500	API 2.3/8" REG	4,1	5089L050-00U2-F00	65 X 40	11,1	42,0	25,0
89	1.000	API 2.3/8" REG	4,1	5089L100-00U2-F00	65 X 40	15,4	42,0	25,0
89	1.500	API 2.3/8" REG	4,1	5089L150-00U2-F00	65 X 40	19,6	42,0	25,0
89	2.000	API 2.3/8" REG	4,1	5089L200-00U2-F00	65 X 40	23,9	42,0	25,0
89	3.000	API 2.3/8" REG	4,1	5089L300-00U2-F00	65 X 40	32,4	42,0	25,0
89	500	API 2.3/8" REG	6,3	5089N050-00U2-F00	65 X 40	12,0	42,0	25,0
89	1.000	API 2.3/8" REG	6,3	5089N100-00U2-F00	65 X 40	18,4	42,0	25,0
89	1.500	API 2.3/8" REG	6,3	5089N150-00U2-F00	65 X 40	24,7	42,0	25,0
89	2.000	API 2.3/8" REG	6,3	5089N200-00U2-F00	65 X 40	31,1	42,0	25,0
89	3.000	API 2.3/8" REG	6,3	5089N300-00U2-F00	65 X 40	43,9	42,0	25,0
89	4.500	API 2.3/8" REG	6,3	5089N450-00U2-F00	65 X 40	63,0	42,0	25,0
89	6.000	API 2.3/8" REG	6,3	5089N600-00U2-F00	65 X 40	82,2	42,0	25,0
89	500	API 2.3/8" REG	8,0	5089S050-00U2-F00	65 X 40	12,8	42,0	25,0
89	1.000	API 2.3/8" REG	8,0	5089S100-00U2-F00	65 X 40	20,7	42,0	25,0
89	1.500	API 2.3/8" REG	8,0	5089S150-00U2-F00	65 X 40	28,7	42,0	25,0
89	2.000	API 2.3/8" REG	8,0	5089S200-00U2-F00	65 X 40	36,6	42,0	25,0
89	3.000	API 2.3/8" REG	8,0	5089S300-00U2-F00	65 X 40	52,5	42,0	25,0
89	4.500	API 2.3/8" REG	8,0	5089S450-00U2-F00	65 X 40	76,3	42,0	25,0
89	6.000	API 2.3/8" REG	8,0	5089S600-00U2-F00	65 X 40	100,1	42,0	25,0
89	500	API 2.3/8" IF	6,3	5089N050-10U2-F00	75 X 40	10,9	44,5	44,5
89	1.000	API 2.3/8" IF	6,3	5089N100-10U2-F00	75 X 40	17,3	44,5	44,5
89	1.500	API 2.3/8" IF	6,3	5089N150-10U2-F00	75 X 40	23,7	44,5	44,5
89	2.000	API 2.3/8" IF	6,3	5089N200-10U2-F00	75 X 40	30,0	44,5	44,5
89	3.000	API 2.3/8" IF	6,3	5089N300-10U2-F00	75 X 40	42,8	44,5	44,5
89	4.500	API 2.3/8" IF	6,3	5089N450-10U2-F00	75 X 40	62,0	44,5	44,5
89	6.000	API 2.3/8" IF	6,3	5089N600-10U2-F00	75 X 40	81,1	44,5	44,5
89	500	API 2.3/8" IF	8,0	5089S050-10U2-F00	75 X 40	11,8	44,5	44,5
89	1.000	API 2.3/8" IF	8,0	5089S100-10U2-F00	75 X 40	19,7	44,5	44,5
89	1.500	API 2.3/8" IF	8,0	5089S150-10U2-F00	75 X 40	27,6	44,5	44,5
89	2.000	API 2.3/8" IF	8,0	5089S200-10U2-F00	75 X 40	35,6	44,5	44,5
89	3.000	API 2.3/8" IF	8,0	5089S300-10U2-F00	75 X 40	51,5	44,5	44,5
89	4.500	API 2.3/8" IF	8,0	5089S450-10U2-F00	75 X 40	75,3	44,5	44,5
89	6.000	API 2.3/8" IF	8,0	5089S600-10U2-F00	75 X 40	99,1	44,5	44,5

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Drill rods with flats on both ends

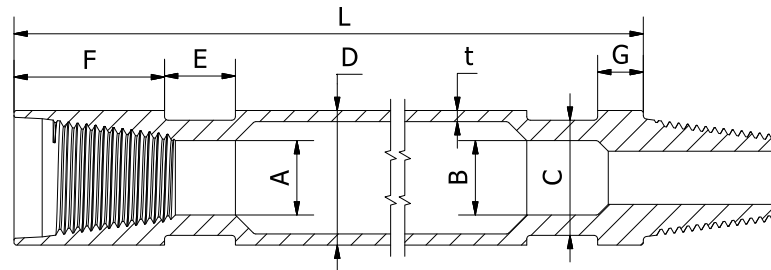
Universal



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Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats Cx E mm	Weight kg	Box ID A mm	Pin ID B mm
89	500	API 2.7/8" REG	6,3	5089N050-01U2-F00	65 X 40	11,6	42,0	30,0
89	1.000	API 2.7/8" REG	6,3	5089N100-01U2-F00	65 X 40	18,0	42,0	30,0
89	1.500	API 2.7/8" REG	6,3	5089N150-01U2-F00	65 X 40	24,4	42,0	30,0
89	2.000	API 2.7/8" REG	6,3	5089N200-01U2-F00	65 X 40	30,8	42,0	30,0
89	3.000	API 2.7/8" REG	6,3	5089N300-01U2-F00	65 X 40	43,5	42,0	30,0
89	4.500	API 2.7/8" REG	6,3	5089N450-01U2-F00	65 X 40	62,7	42,0	30,0
89	6.000	API 2.7/8" REG	6,3	5089N600-01U2-F00	65 X 40	81,8	42,0	30,0
89	500	API 2.7/8" REG	8,0	5089S050-01U2-F00	65 X 40	12,5	42,0	30,0
89	1.000	API 2.7/8" REG	8,0	5089S100-01U2-F00	65 X 40	20,2	42,0	30,0
89	1.500	API 2.7/8" REG	8,0	5089S150-01U2-F00	65 X 40	28,2	42,0	30,0
89	2.000	API 2.7/8" REG	8,0	5089S200-01U2-F00	65 X 40	36,1	42,0	30,0
89	3.000	API 2.7/8" REG	8,0	5089S300-01U2-F00	65 X 40	52,0	42,0	30,0
89	4.500	API 2.7/8" REG	8,0	5089S450-01U2-F00	65 X 40	75,8	42,0	30,0
89	6.000	API 2.7/8" REG	8,0	5089S600-01U2-F00	65 X 40	99,6	42,0	30,0
101,6	500	API 2.7/8" REG	6,3	5102N050-01U2-F00	85 X 40	15,8	32,0	32,0
101,6	1.000	API 2.7/8" REG	6,3	5102N100-01U2-F00	85 X 40	23,2	32,0	32,0
101,6	1.500	API 2.7/8" REG	6,3	5102N150-01U2-F00	85 X 40	30,6	32,0	32,0
101,6	2.000	API 2.7/8" REG	6,3	5102N200-01U2-F00	85 X 40	38,0	32,0	32,0
101,6	3.000	API 2.7/8" REG	6,3	5102N300-01U2-F00	85 X 40	52,7	32,0	32,0
101,6	4.500	API 2.7/8" REG	6,3	5102N450-01U2-F00	85 X 40	74,9	32,0	32,0
101,6	6.000	API 2.7/8" REG	6,3	5102N600-01U2-F00	85 X 40	97,0	32,0	32,0
101,6	500	API 2.7/8" REG	8,0	5102S050-01U2-F00	85 X 40	16,8	32,0	32,0
101,6	1.000	API 2.7/8" REG	8,0	5102S100-01U2-F00	85 X 40	26,0	32,0	32,0
101,6	1.500	API 2.7/8" REG	8,0	5102S150-01U2-F00	85 X 40	35,2	32,0	32,0
101,6	2.000	API 2.7/8" REG	8,0	5102S200-01U2-F00	85 X 40	44,4	32,0	32,0
101,6	3.000	API 2.7/8" REG	8,0	5102S300-01U2-F00	85 X 40	62,9	32,0	32,0
101,6	4.500	API 2.7/8" REG	8,0	5102S450-01U2-F00	85 X 40	90,5	32,0	32,0
101,6	6.000	API 2.7/8" REG	8,0	5102S600-01U2-F00	85 X 40	118,2	32,0	32,0

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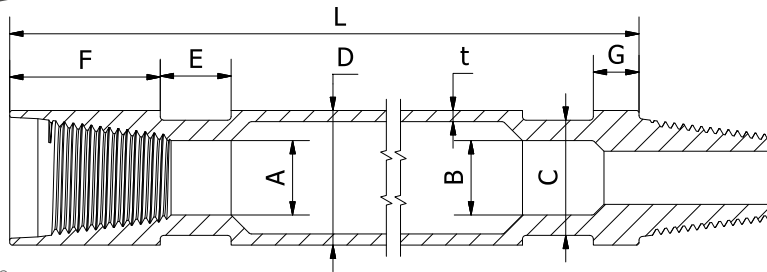
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Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats Cx E mm	Weight kg	Box ID A mm	Pin ID B mm
114	500	API 2.7/8" IF	6,3	5114N050-11U2-F00	95 X 50	18,9	54,0	54,0
114	1.000	API 2.7/8" IF	6,3	5114N100-11U2-F00	95 X 50	27,2	54,0	54,0
114	1.500	API 2.7/8" IF	6,3	5114N150-11U2-F00	95 X 50	35,5	54,0	54,0
114	2.000	API 2.7/8" IF	6,3	5114N200-11U2-F00	95 X 50	43,8	54,0	54,0
114	3.000	API 2.7/8" IF	6,3	5114N300-11U2-F00	95 X 50	60,4	54,0	54,0
114	4.500	API 2.7/8" IF	6,3	5114N450-11U2-F00	95 X 50	85,4	54,0	54,0
114	6.000	API 2.7/8" IF	6,3	5114N600-11U2-F00	95 X 50	110,3	54,0	54,0
114	500	API 2.7/8" IF	8,0	5114S050-11U2-F00	95 X 50	19,9	54,0	54,0
114	1.000	API 2.7/8" IF	8,0	5114S100-11U2-F00	95 X 50	30,3	54,0	54,0
114	1.500	API 2.7/8" IF	8,0	5114S150-11U2-F00	95 X 50	40,7	54,0	54,0
114	2.000	API 2.7/8" IF	8,0	5114S200-11U2-F00	95 X 50	51,1	54,0	54,0
114	3.000	API 2.7/8" IF	8,0	5114S300-11U2-F00	95 X 50	71,9	54,0	54,0
114	4.500	API 2.7/8" IF	8,0	5114S450-11U2-F00	95 X 50	103,0	54,0	54,0
114	6.000	API 2.7/8" IF	8,0	5114S600-11U2-F00	95 X 50	134,2	54,0	54,0
114	500	API 3.1/2" REG	6,3	5114N050-02U2-F00	95 X 50	19,3	50,0	42,0
114	1.000	API 3.1/2" REG	6,3	5114N100-02U2-F00	95 X 50	27,7	50,0	42,0
114	1.500	API 3.1/2" REG	6,3	5114N150-02U2-F00	95 X 50	36,0	50,0	42,0
114	2.000	API 3.1/2" REG	6,3	5114N200-02U2-F00	95 X 50	44,3	50,0	42,0
114	3.000	API 3.1/2" REG	6,3	5114N300-02U2-F00	95 X 50	60,9	50,0	42,0
114	4.500	API 3.1/2" REG	6,3	5114N450-02U2-F00	95 X 50	85,9	50,0	42,0
114	6.000	API 3.1/2" REG	6,3	5114N600-02U2-F00	95 X 50	110,8	50,0	42,0
114	500	API 3.1/2" REG	8,0	5114S050-02U2-F00	95 X 50	20,4	50,0	42,0
114	1.000	API 3.1/2" REG	8,0	5114S100-02U2-F00	95 X 50	30,8	50,0	42,0
114	1.500	API 3.1/2" REG	8,0	5114S150-02U2-F00	95 X 50	41,2	50,0	42,0
114	2.000	API 3.1/2" REG	8,0	5114S200-02U2-F00	95 X 50	51,6	50,0	42,0
114	3.000	API 3.1/2" REG	8,0	5114S300-02U2-F00	95 X 50	72,4	50,0	42,0
114	4.500	API 3.1/2" REG	8,0	5114S450-02U2-F00	95 X 50	103,5	50,0	42,0
114	6.000	API 3.1/2" REG	8,0	5114S600-02U2-F00	95 X 50	134,7	50,0	42,0

