

# ROBIT® DTH PRODUCT CATALOGUE

The Widest Offering in High Quality Drilling Consumables

ROBIT® DTH PRODUCT CATALOGUE



- DTH Hammers
- DTH Bits
- Casing Advancing Systems
- Shock Absorbers
- Drill Pipes
- Accessories



**Robit**  
FURTHER. FASTER.

6/2020

# Robit

## ROBIT® DTH PRODUCT CATALOGUE

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# ROBIT IN BRIEF

## The widest offering in drilling consumables

Robit Plc is a strongly internationalized growth company selling and servicing global customers in drilling consumables for applications in mining, surface drilling and foundation, underground construction and well drilling. Robit's focus is only in drilling consumables.

The company's offering is divided into two product and service range: Top Hammer and Down the Hole. Products are known their high quality, excellent drilling results and performance made by the latest technology.

Robit has 13 own sales and service points as well as active sales network in over 100 countries. The manufacturing units are located in Finland, South Korea, Australia and UK, which guarantee a short and precise deliveries.

Robit is listed in Nasdaq Helsinki Ltd's marketplace with trading code ROBIT.

For more information, see [www.robgroup.com](http://www.robgroup.com)





## Down the Hole Business

The Down the Hole business line covers all operations related to the down the hole drilling method. The main product categories consist of DTH hammers, DTH bits, DTH tubes, DTH casing systems and shock absorbers. The selection is the widest in the world and encompasses top quality products (included top hammer business consumables) for all your applications: piling, bench drilling, production drilling, site investigation, drifting & tunnelling, excavation, horizontal drilling, forepoling, well drilling, anchoring, micropiling and underpinning.

### We offer You:

- The highest quality in drilling consumables – Our focus is 110 % in drilling consumables.
- Excellent drilling results and performance – We have a lot of references.
- We emphasize a short and precise deliveries from 4 factories – Robit also has comprehensive storages in every continent.

Robit is following together with its key customers the development steps of more powerful hydraulic drifters. Robit is modelling and simulating the dynamic forces and stresses and innovates new solutions to meet the best performance, efficiency and lifetime to drillers' needs.

## Top Hammer Business

Robit Top Hammer business line covers all construction, quarrying and mining drill, blast applications and forepoling, from the softest to the hardest of rock conditions. Underground construction is one of the most important customer segments for Robit bits, and applications such as drifting and bolt hole drilling are well catered for, as well as patented RoX top hammer casing systems for tunnelling support. Robit's quality has been approved worldwide by major mining and quarrying customers. The selection is wide and encompasses products, such as: drifting and tunneling bits, reaming equipment, bench and production drilling bits, rods, shanks, couplings, auxiliary tools, such as button bit adapters.

The Digital Services is focused on providing modern, new digital technologies for operating with Top Hammer. Initially the offering comprises the unique drill hole measurement technology branded as Robit Sense Systems. A significant leap on this path was taken when Robit became the first company in the world to develop a patented system that can measure hole deviation during the percussive drilling process. More info at Robit's Top Hammer Product Catalogue and website: [www.robitegroup.com](http://www.robitegroup.com).



**MINING**

- Blast hole hammers and bits
- Reverse circulation hammers and bits
- Drill pipes
- Accessories



**CONSTRUCTION**

- General purpose hammers and bits
- Casing advancing systems
- Shock absorbers
- Drill pipes
- Accessories



**WELL DRILLING**

- Well drilling hammers and bits
- Casing advancing systems
- Shock absorbers
- Drill pipes
- Accessories



## Widest offering in Down the Hole drilling consumables



**Robust DTH hammers** – wide range and all the sizes of blast hole, general purpose, well drilling and reverse circulation hammers. Hammers have robust design as well as minimized fuel consumption and optimized air flow with the highest performance.



**Efficient DTH bits** – for drilling blast holes, wells, general purposes as well as RC models for sampling. Robust designs for the maximum penetration rate in hard and abrasive rock conditions.



**Patented Casing Advancing Systems** with spiral locking. Sizes from 114,3 mm up to 1220 mm. Wide range of ring bit, wing bit, essentric and drill through models. Proven quality worldwide – references in all applications.



**Reliable Shock absorbers** – Efficient damping available for 2" up to 33" hammers.



**Strong Drill pipes** – Single pipes available from OD 76 mm up to 323 mm sizes and double pipes from OD 406 mm up to 1220 mm. Tool joints API reg. and HEX standards.



**Wide range of Accessories** – Wide range of subs, check valves & hammer sleeves, air hoses and chain keys. Ask for more: [sales@robitgroup.com](mailto:sales@robitgroup.com)

## Proven quality – manufactured with the automated production lines

- Robust design for abrasive ground conditions
- High penetration rate in hard rock
- Patented spiral locking system for casing systems
- Drill through technology in piling

## Reliable partner

Widest offering in drilling consumables – Proven quality – Customization for project needs – Drill master service – Solving drilling challenges and problems – Experience – References





DR045

Robit DR045

Further. Faster.

Further. Faster.



# DTH HAMMERS

General purpose hammers

Well drilling hammers

Blast hole hammers

RC hammers



## DTH HAMMERS CODES

### Hyper series for general purpose drilling

- Robust hammers of simple design to provide maximum performance with minimal maintenance.
- Offered in a wide range of sizes 1"-33".
- Used globally e.g. in demanding construction and foundation projects.



### WH series for well drilling

- Extra heavy duty hammers designed specifically for deep hole drilling and use with high pressure compressors.
- Minimized fuel consumption.
- Optimized air flow.



## D series for blasthole drilling

- Proven performance in the largest mines and toughest ground conditions throughout the world.
- Known for reliability, longevity and productivity.
- Best choice for heavy duty blast hole drilling.



## DR series for RC drilling

- Proven choice for exploration & grade control markets.
- Offered in 5 different models.
- Designed for use with high pressure compressors.



## CONVENTIONAL HAMMERS CODES

### Chuck

- Robit Chucks have a tungsten coating applied to the outside.
- This creates a protective coating to minimise wear.
- In turn this also protects the Wear Sleeve from premature wear.



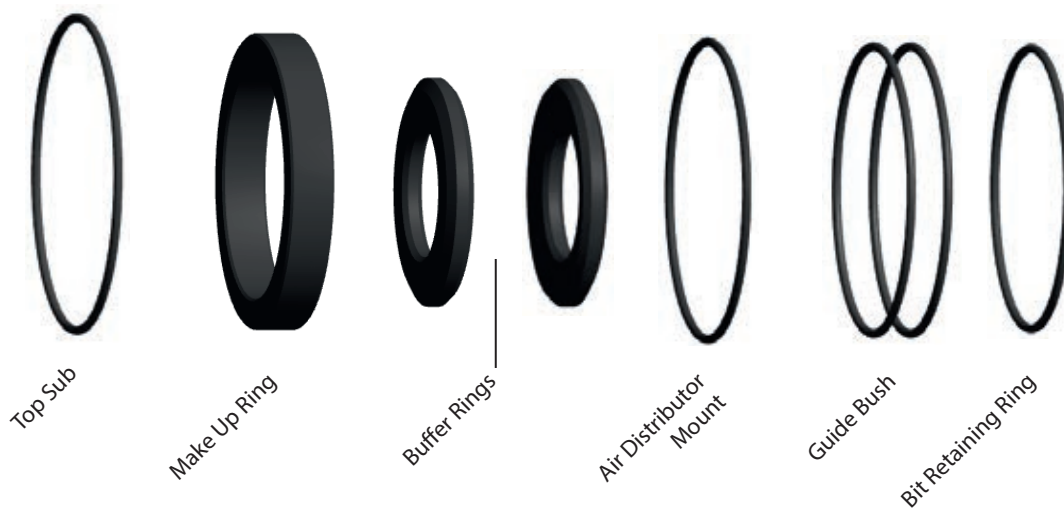
Coated



Uncoated

### O Ring / Make Up Kit

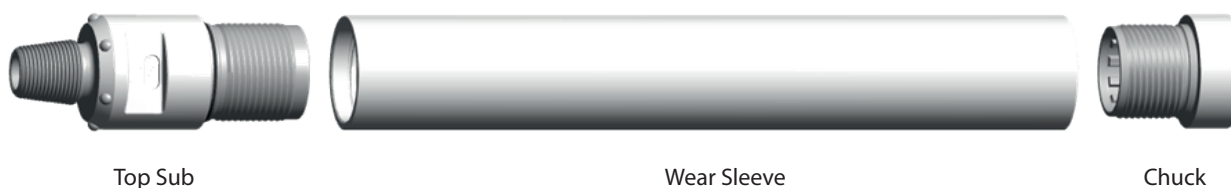
It is recommended that all rubber components are replaced at regular intervals to keep the hammer operating at its optimum. Make Up Kits have all rubber components in a hammer while the O Ring Kit does not include Make Up Ring and Buffer Rings.



Typical Make up Kit for 3 to 6 inch DTH hammers, items may vary depending on the model of hammer.

### External Kit

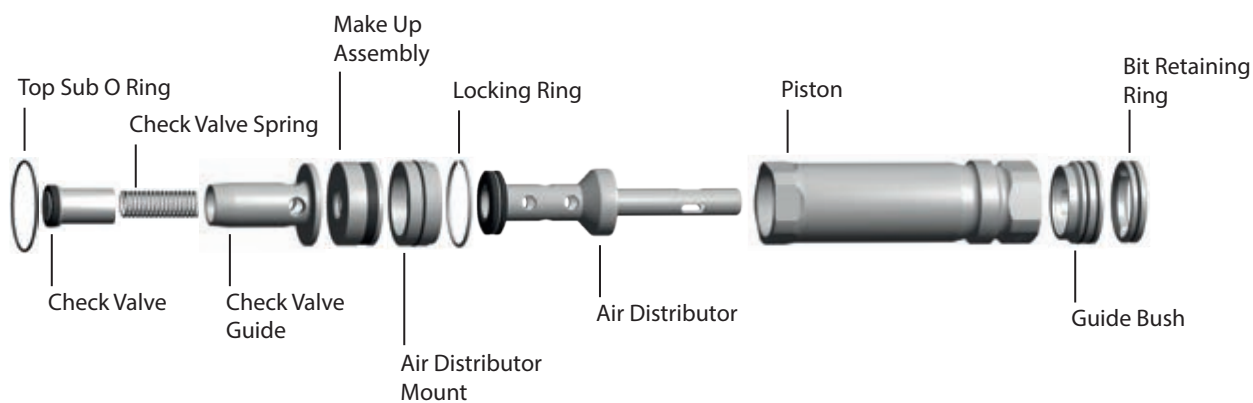
External Rebuild Kits are available for rebuilding hammers used in very abrasive conditions which causes the external components wear while the internal components remain within specification.



Typical External Rebuild Kit for 3 to 6 inch DTH hammers, items may vary depending on the model of hammer.

## Internal Kit

Internal Rebuild Kits are available for rebuilding hammers that have worn internally but the outer components are still in good condition.



Typical Internal Rebuild Kit for 3 to 6 inch DTH hammers, items may vary depending on the model of hammer.

## Choke Kit

- Some hammers in the range have the ability for adjustment of the volume of air it can pass.
- The larger the orifice size more air is bypassed through the hammer.
- Choke kit consists of 4 interchangeable chokes.
- 1 blank and 3 different sized orifices, 3mm, 4.5mm & 6mm.



Blank

3mm

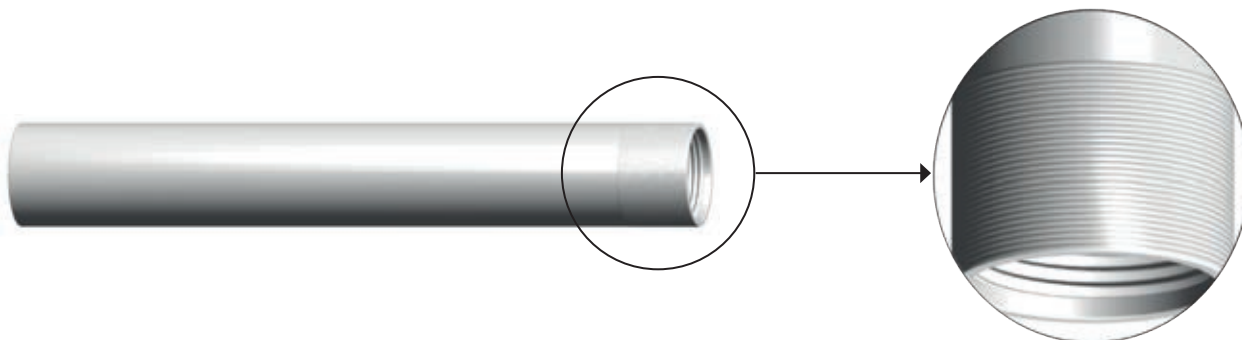
4.5mm

6mm

## RC HAMMERS CODES

### Wear Sleeve

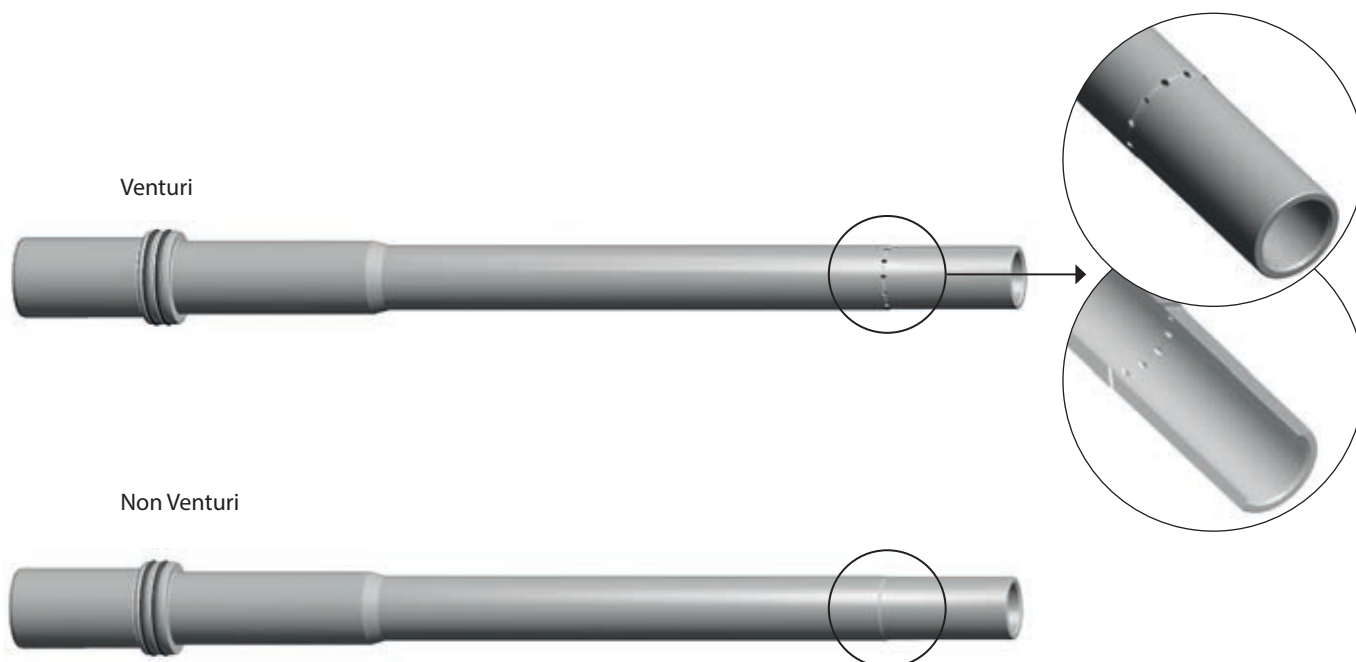
All Robit RC hammers have a coating on the bottom of the Wear Sleeve. This protects the Wear Sleeve from premature wear created by the turbulence of the outside return cuttings.



### Sample Tube

With the Sample Tube there are two options, Venturi and Non Venturi.

Venturi Sample Tubes have small holes drilled towards the bottom end. This allows a small amount of air to bleed off into the tube to help lift the returning sample. Non Venturi Sample Tubes are straight tubes with no additional drilled holes.



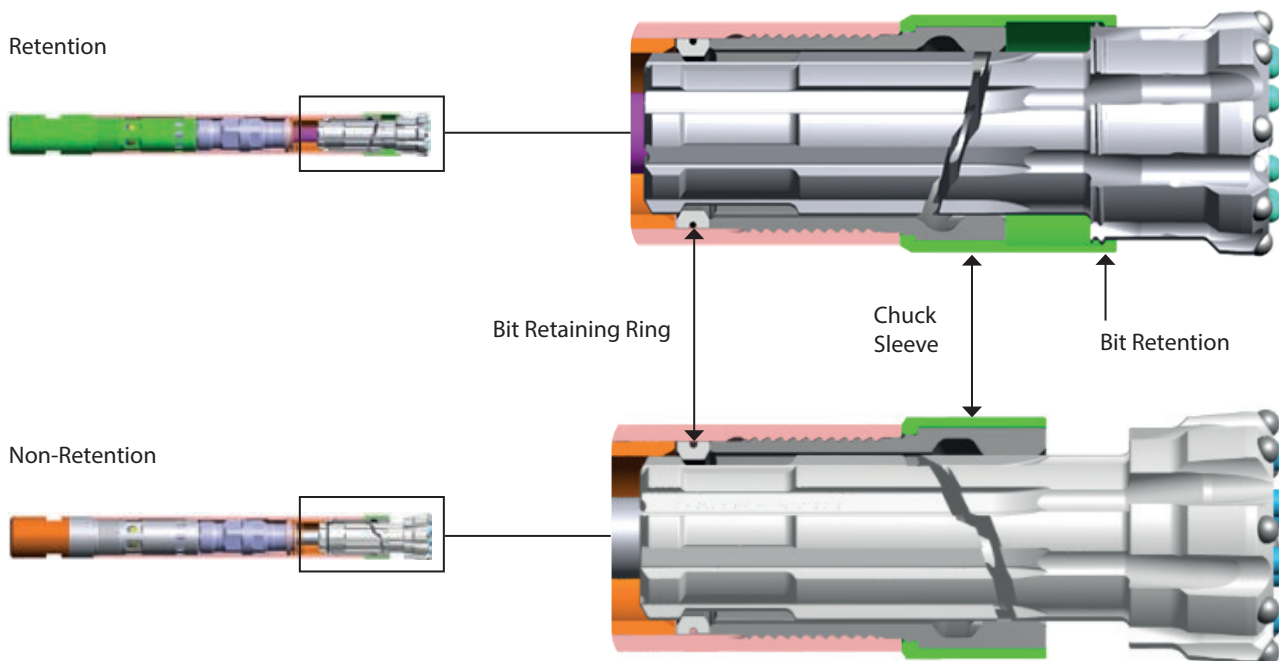
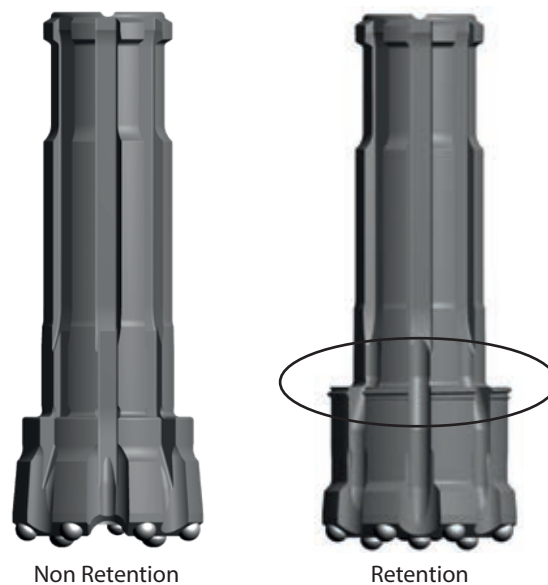


## Bit Retention

The Bit Retention system can be described as a bit catching system.