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Drill rods with flats on both ends

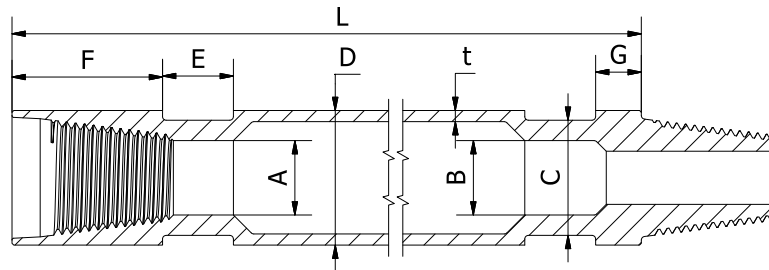
Universal



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Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats Cx E mm	Weight kg	Box ID A mm	Pin ID B mm
114	500	API 3.1/2" FH	6,3	5114N050-22U2-F00	95 X 50	17,4	62,0	62,0
114	1.000	API 3.1/2" FH	6,3	5114N100-22U2-F00	95 X 50	25,7	62,0	62,0
114	1.500	API 3.1/2" FH	6,3	5114N150-22U2-F00	95 X 50	34,1	62,0	62,0
114	2.000	API 3.1/2" FH	6,3	5114N200-22U2-F00	95 X 50	42,4	62,0	62,0
114	3.000	API 3.1/2" FH	6,3	5114N300-22U2-F00	95 X 50	59,0	62,0	62,0
114	4.500	API 3.1/2" FH	6,3	5114N450-22U2-F00	95 X 50	83,9	62,0	62,0
114	6.000	API 3.1/2" FH	6,3	5114N600-22U2-F00	95 X 50	108,9	62,0	62,0
114	500	API 3.1/2" FH	8,0	5114S050-22U2-F00	95 X 50	18,4	62,0	62,0
114	1.000	API 3.1/2" FH	8,0	5114S100-22U2-F00	95 X 50	28,8	62,0	62,0
114	1.500	API 3.1/2" FH	8,0	5114S150-22U2-F00	95 X 50	39,2	62,0	62,0
114	2.000	API 3.1/2" FH	8,0	5114S200-22U2-F00	95 X 50	49,6	62,0	62,0
114	3.000	API 3.1/2" FH	8,0	5114S300-22U2-F00	95 X 50	70,4	62,0	62,0
114	4.500	API 3.1/2" FH	8,0	5114S450-22U2-F00	95 X 50	101,6	62,0	62,0
114	6.000	API 3.1/2" FH	8,0	5114S600-22U2-F00	95 X 50	132,7	62,0	62,0
140	500	API 4.1/2" REG	6,3	5140N050-04U2-F00	114 X 50	28,2	80,0	60,0
140	1.000	API 4.1/2" REG	6,3	5140N100-04U2-F00	114 X 50	38,5	80,0	60,0
140	1.500	API 4.1/2" REG	6,3	5140N150-04U2-F00	114 X 50	48,8	80,0	60,0
140	2.000	API 4.1/2" REG	6,3	5140N200-04U2-F00	114 X 50	59,1	80,0	60,0
140	3.000	API 4.1/2" REG	6,3	5140N300-04U2-F00	114 X 50	79,7	80,0	60,0
140	4.500	API 4.1/2" REG	6,3	5140N450-04U2-F00	114 X 50	110,6	80,0	60,0
140	6.000	API 4.1/2" REG	6,3	5140N600-04U2-F00	114 X 50	141,5	80,0	60,0
140	500	API 4.1/2" REG	8,0	5140S050-04U2-F00	114 X 50	29,9	80,0	60,0
140	1.000	API 4.1/2" REG	8,0	5140S100-04U2-F00	114 X 50	44,0	80,0	60,0
140	1.500	API 4.1/2" REG	8,0	5140S150-04U2-F00	114 X 50	58,1	80,0	60,0
140	2.000	API 4.1/2" REG	8,0	5140S200-04U2-F00	114 X 50	72,2	80,0	60,0
140	3.000	API 4.1/2" REG	8,0	5140S300-04U2-F00	114 X 50	100,5	80,0	60,0
140	4.500	API 4.1/2" REG	8,0	5140S450-04U2-F00	114 X 50	142,8	80,0	60,0
140	6.000	API 4.1/2" REG	8,0	5140S600-04U2-F00	114 X 50	185,1	80,0	60,0

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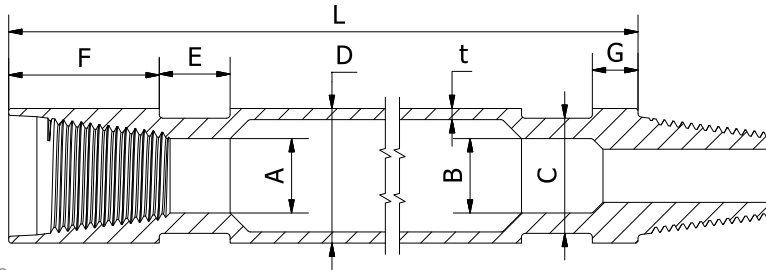


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Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats Cx E mm	Weight kg	Box ID A mm	Pin ID B mm
127	1.000	API 3.1/2" REG	6,3	5127N100-02U2-F01	110 X 50	36,0	38,0	38,0
127	1.500	API 3.1/2" REG	6,3	5127N150-02U2-F01	110 X 50	46,0	38,0	38,0
127	2.000	API 3.1/2" REG	6,3	5127N200-02U2-F01	110 X 50	55,0	38,0	38,0
127	3.000	API 3.1/2" REG	6,3	5127N300-02U2-F01	110 X 50	74,0	38,0	38,0
127	4.000	API 3.1/2" REG	6,3	5127N400-02U2-F01	110 X 50	92,0	38,0	38,0
127	5.000	API 3.1/2" REG	6,3	5127N500-02U2-F01	110 X 50	111,0	38,0	38,0
127	6.000	API 3.1/2" REG	6,3	5127N600-02U2-F01	110 X 50	130,0	38,0	38,0
127	1.000	API 3.1/2" IF	6,3	5127N100-12U2-F01	110 X 50	35,0	58,0	58,0
127	1.500	API 3.1/2" IF	6,3	5127N150-12U2-F01	110 X 50	45,0	58,0	58,0
127	2.000	API 3.1/2" IF	6,3	5127N200-12U2-F01	110 X 50	53,0	58,0	58,0
127	3.000	API 3.1/2" IF	6,3	5127N300-12U2-F01	110 X 50	72,0	58,0	58,0
127	4.000	API 3.1/2" IF	6,3	5127N400-12U2-F01	110 X 50	91,0	58,0	58,0
127	5.000	API 3.1/2" IF	6,3	5127N500-12U2-F01	110 X 50	110,0	58,0	58,0
127	6.000	API 3.1/2" IF	6,3	5127N600-12U2-F01	110 X 50	129,0	58,0	58,0
127	1.000	API 3.1/2" REG	8,8	5127S100-02U2-F01	110 X 50	41,0	38,0	38,0
127	1.500	API 3.1/2" REG	8,8	5127S150-02U2-F01	110 X 50	54,0	38,0	38,0
127	2.000	API 3.1/2" REG	8,8	5127S200-02U2-F01	110 X 50	67,0	38,0	38,0
127	3.000	API 3.1/2" REG	8,8	5127S300-02U2-F01	110 X 50	92,0	38,0	38,0
127	4.000	API 3.1/2" REG	8,8	5127S400-02U2-F01	110 X 50	118,0	38,0	38,0
127	5.000	API 3.1/2" REG	8,8	5127S500-02U2-F01	110 X 50	144,0	38,0	38,0
127	6.000	API 3.1/2" REG	8,8	5127S600-02U2-F01	110 X 50	169,0	38,0	38,0
127	1.000	API 3.1/2" IF	8,8	5127S100-12U2-F01	110 X 50	40,0	58,0	58,0
127	1.500	API 3.1/2" IF	8,8	5127S150-12U2-F01	110 X 50	53,0	58,0	58,0
127	2.000	API 3.1/2" IF	8,8	5127S200-12U2-F01	110 X 50	66,0	58,0	58,0
127	3.000	API 3.1/2" IF	8,8	5127S300-12U2-F01	110 X 50	92,0	58,0	58,0
127	4.000	API 3.1/2" IF	8,8	5127S400-12U2-F01	110 X 50	118,0	58,0	58,0
127	5.000	API 3.1/2" IF	8,8	5127S500-12U2-F01	110 X 50	144,0	58,0	58,0
127	6.000	API 3.1/2" IF	8,8	5127S600-12U2-F01	110 X 50	170,0	58,0	58,0

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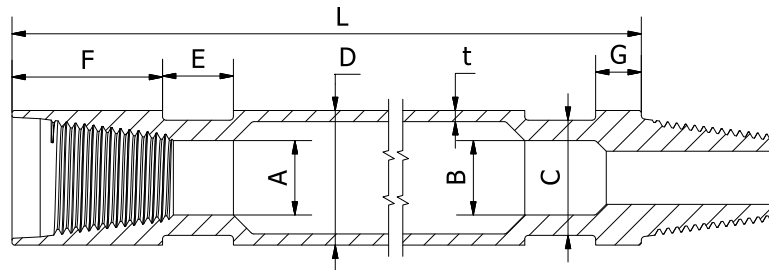
Universal



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Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats CxE mm	Weight kg	Box ID A mm	Pin ID B mm
139,7	1.000	API 4.1/2" REG	6,3	5140N100-04U2-F01	115 X 50	38,0	57,0	57,0
139,7	1.500	API 4.1/2" REG	6,3	5140N150-04U2-F01	115 X 50	49,0	57,0	57,0
139,7	2.000	API 4.1/2" REG	6,3	5140N200-04U2-F01	115 X 50	59,0	57,0	57,0
139,7	3.000	API 4.1/2" REG	6,3	5140N300-04U2-F01	115 X 50	79,0	57,0	57,0
139,7	4.000	API 4.1/2" REG	6,3	5140N400-04U2-F01	115 X 50	99,0	57,0	57,0
139,7	5.000	API 4.1/2" REG	6,3	5140N500-04U2-F01	115 X 50	120,0	57,0	57,0
139,7	6.000	API 4.1/2" REG	6,3	5140N600-04U2-F01	115 X 50	140,0	57,0	57,0
139,7	1.000	API 4" FH	6,3	5140N100-23U2-F01	115 X 50	36,0	70,0	70,0
139,7	1.500	API 4" FH	6,3	5140N150-23U2-F01	115 X 50	48,0	70,0	70,0
139,7	2.000	API 4" FH	6,3	5140N200-23U2-F01	115 X 50	57,0	70,0	70,0
139,7	3.000	API 4" FH	6,3	5140N300-23U2-F01	115 X 50	78,0	70,0	70,0
139,7	4.000	API 4" FH	6,3	5140N400-23U2-F01	115 X 50	99,0	70,0	70,0
139,7	5.000	API 4" FH	6,3	5140N500-23U2-F01	115 X 50	120,0	70,0	70,0
139,7	6.000	API 4" FH	6,3	5140N600-23U2-F01	115 X 50	141,0	70,0	70,0
139,7	1.000	API 4.1/2" REG	8,8	5140S100-04U2-F01	115 X 50	45,0	57,0	57,0
139,7	1.500	API 4.1/2" REG	8,8	5140S150-04U2-F01	115 X 50	59,0	57,0	57,0
139,7	2.000	API 4.1/2" REG	8,8	5140S200-04U2-F01	115 X 50	73,0	57,0	57,0
139,7	3.000	API 4.1/2" REG	8,8	5140S300-04U2-F01	115 X 50	102,0	57,0	57,0
139,7	4.000	API 4.1/2" REG	8,8	5140S400-04U2-F01	115 X 50	130,0	57,0	57,0
139,7	5.000	API 4.1/2" REG	8,8	5140S500-04U2-F01	115 X 50	158,0	57,0	57,0
139,7	6.000	API 4.1/2" REG	8,8	5140S600-04U2-F01	115 X 50	187,0	57,0	57,0

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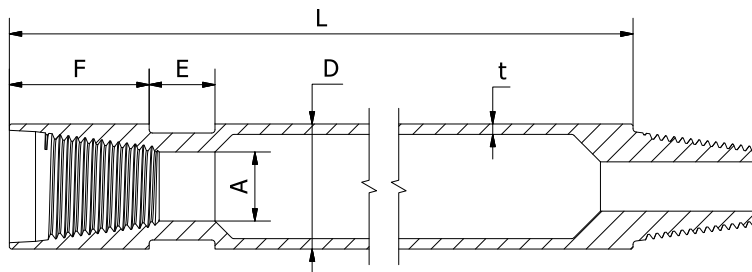


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Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats Cx E mm	Weight kg	Box ID A mm	Pin ID B mm
139,7	1.000	API 4" FH	8,8	5140S100-23U2-F01	115 X 50	41,0	70,0	70,0
139,7	1.500	API 4" FH	8,8	5140S150-23U2-F01	115 X 50	56,0	70,0	70,0
139,7	2.000	API 4" FH	8,8	5140S200-23U2-F01	115 X 50	69,0	70,0	70,0
139,7	3.000	API 4" FH	8,8	5140S300-23U2-F01	115 X 50	98,0	70,0	70,0
139,7	4.000	API 4" FH	8,8	5140S400-23U2-F01	115 X 50	126,0	70,0	70,0
139,7	5.000	API 4" FH	8,8	5140S500-23U2-F01	115 X 50	154,0	70,0	70,0
139,7	6.000	API 4" FH	8,8	5140S600-23U2-F01	115 X 50	183,0	70,0	70,0
139,7	1.000	API 4" FH	10,0	5140E100-23U2-F01	115 X 63	43,0	70,0	70,0
139,7	2.000	API 4" FH	10,0	5140E200-23U2-F01	115 X 63	75,0	70,0	70,0
139,7	3.000	API 4" FH	10,0	5140E300-23U2-F01	115 X 63	107,0	70,0	70,0
139,7	4.000	API 4" FH	10,0	5140E400-23U2-F01	115 X 63	139,0	70,0	70,0
139,7	5.000	API 4" FH	10,0	5140E500-23U2-F01	115 X 63	171,0	70,0	70,0
139,7	6.000	API 4" FH	10,0	5140E600-23U2-F01	115 X 63	203,0	70,0	70,0
139,7	1.000	API 4" FH	11,0	5140V100-23U2-F01	115 X 63	46,0	70,0	70,0
139,7	2.000	API 4" FH	11,0	5140V200-23U2-F01	115 X 63	81,0	70,0	70,0
139,7	3.000	API 4" FH	11,0	5140V300-23U2-F01	115 X 63	116,0	70,0	70,0
139,7	4.000	API 4" FH	11,0	5140V400-23U2-F01	115 X 63	151,0	70,0	70,0
139,7	5.000	API 4" FH	11,0	5140V500-23U2-F01	115 X 63	186,0	70,0	70,0
139,7	6.000	API 4" FH	11,0	5140V600-23U2-F01	115 X 63	221,0	70,0	70,0
139,7	1.000	API 4" FH	12,5	5140X100-23U2-F01	115 X 63	50,0	70,0	70,0
139,7	2.000	API 4" FH	12,5	5140X200-23U2-F01	115 X 63	89,0	70,0	70,0
139,7	3.000	API 4" FH	12,5	5140X300-23U2-F01	115 X 63	128,0	70,0	70,0
139,7	4.000	API 4" FH	12,5	5140X400-23U2-F01	115 X 63	167,0	70,0	70,0
139,7	5.000	API 4" FH	12,5	5140X500-23U2-F01	115 X 63	206,0	70,0	70,0
139,7	6.000	API 4" FH	12,5	5140X600-23U2-F01	115 X 63	246,0	70,0	70,0

Drill rods with wrench flats at BOX side only

Single wrench flats



Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats mm	ID A mm	Max torque kNm	Weight [1] kg
42,4	3.000	Rd 32 x 1/8"	6,3	5042N300-50UB-F01	32 SQ	5,0	1,4	9,0
51	3.000	Rd40-6	6,3	5051N300-51UB-F01	41 SQ	15,0	2,2	23,0
60,3	3.000	Gg 46	7,1	5060S300-59UB-F01	50 SQ	27,0	3,5	30,0
76,1	3.000	Gg 2"	8,8	5076S300-57UB-F01	50 SW	32,0	7,0	46,0
80	3.000	API 2.3/8" REG	9,0	5080S300-00UB-F01	- KEY	28,0	8,0	56,0
88,9	3.000	API 2.3/8" REG	8,8	5089S300-00UB-F01	65 SQ	35,0	10,1	58,0
88,9	3.000	API 2.3/8" IF	8,8	5089S300-10UB-F01	67 SW	32,0	10,1	76,0
88,9	3.000	API 2.3/8" IF	8,8	5089S300-10UB-F01	65 SW	45,0	10,1	56,0
127	3.000	API 3.1/2" REG	10,0	5127E300-02UB-F01	- KEY	40,0	24,9	118,0
127	3.000	API 3.1/2" IF	10,0	5127E300-12UB-F01	95 SW	60,0	24,9	98,0
139,7	3.000	API 4.1/2" REG	11,0	5140V300-04UB-F01	115 SW	57,0	33,1	115,0
146	3.000	API 3.1/2" REG	10,0	5146E300-02UB-F01	127 SW	40,0	33,9	117,0

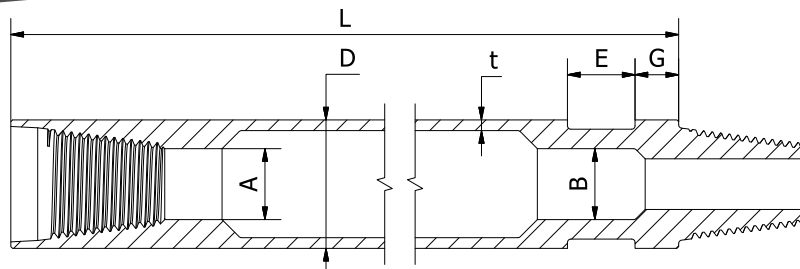
Approx. weight of 3m long rods

SW Spanner flats

SQ Square flats

KEY Key flats

Single wrench flats



Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Wrench flats mm	ID A mm	Max torque kNm	Weight [1] kg
48,3	3.000	Rd 32 x 1/8"	4,0	5048L300-50UP-F01	41 SQ	14,0	1,4	27,0
51	3.000	Rd40-6	6,3	5051N300-51UP-F01	41 SQ	14,0	2,2	27,0
51	3.000	Gg 46	6,3	5051N300-59UP-F01	41 SW	15,0	2,2	30,0
60,3	3.000	Gg 2"	7,0	5060S300-57UP-F01	50 SQ	25,0	3,5	30,0
60,3	3.000	API 2.3/8" REG	7,1	5060S300-00UP-F01	50 SQ	32,0	3,5	30,0
60,3	3.000	API 2.3/8" REG	7,1	5060S300-00UP-F01	50 SQ	25,0	3,5	30,0
68	3.000	API 2.3/8" IF	10,0	5068E300-10UP-F01	- KEY	25,0	5,8	46,0
70	3.000	API 2.3/8" IF	8,8	5070S300-10UP-F01	- KEY	38,0	5,8	44,0
76,1	3.000	API 3.1/2" REG	8,8	5076S300-02UP-F01	- KEY	26,0	7,0	51,0
76,1	3.000	API 3.1/2" IF	8,8	5076S300-12UP-F01	- KEY	25,0	7,0	50,0
76,1	3.000	API 4.1/2" REG	8,8	5076S300-04UP-F01	- KEY	24,0	7,0	50,0
82,5	3.000	API 3.1/2" REG	8,8	5082S300-02UP-F01	- KEY	25,0	8,5	57,0
88,9	3.000	API 3.1/2" REG	8,8	5089S300-02UP-F01	- KEY	25,0	10,1	64,0
101,6	3.000	API 3.1/2" REG	8,8	5102S300-02UP-F01	- KEY	32,0	13,7	77,0
114,3	3.000	API 3.1/2" REG	10,0	5114E300-02UP-F01	95 SQ	40,0	19,6	85,0
127	3.000	API 3.1/2" REG	10,0	5127E300-02UP-F01	- KEY	48,0	24,9	108,0
139,7	3.000	API 3.1/2" REG	10,0	5140E300-02UP-F01	115 SW	52,0	33,1	127,0
139,7	3.000	API 3.1/2" REG	8,8	5140S300-02UP-F01	115 SQ	52,0	27,8	105,0

Approx. weight of 3m long rods

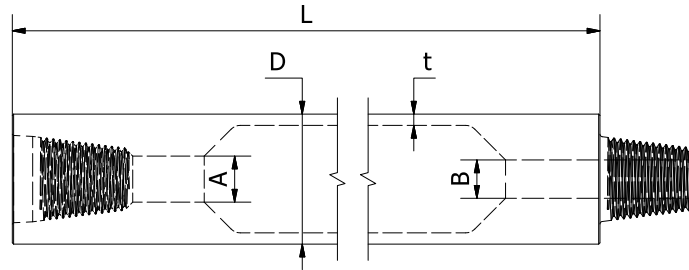
SW Spanner flats

SQ Square flats

KEY Key flats

Flush drill rods (without flats)