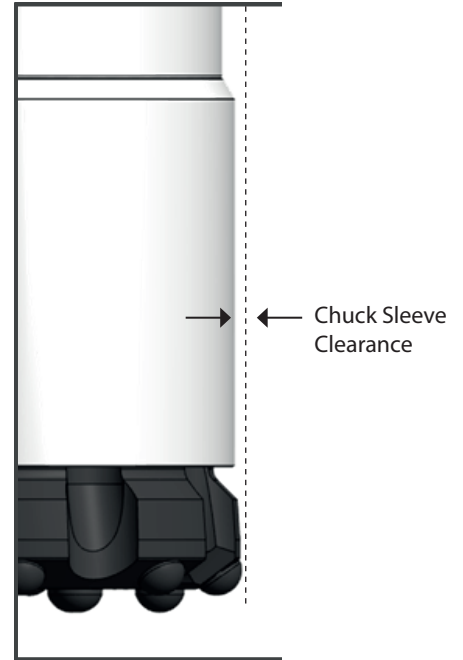
If the drill bit were to break, the Chuck Sleeve will retain the bit head so it will not be lost down the hole. This allows the driller to pull the drillstring out of the ground, replace the broken bit and continue drilling the hole.

Different components between Retention and Non Retention hammers are the Chuck, Chuck Sleeve and Bit. The rest of the hammer assembly remains the same.



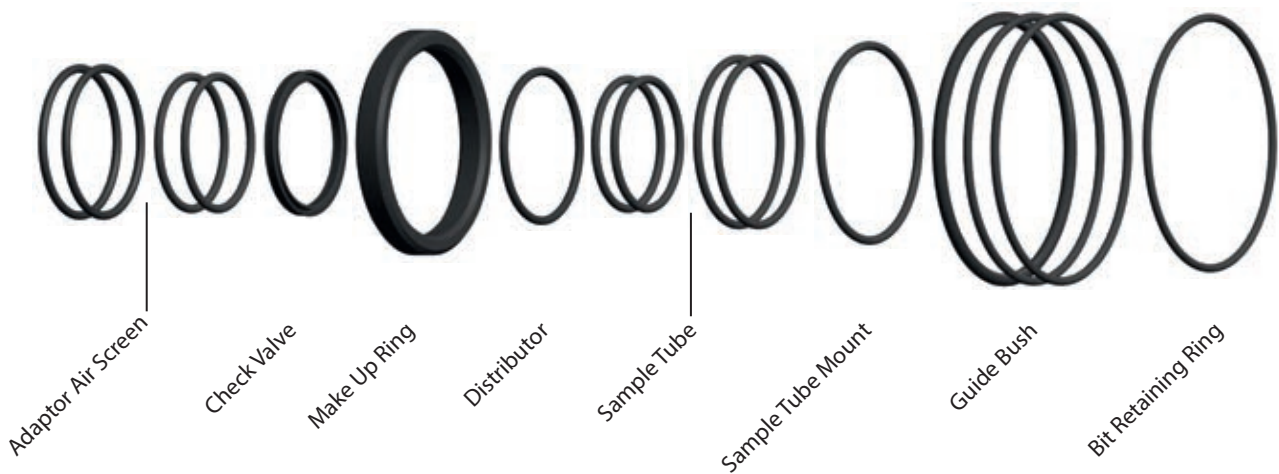
## Chuck Sleeve

Chuck Sleeves are used to direct the air to the face of the bit to carry the rock sample to be collected. This is done by almost sealing off the hole behind the drill bit, forcing the air and cuttings up the Sample Tube. Recommended Chuck Sleeve size is 1/16" (1.6mm) smaller than the bit size.



## O Ring / Make Up Kits

It is recommended that all rubber components are replaced at regular intervals to keep the hammer operating at its optimum. Make Up Kits have all rubber components in a hammer while the O Ring Kit does not include Check Valve Seal and Make Up Ring.







# DTH HAMMERS

## GENERAL PURPOSE HAMMERS

Order code	DTH Hammer	Shank	Backhead thread	Outside diameter		Length		Weight [kg]	Piston weight [kg]
				[mm]	[in]	[mm]	[in]		
BR1	1"	BR1	RD40	51	2.008	709	27.913	8	1
BR2	2"	BR2	RD50	62	2.441	838	32.992	13	1,8
BR33	3¼"	BR33	2¾ reg pin	82	3.225	768	30.236	25	3,3
Hyper 31	3"	Mach 33/IR3,5	2¾ reg pin	79,2	3.118	832	32.756	22,5	4,9
Hyper 41	4"	DHD340/SD4	2¾ reg pin	95	3.740	942	37.087	35	8
Hyper 51	5"	DHD 350R/SD5/QL50	3½ reg pin	114,3	4.500	1060	41.732	55	12,2
Hyper 63	6"	DHD360/SD6/QL60	3½ reg pin	143	5.630	1124	44.252	90	21
Hyper 81	8"	DHD380/COP84/SD8	4½ reg pin	184	7.244	1262	49.685	158	43,9
Hyper 101	10"	SD10/N100	6½ reg pin	225	8.858	1575	62.008	338	68
Hyper 121	12"	DHD112	6½ reg pin	272	10.709	1857	73.110	676	112
		N120	6½ reg pin	272	10.709	1889	74.370	675	125
		SD12	6½ reg pin	272	10.709	1909	75.157	675	125
		QL120	6½ reg pin	286	11.260	1889	74.370	763	125
Hyper 141	14"	N125	6½ reg pin	320	12.598	1941	76.417	1100	188
Hyper 181	18"	N180	8% reg pin	406	15.984	2185	86.024	1608	330
		SD18	8% reg pin	406	15.984	2255	88.780	1608	330
		QL200	8% reg pin	406	15.984	2147	84.528	1608	330
		QL200S	8% reg pin	406	15.984	2303	90.669	1748	330
Hyper 241	24"	N240	8% reg pin	533	20.984	2355	92.717	2575	595
Hyper 241 HZ	24"	N240	8% reg pin	533	20.984	2331	91.772	2640	585
Hyper 241S	24S"	XL24/32	10" Beco pin	745	29.331	2540	100	4000	630
Hyper 331	33"	H331	10" Beco pin	736,6	29.000	2540	100	5567	1552



# GENERAL PURPOSE HAMMERS

## BR1

Hammer 60 mm - 64 mm dia. Holes

The Robit BR1 is a valved type hammer designed for high performance at low operating air pressures. Simplicity of design, ease of service and low air consumption are all factors which combine to make this hammer a robust and reliable drilling tool. The BR1 is available with standard box and pin backheads, RD40 and BR1 threads. However alternative backhead options are available on request. The BR1 hammer incorporates a positive fitting check valve to guard against the ingress of ground water debris.

### Component parts

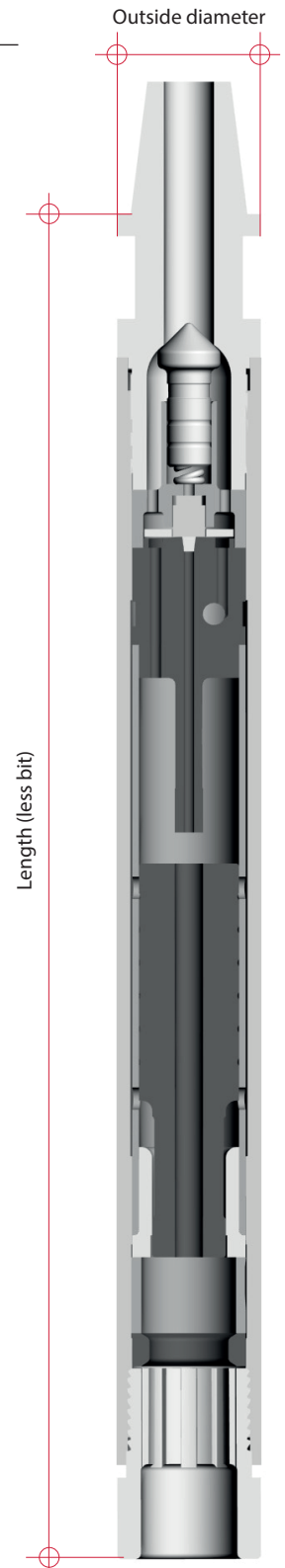
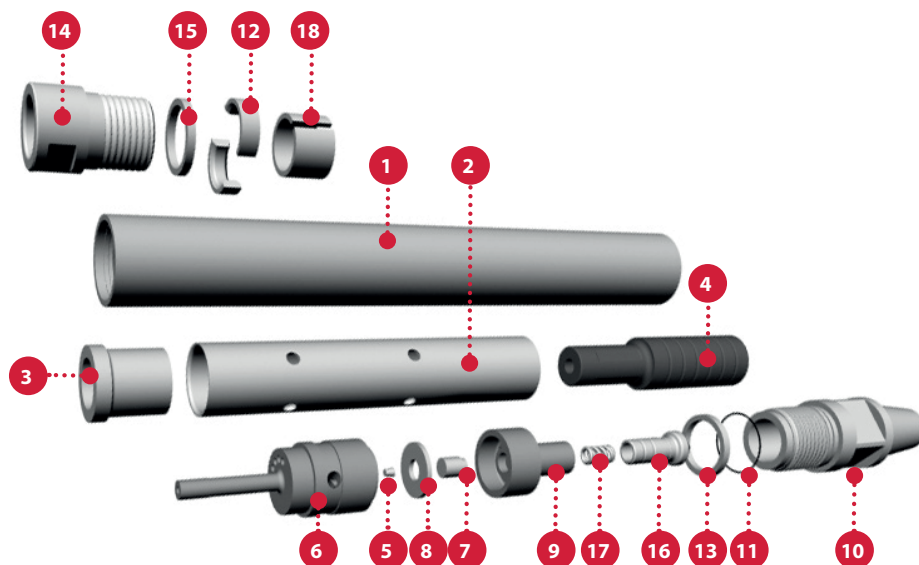
Ref	Description	Part number
1	Wearsleeve	HSB1S00
2	Inner Cylinder	HSB1S01
3	Bearing	HSB1S02
4	Piston	HSB1S03
5	Air Metering Plug	IPP04
6	Bevelled Valve Housing	HSB1S04
7	Centraliser	HSB1S05
8	Disc Valve	HSB1S06
9	Valve Chest	HSB1S07
10	Backhead	HSB1S3810F
11	Backhead 'O'Ring	IPBOR06
12	Bit Retaining Ring	IPBR03
13	Backhead Spacer	IPBS05
14	Chuck	HSB1S35ST
15	Chuck Sealing Ring	IPCS05
16	Check Valve	IPCV06
17	Check Valve Spring	IPCVS05
18	Split Spacer	IPSS07
	<b>Complete Hammer</b>	<b>BR1S01</b>

### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	0.50	17.79
150	10.3	0.93	32.69
200	13.8	1.43	70.33
250	17.2	1.99	105.35

### Hammer specification

	Imperial	Metric
Weight (less bit)	17.6lbs	8 kg
Length (less bit)	27.9"	709 mm
Outside dia.	2.0"	51mm
Piston weight	2.2lbs	1 kg



# GENERAL PURPOSE HAMMERS

## BR2

Hammer 70 mm - 80 mm dia. Holes

The Robit BR2 is a valved type hammer designed for high performance at low operating air pressures. Simplicity of design, ease of service and low air consumption are all factors which combine to make this hammer a robust and reliable drilling tool. The BR2 is available with standard box and pin backheads, RD50 and BR2 threads. However alternative backhead options are available on request. The BR2 hammer incorporates a positive fitting check valve to guard against the ingress of ground water debris.

### Component parts

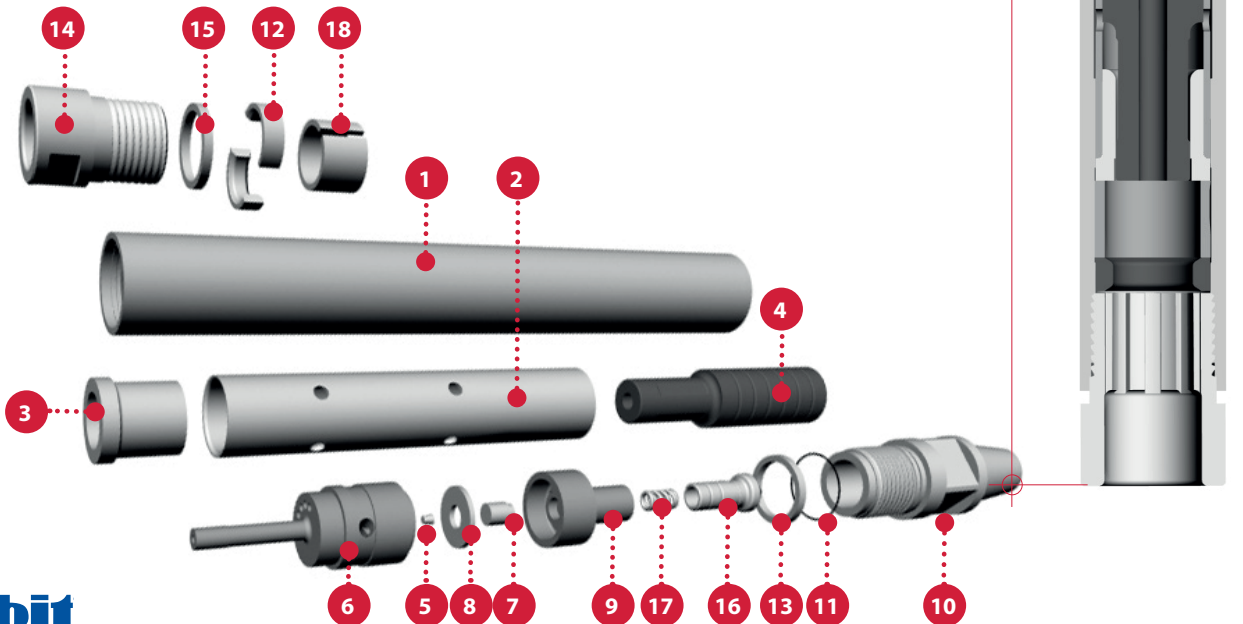
Ref	Description	Part number
1	Wearsleeve	HSB2S00
2	Inner Cylinder	HSB2S01
3	Bearing	HSB2S02
4	Piston	HSB2S03
5	Air Metering Plug	IPP04
6	Bevelled Valve Housing	HSB2S04
7	Centraliser	HSB2S05
8	Disc Valve	HSB2S06
9	Valve Chest	HSB2S07
10	Backhead	HSB2S3811F
11	Backhead 'O'Ring	HSB2S14
12	Bit Retaining Ring	HSB2S37ST
13	Backhead Spacer	HSB2S12
14	Chuck	HSB2S35ST
15	Chuck Sealing Ring	HSB2S13
16	Check Valve	IPRCV01
17	Check Valve Spring	IPRCVS01
18	Split Spacer	HSB2S36ST
	<b>Complete Hammer</b>	<b>BR2S01</b>

### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	0.75	26.65
150	10.3	1.39	48.96
200	13.8	2.13	75.38
250	17.2	2.98	105.35

### Hammer specification

	Imperial	Metric
Weight (less bit)	28.6 lbs	13 kg
Length (less bit)	33"	838 mm
Outside dia.	2.44"	64 mm
Piston weight	4 lbs	1.8 kg



# GENERAL PURPOSE HAMMERS

## BR33

Hammer 90 mm - 100 mm dia. Holes

The Robit BR33 is valved type hammer designed for high performance at low operating air pressures. Simplicity of design, ease of service and low air consumption are all factors which combine to make this hammer robust and reliable drilling tool. The hammer is available as standard with 2 " API Reg.pin. The BR33 hammer incorporates a positive fitting check valve to guard against the ingress of ground water debris when the air is shut off.

### Component parts

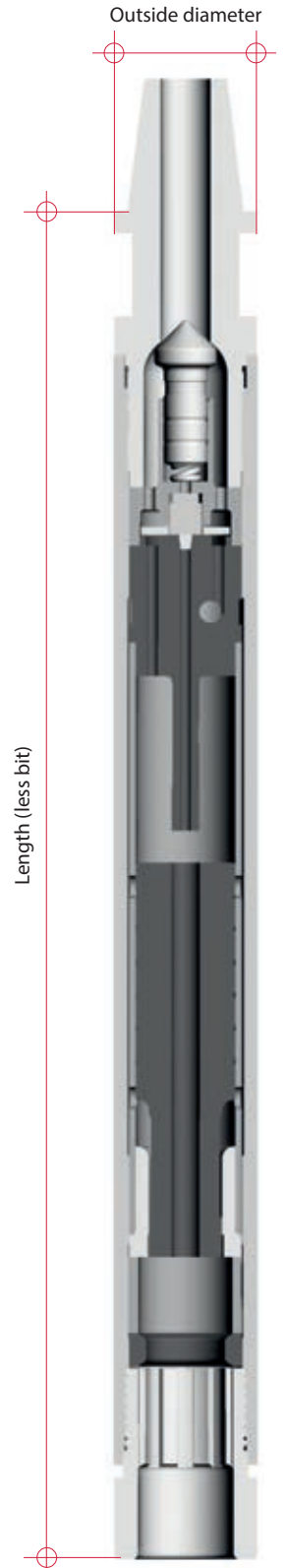
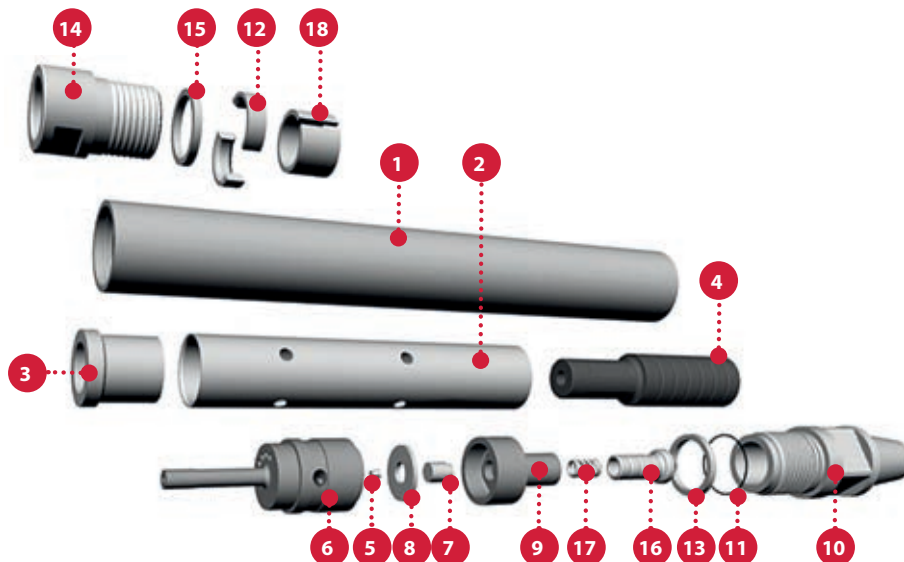
Ref	Description	Part number
1	Wearsleeve	HSB3300
2	Inner Cylinder	HSB3301
3	Bearing	HSB3302
4	Piston	HSB3303
5	Air Metering Plug	IPP03
6	Bevelled Valve Housing	HSB3304
7	Centraliser	IPC1
8	Disc Valve	IPCDV1
9	Valve Chest	HSB3307
10	Backhead	HSB333801M
11	Backhead 'O'Ring	IPBOR01
12	Bit Retaining Ring	HSB3337018
13	Backhead Spacer	IPBS04
14	Chuck	HSB3335018
15	Chuck Seal	IPBS01
16	Check Valve	IPRCV01
17	Spring	IPRCVS01
18	Split Spacer	HSB3336ST
	<b>Complete Hammer</b>	<b>BR33S01</b>

### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	1.53	53.86
150	10.3	2.80	98.95
200	13.8	4.31	152.34
250	17.2	6.03	212.90

### Hammer specification

	Imperial	Metric
Weight (less bit)	55 lbs	25 kg
Length (less bit)	30.2"	768 mm
Outside dia.	3.225"	82 mm
Piston weight	7.3 lbs	3.3 kg





# GENERAL PURPOSE HAMMERS

## HYPER 31

Hammer 90 mm (3½") - 100 mm (4") dia. Holes

The new shorter and highly dependable Hyper 31 hammer is designed for drilling 90 mm - 100 mm (3½" to 4") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the Hyper 31 is most effective at medium to high air pressures ranging from 10 to 24 bar (150 to 350 psi). It comes with industry standard 2⅜" api reg. pin backhead and DHD 3.5 bit shank fitting. Alternative bit fitting Mach33 is also available on request.

### Component parts

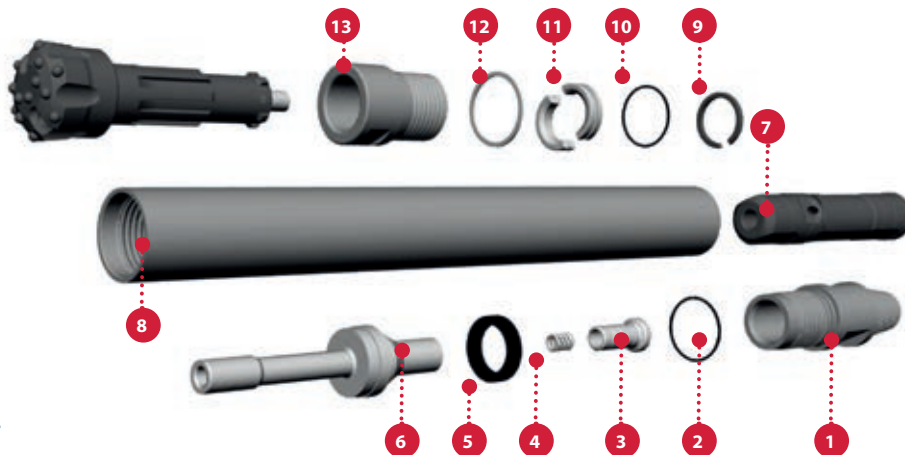
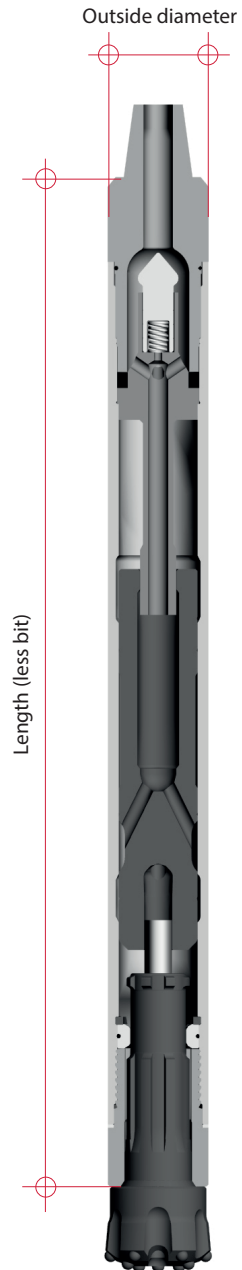
Ref	Description	Part number
1	Backhead	HSH313801M
2	Backhead 'O' ring	IPBOR01
3	Check valve	IPRCV01
4	Check valve spring	IPRCVS01
5	Compression ring	HSH3128
6	Diverter	HSH3120
7	Piston DHD 3.5	HSH3103040
8	Wearsleeve	HSH3100
9	Piston retaining ring	HSH3132
10	Bit retaining 'O' ring	IPBOR01
11	Bit retainer DHD 3.5	HSH3137040
12	Breakout washer	HSH3126
13	Chuck DHD 3.5	HSH3135040
	Service Kit Hyper 31 incl. (2,4,5,12)	HSH31SERVKIT
	Repair Kit Hyper 31 incl. (2,3,4,5,9,11,12,13)	HSH31REPKITXL3
	<b>Complete Hammer</b>	<b>BR31H40</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	1.42	50.04
125	8.6	1.98	69.93
150	10.3	2.60	91.93
175	12.0	3.28	115.84
200	13.8	4.01	141.53
225	15.5	4.78	168.88
250	17.2	5.60	197.80
275	19.0	6.46	228.20
300	20.7	7.36	260.01
325	22.4	8.30	293.18
350	24.2	9.28	327.66

### Hammer specification

	Imperial	Metric
Weight (less bit)	49.5 lbs	22.5 kg
Length (less bit)	32.75"	832 mm
Outside dia.	3.12"	79.2 mm
Piston weight	10.78 lbs	4.9 kg



# GENERAL PURPOSE HAMMERS

## HYPER 41

Hammer 105 mm (4 1/8") - 127 mm (5") dia. Holes

The new shorter and highly dependable Hyper 41 hammer is designed for drilling 105 mm - 127 mm (4 1/8" to 5") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the Hyper 41 is most effective at medium to high air pressures ranging from 10 to 24 bar (150 to 350 psi). It comes with industry standard 2 3/8" api reg. pin backhead and DHD340 / COP44 bit shank fitting.

### Component parts

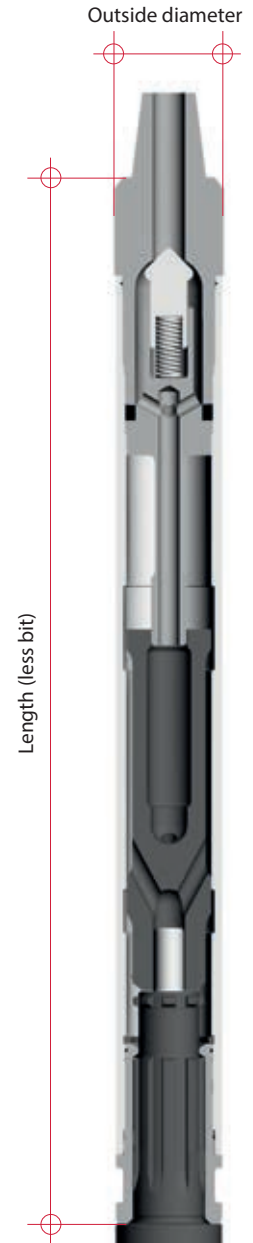
Ref	Description	Part number
1	Backhead	HSH413801M
2	Backhead 'O' ring	IPBOR02
3	Check valve	IPRCV02
4	Check valve spring	IPRCVS02
5	Compression ring	HSH4128
6	Diverter	HSH4120
7	Piston DHD340	HSH4103
8	Wearsleeve	HSH4100
9	Piston retaining ring	HSH4132
10	Bit retaining 'O' ring	IPBROR01
11	Bit retainer DHD340	HSH4137091
12	Breakout washer	HSH4126
13	Chuck DHD340	HSH4135091
	Service Kit Hyper 41 incl. (2,4,5,10,12)	HSH41SERVKIT
	Repair Kit Hyper 41 incl. (2,3,4,5,9,10,11,12,13)	HSH41REPKIT
	<b>Complete Hammer</b>	<b>BR41H04</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	2.33	82.23
125	8.6	3.25	114.92
150	10.3	4.28	151.06
175	12.0	5.39	190.36
200	13.8	6.59	232.57
225	15.5	7.86	277.52
250	17.2	9.20	325.03
275	19.0	10.62	374.98
300	20.7	12.10	427.26
325	22.4	13.64	481.77
350	24.2	15.25	538.41

### Hammer specification

	Imperial	Metric
Weight (less bit)	77 lbs	35 kg
Length (less bit)	37.1"	942 mm
Outside dia.	3.75"	95 mm
Piston weight	17.6 lbs	8 kg



# GENERAL PURPOSE HAMMERS

## HYPER 51

Hammer 127 mm (5") - 165 mm (6½") dia. Holes

The new shorter and highly dependable Hyper 51 hammer is designed for drilling 127 mm - 165 mm (5" to 6½") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the Hyper 51 is most effective at medium to high air pressures ranging from 10 to 24 bar (150 to 350 psi). It comes with industry standard 3½" api reg. pin backhead and DHD350 bit shank fitting. Alternative bit fitting QL50 is also available on request.

### Component parts

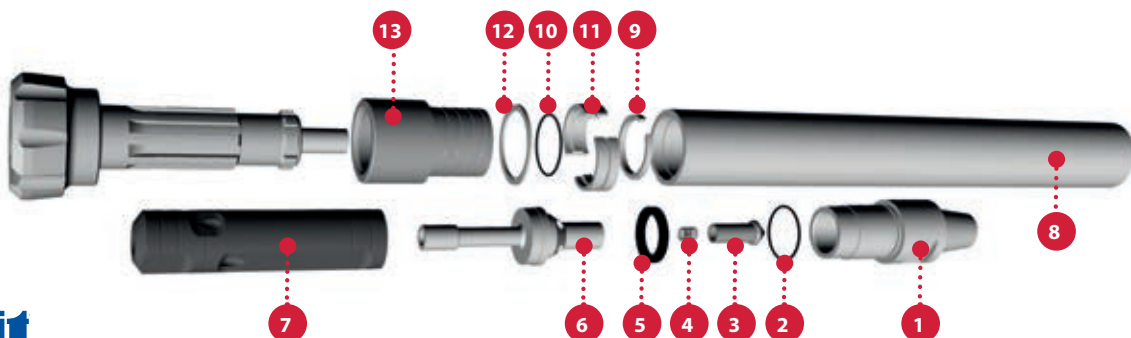
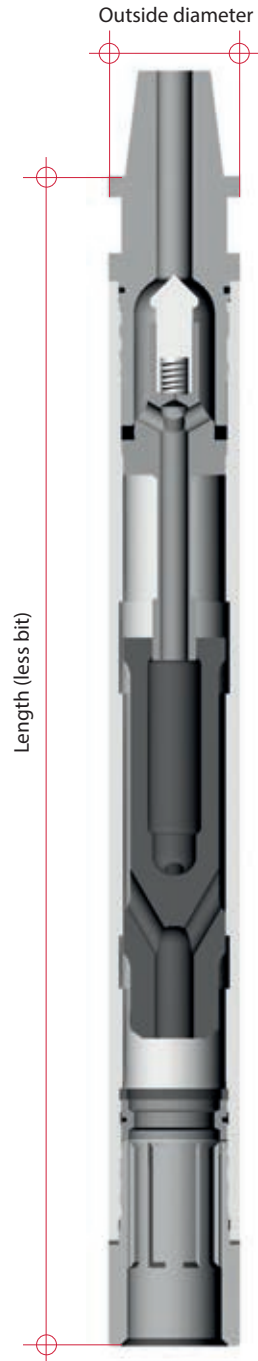
Ref	Description	Part number
1	Backhead	HSH513803M
2	Backhead 'O' ring	HSH5114
3	Check valve	IPRCV03
4	Check valve spring	IPRCVS02
5	Compression ring	HSH5128
6	Diverter	HSH5120
7	Piston DHD350	HSH5103
8	Wearsleeve	HSH5100
9	Piston retaining ring	HSH5132
10	Bit retaining 'O' ring	HSH5137A092
11	Bit retainer DHD350	HSH5137092
12	Breakout washer	HSH5126
13	Chuck DHD350	HSH5135092
Service Kit Hyper 51 incl. (2,4,5,10,12)		HSH51SERVKIT
Repair Kit Hyper 51 incl. (2,3,4,5,9,10,11,12,13)		HSH51REPKIT
<b>Complete Hammer</b>		<b>BR51H01</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	3.29	116.22
125	8.6	4.60	162.43
150	10.3	6.05	213.51
175	12.0	7.62	269.06
200	13.8	9.31	328.73
225	15.5	11.11	392.25
250	17.2	13.01	459.41
275	19.0	15.01	530.02
300	20.7	17.10	603.91
325	22.4	19.28	680.95
350	24.2	21.55	761.01

### Hammer specification

	Imperial	Metric
Weight (less bit)	121 lbs	55 kg
Length (less bit)	41.75"	1060 mm
Outside dia.	4.50"	114.3 mm
Piston weight	26.8 lbs	12.2 kg



## GENERAL PURPOSE HAMMERS

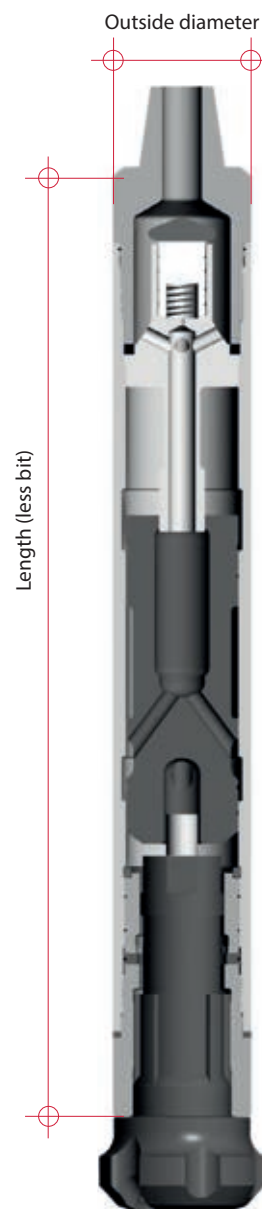
# HYPER 63

Hammer 152 mm (6") - 216 mm (8½") dia. Holes

The new shorter and highly dependable Hyper 63 hammer is designed for drilling 152 mm - 216 mm (6" to 8½") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the Hyper 63 is most effective at medium to high air pressures ranging from 10 to 24 bar (150 to 350 psi). It comes with industry standard 3½" api reg. pin backhead and DHD360 bit shank fitting. Alternative bit fitting SD6 is also available on request.

### Component parts

Ref	Description	Part number
1	Backhead	HSH633803M
2	Backhead 'O' ring	HSH6114
3	Check valve	IPRCV04
4	Check valve spring	IPRCVS04
5	Compression ring	HSH6328
6	Diverter	HSH6320
7	Piston DHD360	HSH6103
8	Wearsleeve	HSH6300
9	Piston retaining ring	HSH6132
10	Guide bush 'O' ring (2)	HSH638A
11	Guide bush	HSH6386
12	Bit retaining 'O' ring	HSH6337A093
13	Bit retainer DHD360	HSH6337093
14	Breakout washer	HSH6326
15	Chuck DHD360	HSH6335093
	Service Kit Hyper 63 incl. (2,4,5,12,14)	HSH63SERVKIT
	Repair Kit Hyper 63 incl. (2,3,4,5,9,12,13,14,15)	HSH63REPKIT360
	<b>Complete Hammer</b>	<b>BR63H01GA</b>

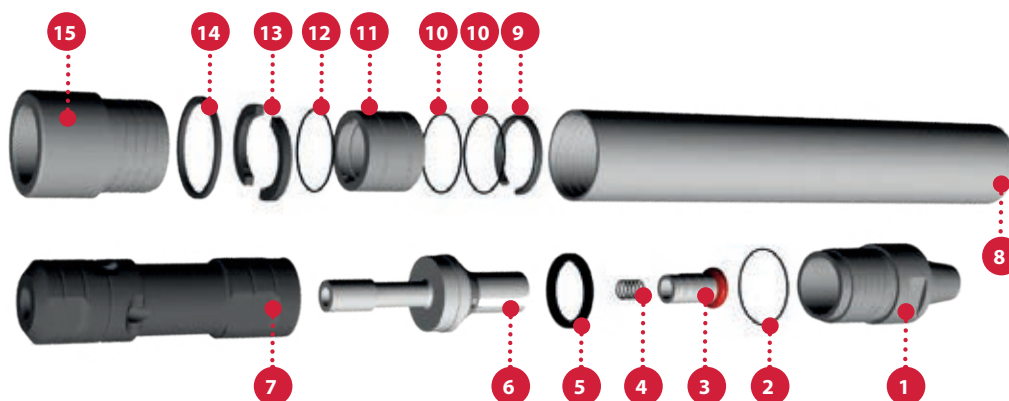


### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	5.22	184.45
125	8.6	7.30	257.77
150	10.3	9.60	338.85
175	12.0	12.09	427.00
200	13.8	14.77	521.70
225	15.5	17.63	622.51
250	17.2	20.65	729.09
275	19.0	23.82	841.15
300	20.7	27.14	958.42
325	22.4	30.60	1080.68
350	24.2	34.20	1207.74

### Hammer specification

	Imperial	Metric
Weight (less bit)	200 lbs	91 kg
Length (less bit)	43.50"	1104 mm
Outside dia.	5.62"	142 mm
Piston weight	49.0 lbs	22.3 kg



# GENERAL PURPOSE HAMMERS

## HYPER 81

Hammer 203 mm (8") - 254 mm (10") dia. Holes

The new shorter and highly dependable Hyper 81 hammer is designed for drilling 203 mm - 254 mm (8" to 10") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the Hyper 81 is most effective at medium to high air pressures ranging from 10 to 24 bar (150 to 350 psi). It comes with industry standard 4½" api reg. pin backhead and DHD380 bit shank fitting. Alternate bit fittings SD8 and QL80 are also available on request.

### Component parts

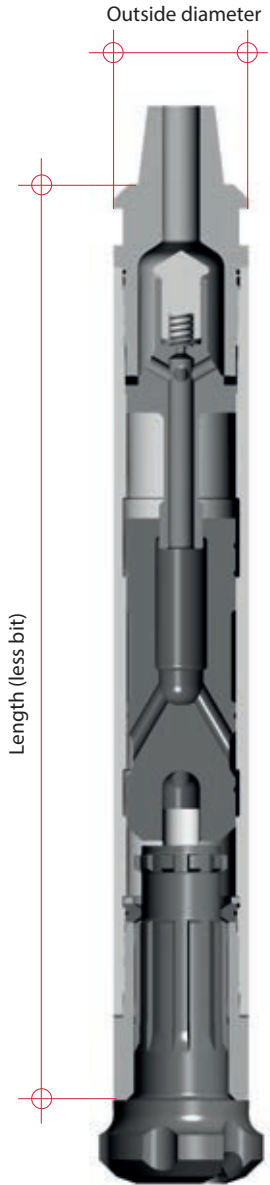
Ref	Description	Part number
1	Backhead	HSH813804M
2	Backhead 'O' ring	HSH8114
3	Check valve	IPRCV05
4	Check valve spring	IPRCVS04
5	Compression ring	HSH8128
6	Diverter	HSH8120
7	Piston DHD380	HSH8103
8	Wearsleeve	HSH8100
9	Piston retaining ring	HSH8132
10	Bit retaining 'O' ring	HSH8137A094
11	Bit retainer DHD380	HSH8137094
12	Breakout washer	HSH8126
13	Chuck DHD380	HSH8135094
Service Kit Hyper 81 incl. (2,4,5,10,12)		HSH81SERVKIT
Repair Kit Hyper 81 incl. (2,3,4,5,9,10,11,12,13)		HSH81REPKIT
<b>Complete Hammer</b>		<b>BR81H01</b>

### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	7.48	264.18
125	8.6	10.45	369.20
150	10.3	13.74	485.32
175	12.0	17.32	611.58
200	13.8	21.16	747.21
225	15.5	25.25	891.60
250	17.2	29.57	1044.25
275	19.0	34.12	1204.74
300	20.7	38.87	1372.71
325	22.4	43.83	1547.82
350	24.2	48.98	1729.81

### Hammer specification

	Imperial	Metric
Weight (less bit)	348 lbs	158 kg
Length (less bit)	49.69"	1262 mm
Outside dia.	7.25"	184 mm
Piston weight	96.6 lbs	43.9 kg



# GENERAL PURPOSE HAMMERS

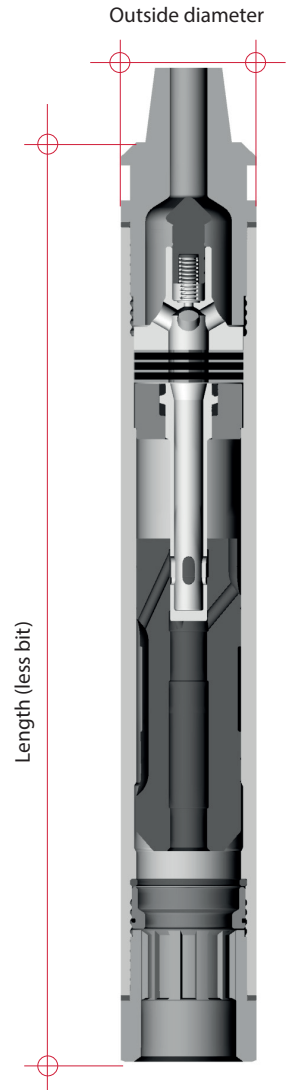
## HYPER 101

Hammer 254 mm (10") - 305 mm (12") dia. Holes

The Hyper 101 Hammer is designed to operate over a wide range of operating air pressures. A 65/8" API reg. pin backhead is supplied as standard. The Hyper 101 is fitted with a positive seating water check valve and is supplied as standard fitted with a solid choke. The Hyper 101 is designed to accept button bits with a N100 shank. However, the Hyper 101 can be supplied to accept the SD10 type of button bit.