Universal flush

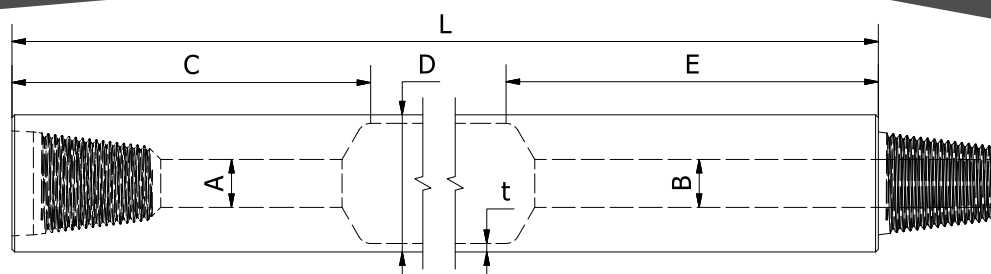


Diameter D mm	Length L mm	Thread	Wall thickness t mm	Part Nr.	Max applied Machine Torque kNm	Weight [1] kg	Box ID A mm	Pin ID B mm
51	3.000	Tr 43.5 x 1/4"	8,0	5051S300-71FL-F01	2,5	27,0	22,0	22,0
60,3	3.000	Gg 46	7,1	5060S300-59FL-F01	3,5	29,0	25,0	25,0
63,5	3.000	Tr 51 x 1/4"	6,3	5063N300-74FL-F01	3,7	30,0	25,0	25,0
70	3.000	Gg 2"	4,0	5070L300-57FL-F01	3,2	23,0	38,0	38,0
73	3.000	Tr 63 x 1/4"	6,3	5073N300-77FL-F01	5,0	35,0	26,0	26,0
76,1	3.000	Gg 2"	8,8	5076S300-57FL-F01	7,0	48,0	26,0	26,0
76,1	3.000	API 2.3/8" REG	6,3	5076N300-00FL-F01	5,6	38,0	30,0	30,0
76,1	3.000	Tr 66 x 1/4"	8,8	5076S300-78FL-F01	7,0	47,0	42,0	42,0
76,1	3.000	Tr 63 x 1/4"	8,8	5076S300-77FL-F01	7,0	45,0	26,0	26,0
82,5	3.000	API 2.3/8" REG	8,8	5082S300-00FL-F01	8,0	55,0	28,0	28,0
88,9	3.000	API 2.3/8" IF	8,8	5089S300-10FL-F01	10,1	60,0	32,0	32,0
88,9	3.000	API 2.3/8" REG	8,8	5089S300-00FL-F01	10,1	58,0	30,0	30,0
101,6	3.000	API 3.1/2" REG	8,8	5102S300-02FL-F01	13,7	65,0	38,0	38,0
114,3	3.000	API 3.1/2" REG	8,8	5114S300-02FL-F01	17,8	78,0	38,0	38,0
114,3	3.000	API 3.1/2" FH	10,0	5114E300-22FL-F01	19,6	85,0	70,0	70,0
127	3.000	API 3.1/2" REG	10,0	5127E300-02FL-F00	24,9	99,0	38,0	38,0
127	3.000	API 3.1/2" IF	10,0	5127E300-12FL-F00	24,9	99,0	60,0	60,0
139,7	3.000	API 4.1/2" REG	10,0	5140E300-04FL-F01	30,8	115,0	57,0	57,0
159	3.000	API 4.1/2" IF	7,1	5159N300-14FL-F01	30,8	102,0	95,0	95,0

Approx. weight of 3m long rods

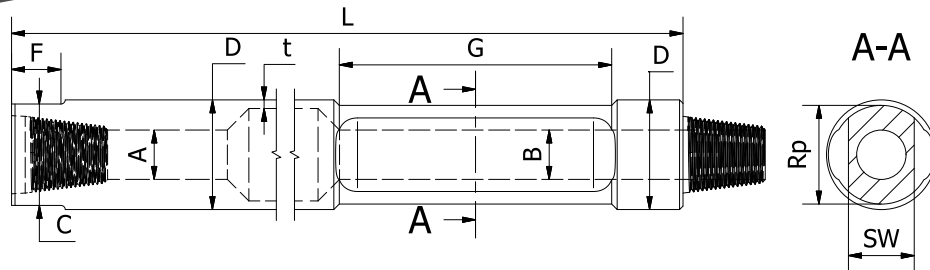
Extended length joints ROC series

Atlas Copco ROC F6/L6/L8
Sandvik BPI Titon / DI series



Diameter D mm	Length L mm	Thread	Wall t mm	Part Nr.	Weight kg	Box ID A mm	Pin ID B mm	C (mm)	E (mm)
76,1	1.000	API 2.3/8" REG	6,3	5076N100-00RO-F01	19,0	30,0	30,0	260,0	270,0
76,1	3.000	API 2.3/8" REG	6,3	5076N300-00RO-F01	40,0	30,0	30,0	260,0	270,0
76,1	4.000	API 2.3/8" REG	6,3	5076N400-00RO-F01	51,0	30,0	30,0	260,0	270,0
76,1	5.000	API 2.3/8" REG	6,3	5076N500-00RO-F01	62,0	30,0	30,0	260,0	270,0
76,1	6.000	API 2.3/8" REG	6,3	5076N600-00RO-F01	72,0	30,0	30,0	260,0	270,0
76,1	1.000	API 2.3/8" REG	8,8	5076S100-00RO-F01	21,0	30,0	30,0	260,0	270,0
76,1	3.000	API 2.3/8" REG	8,8	5076S300-00RO-F01	49,0	30,0	30,0	260,0	270,0
76,1	4.000	API 2.3/8" REG	8,8	5076S400-00RO-F01	64,0	30,0	30,0	260,0	270,0
76,1	5.000	API 2.3/8" REG	8,8	5076S500-00RO-F01	78,0	30,0	30,0	260,0	270,0
76,1	6.000	API 2.3/8" REG	8,8	5076S600-00RO-F01	93,0	30,0	30,0	260,0	270,0
88,9	1.000	API 2.3/8" REG	6,3	5089N100-00RO-F01	25,0	30,0	30,0	260,0	270,0
88,9	3.000	API 2.3/8" REG	6,3	5089N300-00RO-F01	51,0	30,0	30,0	260,0	270,0
88,9	4.000	API 2.3/8" REG	6,3	5089N400-00RO-F01	64,0	30,0	30,0	260,0	270,0
88,9	5.000	API 2.3/8" REG	6,3	5089N500-00RO-F01	77,0	30,0	30,0	260,0	270,0
88,9	6.000	API 2.3/8" REG	6,3	5089N600-00RO-F01	89,0	30,0	30,0	260,0	270,0
88,9	4.000	API 2.3/8" REG	6,3	5089N400-00RO-F00	56,0	42,0	25,0	240,0	240,0
88,9	5.000	API 2.3/8" REG	6,3	5089N500-00RO-F00	69,0	42,0	25,0	240,0	240,0
88,9	1.000	API 2.3/8" REG	8,8	5089S100-00RO-F01	28,0	30,0	30,0	260,0	270,0
88,9	3.000	API 2.3/8" REG	8,8	5089S300-00RO-F01	62,0	30,0	30,0	260,0	270,0
88,9	4.000	API 2.3/8" REG	8,8	5089S400-00RO-F01	80,0	30,0	30,0	260,0	270,0
88,9	5.000	API 2.3/8" REG	8,8	5089S500-00RO-F01	97,0	30,0	30,0	260,0	270,0
88,9	6.000	API 2.3/8" REG	8,8	5089S600-00RO-F01	114,0	30,0	30,0	260,0	270,0
101,6	1.000	API 2.7/8" REG	6,3	5102N100-01RO-F01	33,0	35,5	35,5	260,0	270,0
101,6	3.000	API 2.7/8" REG	6,3	5102N300-01RO-F01	63,0	35,5	35,5	260,0	270,0
101,6	4.000	API 2.7/8" REG	6,3	5102N400-01RO-F01	77,0	35,5	35,5	260,0	270,0
101,6	5.000	API 2.7/8" REG	6,3	5102N500-01RO-F01	92,0	35,5	35,5	260,0	270,0
101,6	6.000	API 2.7/8" REG	6,3	5102N600-01RO-F01	107,0	35,5	35,5	260,0	270,0
102	4.000	API 2.7/8" REG	8,0	5102S400-01RO-F00	83,0	42,0	30,0	240,0	240,0
102	5.000	API 2.7/8" REG	8,0	5102S500-01RO-F00	97,0	42,0	30,0	240,0	240,0
102	6.000	API 2.7/8" REG	8,0	5102S600-01RO-F00	110,0	42,0	30,0	240,0	240,0
101,6	1.000	API 2.7/8" REG	8,8	5102S100-01RO-F01	36,0	35,5	35,5	260,0	270,0
101,6	3.000	API 2.7/8" REG	8,8	5102S300-01RO-F01	76,0	35,5	35,5	260,0	270,0
101,6	4.000	API 2.7/8" REG	8,8	5102S400-01RO-F01	96,0	35,5	35,5	260,0	270,0
101,6	5.000	API 2.7/8" REG	8,8	5102S500-01RO-F01	116,0	35,5	35,5	260,0	270,0
101,6	6.000	API 2.7/8" REG	8,8	5102S600-01RO-F01	136,0	35,5	35,5	260,0	270,0
114,3	1.000	API 3.1/2" REG	6,3	5114N100-02RO-F01	37,0	55,0	44,5	260,0	255,0
114,3	3.000	API 3.1/2" REG	6,3	5114N300-02RO-F01	54,0	55,0	44,5	260,0	255,0
114,3	4.000	API 3.1/2" REG	6,3	5114N400-02RO-F01	71,0	55,0	44,5	260,0	255,0
114,3	5.000	API 3.1/2" REG	6,3	5114N500-02RO-F01	105,0	55,0	44,5	260,0	255,0
114,3	6.000	API 3.1/2" REG	6,3	5114N600-02RO-F01	122,0	55,0	44,5	260,0	255,0
114,3	6.000	API 3.1/2" REG	6,3	5114N600-02RO-F00	117,0	80,0	42,0	315,0	315,0
114,3	5.000	API 3.1/2" REG	8,8	5114S500-02RO-F01	138,0	44,5	44,5	260,0	255,0
114,3	6.000	API 3.1/2" REG	8,8	5114S600-02RO-F01	160,0	44,5	44,5	260,0	255,0