### Component parts

Ref	Description	Part number
1	Backhead	HSH1013880M
2	Check valve	HSH10108
3	Check valve spring	HSH10110
4	Diverter	HSH10120
5	Compression buffer	HSH10128
6	Control tube holder	HSH10131
7	Control tube buffers (2)	HSH10129
8	Control tube	HSH10130
9	Piston	HSH10103053
10	Wearsleeve	HSH10100
11	Piston retaining ring	HSH10132
12	Bit retaining ring	HSH10137053
13	Bit retaining ring 'O' ring	HSH10137A046
14	Chuck	HSH10135053
15	Breakout washer	HSH10126
	Service Kit Hyper 101 incl.(3,5,7,13,15)	HSH101SERVKIT
	Repair Kit Hyper 101 incl.(2,3,5,7,11,12,13,14,15)	HSH101REPKIT
	<b>Complete Hammer</b>	<b>BR101H01</b>



### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	10.36	365.70
125	8.6	14.47	511.08
150	10.3	19.02	671.83
175	12.0	23.97	846.61
200	13.8	29.29	1034.35
225	15.5	34.95	1234.24
250	17.2	40.93	1445.55
275	19.0	47.23	1667.72
300	20.7	53.81	1900.23

### Hammer specification

	Imperial	Metric
Weight (less bit)	745 lbs	338 kg
Length (less bit)	62"	1575 mm
Outside dia.	8.86"	225 mm
Piston weight	150 lbs	68 kg



# GENERAL PURPOSE HAMMERS

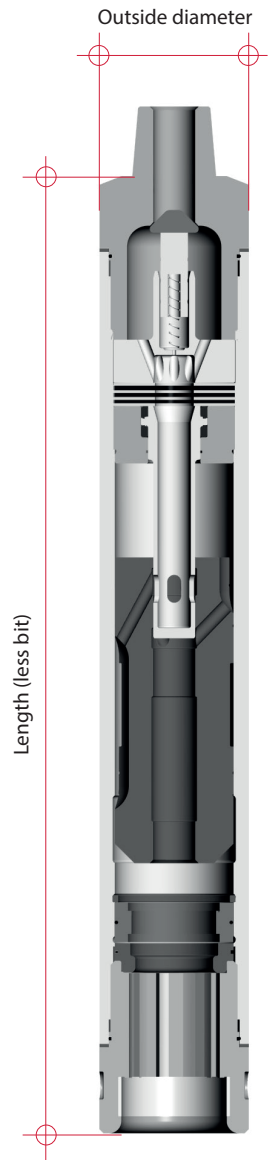
## HYPER 121

Hammer 302 mm (11<sup>7</sup>/<sub>8</sub>" ) - 445 mm (17<sup>1</sup>/<sub>2</sub>" ) dia. Holes

The Hyper 121 Hammer is designed to operate over a wide range of operating air pressures. A 6<sup>5</sup>/<sub>8</sub>" API reg. pin backhead is supplied as standard. The Hyper 121 is fitted with a positive seating water check valve and is supplied as standard fitted with a solid choke. In addition to the standard N120 button bit, the hammer can easily be modified to accept button bits with Mission SD12 and Ingersoll Rand DHD112 shank design.

### Component parts

Ref	Description	Part number
1	Backhead	HSH1213880M
2	Backhead / Chuck 'O' Ring (2)	HSH12114
3	Check Valve	HSH12108
4	Check Valve Spring	HSH12110
5	Diverter	HSH12120
6	Compression Buffer	HSH12128
7	Control Tube Holder	HSH12131
8	Control Tube Buffers (2)	HSH12129
9	Control Tube 'O' Ring	HSH12130A
10	Control Tube	HSH12130
11	Piston	HSH12103050
12	Wearsleeve	HSH12100
13	Piston Retaining Rings (2)	HSH12132
14	Bit Bearing	HSH12187
15	Bit Retainer (pair)	HSH12137050
16	Bit Retainer 'O' Ring	HSH12137AST
17	Chuck	HSH12135050
18	Chuck Bearing	HSH12135050BE
19	Breakout washer backhead	HSH12126
20	Breakout Washer chuck	HSH12125
	Service Kit Hyper 121 incl. (2,4,6,8,9,16,19,20)	HSH121SERVKIT
	Repair Kit Hyper 121 incl.(2,3,4,6,8,9,13,15,16,17,19,20)	HSH121REPKIT
	<b>Complete Hammer</b>	<b>BR121H01</b>

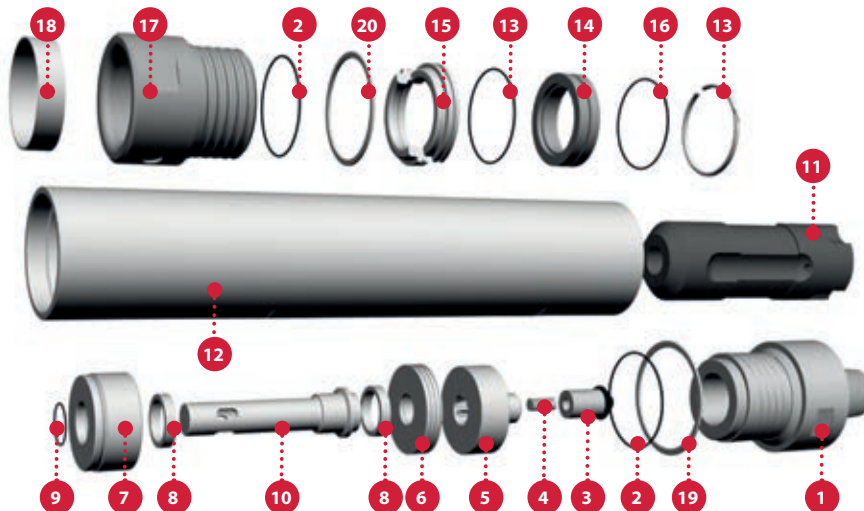


### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	16.8	592
150	10.3	30.8	1087
200	13.8	47.4	1674
250	17.2	66.2	2338

### Hammer specification

	Imperial	Metric
Weight (less bit)	1487 lbs	675 kg
Length (less bit)	74.4"	1889 mm
Outside dia.	10.7"	272 mm
Piston weight	275 lbs	125 kg



# GENERAL PURPOSE HAMMERS

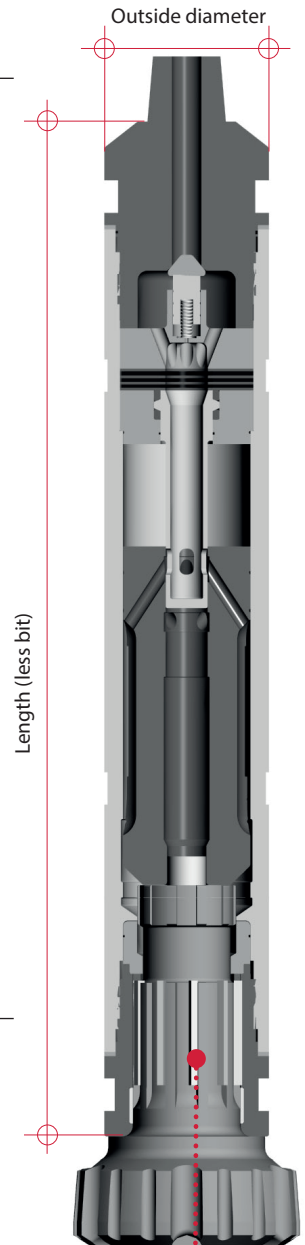
## HYPER 141

Hammer 350 mm (13<sup>3</sup>/<sub>4</sub>" ) - 508 mm (20") dia. Holes

The Robit Hyper 141 hammer is a valveless DTH Hammer designed to operate over a wide range of operating pressures. The Hyper 141 is supplied with a 6<sup>5</sup>/<sub>8</sub>" API regular pin backhead as standard. The Hyper 141 is fitted with a positive seating Water Check Valve and is supplied as standard, fitted with a Solid Choke. The Hyper 141 is primarily designed to be used with the Numa 125, but other shanks will be considered on request.

### Component parts

Ref	Description	Part number
1	Backhead	HSH1413880M
2	Check Valve	HSH12108
3	Check Valve Spring	HSH12110
4	Diverterw	HSH14120
5	Compression Buffer	HSH14128
6	Control Tube Holder	HSH14131
7	Control Tube Buffers (2)	HSH14129
8	Control Tube	HSH14130
9	Control Tube "O" Ring	HSH14130A
10	Piston	HSH14103125
11	Wearsleeve	HSH14100
12	Bit Retainer (pair)	HSH14137125
13	Bit Retainer "O" Ring	HSH14137AST
14	Chuck (N125 C/W drive plate slot)	HSH14135125
15	Chuck Bearing	HSH14135125BE
16	Breakout Washer (chuck)	HSH14126
17	Breakout Washer (Backhead)	HSH14126
18	Drive Plate N125 (10)	DP125
	Service Kit Hyper 141 incl. (4,5,7,9,13,16)	HSH141SERVKIT
	Repair Kit Hyper 141 incl. (2,3,5,7,9,12,13,14,15,16)	HSH141REPKIT
	<b>Complete Hammer</b>	<b>BR141H01</b>

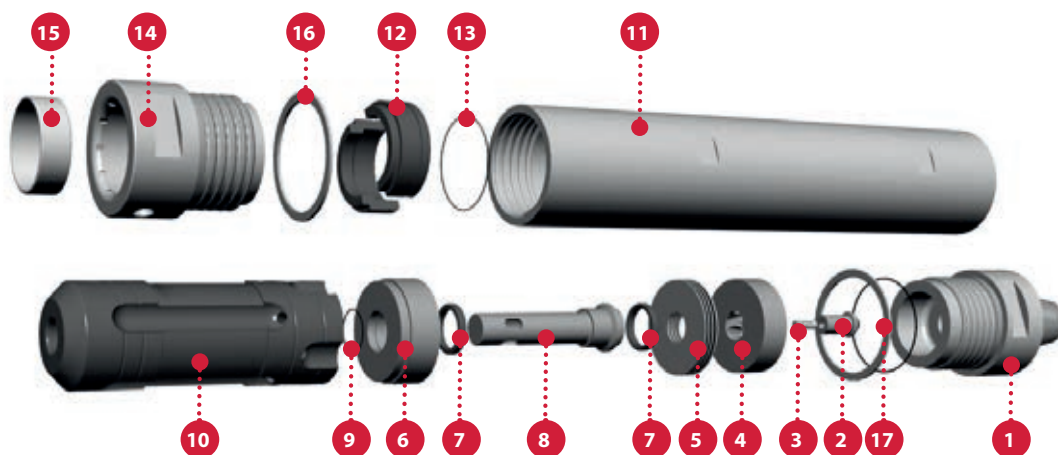


### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	20.2	715
150	10.3	37.1	1311
200	13.8	57.1	2018
250	17.2	80.0	2821

### Hammer specification

	Imperial	Metric
Weight (less bit)	2420 lbs	1100 kg
Length (less bit)	76.4"	1941 mm
Outside dia.	12.6"	320 mm
Piston weight	414 lbs	188 kg





# GENERAL PURPOSE HAMMERS

## HYPER 181

Hammer 458 mm (18") - 660 mm (26") dia. Holes

The Robit Hyper 181 hammer is a valveless DTH Hammer designed to operate efficiently at pressures ranging from 7 to 15.5 bar (100 225 psi). The Hyper 181 is supplied with a 8<sup>5</sup>/<sub>8</sub>" api reg pin backhead as standard but a 8<sup>5</sup>/<sub>8</sub>" api reg box backhead can be supplied. In addition to the standard Hyper 181 N180 button bits, the Hyper 181 can easily be modified to accept bits with Mission SD18 and QL200 shank design by simply replacing the Chuck, Piston, Bit retainer and Bearing.

### Component parts

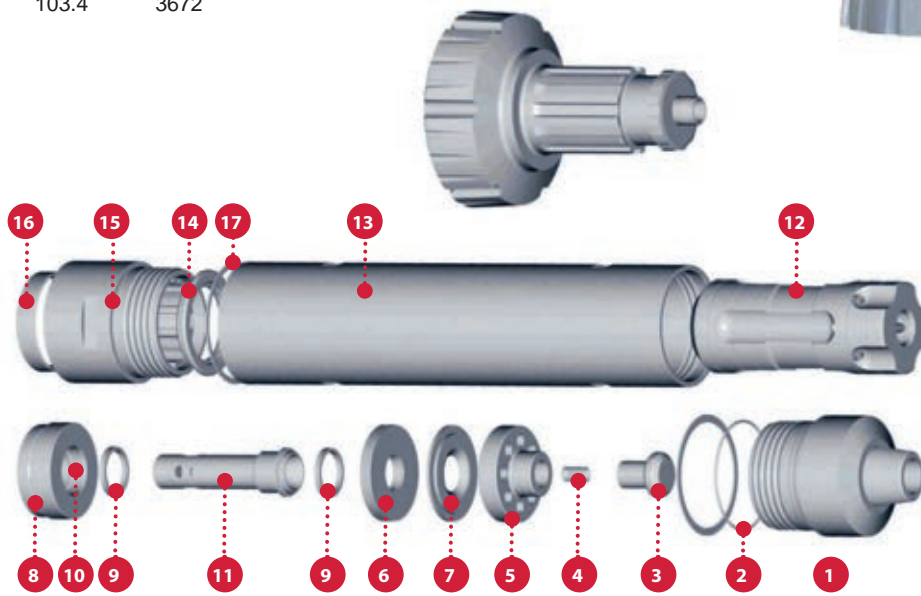
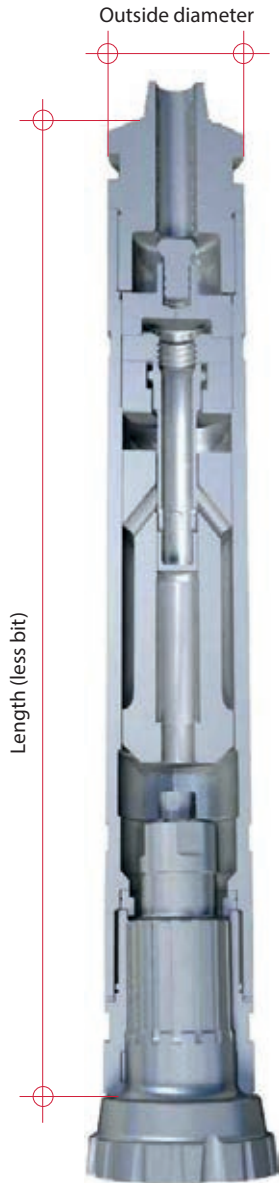
Ref	Description	Part number
1	Backhead	HSH1813882M
2	Backhead 'O' Ring	HSH18114
3	Check Valve	HSH18108
4	Check Valve Spring	HSH18110
5	Valve Chest	HSH18107
6	Compression Buffer	HSH18128
7	Buffer Cover	HSH18173
8	Tube Holder	HSH18131
9	Tube Buffers (2)	HSH18129
10	Tube 'O' Ring	HSH18130A
11	Control Tube	HSH18130
12	Piston	HSH18103180
13	Wearsleeve	HSH18100
14	Bit Retaining Ring	HSH18137180
15	Chuck	HSH18135180
16	Chuck Bearing	HSH18135180BE
17	Breakout Washer	HSH18126
	Service Kit Hyper 181 incl. (2,4,6,9,10,17)	HSH181SERVKIT
	Repair Kit Hyper 181 incl. (2,3,4,6,9,10,14,15,16,17)	HSH181REPKIT
	<b>Complete Hammer</b>	<b>BR181H01</b>

### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	30.8	1088
125	8.6	43.1	1520
150	10.3	56.6	1999
175	12.0	71.3	2518
200	13.8	87.1	3077
225	15.5	103.4	3672

### Hammer specification

	Imperial	Metric
Weight (less bit)	3545 lbs	1608 kg
Length (less bit)	86"	2185 mm
Outside dia.	16"	406 mm
Piston weight	730 lbs	330 kg



# GENERAL PURPOSE HAMMERS

## HYPER 181S

Hammer 724 mm (28½") - 864 mm (34") dia. Holes

The Robit Hyper 181S hammer is a valveless DTH hammer designed to operate efficiently at pressures ranging from 7 to 15.5 bar (100 - 225 psi). The Hyper 181 is supplied with a 8<sup>5</sup>/<sub>8</sub>" API regular pin backhead as standard but a 8<sup>5</sup>/<sub>8</sub>" API regular box backhead can be supplied.

### Component parts

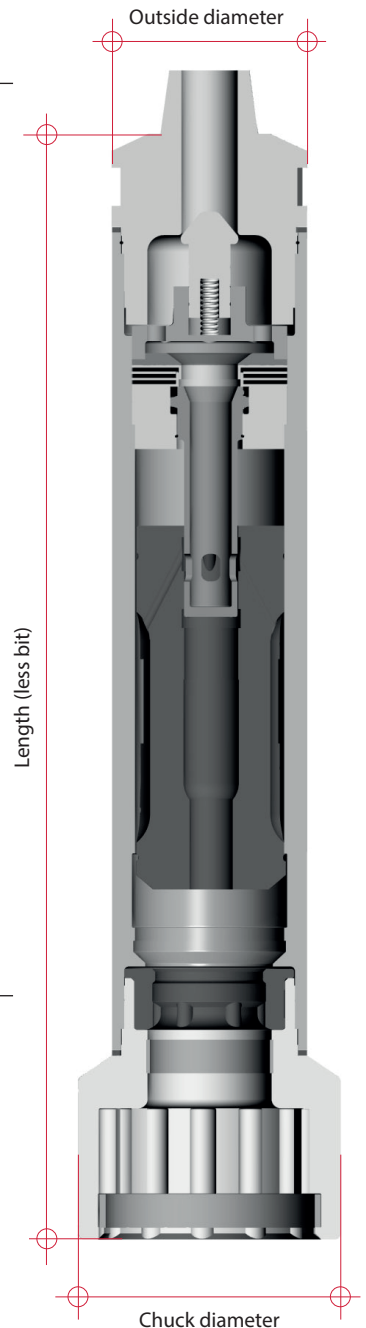
Ref	Description	Part number
1	Backhead 8 <sup>5</sup> / <sub>8</sub> " Reg. Pin	HSH1813882M
2	Backhead 'O' Ring	HSH18114
3	Check Valve	HSH18108
4	Check Valve Spring	HSH18110
5	Valve Chest	HSH18107
6	Compression Buffer	HSH18128
7	Buffer Cover	HSH18173
8	Tube Holder	HSH18131
9	Tube Buffers (2)	HSH18129
10	Tube 'O' Ring	HSH18130A
11	Control Tube	HSH18130
12	Piston	HSH18103180
13	Wearsleeve	HSH18100
14	Bit Retaining Ring	HSH18137101
15	Chuck	HSH18135101
16	Chuck Bearing	HSH18135101BE
17	Chuck Bearing	HSH18135101BEAC
18	Breakout Washers (2)	HSH18126
	Service Kit Hyper 141 incl. (4,5,7,9,13,16)	HSH141SERVKIT
	Repair Kit Hyper 141 incl. (2,3,5,7,9,12,13,14,15,16)	HSH141REPKIT
	<b>Complete Hammer</b>	<b>BR181H04</b>

### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	31.1	1097
150	10.3	57.1	2016
175	12.0	71.9	2541
200	13.8	87.9	3105
225	15.5	104.9	3705

### Hammer specification

	Imperial	Metric
Weight (less bit)	3846 lbs	1748 kg
Length (less bit)	90.66"	2303 mm
Outside dia.	16"	406 mm
Chuck dia.	21.5"	546 mm
Piston weight	730 lbs	330 kg



# GENERAL PURPOSE HAMMERS

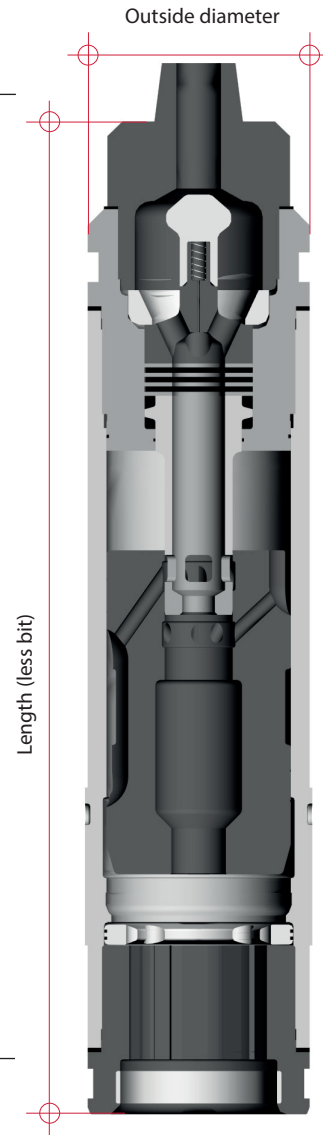
## HYPER 241

Hammer 610 mm (24") - 864 mm (34") dia. Holes

The Robit Hyper 241 hammer is a valveless DTH hammer designed to operate efficiently at pressures ranging from 7 bar to 15 bar (100 psi to 225 psi). The hammer is supplied with an 8<sup>5</sup>/<sub>8</sub>" api reg pin Backhead as standard or an 8<sup>5</sup>/<sub>8</sub>" api reg box thread can be supplied also. A positive seating check valve is fitted and the Hyper 241 is Supplied to suit N240 shank type Button Bits as standard.

### Component parts

Ref	Description	Part number
1	Backhead Adaptor 8 <sup>5</sup> / <sub>8</sub> " reg Pin	HSH2413682M
2	Backhead Adaptor Breakout Washer	HSH24127
3	Backhead	HSH24138
4	Check Valve	HSH18108
5	Check Valve Spring	HSH24110
6	Valve Chest	HSH24104
7	Compression Buffer	HSH24128
8	Backhead "O" Ring	HSH24114
9	Internal Backhead "O" Ring	HSH24114A
10	Tube Buffers (2)	HSH24129
11	Control Tube	HSH24130
12	Piston	HSH24103240
13	Bit Retaining Ring	HSH24137240
14	Bit Retainer "O" Ring (2)	HSH24137A240
15	Chuck	HSH24135240
16	Chuck Bearing	HSH24135240BE
17	Breakout Washer Backhead & Chuck	HSH24125
18	Internal Washer Adaptor	HSH24106
19	Wearsleeve	HSH24100
	Service Kit Hyper 241 incl. (2,5,7,8,9,10,14,17)	HSH241SERVKIT
	Repair Kit Hyper 241 incl. (2,4,5,7,8,9,10,13,14,16,17)	HSH241REPKIT
	<b>Complete Hammer</b>	<b>BR241H01</b>

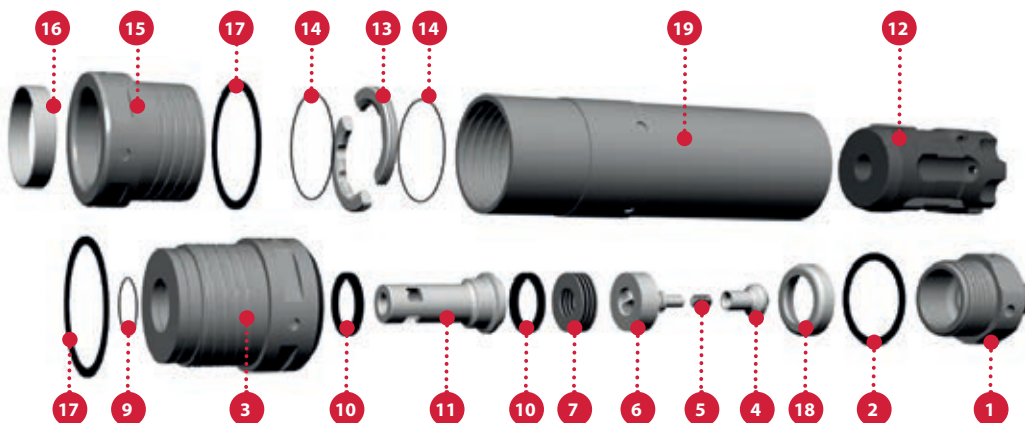


### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	63.8	2252
125	8.6	89.1	3147
150	10.3	117.2	4137
175	12.0	147.6	5214
200	13.8	180.4	6370
225	15.5	215.2	7601

### Hammer specification

	Imperial	Metric
Weight (less bit)	5676 lbs	2575 kg
Length (less bit)	91.9"	2334 mm
Outside dia.	21"	533 mm
Piston weight	1312 lbs	595 kg





**Robit** HYPER 241 HZ

Further. Faster.

Further. Faster.

Fur



## GENERAL PURPOSE HAMMERS

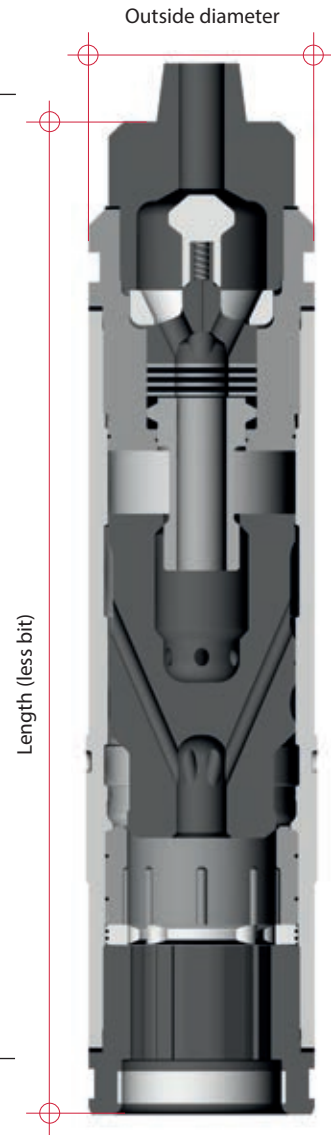
# HYPER 241 HZ (horizontal drilling)

Hammer 610 mm (24") - 864 mm (34") dia. Holes

The Robit Hyper 241 HZ Hammer is a DTH Hammer designed for horizontal drilling with an operating pressure range of 100 to 350 psi (6.9 to 24 Bar). The hammer is supplied with a 8 5/8" API Reg Pin Backhead, but alternative connections can be offered on request. The H241HZ is designed to operate without a footvalve (blowtube) in the button bit, so before fitting the button bit into this hammer the footvalve must be removed. This hammer is supplied to suit N240 shank type button bits as standard.

### Component parts

Ref	Description	Part number
1	Backhead Adapter 8 5/8" Reg Pin	HSH2413682M
2	Backhead Adapter Breakout Washer	HSH24127
3	Check Valve	HSH18108
4	Check Valve Spring	HSH24110
5	Internal Washer Adapter	HSH24106
6	Valve Chest	HSH24104
7	Compression Buffer	HSH24128
8	Tube Buffers (2)	HSH24129
9	Control Tube	4000121
10	Backhead	HSH24138
11	Internal Backhead 'O' Ring	HSH24114A
12	Backhead 'O' Ring	HSH24114
13	Breakout Washer Backhead and Chuck	HSH24125
14	Piston	4000122
15	Wearsleeve	4000119
16	Bit Retainer 'O' Ring (2)	HSH24137A240
17	Bit Retainer	HSH24137240
18	Bearing 'O' Ring (2)	9001743
19	Bearing	HSH24102HZ
20	Chuck	HSH24135240
21	Chuck Bearing	HSH24135240BE
	<b>Complete Hammer</b>	<b>BR241H01HZ</b>



### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	71.5	2524.8
150	10.3	131.4	4638.4
200	13.8	202.2	7141.2
250	17.2	282.6	9980.2
300	20.7	371.5	13119.3
350	24.1	468.2	16532.2

### Hammer specification

	Imperial	Metric
Weight (less bit)	5820 lbs	2640 kg
Length (less bit)	91.78"	2331 mm
Outside dia.	21"	533 mm
Piston weight	1290 lbs	585 kg



# GENERAL PURPOSE HAMMERS

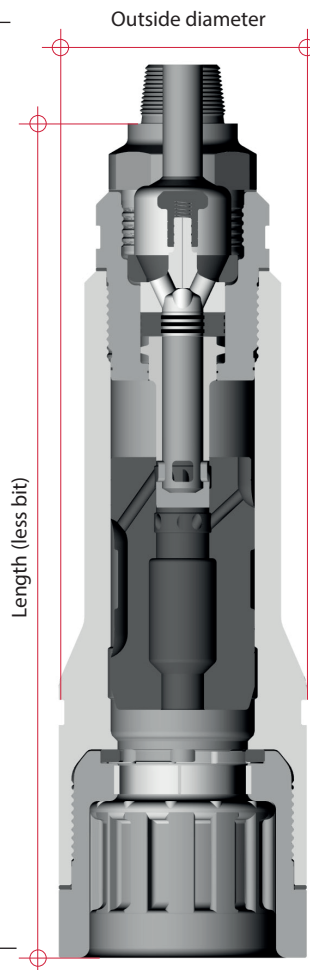
## HYPER 241S

Hammer 864 mm (34") - 1090 mm (43") dia. Holes

The Robit Hyper 241S hammer is a valveless DTH hammer designed to operate efficiently at pressures ranging from 7 to 15 bar (100 - 220 psi). The Hyper 241S is supplied with a 10" beco pin backhead as standard, but an 8 5/8" box backhead can be supplied. A positive seating check valve is fitted. The Hyper 241S is supplied to suit the XL24/32 shank as standard.

### Component parts

Ref	Description	Part number
1	Backhead Adaptor 10" Beco Pin	HSH24138AD083M
2	Breakout washer (adaptor)	HSH24127
3	Internal Washer Adaptor	HSH24106
4	Check Valve	HSH24108
5	Check Valve Spring	HSH24110
6	Valve Chest	HSH24104
7	Compression Buffer	HSH24128
8	Control Tube Buffer (2)	HSH24129
9	Control Tube	HSH24130
10	Backhead	HSH24138
11	Breakout Washer (backhead)	HSH24125
12	Backhead sealing "O" ring	HSH241114B
13	Piston	HSH241S03XL24
14	Wearsleeve	HSH241S00
15	Breakout Washer (chuck)	HSH241S26
16	Bit Retaining Ring	HSH241S37XL24
17	Chuck Bearing	HSH241S35XL24BE
18	Chuck	HSH241S35XL24
	Service Kit Hyper 241S incl.	
	Repair Kit Hyper241S incl.	
	<b>Complete Hammer</b>	<b>BR241SH01</b>

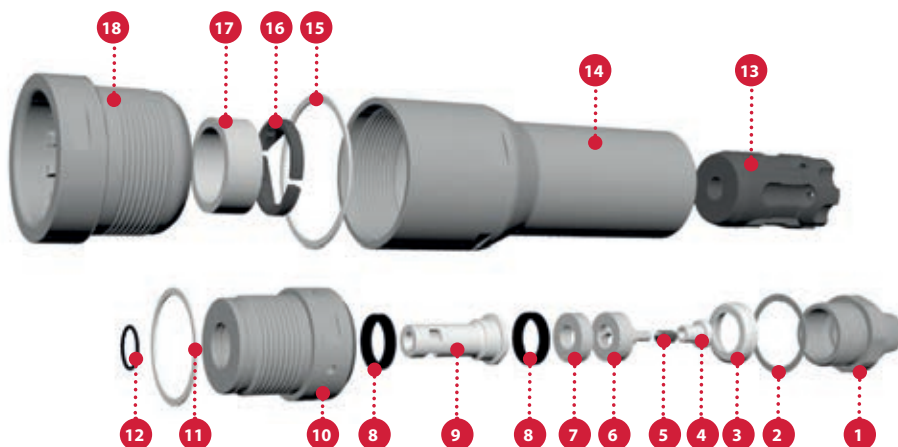


### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	64.6	2281
125	8.6	90.3	3188
150	10.3	118.7	4191
175	12.0	149.5	5281
200	13.8	182.7	6452
225	15.5	218	7699

### Hammer specification

	Imperial	Metric
Weight (less bit)	8800 lbs	4000 kg
Length (less bit)	100"	2540 mm
Outside dia.	29.3"	745 mm
Piston weight	1276 lbs	580 kg



# GENERAL PURPOSE HAMMERS

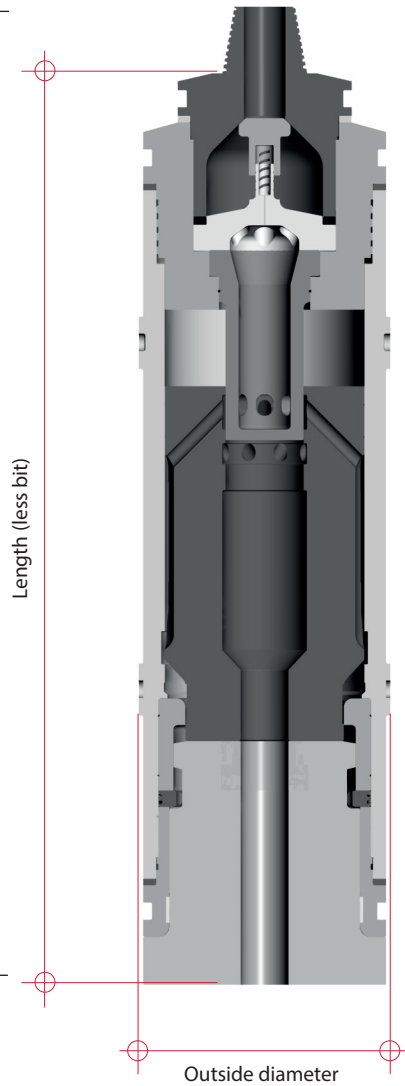
## HYPER 331

Hammer 838 mm (33") - 1320 mm (52") dia. Holes (other sizes available on request)

The Hyper 331 DTH hammer is designed for drilling 838 mm - 1320 mm (33 - 52") diameter holes over a wide range of operating air pressures. The Hyper 331 is supplied with a 10" BECO as standard but other connections are available on request. The Hyper 331 is designed to transfer maximum energy to the button bit and comes with highly durable shank as standard.

### Component parts

Ref	Description	Part number
1	Backhead adaptor	HSH3313683M
2	Breakout washer	HSH33127
3	Compression buffer	HSH33128
4	Check valve	HSH18108
5	Check valve spring	HSH18110
6	Diverter	HSH33120
7	Control tube	HSH33130
8	Backhead	HSH33138
9	Backhead internal 'O' ring	HSH33114A
10	Backhead breakout washer	HSH33126
11	Piston	HSH33103
12	Wearsleeve	HSH33100
13	Bit bearing 'O' ring (2)	HSH33186A
14	Bit bearing	HSH33186
15	Bit retainer 'O' ring (2)	HSH33137A
16	Bit retainer	HSH33137
17	Chuck breakout washer	HSH33126
18	Chuck	HSH33135
19	Chuck bearing	HSH33135BE
	Service Kit Hyper 331 incl. (3,4,10,15)	HSH331SERVKIT
	Repair Kit Hyper331 incl. (3,4,5,10,15,16,18)	HSH331REPKIT
	<b>Complete Hammer</b>	<b>BR331H01</b>

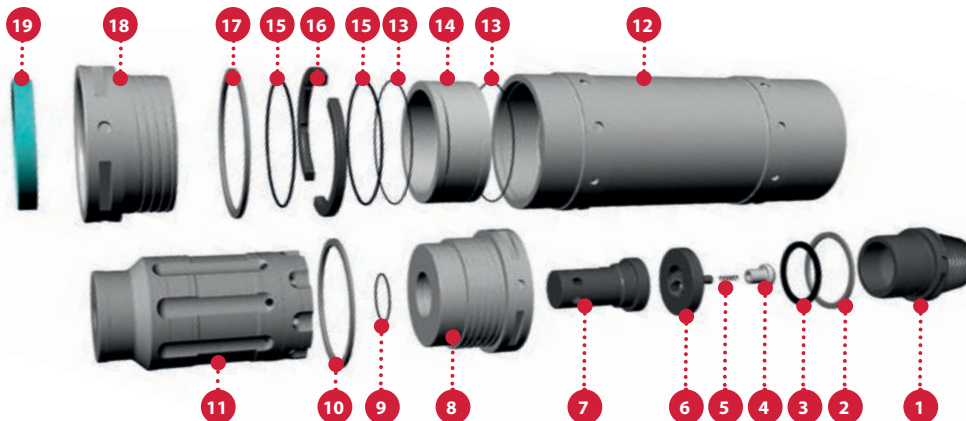


### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	77.68	2743.26
125	8.6	108.57	3833.83
150	10.3	142.71	5039.70
175	12.0	179.84	6350.74
200	13.8	219.72	7759.12
225	15.5	262.18	9258.52

### Hammer specification

	Imperial	Metric
Weight (less bit)	12273 lbs	5567 Kg
Length (less bit)	100"	2540 mm
Outside dia.	29.0"	736.6 mm
Piston weight	3414 lbs	1552 Kg
Button Bit type	H331	





Robitl WH4

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# DTH HAMMERS

## WELL DRILLING HAMMERS

Hammer	Shank	Top sub thread options	Wear Sleeve O.D.		Length		Weight	Piston weight
			[mm]	[in]	[mm]	[in]	[kg]	[kg]
WH4	TD40	2 3/8" API reg pin	100	3,94"	956	37,6	39,7	7,4
WH5	DHD350	2 3/8" API reg pin 3 1/2" API reg pin	126	4,96"	1074	42,3"	60,0	16,5
WH5	QL50	2 3/8" API reg pin 3 1/2" API reg pin	126	4,96"	1053	41,5"	60,0	16,0
WH6	DHD360 QL60	3 1/2" API reg pin	140	5,51"	1035	40,8"	86,0	20,0
WH6 HD	QL60w DHD360	3 1/2" API reg pin	146	5,75"	1035	40,8"	99,0	20,0
HYPHER 81	DHD380 COP84 SD8	4 1/2" API reg pin	184	7,24"	1262	49,7"	158,0	43,9
HYPHER 101	SD10 N100	6" API reg pin	225	8,86"	1575	62,0"	338,0	68,0
HYPHER 121	DHD112 N120 SD12 QL120	6" API reg pin	272	10,71"	1857	73,1"	676,0	112,0
		6" API reg pin	272	10,71"	1889	74,4"	675,0	125,0
		6" API reg pin	272	10,71"	1909	75,2"	675,0	125,0
		6" API reg pin	286	11,26"	1889	74,4"	763,0	125,0



# WELL DRILLING HAMMERS

## WH4

Hammer 110 mm (4<sup>3/8</sup>" ) - 127 mm (5") dia. Holes

The new highly dependable Robit WH4" hammer is designed for drilling 110 mm - 127 mm (4<sup>3/8</sup>" to 5") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH4" is most effective at medium to high air pressures ranging up to 35 bar (508 psi). It comes with industry standard 2<sup>3/8</sup>" api reg. pin backhead and TD40 bit shank fitting.