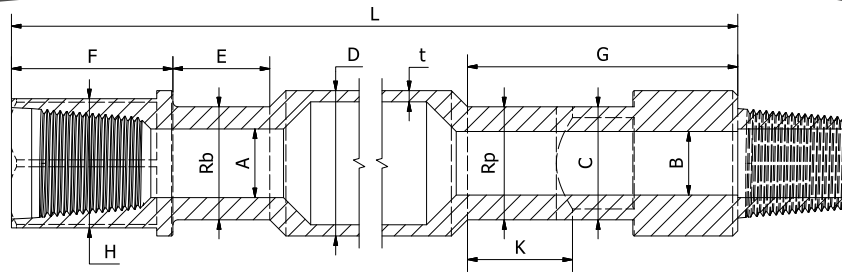
Driltech T25KW/D25/40



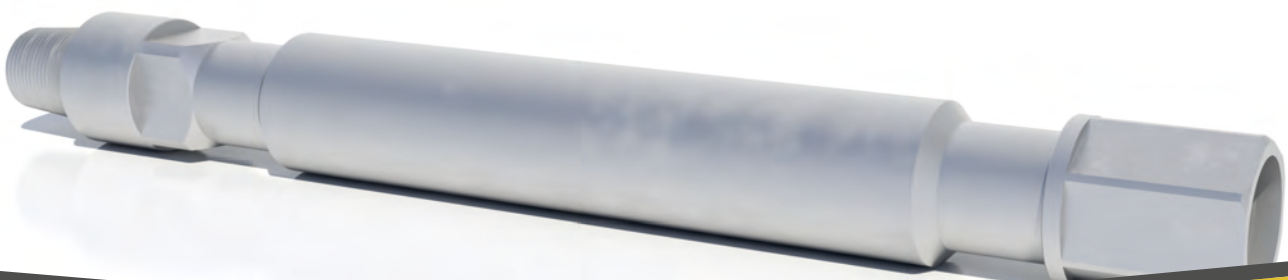
Diameter D in mm	Length L ft mm	Thread	Wall thickness t in mm	Part Nr.	Wrench flats C x F in x in mm x mm	Round Recess Rb x SW x G in mm
3.1/2 88,9	25,0 7.620	API 2.3/8" IF	0,37 9,4	50890762-10DT-F01	3.1/4 X 3.1/4 82,6 X 82,6	3 X 2.3/4 X 12.1/2 76,2 X 69,9 X 317,5
4 101,6	25,0 7.620	API 2.3/8" IF	0,33 8,4	5102S762-10DT-F01	3.1/2 X 3.1/4 88,9 X 82,6	3.1/2 X 2.3/4 X 12.1/2 88,9 X 69,9 X 317,5
4.1/2 114,3	25,0 7.620	API 2.7/8" IF	0,33 8,4	5114S762-11DT-F01	4 X 3.1/4 101,6 X 82,6	4 X 3 X 12.1/2 101,6 X 76,2 X 317,5
4.1/2 114,3	25,0 7.620	API 3.1/2" REG	0,5 12,7	5114X762-02DT-F01	4 X 3.1/4 101,6 X 82,6	4 X 3 X 12.1/2 101,6 X 76,2 X 317,5
5 127,0	25,0 7.620	API 3.1/2" REG	0,5 12,7	5127X762-02DT-F01	4 X 3.1/4 101,6 X 82,6	4.1/2 X 3 X 12.1/2 114,3 X 76,2 X 317,5
5 127,0	25,0 7.620	API 3.1/2" REG	0,37 9,4	5127E762-02DT-F01	4.5/8 X 3.1/4 117,5 X 82,6	4.1/2 X 3 X 12.1/2 114,3 X 76,2 X 317,5
6 152,4	25,0 7.620	API 3.1/2" REG	0,5 12,7	5152X762-02DT-F01	4 X 3.1/4 101,6 X 82,6	4.1/2 X 3 X 12.1/2 114,3 X 76,2 X 317,5

Special design drill rods Ingersoll Rand T4

DM30/45/50/L,
T4W, T4BH, RD20



Diameter D in mm	Length L ft mm	Thread	Wall thickness t in mm	Part Nr.	Wrench flats C x H in x in mm x mm	Round Recesses Rb x Rp in x in mm x mm	Weight kg
3.1/2 88,9	25,0 7.620	API 2.3/8" REG	0,346 8,8	5089S762-00T4-F01	2.1/2 X 3 63,5 X 76,2	2.1/2 X 2.1/2 63,5 X 63,5	168,0
4.1/2 114,3	25,0 7.620	API 2.7/8" IF	0,346 8,8	5114S762-11T4-F01	3.1/2 X 4 88,9 X 101,6	3.1/2 X 3.1/2 88,9 X 88,9	188,0
4.1/2 114,3	25,0 7.620	API 3.1/2" REG	0,346 8,8	5114S762-02T4-F01	3.1/2 X 4 88,9 X 101,6	3.1/2 X 3.1/4 88,9 X 82,6	188,0
4.1/2 114,3	25,0 7.620	API 3.1/2" REG	0,346 8,8	5114S762-02T4-F01	3.1/2 X 4 88,9 X 101,6	3.1/2 X 3.1/2 88,9 X 88,9	188,0
4.1/2 114,3	25,0 7.620	API 2.7/8" REG	0,346 8,8	5114S762-01T4-F01	3.1/2 X 4 88,9 X 101,6	3.1/2 X 3.1/4 88,9 X 82,6	188,0
5 127,0	25,0 7.620	API 3.1/2" REG	0,394 10,0	5127E762-02T4-F01	3.1/2 X 4 88,9 X 101,6	3.1/2 X 3.1/2 88,9 X 88,9	252,0
5 127,0	25,0 7.620	API 3.1/2" REG	0,4 10,2	5127E762-02T4-F01	3.1/2 X 4 88,9 X 101,6	3.1/2 X 3.1/4 88,9 X 82,6	258,0
5 127,0	25,0 7.620	API 3.1/2" REG	0,5 12,7	5127X762-02T4-F01	3.5/8 X 4 92,1 X 101,6	3.1/2 X 3.1/2 88,9 X 88,9	286,0
5.1/2 139,7	25,0 7.620	API 4" FH	0,42 10,7	5140E762-23T4-F01	4.1/2 X 5 114,3 X 127,0	4.1/2 X 4.1/4 114,3 X 108,0	325,0
5.1/2 139,7	25,0 7.620	BECO 3.1/2"	0,5 12,7	5140X762-41T4-F01	4.1/2 X 5 114,3 X 127,0	4.1/2 X 4.1/4 114,3 X 108,0	333,0



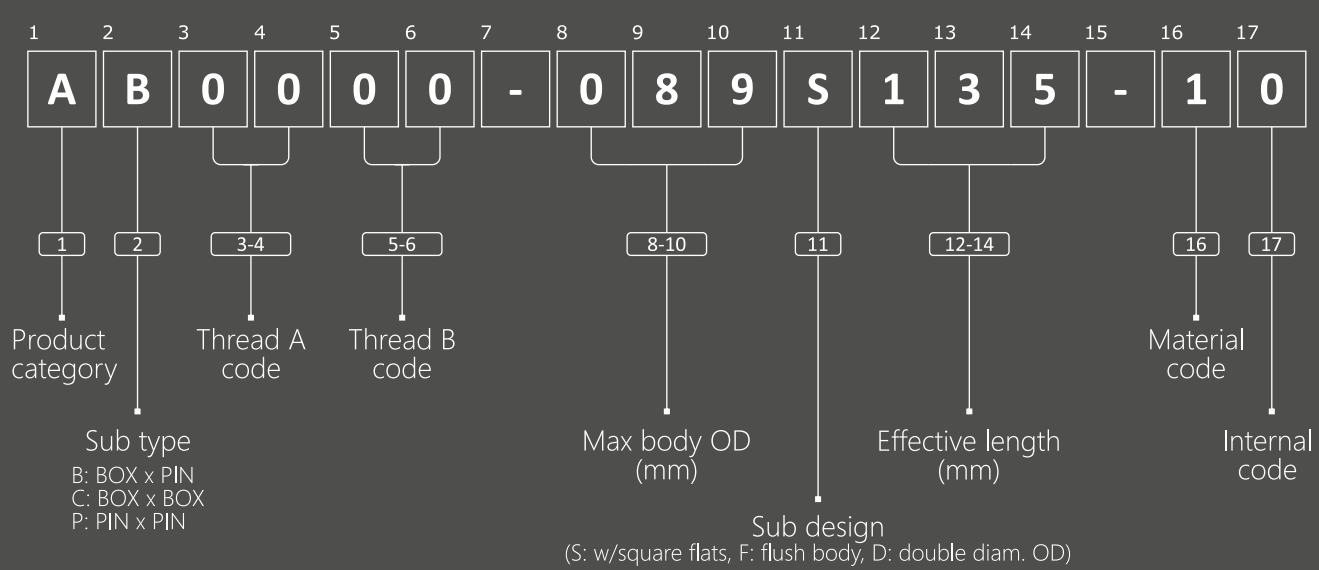
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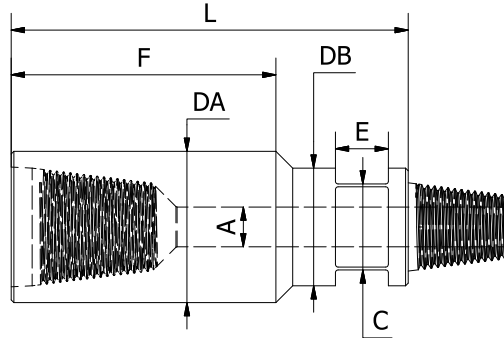
Subs





guide to coding system





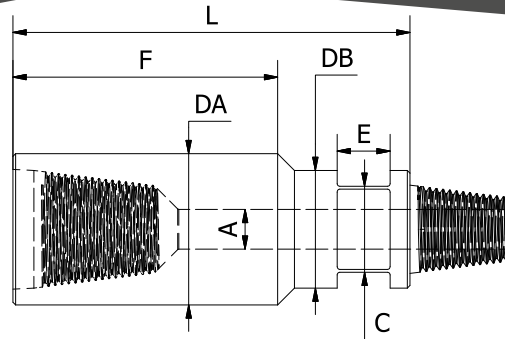
Standard versions:
Alloy steel 42CrMo4
with case hardening

On request:
Alloy steel 34CrNiMo6
with or without case hardening

BOX Thread A	PIN Thread B	Diameter		Length L mm	Part Nr.	Wrench flats Cx E mm	ID A mm
		DA mm	DB mm				
AW	BW	54,0	54,0	75	ABAWBW-054F075-05	-	19,0
AW	BW	54,0	54,0	80	ABAWBW-054S080-05	50 x 40	19,0
BW	AW	54,0	54,0	120	ABBWAW-054S120-05	50 x 40	19,0
BW	AW	54,0	54,0	90	ABBWAW-054F090-05	-	19,0
BW	BW	54,0	54,0	90	ABBWBW-054F090-05	-	19,0
BW	CR42	54,0	54,0	85	ABBW17-054F085-05	-	19,0
BW	CR50	54,0	54,0	90	ABBW18-054F090-10	-	22,0
BW	Rd50-6	59,5	59,5	120	ABBW52-060S120-10	50 x 40	19,0
BW	API 2.3/8" REG	76,2	76,2	150	ABBW00-076S150-10	65 x 40	25,0
BWJ	BWJ	54,5	54,5	118	ABBWBJ-054S118-00	46 x 32	22,0
CR42	BW	64,0	64,0	80	AB17BW-054F080-05	-	19,0
CR42	Rd40-6	50,0	50,0	120	AB1751-050F120-15	-	25,0
CR50	BW	54,0	54,0	75	AB18BW-054F075-05	-	19,0
CR50	Rd40-6	60,0	60,0	120	AB1851-060S120-03	50 x 40	22,0
CR50	Rd50-6	60,0	60,0	120	AB1852-060S120-10	65 x 40	25,4
CR50	API 2.3/8" REG	76,2	76,2	120	AB1800-076S120-00	65 x 40	22,0
Rd40-6	BW	54,0	54,0	80	AB51BW-054F080-10	-	19,0
Rd40-6	CR50	50,0	50,0	120	AB5118-050S120-02	46 x 32	19,0
Rd50-6	BW	60,0	60,0	120	AB52BW-060S120-10	50 x 30	22,0
Rd50-6	CR50	60,0	60,0	120	AB5218-060S120-10	50 x 40	22,0
Rd50-6	API 2.3/8" REG	76,2	76,2	130	AB5200-076S130-10	65 x 40	25,0
Rd50-6	API 2.3/8" REG	76,2	76,2	150	AB5200-076S150-10	65 x 40	25,0
N-rod	API 2.3/8" REG	76,2	76,2	120	ABNR00-076S120-10	65 x 40	32,0
42 REG	Rd40-6	50,0	50,0	120	AB0351-050S120-15	40 x 40	25,0

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BOX x PIN



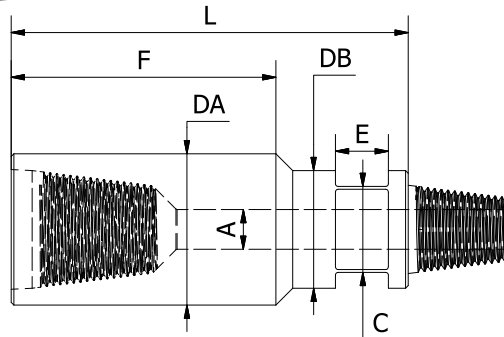
Standard versions:
Alloy steel 42CrMo4
with case hardening

On request:
Alloy steel 34CrNiMo6
with or without case hardening

continued from previous page

BOX Thread	PIN Thread	Diameter		Length	Part Nr.	Wrench flats	ID
		DA mm	DB mm				
A	B			L mm		CxE mm	A mm
API 2.3/8" REG	BW	76,2	76,2	130	AB00BW-076S130-10	65 x 40	22,0
API 2.3/8" REG	CR42	76,2	76,2	130	AB0017-076S130-10	65 x 40	22,0
API 2.3/8" REG	CR50	76,2	76,2	150	AB0018-076S150-10	65 x 40	22,0
API 2.3/8" REG	CR50	76,2	76,2	240	AB0018-076S240-10	65 x 40	22,0
API 2.3/8" REG	Rd40-6	76,2	76,2	130	AB0051-076S130-10	65 x 40	25,0
API 2.3/8" REG	Rd50-6	76,2	76,2	130	AB0052-076S130-10	65 x 40	25,0
API 2.3/8" REG	Rd50-6	76,2	76,2	150	AB0052-076S150-15	65 x 40	25,0
API 2.3/8" REG	42 REG	76,2	76,2	140	AB0003-076S140-15	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	76,2	76,2	130	AB0000-076S130-10	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	76,2	76,2	150	AB0000-076S150-10	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	76,2	76,2	305	AB0000-076F305-03	-	25,4
API 2.3/8" REG	API 2.3/8" REG	76,2	76,2	380	AB0000-076S380-10	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	130	AB0000-090S130-00	65 x 40	25,4
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	305	AB0000-089F305-10	-	30,0
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	305	AB0000-089S305-23	65 x 50	31,8
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	305	AB0000-090F305-20	-	30,5
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	450	AB0000-089S450-10	70 x 50	32,0
API 2.3/8" REG	API 2.3/8" IF	88,9	88,9	135	AB0010-089S135-10	70 x 50	38,1
API 2.3/8" REG	API 2.7/8" REG	88,9	88,9	150	AB0001-089S150-10	70 x 50	32,0
API 2.3/8" REG	API 2.7/8" REG	101,6	101,6	130	AB0001-102F130-10	-	32,0
API 2.3/8" REG	API 3.1/2" REG	88,9	114,3	145	AB0002-114D145-10	70 x 50	38,1
API 2.3/8" REG	API 3.1/2" REG	114,3	114,3	120	AB0002-114S120-10	95 x 50	42,0
API 2.3/8" REG	API 3.1/2" REG	114,3	114,3	150	AB0002-114S150-10	95 x 50	40,0
API 2.3/8" REG	API 3.1/2" REG	114,3	114,3	300	AB0002-114F300-10	-	40,0
API 2.3/8" IF	BW	88,9	88,9	180	AB10BW-089S180-10	70 x 50	25,0
API 2.3/8" IF	API 2.3/8" REG	88,9	88,9	180	AB1000-089S180-13	70 x 40	31,8
API 2.3/8" IF	API 2.3/8" IF	88,9	88,9	140	AB1000-089S140-13	70 x 50	31,8
API 2.3/8" IF	API 2.3/8" IF	88,9	88,9	340	AB1010-089S340-13	65 x 40	40,0
API 2.7/8" REG	BW	88,9	88,9	130	AB01BW-089L130-05	70 x 50	19,1
API 2.7/8" REG	API 2.3/8" REG	88,9	88,9	135	AB0100-089S135-10	70 x 50	31,8
API 2.7/8" REG	API 2.3/8" REG	88,9	88,9	155	AB0100-089S155-10	70 x 50	25,0
API 2.7/8" REG	API 2.3/8" REG	101,6	101,6	305	AB0100-102F305-10	-	32,0
API 2.7/8" REG	API 2.3/8" IF	88,9	88,9	180	AB0110-089S180-10	70 x 50	44,5
API 2.7/8" REG	API 2.7/8" IF	114,3	114,3	110	AB0111-114S110-10	100 x 50	38,1
API 2.7/8" REG	API 3.1/2" IF	114,3	139,7	165	AB0112-140D165-10	100 x 50	44,5
API 2.7/8" REG	API 2.7/8" REG	88,9	88,9	160	AB0101-089S160-10	70 x 50	32,0
API 2.7/8" REG	API 2.7/8" IF	114,3	114,3	110	AB0111-114S110-11	100 x 50	38,1
API 2.7/8" REG	API 3.1/2" REG	114,3	114,3	135	AB0102-114S135-10	100 x 50	44,5
API 2.7/8" REG	API 3.1/2" REG	114,3	114,3	150	AB0102-114S150-10	95 x 50	40,0

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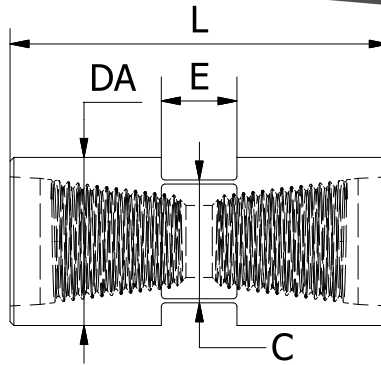
Standard versions:
Alloy steel 42CrMo4
with case hardening

On request:
Alloy steel 34CrNiMo6
with or without case hardening

continued from previous page

BOX Thread	PIN Thread	Diameter		Length	Part Nr.	Wrench flats	ID
		DA mm	DB mm				
A	B	DA mm	DB mm	L mm		CxE mm	A mm
API 2.7/8" REG	API 3.1/2" IF	114,3	139,7	165	AB0112-140D165-11	100 x 50	44,5
API 2.7/8" REG	API 4.1/2" REG	114,3	146,1	175	AB0104-146D175-10	100 x 50	44,5
API 2.7/8" IF	API 3.1/2" REG	114,3	114,3	300	AB1102-114F300-10	-	38,1
API 3.1/2" REG	API 2.3/8" REG	114,3	88,9	145	AB0200-114D145-10	100 x 50	25,4
API 3.1/2" REG	API 2.3/8" REG	114,3	114,3	155	AB0200-114S155-10	95 x 50	55,0
API 3.1/2" REG	API 2.3/8" REG	114,3	88,9	220	AB0200-114D220-10	70 x 50	25,0
API 3.1/2" REG	API 2.3/8" REG	114,3	114,3	220	AB0200-114S220-10	95 x 50	25,0
API 3.1/2" REG	API 2.3/8" IF	114,3	88,9	145	AB0210-114D145-10	100 x 50	38,1
API 3.1/2" REG	API 2.7/8" REG	114,3	114,3	130	AB0201-114S130-10	100 x 50	38,1
API 3.1/2" REG	API 2.7/8" REG	114,3	114,3	185	AB0201-114S185-10	95 x 50	44,5
API 3.1/2" REG	API 2.7/8" IF	114,3	114,3	150	AB0211-114S150-10	89 x 50	55,0
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	220	AB0202-114S220-10	95 x 50	40,0
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	240	AB0202-114F240-10	-	40,0
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	305	AB0202-114F305-10	-	40,0
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	305	AB0202-114S305-10	95 x 50	40,0
API 3.1/2" REG	API 3.1/2" REG	127,0	127,0	100	AB0202-127S100-10	100 x 50	44,5
API 3.1/2" REG	API 3.1/2" IF	114,3	139,7	140	AB0212-140D140-10	100 x 50	44,5
API 3.1/2" REG	API 4.1/2" REG	114,3	146,1	135	AB0204-146D135-10	100 x 50	52,4
API 3.1/2" REG	API 4.1/2" FH	114,3	146,1	140	AB0224-146D140-11	100 x 50	58,7
API 3.1/2" REG	API 5.1/2" REG	168,0	168,0	200	AB0205-168S200-10	120 x 50	38,1
API 3.1/2" REG	API 6.5/8" REG	114,3	203,2	380	AB0206-203D380-10	100 x 50	58,7
API 4" FH	API 3.1/2" REG	146,1	114,3	160	AB2302-146D160-11	110 x 50	71,4
API 4.1/2" REG	API 2.7/8" IF	139,7	104,8	220	AB0411-140D220-10	89 x 63,5	54,0
API 4.1/2" REG	API 2.7/8" IF	149,0	114,3	430	AB0411-149D430-13	90 x 60	54,0
API 4.1/2" REG	API 3.1/2" REG	146,1	114,3	160	AB0402-146D160-10	120 x 50	44,5
API 4.1/2" REG	API 3.1/2" REG	139,7	114,3	220	AB0402-140D220-10	95 x 50	40,0
API 4.1/2" REG	API 4" FH	139,7	139,7	229	AB0423-140S229-11	85 x 50	60,0
API 6.5/8" REG	API 2.7/8" IF	196,9	114,3	470	AB0611-197D470-13	90 x 60	54,0
API 6.5/8" REG	API 3.1/2" REG	196,9	127,0	250	AB0602-197D250-15	110 x 60	44,5
API 6.5/8" REG	API 4.1/2" REG	180,0	140,0	230	AB0604-180D230-15	160 x 40	60,0
API 6.5/8" REG	API 4.1/2" REG	196,9	152,4	250	AB0604-197D250-10	130 x 60	57,2
API 6.5/8" REG	API 4.1/2" REG	196,9	146,1	255	AB0604-197D255-10	180 x 50	58,7
API 6.5/8" REG	API 4.1/2" REG	196,9	146,1	255	AB0604-197D255-11	180 x 50	58,7