### Component parts

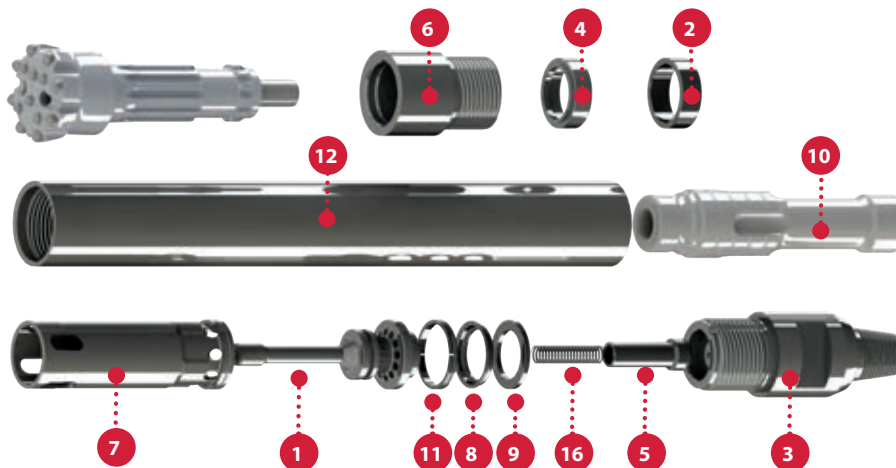
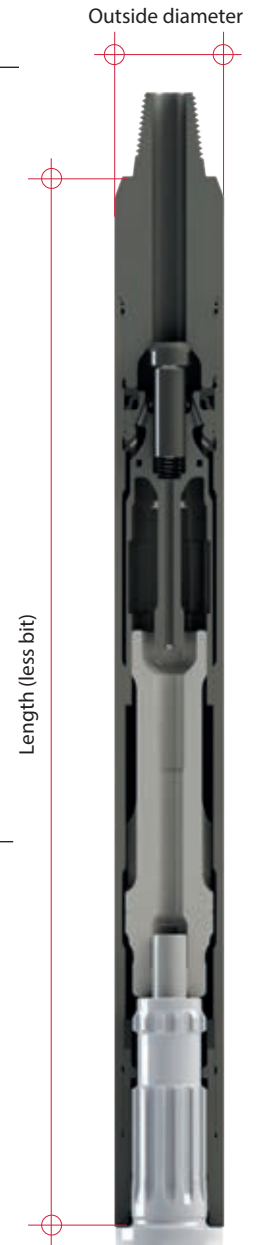
Ref	Description	Part number
1	Air feed tube 4" TD40	08-004-0550
2	Aligner 4" TD40	08-004-0551
3	Backhead API 2 3/8" TD40	08-004-0545
4	Bit retaining ring 4" TD40	08-004-0546
5	Check valve 4" TD40	08-004-0552
6	Chuck 4" TD40	08-004-0547
7	Inner cylinder 4" TD40	08-004-0553
8	Lock ring 4" TD40	08-004-0554
9	Make-up ring 4" TD40	08-004-0555
10	Piston 4" TD40	08-004-0548
11	Seating ring 4" TD40	08-004-0556
12	Wear sleeve 4" TD40	08-004-0549
13	4" air feed tube 'O'-ring	06M-00-0541
14	4" backhead 'O'-ring	06M-00-0542
15	4" seating 'O'-ring	06M-00-0543
16	Spring	06J-25-0544
	<b>Complete Hammer</b>	<b>08-004-0557</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	2.83	100
150	10.3	5.38	190
200	13.8	7.79	275
250	17.2	9.20	370
300	20.7	10.48	470
350	24.2	15.86	560
400	27.6	18.41	650
450	31.0	20.95	740
500	34.5	23.50	830

### Hammer specification

	Imperial	Metric
Weight (less bit)	106.4 lbs	39,7 kg
Length (less bit)	37.6"	956 mm
Outside dia.	3.94"	100 mm
Piston weight	19.8 lbs	7,4 kg



## WELL DRILLING HAMMERS

# WH5 DHD350 2<sup>3</sup>/<sub>8</sub>" API REG

Hammer 140 mm (5<sup>1</sup>/<sub>2</sub>" ) - 165 mm (6<sup>1</sup>/<sub>2</sub>" ) dia. Holes

The new highly dependable Robit WH5" hammer is designed for drilling 140 mm - 165 mm (5<sup>1</sup>/<sub>2</sub>" to 6<sup>1</sup>/<sub>2</sub>" ) diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH5" is most effective at medium to high air pressures ranging up to 35 bar (508 psi). It comes with industry standard 2<sup>3</sup>/<sub>8</sub>"(or 3<sup>1</sup>/<sub>2</sub>" ) api reg. pin backhead and DHD350 (or QL50) bit shank fitting.

### Component parts

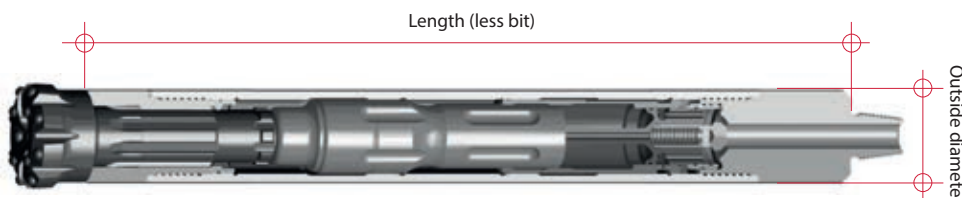
Ref	Description	Part number
1	Thread Protector API 2 <sup>3</sup> / <sub>8</sub> "	9001121
2	Back Head WH5 API 2 <sup>3</sup> / <sub>8</sub> "	9001124
3a	Check Valve Plug Blank	9001125
3b	Check Valve Plug 1/8"	9001126
3c	Check Valve Plug 3/16"	9001127
4	Check Valve WH5, WH6	9001128
5	Spring WH5, WH6	9001129
6a	Shim - 4.5 mm WH5	9001130
6b	Shim - 5.0 mm WH5	9001131
6c	Shim - 5.5 mm WH5	9001132
7	Ringfeder Spring WH5	9001133
8	Air Feed Tube WH5	9001134
9	O Ring WH5	9001135
10	Inner Cylinder WH5	9001136
11	Square Lock Ring WH5	9001137
12	Wear sleeve WH5	9001138
13	Piston WH5 DHD350	9001140
14	Lock Ring WH5	9001141
15	Bit Retaining Ring WH5 DHD350	9001142
16	Chuck WH5 DHD350	9001143
17	End Cap WH5	9001150
	Service Kit WH5 DHD350, incl. [(3a-c,5,9,14)*2],11	5000003
	Repair Kit WH5 DHD350, incl. [(9,14)*2]3a-c,4,5,6a-c,11,15,16,21	5000004
	Life Kit WH5 DHD350 API 2 <sup>3</sup> / <sub>8</sub> ", incl. 2,12,16	5000006
	Footvalve DHD350	9001152
	<b>Complete Hammer</b>	<b>9000819</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	8.50	300
150	10.3	11.33	400
200	13.8	14.16	500
250	17.2	19.82	700
300	20.7	22.66	800
350	24.2	28.32	1000
400	27.6	31.15	1100
450	31.0	36.82	1300
500	34.5	39.65	1400

### Hammer specification

	Imperial	Metric
Weight (less bit)	132.3 lbs	60.0 kg
Length (less bit)	42.3"	1074 mm
Outside dia.	4.96"	126 mm



## WELL DRILLING HAMMERS

# WH5 DHD350 3½" API REG

Hammer 140 mm (5½") - 165 mm (6½") dia. Holes

The new highly dependable Robit WH5" hammer is designed for drilling 140 mm - 165 mm (5½" to 6½") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH5" is most effective at medium to high air pressures ranging up to 35 bar (508 psi). It comes with industry standard 3½"(or 2¾") api reg. pin backhead and DHD350 (or QL50) bit shank fitting.

### Component parts

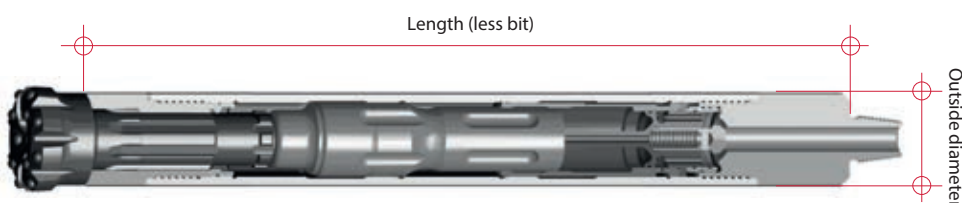
Ref	Description	Part number
1	Thread Protector API 3½	9001122
2	Back Head WH5 API 3½	9001123
3a	Check Valve Plug Blank	9001125
3b	Check Valve Plug ⅙"	9001126
3c	Check Valve Plug 3/16"	9001127
4	Check Valve WH5, WH6	9001128
5	Spring WH5, WH6	9001129
6a	Shim - 4.5 mm WH5	9001130
6b	Shim - 5.0 mm WH5	9001131
6c	Shim - 5.5 mm WH5	9001132
7	Ringfeder Spring WH5	9001133
8	Air Feed Tube WH5	9001134
9	O Ring WH5	9001135
10	Inner Cylinder WH5	9001136
11	Square Lock Ring WH5	9001137
12	Wear sleeve WH5	9001138
13	Piston WH5 DHD350	9001140
14	Lock Ring WH5	9001141
15	Bit Retaining Ring WH5 DHD350	9001142
16	Chuck WH5 DHD350	9001143
17	End Cap WH5	9001150
	Service Kit WH5 DHD350, incl. [(3a-c,5,9,14)*2],11	5000003
	Repair Kit WH5 DHD350, incl. [(9,14)*2]3a-c,4,5,6a-c,11,15,16,21	5000004
	Life Kit WH5 DHD350 API 3½, incl. 2,12,16	5000005
	Footvalve DHD350	9001152
	<b>Complete Hammer</b>	<b>9000819</b>

### Air consumption

PSI	BAR	m³/min	ft³/min
100	6.9	8.50	300
150	10.3	11.33	400
200	13.8	14.16	500
250	17.2	19.82	700
300	20.7	22.66	800
350	24.2	28.32	1000
400	27.6	31.15	1100
450	31.0	36.82	1300
500	34.5	39.65	1400

### Hammer specification

	Imperial	Metric
Weight (less bit)	132.3 lbs	60.0 kg
Length (less bit)	42.3"	1074 mm
Outside dia.	4.96"	126 mm



## WELL DRILLING HAMMERS

# WH5 QL50 2<sup>3</sup>/<sub>8</sub>" API REG

Hammer 140 mm (5½") - 165 mm (6½") dia. Holes

The new highly dependable Robit WH5" hammer is designed for drilling 140 mm - 165 mm (5½" to 6½") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH5" is most effective at medium to high air pressures ranging up to 35 bar (508 psi). It comes with industry standard 2<sup>3</sup>/<sub>8</sub>" (or 3½") api reg. pin backhead and QL50 (or DHD350) bit shank fitting.

### Component parts

Ref	Description	Part number
1	Thread Protector API 2 <sup>3</sup> / <sub>8</sub> "	9001121
2	Back Head WH5 API 2 <sup>3</sup> / <sub>8</sub> "	9001124
3a	Check Valve Plug Blank	9001125
3b	Check Valve Plug 1/8"	9001126
3c	Check Valve Plug 3/16"	9001127
4	Check Valve WH5, WH6	9001128
5	Spring WH5, WH6	9001129
6a	Shim - 4.5 mm WH5	9001130
6b	Shim - 5.0 mm WH5	9001131
6c	Shim - 5.5 mm WH5	9001132
7	Ringfeder Spring WH5	9001133
8	Air Feed Tube WH5	9001134
9	O Ring WH5	9001135
10	Inner Cylinder WH5	9001136
11	Square Lock Ring WH5	9001137
12	Wear sleeve WH5	9001138
13	Piston WH5 QL50	9001139
14	Lock Ring WH5	9001141
15	Guide Bush WH5 QL50	9001144
16	O Ring WH5 QL50	9001145
17	Bit Retaining Ring WH5 QL50	9001146
18	Chuck Lock Ring WH5 QL50	9001148
19	Chuck WH5 QL50	9001149
20	End Cap WH5	9001150
	Service Kit WH5 QL50, incl. (3a-c,5,9,11,14,16)*2	5000007
	Repair Kit WH5 QL50, incl. [(3a-c,9,11,14,16)*2],4,5,6a-c,7,17,24	5000008
	Life Kit WH5 QL50 API 2 <sup>3</sup> / <sub>8</sub> ", incl. 2,12,19	5000009
	Footvalve QL50	9001151
	<b>Complete Hammer</b>	<b>9000820</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	8.50	300
150	10.3	11.33	400
200	13.8	14.16	500
250	17.2	19.82	700
300	20.7	22.66	800
350	24.2	28.32	1000
400	27.6	31.15	1100
450	31.0	36.82	1300
500	34.5	39.65	1400

### Hammer specification

	Imperial	Metric
Weight (less bit)	132.3 lbs	60.0 kg
Length (less bit)	41.5"	1053 mm
Outside dia.	4.96"	126 mm

Length (less bit)



## WELL DRILLING HAMMERS

# WH5 QL50 3 1/2" API REG

Hammer 140 mm (5 1/2") - 165 mm (6 1/2") dia. Holes

The new highly dependable Robit WH5" hammer is designed for drilling 140 mm - 165 mm (5 1/2" to 6 1/2") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH5" is most effective at medium to high air pressures ranging up to 35 bar (508 psi). It comes with industry standard 3 1/2"(or 2 3/8") api reg. pin backhead and QL50 (or DHD350) bit shank fitting.

### Component parts

Ref	Description	Part number
1	Thread Protector API 3 1/2	9001122
2	Back Head WH5 API 3 1/2	9001123
3a	Check Valve Plug Blank	9001125
3b	Check Valve Plug 1/8"	9001126
3c	Check Valve Plug 3/16"	9001127
4	Check Valve WH5, WH6	9001128
5	Spring WH5, WH6	9001129
6a	Shim - 4.5 mm WH5	9001130
6b	Shim - 5.0 mm WH5	9001131
6c	Shim - 5.5 mm WH5	9001132
7	Ringfeder Spring WH5	9001133
8	Air Feed Tube WH5	9001134
9	O Ring WH5	9001135
10	Inner Cylinder WH5	9001136
11	Square Lock Ring WH5	9001137
12	Wear sleeve WH5	9001138
13	Piston WH5 QL50	9001139
14	Lock Ring WH5	9001141
15	Guide Bush WH5 QL50	9001144
16	O Ring WH5 QL50	9001145
17	Bit Retaining Ring WH5 QL50	9001146
18	Chuck Lock Ring WH5 QL50	9001148
19	Chuck WH5 QL50	9001149
20	End Cap WH5	9001150
	Service Kit WH5 QL50, incl. (3a-c,5,9,11,14,16)*2	5000007
	Repair Kit WH5 QL50, incl. [(3a-c,9,11,14,16)*2],4,5,6a-c,7,17,24	5000008
	Life Kit WH5 QL50 API 3 1/2, incl. 2,12,19	5000010
	Footvalve QL50	9001151
	<b>Complete Hammer</b>	<b>9000821</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	8.50	300
150	10.3	11.33	400
200	13.8	14.16	500
250	17.2	19.82	700
300	20.7	22.66	800
350	24.2	28.32	1000
400	27.6	31.15	1100
450	31.0	36.82	1300
500	34.5	39.65	1400

### Hammer specification

	Imperial	Metric
Weight (less bit)	132.3 lbs	60.0 kg
Length (less bit)	41.5"	1053 mm
Outside dia.	4.96"	126 mm



## WELL DRILLING HAMMERS

# WH6 DHD360 3 1/2" API REG

Hammer 152 mm (6") - 203 mm (8") dia. Holes

The new highly dependable Robit WH6" hammer is designed for drilling 152 mm - 203 mm (6" to 8") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH6" is most effective at medium to high air pressures ranging up to 30 bar (435 psi). It comes with industry standard 3 1/2" api reg. pin backhead and DHD360 (or QL60) bit shank fitting.

### Component parts

Ref	Description	Part number
1	Thread Protector API 3 1/2	9001122
2	Back Head WH6 DHD360	9001214
3	O Ring WH6	9001218
4a	Shim - 4 mm WH6	9001219
4b	Shim - 5 mm WH6	9001220
4c	Shim - 6 mm WH6	9001221
4d	Shim - 7mm WH6	9001222
5	Ringfeder WH6	9001223
6a	Check Valve Plug Blank	9001125
6b	Check Valve Plug 1/8"	9001126
6c	Check Valve Plug 3/16"	9001127
7	Check Valve WH5,WH6	9001128
8	Spring WH5, WH6	9001129
9	Air Feed Tube WH6	9001224
10	O Ring WH6	9001225
11	Inner Cylinder WH6	9001226
12	Square Lock Ring WH6	9001227
13	Wear Sleeve WH6 DHD360	9001215
14	Piston WH6 DHD360	9001216
15	Lock Ring WH6	9001228
16	Guide Bush WH6 DHD360	9001229
17	O Ring WH6	9001231
18	Bit Retaining Ring WH6 DHD360	9001232
19	Chuck WH6 DHD360	9001217
20	End Cap WH6	9001234
	Service Kit WH6 DHD360, incl. [(3,10,15,17)*2],12	5000016
	Repair Kit WH6 DHD360, incl. 4a-d,5,6a-c,7 ,8,18,19,21,24	5000017
	Life Kit WH6 DHD360, incl. 2,13,19	5000018
	Footvalve DHD360	9001235
	<b>Complete Hammer</b>	<b>9000824</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	8.50	300
150	10.3	11.33	400
200	13.8	16.99	600
250	17.2	21.24	750
300	20.7	25.49	900
350	24.2	31.15	1100
400	27.6	35.40	1250
450	31.0	39.64	1400

### Hammer specification

	Imperial	Metric
Weight (less bit)	189.6 lbs	86.0 kg
Length (less bit)	40.8"	1035 mm
Outside dia.	5.51"	140 mm



## WELL DRILLING HAMMERS

# WH6 QL60 3 1/2" API REG

Hammer 152 mm (6") - 203 mm (8") dia. Holes

The new highly dependable Robit WH6" hammer is designed for drilling 152 mm - 203 mm (6" to 8") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH6" is most effective at medium to high air pressures ranging up to 30 bar (435 psi). It comes with industry standard 3 1/2" api reg. pin backhead and QL60 (or DHD360) bit shank fitting.

### Component parts

Ref	Description	Part number
1	Thread Protector API 3 1/2	9001122
2	Back Head WH6 QL60	9001210
3	O Ring WH6	9001218
4a	Shim - 4 mm WH6	9001219
4b	Shim - 5 mm WH6	9001220
4c	Shim - 6 mm WH6	9001221
4d	Shim - 7mm WH6	9001222
5	Ringfeder WH6	9001223
6a	Check Valve Plug Blank	9001125
6b	Check Valve Plug 1/8"	9001126
6c	Check Valve Plug 3/16"	9001127
7	Check Valve WH5,WH6	9001128
8	Spring WH5, WH6	9001129
9	Air Feed Tube WH6	9001224
10	O Ring WH6	9001225
11	Inner Cylinder WH6	9001226
12	Square Lock Ring WH6	9001227
13	Wear Sleeve WH6 QL60	9001211
14	Piston WH6 QL60	9001212
15	Lock Ring WH6	9001228
16	Guide Bush WH6 QL60	9001230
17	O Ring WH6	9001231
18	Bit Retaining Ring WH6 QL60	9001233
19	Chuck WH6 QL60	9001213
20	End Cap WH6	9001234
	Service Kit WH6 QL60, incl. [(3,10,15,17)*2],12	5000013
	Repair Kit WH6 QL60, incl. 4a-d,5,6a-c,7 ,8,18,19,21,24	5000014
	Life Kit WH6 QL60, incl. 2,13,19	5000015
	Footvalve QL60	9001235
	<b>Complete Hammer</b>	<b>9000824</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	8.50	300
150	10.3	11.33	400
200	13.8	16.99	600
250	17.2	21.24	750
300	20.7	25.49	900
350	24.2	31.15	1100
400	27.6	35.40	1250
450	31.0	39.64	1400

### Hammer specification

	Imperial	Metric
Weight (less bit)	189.6 lbs	86.0 kg
Length (less bit)	40.8"	1035 mm
Outside dia.	5.51"	140 mm





## WELL DRILLING HAMMERS

# WH6 HD QL60 3 1/2" API REG

Hammer 152 mm (6") - 203 mm (8") dia. Holes

The new highly dependable Robit WH6" HD hammer is designed for drilling 152 mm - 203 mm (6" to 8") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the WH6" HD is most effective at medium to high air pressures ranging up to 30 bar (435 psi). It comes with industry standard 3 1/2" api reg. pin backhead and QL60 (or DHD360) bit shank fitting.