BOX x BOX

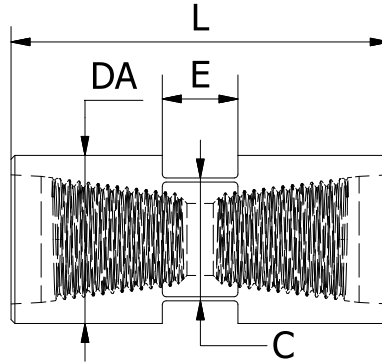


Standard versions:
Alloy steel 42CrMo4
with case hardening

On request:
Alloy steel 34CrNiMo6
with or without case hardening

BOX Thread A	BOX Thread BOX Thread	Diameter		Length L mm	Part Nr.	Wrench flats CxE mm	ID A mm
		DA mm	DB mm				
A-rod	CR50	50,0	50,0	50	ACAR18-100F050-10	-	15,0
BW	Rd50-6	60,0	60,0	180	ACBW52-060S180-10	50 x 40	25,0
BW	API 2.3/8" REG	76,2	76,2	200	ACBW00-076S200-10	65 x 40	25,0
BW	API 2.7/8" REG	88,9	88,9	200	ACBW01-089S200-10	70 x 50	25,0
BWJ	API 2.3/8" REG	76,2	76,2	150	ACBJ00-076W150-00	65 x 40	30,0
BWJ	API 2.7/8" REG	88,9	88,9	200	ACBW01-089S200-10	65 x 40	38,1
N-rod	BW	60,0	60,0	130	ACNRBW-060F130-10	-	20,0
N-rod	NW	67,0	67,0	140	ACNRNW-067F140-10	-	47,0
N-rod	API 2.3/8" REG	76,2	76,2	150	ACNR00-076F150-10	-	25,0
N-rod	API 2.3/8" REG	76,2	76,2	150	ACNR00-076W150-10	65 x 40	25,0
CR50	42 REG	50,0	50,0	50	AC0318-100F050-10	-	15,0
Rd40-6	BW	54,0	54,0	130	AC51BW-104F130-10	-	19,0
Rd50-6	N-rod	60,0	60,0	180	AC52NR-060S180-10	50 x 40	25,0
Rd50-6	API 2.3/8" REG	76,2	76,2	150	AC5200-076W150-10	65 x 40	25,0
Rd50-6	API 2.3/8" REG	76,2	76,2	185	AC5200-076W185-10	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	76,2	76,2	185	AC0000-076S185-10	65 x 40	40,0
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	200	AC0000-089S200-10	70 x 50	38,1
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	220	AC0000-089S220-10	70 x 50	32,0
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	420	AC0000-089S420-10	70 x 50	38,1
API 2.3/8" REG	API 2.7/8" REG	88,9	88,9	220	AC0001-089S220-10	70 x 50	32,0
API 2.3/8" REG	API 2.7/8" REG	88,9	95,2	190	AC0001-090W190-10	70 x 50	42,6
API 2.3/8" REG	API 2.7/8" REG	88,9	95,2	220	AC0001-095D220-10	70 x 50	32,0
API 2.3/8" REG	API 2.7/8" REG	88,9	114,3	220	AC0001-104D220-10	100 x 50	38,1
API 2.3/8" REG	API 2.7/8" IF	88,9	88,9	220	AC0011-089S220-10	70 x 50	52,4

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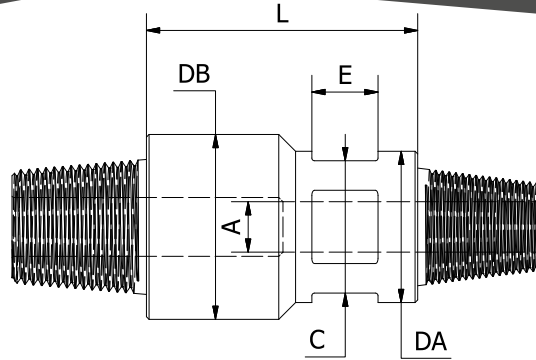
Standard versions:
Alloy steel 42CrMo4
with case hardening

On request:
Alloy steel 34CrNiMo6
with or without case hardening

continued from previous page

BOX Thread A	BOX Thread BOX Thread	Diameter		Length L mm	Part Nr.	Wrench flats CxE mm	ID A mm
		DA mm	DB mm				
API 2.3/8" REG	API 3.1/2" REG	88,9	114,3	230	AC0002-104D230-10	70 x 50	38,1
API 2.3/8" REG	API 3.1/2" REG	88,9	114,3	250	AC0002-104D250-10	70 x 50	40,0
API 2.3/8" REG	API 3.1/2" REG	88,9	114,3	450	AC0002-104D450-10	70 x 50	38,1
API 2.3/8" REG	API 3.1/2" REG	120,0	120,0	220	AC0002-120S220-10	95 x 50	38,1
API 2.3/8" REG	API 4.1/2" REG	88,9	146,1	280	AC0004-146D280-10	70 x 40	25,0
API 2.3/8" IF	API 2.7/8" REG	95,2	95,2	220	AC1001-095W220-10	90 x 50	44,5
API 2.3/8" IF	API 3.1/2" REG	114,3	114,3	150	AC1002-104S150-10	95 x 50	44,5
API 2.7/8" REG	API 2.7/8" REG	88,9	88,9	220	AC0101-089S220-10	70 x 50	40,0
API 2.7/8" REG	API 2.7/8" IF	114,3	114,3	240	AC0111-104S240-10	100 x 50	44,5
API 2.7/8" REG	API 3.1/2" REG	114,3	114,3	240	AC0102-104S240-10	95 x 50	44,5
API 2.7/8" REG	API 3.1/2" REG	114,3	114,3	250	AC0102-104S250-10	100 x 50	44,5
API 2.7/8" REG	API 3.1/2" IF	88,9	139,7	250	AC0112-140D250-10	100 x 50	44,5
API 2.7/8" REG	API 4.1/2" REG	114,3	146,1	250	AC0104-146D250-10	100 x 50	44,5
API 2.7/8" REG	API 4.1/2" REG	114,3	146,1	280	AC0104-146D280-10	95 x 50	44,5
API 2.7/8" REG	API 4.1/2" FH	114,3	139,7	320	AC0124-146D320-10	100 x 50	44,5
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	220	AC0202-104S220-00	95 x 50	50,8
API 3.1/2" REG	API 3.1/2" REG	114,0	114,3	230	AC0202-104S230-10	100 x 50	44,5
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	240	AC0202-104S240-10	100 x 50	50,0
API 3.1/2" REG	API 3.1/2" IF	114,3	139,7	270	AC0212-140D270-10	100 x 50	44,5
API 3.1/2" REG	API 4.1/2" REG	114,3	146,1	260	AC0204-146D260-10	100 x 50	55,0
API 3.1/2" REG	API 4.1/2" REG	114,3	146,1	270	AC0204-146D270-10	100 x 50	58,7
API 3.1/2" REG	API 4.1/2" REG	114,3	146,1	280	AC0204-146D280-10	95 x 50	55,0
API 3.1/2" REG	API 4.1/2" REG	139,7	139,7	240	AC0204-140S240-00	125 x 50	50,8
API 3.1/2" REG	API 4.1/2" FH	114,3	146,1	285	AC0224-146D285-10	100 x 50	58,7
API 3.1/2" REG	API 6.5/8" REG	114,3	196,9	285	AC0206-197D285-10	100 x 50	58,7
API 3.1/2" REG	API 6.5/8" REG	114,3	196,9	300	AC0206-197D300-10	100 x 50	55,0
API 4.1/2" REG	API 5.1/2" REG	139,7	168,0	320	AC0405-168D320-10	120 x 50	57,1

PIN x PIN



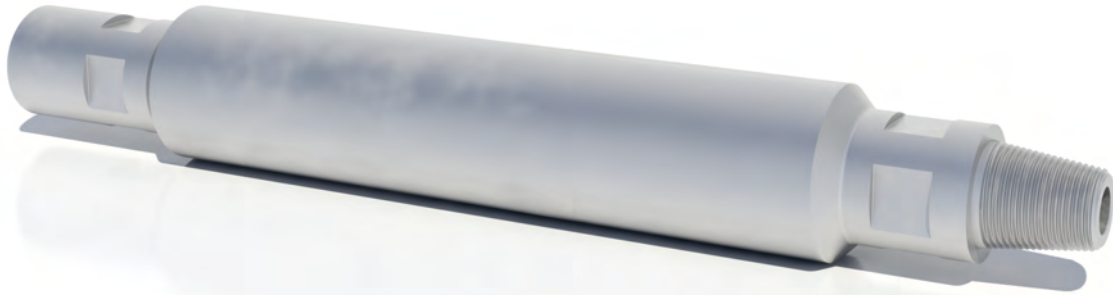
Standard versions:
Alloy steel 42CrMo4
with case hardening

On request:
Alloy steel 34CrNiMo6
with or without case hardening

BOX Thread A	BOX Thread BOX Thread	Diameter		Length L mm	Part Nr.	Wrench flats Cx E mm	ID A mm
		DA mm	DB mm				
BW	BW	54,0	54,0	55	APBWBW-054F055-10	-	19,0
BW	CR50	54,0	54,0	55	APBW18-054F055-10	-	19,0
BW	Rd40-6	60,0	60,0	80	APBW51-060S080-10	50 x 40	22,0
BW	Rd50-6	60,0	60,0	50	APBW52-060F050-10	-	22,0
BW	Rd50-6	60,0	60,0	80	APBW52-060S080-10	50 x 40	19,0
BW	API 2.3/8" REG	76,2	76,2	80	APBW00-076S080-04	65 x 40	19,1
BWJ	Rd50-6	60,0	60,0	80	APBJ52-060S080-05	50 x 40	20,0
NW	CR50	70,0	70,0	80	APNW18-070F080-00	-	22,0
NW	NW	70,0	70,0	80	APNWNW-070F080-04	-	20,0
CR50	CR50	50,0	50,0	55	AP1818-050F055-03	-	22,0
CR50	API 2.3/8" REG	76,2	76,2	80	AP0018-076S080-10	65 x 40	25,0
Rd40-6	BWJ	54,0	54,0	80	AP51BJ-054S080-10	46 x 40	19,0
Rd50-6	API 2.3/8" REG	76,2	76,2	70	AP0052-076S070-15	65 x 40	25,0
Rd50-6	API 2.3/8" REG	76,2	76,2	80	AP0052-076S080-10	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	76,2	76,2	70	AP0000-076S070-15	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	76,2	76,2	80	AP0000-076S080-10	65 x 40	25,0
API 2.3/8" REG	API 2.3/8" REG	77,0	77,0	68	AP0000-077S068-00	65 x 40	30,0
API 2.3/8" REG	API 2.3/8" REG	88,9	88,9	100	AP0000-089S100-10	70 x 50	25,0
API 2.3/8" REG	API 2.7/8" REG	88,9	88,9	90	AP0001-089S090-10	70 x 50	25,0
API 2.3/8" REG	API 2.7/8" REG	88,9	88,9	150	AP0001-089S150-11	70 x 50	25,4
API 2.7/8" IF	API 3.1/2" REG	114,3	120,7	150	AP1102-121D150-11	100 x 50	44,5
API 2.7/8" IF	API 3.1/2" IF	114,3	120,7	150	AP1112-121D150-11	100 x 50	54,0
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	90	AP0202-114S090-10	100 x 50	40,0
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	180	AP0202-114S180-10	100 x 50	40,0
API 3.1/2" REG	API 3.1/2" REG	114,3	114,3	270	AP0202-114S270-10	95 x 50	44,5
API 3.1/2" REG	API 3.1/2" IF	114,3	139,7	205	AP0212-140D205-11	100 x 50	44,5
API 3.1/2" REG	API 4.1/2" REG	114,3	139,7	90	AP0204-140D090-11	95 x 70	38,1
API 4.1/2" REG	API 4.1/2" REG	139,7	139,7	85	AP0404-140S085-11	120 x 50	57,2
API 4.1/2" REG	API 6.5/8" REG	139,7	181,0	120	AP0406-181D120-11	115 x 50	57,2

DTH drilling accessories

Drill Collars



Body Outer Diameter OD mm	Body Inner Diameter OD mm	Length L mm	Thread	Part Nr.	Box wrench flats mm	Pin wrench flats mm	Pin ID B mm	Weight kg
88,9	38,1	3.000	API 2.3/8" REG	5089C300-00U2-F01	-	-	28,6	118
88,9	38,1	3.000	API 2.7/8" REG	5070L150-52U2-F01	70x50	70x50	31,8	118
88,9	38,1	3.000	API 2.3/8" IF	5070L200-52U2-F01	40x40	-	38,1	118
108,0	52,4	3.000	API 2.7/8" IF	5070L300-52U2-F01	-	-	52,4	170
114,3	50,8	3.000	API 3.1/2" REG	5076L100-00U2-F01	95x50	-	38,1	190
120,7	71,4	3.000	API 3.1/2" IF	5076L150-00U2-F01	-	-	68,3	178
139,7	58,7	3.000	API 4" FH	5076L200-00U2-F01	-	-	71,4	290
152,4	73,0	3.000	API 4.1/2" REG	5076L300-00U2-F01	130x50	130x50	57,2	336
152,4	73,0	3.000	API 3.1/2" FH	5076L400-00U2-F01	-	-	61,9	336
152,4	96,8	3.000	API 4.1/2" IF	5076L500-00U2-F01	-	-	95,3	260
158,8	79,4	3.000	API 4" IF	5076L600-00U2-F01	-	-	82,6	347
203,2	103,2	3.000	API 5.1/2" REG	5076N100-00U2-F01	-	-	69,9	567
203,2	103,2	3.000	API 6.5/8" REG	5076N150-00U2-F01	-	-	88,9	567

* Other sizes and lengths on request

Drill collars are heavy drill string members with larger outer diameter than the drill rods.