### Component parts

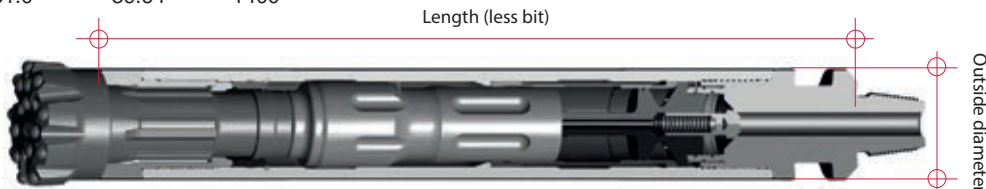
Ref	Description	Part number
1	Thread Protector API 3 1/2	9001122
2	Back Head WH6 HD QL60	9001537
3	O Ring WH6	9001218
4a	Shim - 4 mm WH6	9001219
4b	Shim - 5 mm WH6	9001220
4c	Shim - 6 mm WH6	9001221
4d	Shim - 7mm WH6	9001222
5	Ringfeder WH6	9001223
6a	Check Valve Plug Blank	9001125
6b	Check Valve Plug 1/8"	9001126
6c	Check Valve Plug 3/16"	9001127
7	Check Valve WH5,WH6	9001128
8	Spring WH5, WH6	9001129
9	Air Feed Tube WH6	9001224
10	O Ring WH6	9001225
11	Inner Cylinder WH6	9001226
12	Square Lock Ring WH6	9001227
13	Wear Sleeve WH6 HD QL60	9001538
14	Piston WH6 QL60	9001212
15	Lock Ring WH6	9001228
16	Guide Bush WH6 QL60	9001230
17	O Ring WH6	9001231
18	Bit Retaining Ring WH6 QL60	9001233
19	Chuck WH6 HD QL60	9001539
20	End Cap WH6	9001234
	Service Kit WH6 QL60, incl. [(3,10,15,17)*2],12	5000013
	Repair Kit WH6 QL60 HD, incl. 4a-d,5,6a-c,7 ,8,18,19,21,24	5000019
	Life Kit WH6 QL60 HD, incl. 2,13,19	5000020
	Footvalve QL60	9001235
	<b>Complete Hammer</b>	<b>9001286</b>

### Air consumption

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	8.50	300
150	10.3	11.33	400
200	13.8	16.99	600
250	17.2	21.24	750
300	20.7	25.49	900
350	24.2	31.15	1100
400	27.6	35.40	1250
450	31.0	39.64	1400

### Hammer specification

	Imperial	Metric
Weight (less bit)	265.2 lbs	99.0 kg
Length (less bit)	40.8"	1035 mm
Outside dia.	5.75"	146 mm



## WELL DRILLING HAMMERS

# HYPER 81

Hammer 203 mm (8") - 254 mm (10") dia. Holes

The new shorter and highly dependable Hyper 81 hammer is designed for drilling 203 mm - 254 mm (8" to 10") diameter holes. The simple yet rugged design minimises the amount of components and overall length for ease of maintenance. For optimum performance the Hyper 81 is most effective at medium to high air pressures ranging from 10 to 24 bar (150 to 350 psi). It comes with industry standard 4½" api reg. pin backhead and DHD380 bit shank fitting. Alternate bit fittings SD8 and QL80 are also available on request.

### Component parts

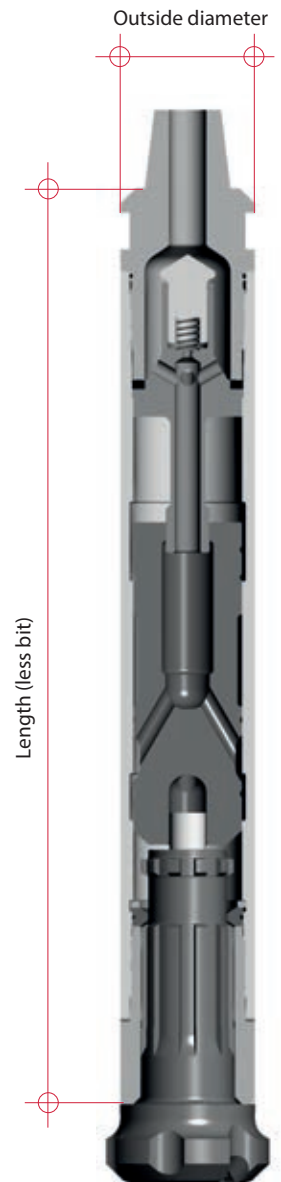
Ref	Description	Part number
1	Backhead	HSH813804M
2	Backhead 'O' ring	HSH8114
3	Check valve	IPRCV05
4	Check valve spring	IPRCVS04
5	Compression ring	HSH8128
6	Diverter	HSH8120
7	Piston DHD380	HSH8103
8	Wearsleeve	HSH8100
9	Piston retaining ring	HSH8132
10	Bit retaining 'O' ring	HSH8137A094
11	Bit retainer DHD380	HSH8137094
12	Breakout washer	HSH8126
13	Chuck DHD380	HSH8135094
	Service Kit Hyper 81 incl. (2,4,5,10,12)	HSH81SERVKIT
	Repair Kit Hyper 81 incl. (2,3,4,5,9,10,11,12,13)	HSH81REPKIT
	<b>Complete Hammer</b>	<b>BR81H01</b>

### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	7.48	264.18
125	8.6	10.45	369.20
150	10.3	13.74	485.32
175	12.0	17.32	611.58
200	13.8	21.16	747.21
225	15.5	25.25	891.60
250	17.2	29.57	1044.25
275	19.0	34.12	1204.74
300	20.7	38.87	1372.71
325	22.4	43.83	1547.82
350	24.2	48.98	1729.81

### Hammer specification

	Imperial	Metric
Weight (less bit)	348 lbs	158 kg
Length (less bit)	49.69"	1262 mm
Outside dia.	7.25"	184 mm
Piston weight	96.6 lbs	43.9 kg



# WELL DRILLING HAMMERS

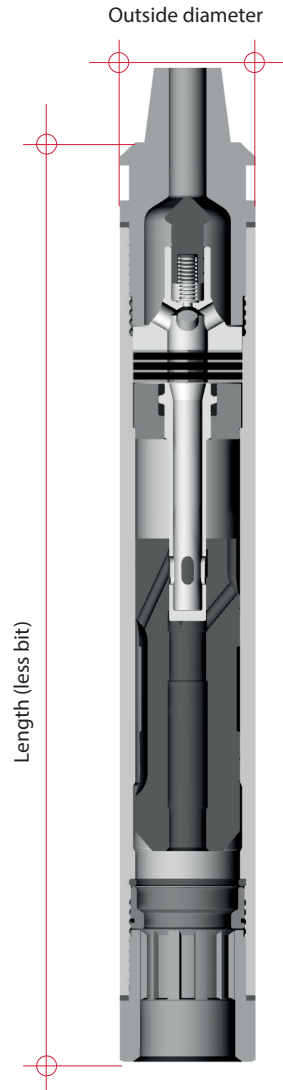
## HYPER 101

Hammer 254 mm (10") - 305 mm (12") dia. Holes

The Hyper 101 Hammer is designed to operate over a wide range of operating air pressures. A 65/8" API reg. pin backhead is supplied as standard. The Hyper 101 is fitted with a positive seating water check valve and is supplied as standard fitted with a solid choke. The Hyper 101 is designed to accept button bits with a N100 shank. However, the Hyper 101 can be supplied to accept the SD10 type of button bit.

### Component parts

Ref	Description	Part number
1	Backhead	HSH1013880M
2	Check valve	HSH10108
3	Check valve spring	HSH10110
4	Diverter	HSH10120
5	Compression buffer	HSH10128
6	Control tube holder	HSH10131
7	Control tube buffers (2)	HSH10129
8	Control tube	HSH10130
9	Piston	HSH10103053
10	Wearsleeve	HSH10100
11	Piston retaining ring	HSH10132
12	Bit retaining ring	HSH10137053
13	Bit retaining ring 'O' ring	HSH10137A046
14	Chuck	HSH10135053
15	Breakout washer	HSH10126
	Service Kit Hyper 101 incl.(3,5,7,13,15)	HSH101SERVKIT
	Repair Kit Hyper 101 incl.(2,3,5,7,11,12,13,14,15)	HSH101REPKIT
	<b>Complete Hammer</b>	<b>BR101H01</b>



### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	10.36	365.70
125	8.6	14.47	511.08
150	10.3	19.02	671.83
175	12.0	23.97	846.61
200	13.8	29.29	1034.35
225	15.5	34.95	1234.24
250	17.2	40.93	1445.55
275	19.0	47.23	1667.72
300	20.7	53.81	1900.23

### Hammer specification

	Imperial	Metric
Weight (less bit)	745 lbs	338 kg
Length (less bit)	62"	1575 mm
Outside dia.	8.86"	225 mm
Piston weight	150 lbs	68 kg



# WELL DRILLING HAMMERS

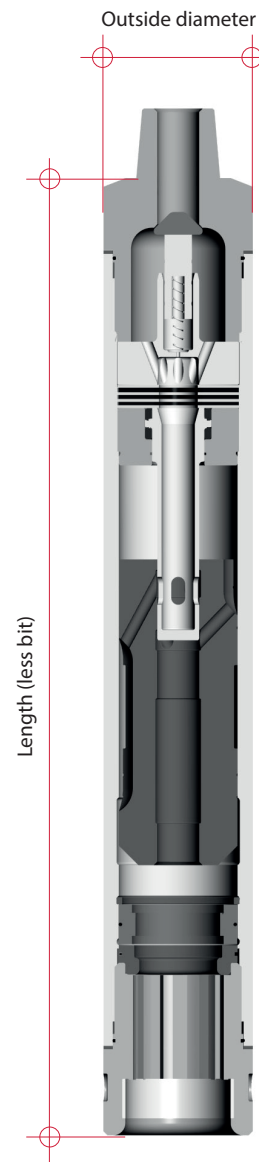
## HYPER 121

Hammer 302 mm (11 $\frac{7}{8}$ " ) - 445 mm (17 $\frac{1}{2}$ " ) dia. Holes

The Hyper 121 Hammer is designed to operate over a wide range of operating air pressures. A 6 $\frac{5}{8}$ " API reg. pin backhead is supplied as standard. The Hyper 121 is fitted with a positive seating water check valve and is supplied as standard fitted with a solid choke. In addition to the standard N120 button bit, the hammer can easily be modified to accept button bits with Mission SD12 and Ingersoll Rand DHD112 shank design.

### Component parts

Ref	Description	Part number
1	Backhead	HSH1213880M
2	Backhead / Chuck 'O' Ring (2)	HSH12114
3	Check Valve	HSH12108
4	Check Valve Spring	HSH12110
5	Diverter	HSH12120
6	Compression Buffer	HSH12128
7	Control Tube Holder	HSH12131
8	Control Tube Buffers (2)	HSH12129
9	Control Tube 'O' Ring	HSH12130A
10	Control Tube	HSH12130
11	Piston	HSH12103050
12	Wearsleeve	HSH12100
13	Piston Retaining Rings (2)	HSH12132
14	Bit Bearing	HSH12187
15	Bit Retainer (pair)	HSH12137050
16	Bit Retainer 'O' Ring	HSH12137AST
17	Chuck	HSH12135050
18	Chuck Bearing	HSH12135050BE
19	Breakout washer backhead	HSH12126
20	Breakout Washer chuck	HSH12125
	Service Kit Hyper 121 incl. (2,4,6,8,9,16,19,20)	HSH121SERVKIT
	Repair Kit Hyper 121 incl.(2,3,4,6,8,9,13,15,16,17,19,20)	HSH121REPKIT
	<b>Complete Hammer</b>	<b>BR121H01</b>

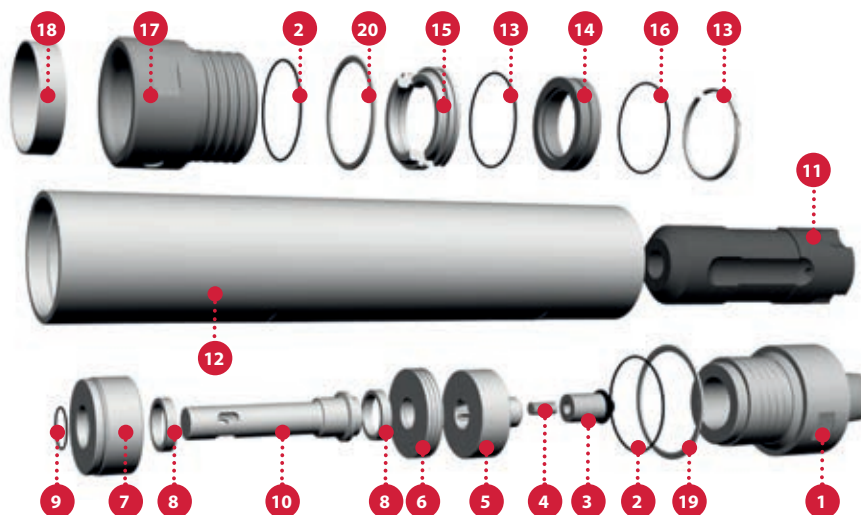


### Air consumption (Pressure at Compressor)

PSI	BAR	m <sup>3</sup> /min	ft <sup>3</sup> /min
100	6.9	16.8	592
150	10.3	30.8	1087
200	13.8	47.4	1674
250	17.2	66.2	2338

### Hammer specification

	Imperial	Metric
Weight (less bit)	1487 lbs	675 kg
Length (less bit)	74.4"	1889 mm
Outside dia.	10.7"	272 mm
Piston weight	275 lbs	125 kg







# DTH HAMMERS

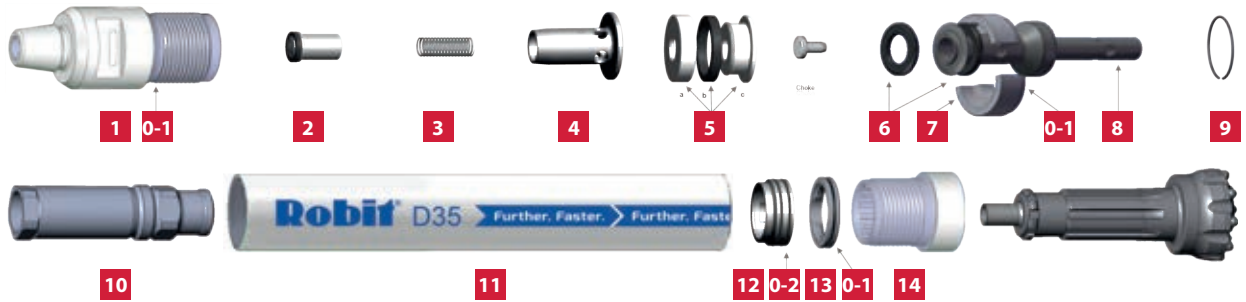
## BLAST HOLE HAMMERS

Hammer	Shank	Top sub thread options	Wear Sleeve O.D.		Length		Weight	Piston weight
			[mm]	[in]	[mm]	[in]	[kg]	[kg]
D35	IR3.5	2 3/8 API REG	85	3 3/8	863	34,0	27	5,3
D45	DHD340	2 3/8 API REG	98	3 7/8	964	38,0	39	7,2
D45	DHD340	3 3/8 API REG	102	4	964	38,0	43	7,2
D45	DHD340	2 7/8 API REG	98	3 7/8	964	38,0	39	7,2
D55	QL50	3 1/2 API REG	126	5	1121	44,1	76	14,6
D65	QL60	3 1/2 API REG	146	5 3/4	1157	45,6	103	22,3
D65	QL60	3 1/2 API REG	146	5 3/4	1157	45,6	103	22,3
D65	QL60	3 1/2 BECO	146	5 3/4	1157	45,6	103	22,3
D65	QL60	3 1/2 API REG	150	5 7/8	1157	45,6	115	22,3
D75	D75	4 1/2 API REG	177	6 15/16	1235	48,6	169	39
D84	QL80	4 1/2 API REG	183	7 3/16	1290	50,8	184	45
D84	QL80	4 1/2 BECO	183	7 3/16	1290	50,8	184	45
D88	QL80	4 1/2 API REG	194	7 5/8	1286	50,6	211	52



# BLAST HOLE HAMMERS

## D35 IR3.5 2<sup>3</sup>/<sub>8</sub>" API REG



### 1102209 D35 IR3.5 2<sup>3</sup>/<sub>8</sub>" API REG HAMMER ASSEMBLY

1	1104328	Top Sub 2 <sup>3</sup> / <sub>8</sub> " API Reg Pin
2	1104342	Check Valve
3	1042932	Check Valve Spring
4	1104776	Check Valve Guide
5	1280304	Make Up Assembly (a, b, c)
6	1204101	Buffer Ring (x2)
7	1102119	Air Distributer Mount
8	1104486	Air Distributer (Blank Choke Fitted)
9	1104497	Locking Ring
10	1102207	Piston
11	1102205	Wear Sleeve
12	1104487	Guide Bush
13	1102204	Bit Retaining Ring
14	1102201	Chuck Tungsten Armoured
15	1104329	Choke Kit (Not Shown)
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	IR3.5
Bit Range	3 <sup>3</sup> / <sub>4</sub> " - 95mm to 4 <sup>1</sup> / <sub>8</sub> " - 105mm
Top Sub Thread	2 <sup>3</sup> / <sub>8</sub> " API Reg Pin
Spanner Flat	2.51" - 64mm
Overall Length S/S	34" - 863.5mm
Weight (less bit)	60lbs - 27kg
Wear Sleeve O.D.	3.34" - 85mm
Wear Sleeve O.D. min	3.11" - 79mm
Oil Consumption	1.0 - 1.5 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	133	3.7
250	17.2	360	10.2
300	20.7	444	12.6
350	24.1	520	14.7
400	27.5	612	17.3

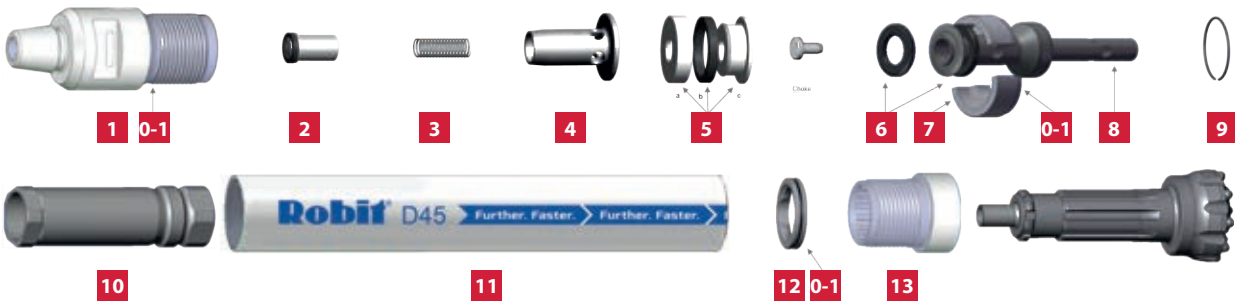
### Spare Parts

1107747	IR3.5 Foot Valve
1270055	O Ring Kit – Contains O rings for items 1, 7, 12, 13
1270056	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1270048	External Rebuild Kit – Contains items 1, 11, 14 and Make Up Kit
1270049	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13



# BLAST HOLE HAMMERS

## D45 DHD340 2 3/8" API REG



### 1054806 D45 DHD340 2 3/8" API REG HAMMER ASSY

1	1054807	Top Sub, 2 3/8" API Reg Pin
2	1104342	Check Valve
3	1042932	Check Valve Spring
4	1104341	Check Valve Guide
5	1280297	Make Up Assembly (a, b, c)
6	1054809	Buffer Ring (x2)
7	1054810	Air Distributer Mount
8	1042930	Air Distributer (Blank Choke Fitted)
9	1053469	Locking Ring
10	1054811	DHD340 Piston
11	1242230	Wear Sleeve
12	1054813	DHD340 Bit Retaining Ring
13	1054814	DHD340 Chuck Tungsten Armoured
14	1104329	Choke Kit (Not Shown)
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DHD340
Bit Range	4 1/4" - 108mm to 5" - 127mm
Top Sub Thread	2 3/8" API Reg Pin
Spanner Flat	2.55" - 65mm
Overall Length S/S	38" - 964mm
Weight (less bit)	86lbs - 39kg
Wear Sleeve O.D.	3.85" - 98mm
Wear Sleeve O.D. min	3.5" - 89mm
Oil Consumption	1.5 - 2.0 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	138	3.9
150	10.3	222	6.3
200	13.8	299	8.5
250	17.2	374	10.6
300	20.7	449	12.7
350	24.1	524	14.8
400	27.6	599	17.0
450	31.0	673	19.1
500	34.5	748	21.2