Their primary use is to add weight to the drill string in order to increase the weight applied on the drill bit in case where the pull down force of the drill rig is limited.

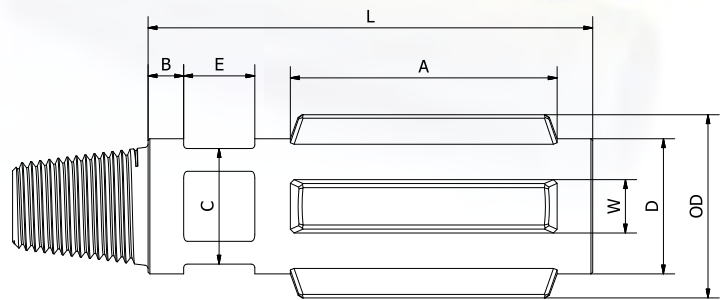
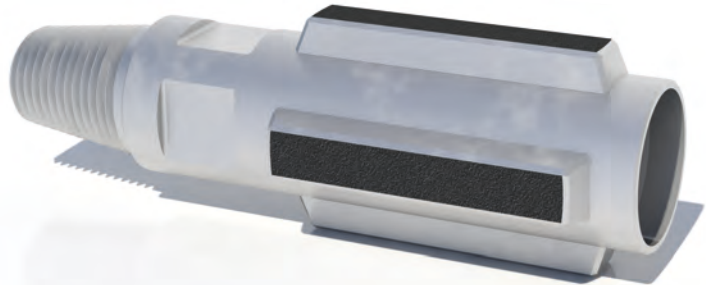
The drill collars serve also as guide tubes.

When ordering please specify the following: Outer diameter, Internal diameter, Desired useful length, Thread connections for both ends, Any special features such as wrench flats etc.

Centralizers - Stabilizers

Blade type stabilizers are designed to aid centralizing of the drill string in the hole thus improving hole straightness and reducing wear of the equipment. Weld-on blades can be either straight or spiral. Stabilizers are made to order according to customer specifications. When ordering please specify the following:

- Drill hole diameter
- OD of drill rods being used
- Desired useful length
- Type and size of connections
- Any special features such as wrench flats etc.

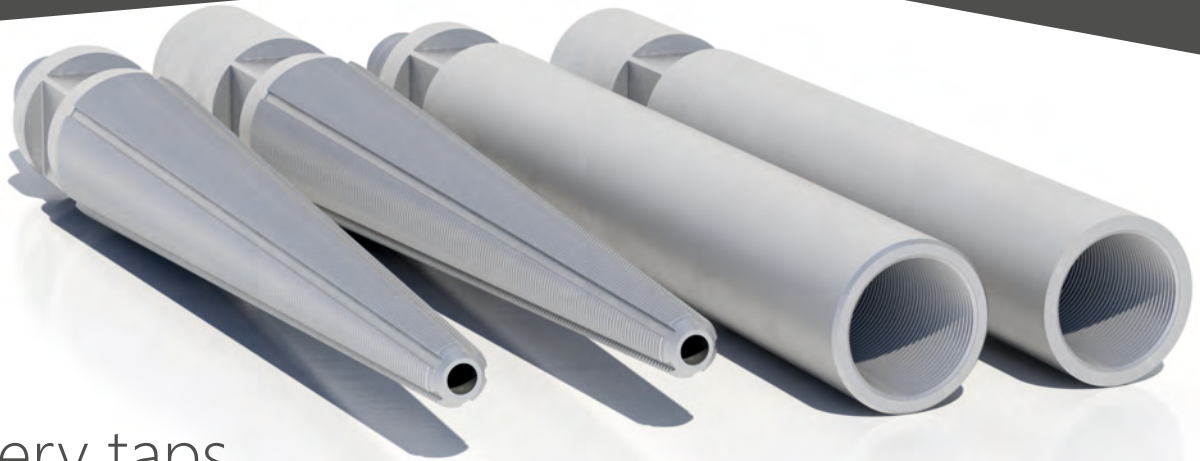


* Table lists some typical choices

Drill hole Diameter mm	Outer diameter at blades OD mm	Length L mm	Thread	Body tube diameter D mm	Tube diameter at joints d mm	ID mm
146,1	142,9	1.000	API 2.7/8" IF	114,3	114,3	52,4
146,1	142,9	1.000	API 3.1/2" REG	114,3	114,3	38,1
152,4	146,1	1.000	API 2.7/8" IF	114,3	114,3	52,4
152,4	146,1	1.000	API 3.1/2" REG	114,3	114,3	38,1
158,8	152,4	1.000	API 3.1/2" REG	114,3	114,3	38,1
158,8	152,4	1.000	API 2.7/8" IF	114,3	114,3	52,4
171,5	165,1	1.000	API 3.1/2" IF	139,7	139,7	58,7
187,3	181,0	1.000	API 3.1/2" IF	139,7	139,7	58,7
215,9	209,6	1.000	API 3.1/2" IF	152,4	139,7	58,7
215,9	209,6	1.000	API 4.1/2" REG	203,2	139,7	57,2
250,8	244,5	1.000	API 3.1/2" IF	203,2	139,7	58,7
250,8	244,5	1.000	API 4.1/2" REG	203,2	139,7	57,2
279,4	273,1	1.000	API 3.1/2" IF	203,2	139,7	58,7
279,4	273,1	1.000	API 4.1/2" REG	203,2	139,7	57,2
279,4	273,1	1.000	API 6.5/8" REG	228,6	196,9	88,9
311,2	304,8	1.000	API 4.1/2" REG	203,2	139,7	57,2
311,2	304,8	1.000	API 3.1/2" IF	203,2	139,7	58,7
311,2	304,8	1.000	API 6.5/8" REG	228,6	196,9	88,9
349,3	342,9	1.000	API 3.1/2" IF	203,2	139,7	58,7
349,3	342,9	1.000	API 4.1/2" REG	203,2	139,7	57,2
374,7	368,3	1.000	API 3.1/2" IF	203,2	139,7	58,7
381,0	374,7	1.000	API 3.1/2" IF	203,2	139,7	58,7
381,0	374,7	1.000	API 6.5/8" REG	228,6	196,9	88,9
444,5	438,2	1.000	API 6.5/8" REG	228,6	196,9	88,9
508,0	495,3	1.000	API 6.5/8" REG	228,6	196,9	88,9

DTH drilling accessories

Recovery (Fishing) Tools



recovery taps

A complete range of recovery taps is available to cover all sizes of drill rods. The recovery taps are typically fitted with female (box) threads and are classified with a double number that corresponds to the smallest and largest diameter of their pike cone, named the working range.

The inner diameter of the tool to be fished must fall within the range of the selected recovery pipe working range. The pikes are fitted with either a right hand or left hand threading. Right hand threaded pikes are intended to retrieve a complete string from the bore-hole, whereas left hand versions are used when the purpose is to unscrew the free part of the string.

Working range mm	Part No.	Thread	
25 - 50	FTT-025050-18P-00	CR50	PIN
25 - 50	FTT-025050-18B-00	CR50	BOX
25 - 76	FTT-025076-00P-00	2.3/8" REG	PIN
25 - 76	FTT-025076-00B-00	2.3/8" REG	BOX
34 - 54	FTT-034054-19P-00	CR60	PIN
34 - 54	FTT-034054-19B-00	CR60	BOX
57 - 93	FTT-057093-00P-00	2.3/8" REG	PIN
57 - 93	FTT-057093-00B-00	2.3/8" REG	BOX
78 - 115	FTT-078115-02P-00	3.1/2" REG	PIN
78 - 115	FTT-078115-02B-00	3.1/2" REG	BOX
101 - 138	FTT-101138-04P-00	4.1/2" REG	PIN
101 - 138	FTT-101138-04B-00	4.1/2" REG	BOX

recovery bell taps

Working range mm	Part No.	Thread	
43 - 74	FTB-043074-19P-00	CR60	PIN
43 - 74	FTB-043074-19B-00	CR60	BOX
60 - 83	FTB-060083-00P-00	2.3/8" REG	PIN
60 - 83	FTB-060083-00B-00	2.3/8" REG	BOX
78 - 100	FTB-078100-00P-00	2.3/8" REG	PIN
78 - 100	FTB-078100-00B-00	2.3/8" REG	BOX
81 - 105	FTB-081105-00P-00	2.3/8" REG	PIN
81 - 105	FTB-081105-00B-00	2.3/8" REG	BOX
101 - 125	FTB-101125-02P-00	3.1/2" REG	PIN
101 - 125	FTB-101125-02B-00	3.1/2" REG	BOX
129 - 150	FTB-129150-04P-00	4.1/2" REG	PIN
129 - 150	FTB-129150-04B-00	4.1/2" REG	BOX

Bell type recovery tools are designed to retrieve lost tools in a bore-hole by gripping on their outside. For that reason, bell taps are usually selected over recovery taps when the lost tool is of relatively small diameter compared to the diameter of the bore-hole.

The recovery bell taps are typically fitted with female (box) threads and are classified with a double number that corresponds to the smallest and largest diameter of their inverted threaded cone, named the working range.

The outer diameter of the tool to be fished must fall within the range of the selected bell tap working range. The bell cones are fitted with either a right hand or left hand threading. Right hand threaded pikes are intended to retrieve a complete string from the bore-hole, whereas left hand versions are used when the purpose is to unscrew the free part of the string.

Other sizes not listed are available

Drill rod handling tools



Swivels

ELEBOR produces a wide range of high quality swivels designed to meet the rigorous demands of the modern job sites and drill rigs. Swivels are often custom build to suit particular demands and special drilling setups.

Key features are the following:

- components made from high grade alloy steels
- exposed and rotating components are additionally case hardened to enhance wear resistance
- high quality bearings and seals chosen for trouble-free long lasting performance
- modular design, with replaceable air-inlet flange to suit any possible configuration

Hoisting plugs/swivels

Hoisting plugs or hoisting swivels are employed to lift the drill string and feature an eye bolt that is typically attached to the wire rope with a safety hook, preventing the wire coiling.

Any size of API connection can be made or other drilling thread.

Customizations can be manufactured on request.





Rock Drill Lubrication Oil

ELEBOR proposes and offers the Finistro ISO100 an advanced air-compressor lubricant suitable for operation of your DTH hammer under harsh conditions typically found in mining and construction site applications.

It offers excellent protection against carbon deposits, oxidation whilst it provides the necessary lubrication to the reciprocating internal components of your DTH hammer. It is unaffected from long operating hours and high discharge temperatures (220°C max.).

It is available in various viscosity classes (VG32, VG46, VG68) to match a wide range of climate conditions.

Exceeds Specifications :
DIN 51506 VDL, ISO L-DAA,
L- DAB L-DAG-L-DAH

Available packing :
Barrels 208lt or Cans 20lt



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