### Spare Parts

1054816	DHD340 Foot Valve
1104361	O Ring Kit – Contains O rings for items 1, 7, 12
1261404	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1270050	External Rebuild Kit – Contains items 1, 11, 13 and Make Up Kit
1270052	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12

## BLAST HOLE HAMMERS

# D45 DHD340 2<sup>3</sup>/<sub>8</sub>" API REG HD



### 1280356 D45 DHD340 2<sup>3</sup>/<sub>8</sub>" API REG HEAVY DUTY ASSY

1	1280354	Top Sub HD, 2 3/8" API Reg Pin
2	1104342	Check Valve
3	1042932	Check Valve Spring
4	1104341	Check Valve Guide
5	1280297	Make Up Assembly (a, b, c)
6	1054809	Buffer Ring (x2)
7	1054810	Air Distributer Mount
8	1042930	Air Distributer (Blank Choke Fitted)
9	1053469	Locking Ring
10	1054811	DHD340 Piston
11	1280353	Wear Sleeve HD
12	1054813	DHD340 Bit Retaining Ring
13	1280352	DHD340 Chuck Tungsten Armoured
14	1104329	Choke Kit (Not Shown)
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DHD340
Bit Range	4 1/4" - 108mm to 5" - 127mm
Top Sub Thread	2 7/8" API Reg Pin
Spanner Flat	2.55" - 65mm
Overall Length S/S	38" - 964mm
Weight (less bit)	95lbs - 43kg
Wear Sleeve O.D.	4.02" - 102mm
Wear Sleeve O.D. min	3.5" - 89mm
Oil Consumption	1.5 - 2.0 litres per hour

### Air Pressure

### Air Consumption

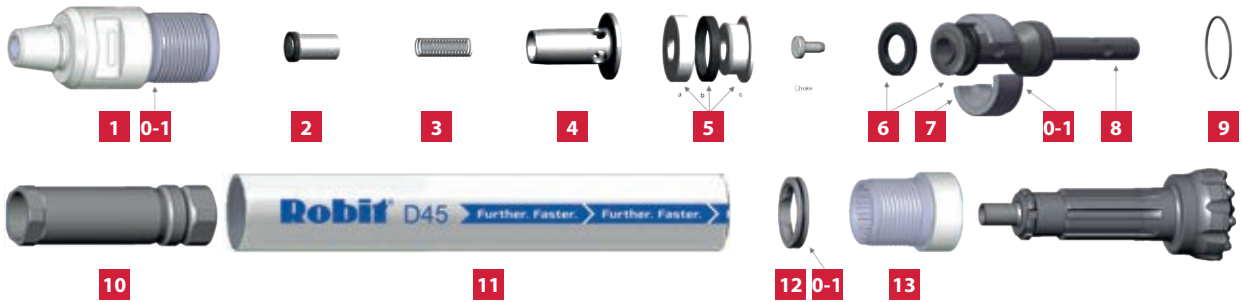
PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	138	3.9
150	10.3	222	6.3
200	13.8	299	8.5
250	17.2	374	10.6
300	20.7	449	12.7
350	24.1	524	14.8
400	27.6	599	17.0
450	31.0	673	19.1
500	34.5	748	21.2

### Spare Parts

1054816	DHD340 Foot Valve
1104361	O Ring Kit – Contains O rings for items 1, 7, 12
1261404	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1270051	External Rebuild Kit – Contains items 1, 11, 13 and Make Up Kit
1270052	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12

# BLAST HOLE HAMMERS

## D45 DHD340 2 7/8" API REG



### 1057323 D45 DHD340 2 7/8" API REG HAMMER ASSY

1	1104349	Top Sub, 2 7/8" API Reg Pin
2	1104342	Check Valve
3	1042932	Check Valve Spring
4	1104341	Check Valve Guide
5	1280297	Make Up Assembly (a, b, c)
6	1054809	Buffer Ring (x2)
7	1054810	Air Distributer Mount
8	1042930	Air Distributer (Blank Choke Fitted)
9	1053469	Locking Ring
10	1054811	DHD340 Piston
11	1242230	Wear Sleeve
12	1054813	DHD340 Bit Retaining Ring
13	1054814	DHD340 Chuck Tungsten Armoured
14	1104329	Choke Kit (Not Shown)
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DHD340
Bit Range	4 1/4" - 108mm to 5" - 127mm
Top Sub Thread	2 7/8" API Reg Pin
Spanner Flat	2.55" - 65mm
Overall Length S/S	38" - 964mm
Weight (less bit)	86lbs - 39kg
Wear Sleeve O.D.	3.85" - 98mm
Wear Sleeve O.D. min	3.5" - 89mm
Oil Consumption	1.5 - 2.0 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	138	3.9
150	10.3	222	6.3
200	13.8	299	8.5
250	17.2	374	10.6
300	20.7	449	12.7
350	24.1	524	14.8
400	27.6	599	17.0
450	31.0	673	19.1
500	34.5	748	21.2

### Spare Parts

1054816	DHD340 Foot Valve
1104361	O Ring Kit – Contains O rings for items 1, 7, 12
1261404	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1270051	External Rebuild Kit – Contains items 1, 11, 13 and Make Up Kit
1270052	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12

# BLAST HOLE HAMMERS

## D55 QL50 3 1/2" API REG



### 1054773 D55 QL50 3 1/2" API REG HAMMER ASSEMBLY

1	1072824	Top Sub 3 1/2" API Reg Pin
2	1072823	Check Valve
3	1104897	Check Valve Spring
4	1104896	Check Valve Guide
5	1280283	Make Up Assembly (a, b, c)
6	1054777	Buffer Ring (x2)
7	1062576	Air Distributer Mount
8	1104891	Air Distributer
9	1104890	Locking Ring
10	1062572	QL50 Piston
11	1104889	Wear Sleeve
12	1067965	QL50 Guide Bush
13	1054776	QL50 Bit Retaining Ring
14	1054775	QL50 Chuck Tungsten Armoured
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	QL50
Bit Range	5 1/2" - 140mm to 6" - 152mm
Top Sub Thread	3 1/2" API Reg Pin
Spanner Flat	3.72" - 94.6mm x 1.96" 50mm
Overall Length S/S	44.13" - 1121mm
Weight (less bit)	168lbs - 76kg
Wear Sleeve O.D.	4.96" - 126mm
Wear Sleeve O.D. min	4.52" - 115mm
Oil Consumption	2 - 2.5 litres per hour

### Air Pressure

### Air Consumption

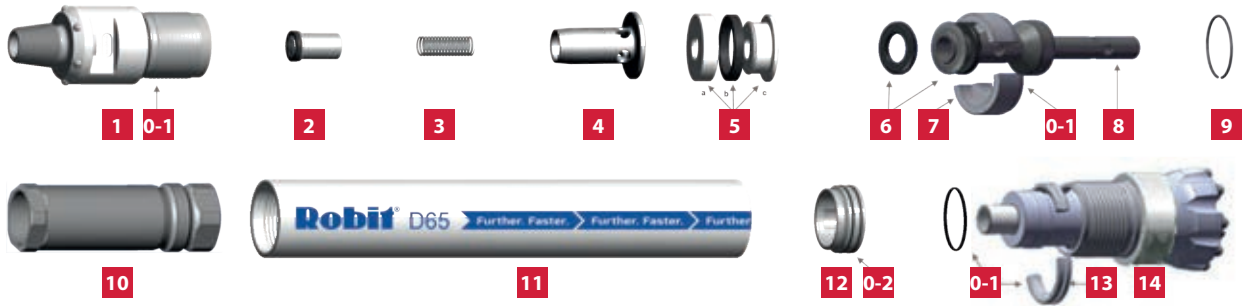
PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	188	5.3
150	10.3	331	9.4
200	13.8	439	12.4
250	17.2	548	15.5
300	20.7	667	18.9
350	24.1	826	23.4
400	27.6	985	27.9
450	31.0	1144	32.4
500	34.5	1303	36.9

### Spare Parts

1054116	QL50 Foot Valve
1072825	O Ring Kit – Contains O rings for items 1, 7, 12, 13
1106356	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1062535	External Rebuild Kit – Contains items 1, 11, 14 and Make Up Kit
1270053	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13

# BLAST HOLE HAMMERS

## D65 QL6 3 1/2" API REG



### 1280125 D65 QL60 3 1/2" API REG HAMMER ASSEMBLY

1	1280126	Top Sub
2	1106859	Check Valve
3	1280194	Check Valve Spring
4	1280202	Check Valve Guide
5	9001005	Make Up Assembly (a, b, c)
6	1062562	Buffer Ring (x2)
7	1106853	Air Distributer Mount
8	1062538	Air Distributer
9	1106393	Locking Ring
10	1065711	QL60 Piston
11	1065708	Wear Sleeve
12	1065709	QL60 Guide Bush
13	1062537	QL60 Bit Retaining Ring
14	1065706	QL60 Chuck Tungsten Armoured
O-1	O Ring Location - Quantity	

### Hammer Specifications

Bit Shank	QL60
Bit Range	6 1/4" - 159mm to 6 3/4" - 171mm
Top Sub Thread	3 1/2" API Reg Pin
Spanner Flat	3.97" - 101mm x 1.96" 50mm
Overall Length S/S	45.54" - 1156.80mm
Weight (less bit)	227lbs - 103kg
Wear Sleeve O.D.	5.75" - 146mm
Wear Sleeve O.D. min	5.20" - 132mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

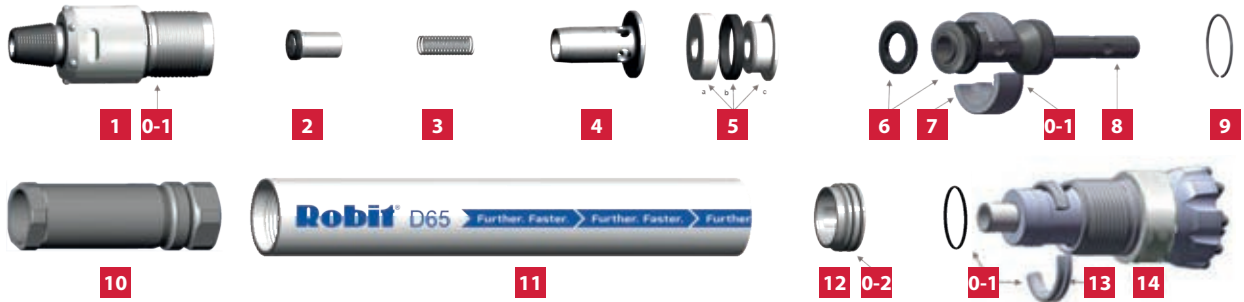
PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	132	3.7
150	10.3	295	8.3
200	13.8	457	12.9
250	17.2	643	18.2
300	20.7	855	24.2
350	24.1	1041	29.5
400	27.6	1227	34.7
450	31.0	1413	40.0
500	34.5	1600	45.3

### Spare Parts

1077772	QL60 Foot Valve
1106879	O Ring Kit – Contains O rings for items 1, 7, 12, 13
1106880	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1280288	External Rebuild Kit – Contains items 1, 11, 14 and Make Up Kit
1270054	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13

# BLAST HOLE HAMMERS

## D65 QL6 3 1/2" API REG



### 1023290 D65 QL60 3 1/2" API REG NO SPANNER FLATS

1	1106875	Top Sub
2	1106859	Check Valve
3	1280194	Check Valve Spring
4	1280202	Check Valve Guide
5	9001005	Make Up Assembly (a, b, c)
6	1062562	Buffer Ring (x2)
7	1106853	Air Distributer Mount
8	1062538	Air Distributer
9	1106393	Locking Ring
10	1065711	QL60 Piston
11	1065708	Wear Sleeve
12	1065709	QL60 Guide Bush
13	1062537	QL60 Bit Retaining Ring
14	1065706	QL60 Chuck Tungsten Armoured
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	QL60
Bit Range	6 1/4" - 159mm to 6 3/4" - 171mm
Top Sub Thread	3 1/2" API Reg Pin
Spanner Flat	N/A
Overall Length S/S	45.54" - 1156.80mm
Weight (less bit)	227lbs - 103kg
Wear Sleeve O.D.	5.75" - 146mm
Wear Sleeve O.D. min	5.20" - 132mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	132	3.7
150	10.3	295	8.3
200	13.8	457	12.9
250	17.2	643	18.2
300	20.7	855	24.2
350	24.1	1041	29.5
400	27.6	1227	34.7
450	31.0	1413	40.0
500	34.5	1600	45.3

### Spare Parts

1077772	QL60 Foot Valve
1106879	O Ring Kit – Contains O rings for items 1, 7, 12, 13
1106880	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1067238	External Rebuild Kit – Contains items 1, 11, 14 and Make Up Kit
1270054	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13

# BLAST HOLE HAMMERS

# D65 QL6 3 1/2" API REG HEAVY DUTY



### 1280180 D65 QL60 3 1/2" API REG HEAVY DUTY ASSY

1	1280181	Top Sub HD
2	1106859	Check Valve
3	1280194	Check Valve Spring
4	1280202	Check Valve Guide
5	9001005	Make Up Assembly (a, b, c)
6	1062562	Buffer Ring (x2)
7	1106853	Air Distributer Mount
8	1062538	Air Distributer
9	1106393	Locking Ring
10	1065711	QL60 Piston
11	1280179	Wear Sleeve Heavy Duty
12	1065709	QL60 Guide Bush
13	1062537	QL60 Bit Retaining Ring
14	1280178	QL60 Chuck HD Tungsten Armoured
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	QL60
Bit Range	6 1/2" - 165mm to 6 3/4" - 171mm
Top Sub Thread	3 1/2" API Reg Pin
Spanner Flat	3.97" - 101mm x 1.96" 50mm
Overall Length S/S	45.54" - 1156.80mm
Weight (less bit)	254lbs - 115kg
Wear Sleeve O.D.	5.90" - 150mm
Wear Sleeve O.D. min	5.20" - 132mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

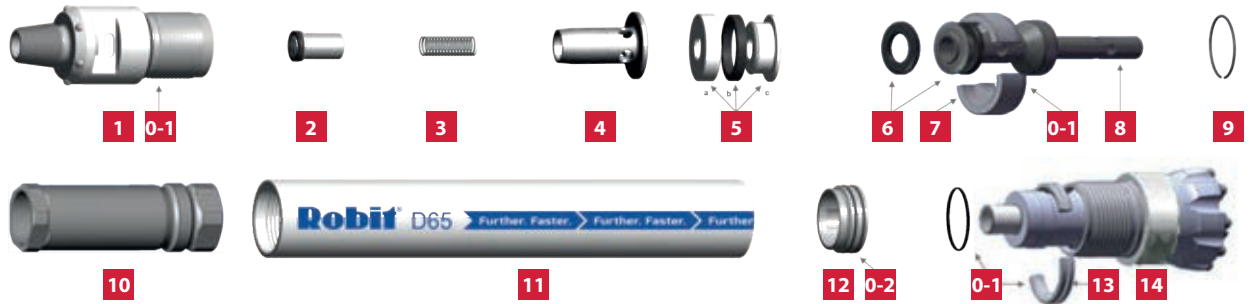
PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	132	3.7
150	10.3	295	8.3
200	13.8	457	12.9
250	17.2	643	18.2
300	20.7	855	24.2
350	24.1	1041	29.5
400	27.6	1227	34.7
450	31.0	1413	40.0
500	34.5	1600	45.3

### Spare Parts

1077772	QL60 Foot Valve
1106879	O Ring Kit – Contains O rings for items 1, 7, 12, 13
1106880	Make Up Kit – Contains items 5b, 6 and O Ring Kit
1280193	External Rebuild Kit – Contains items 1, 11, 14 and Make Up Kit
1270054	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13

# BLAST HOLE HAMMERS

## D65 QL6 3 1/2" BECO



### 1280147 D65 QL60 3 1/2" BECO HAMMER ASSEMBLY

1	1280148	Top Sub
2	1106859	Check Valve
3	1280194	Check Valve Spring
4	1280202	Check Valve Guide
5	9001005	Make Up Assembly (a, b, c)
6	1062562	Buffer Ring (x2)
7	1106853	Air Distributer Mount
8	1062538	Air Distributer
9	1106393	Locking Ring
10	1065711	QL60 Piston
11	1065708	Wear Sleeve
12	1065709	QL60 Guide Bush
13	1062537	QL60 Bit Retaining Ring
14	1065706	QL60 Chuck Tungsten Armoured
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	QL60
Bit Range	6 1/4" - 159mm to 6 3/4" - 171mm
Top Sub Thread	3 1/2" API Beco Pin
Spanner Flat	3.97" - 101mm x 1.96" 50mm
Overall Length S/S	45.54" - 1156.80mm
Weight (less bit)	227lbs - 103kg
Wear Sleeve O.D.	5.75" - 146mm
Wear Sleeve O.D. min	5.20" - 132mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	132	3.7
150	10.3	295	8.3
200	13.8	457	12.9
250	17.2	643	18.2
300	20.7	855	24.2
350	24.1	1041	29.5
400	27.6	1227	34.7
450	31.0	1413	40.0
500	34.5	1600	45.3

### Spare Parts

1077772	QL60 Foot Valve
1106879	O Ring Kit – Contains O rings for items 1, 7, 12, 13
1106880	Make Up Kit – Contains items 5b, 6 and O Ring Kit
	External Rebuild Kit – Contains items 1, 11, 14 and Make Up Kit
1270054	Internal Rebuild Kit – Contains items 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13



# BLAST HOLE HAMMERS

## D75 D75 4 1/2" API REG



### 1261110 D75 D75 4 1/2" API REG HAMMER ASSEMBLY

1	1016402	Check Valve Screen Retainer
2	1016401	Check Valve Screen
3	1016403	Check Valve
4	1016404	Check Valve Spring
5	1020822	Top Sub Assembly
6	1016400	Breakout Ring
7	1016397	D75 Piston
8	1020823	Wear Sleeve Heavy Duty
9	1016398	Piston Retaining Ring
10	1218179	D75 Guide Bush
11	1016400	Breakout Ring
12	1258180	D75 Bit Retaining Ring
13	1117836	D75 Chuck Tungsten Armoured
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	D75
Bit Range	8" - 203mm to 9" - 229mm
Top Sub Thread	4 1/2" API Reg Pin
Spanner Flat	5" - 127mm x 2.75" - 70mm
Overall Length S/S	48.62" - 1235mm
Weight (less bit)	373lbs - 169kg
Wear Sleeve O.D	6.95" - 176.5mm
Reverse Wear Sleeve	6.5" - 165mm
Wear Sleeve O.D min	6.2" - 157.5mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	314	8.9
150	10.3	497	14.1
200	13.8	680	19.2
250	17.2	864	24.4
300	20.7	1050	29.7
350	24.1	1230	34.8
400	27.6	1450	35.5

### Spare Parts

1107744	D75 Foot Valve
1016406	O Ring Kit – Contains O rings for items 2, 5, 10, 12
	External Rebuild Kit – Contains items 5, 6, 8, 11, 13
	Internal Rebuild Kit – Contains items 1, 2, 3, 4, 7, 9, 10, 12

# BLAST HOLE HAMMERS

## D84 QL80 4 1/2" API REG



### 1108020 D84 QL80 4 1/2" API REG HAMMER ASSEMBLY

1	1016402	Check Valve Screen Retainer
2	1016401	Check Valve Screen
3	1061460	Check Valve
4	1061459	Check Valve Spring
5	1104254	Top Sub Assembly 4 1/2" API Reg
6	1101540	Breakout Ring
7	1061458	QL80 Piston
8	1101539	Wear Sleeve
9	1101541	Piston Retaining Ring
10	1101537	QL80 Guide Bush
11	1101540	Breakout Ring
12	1061457	QL80 Bit Retaining Ring
13	1101536	QL80 Chuck Standard
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	QL80
Bit Range	8" - 203mm to 9" - 229mm
Top Sub Thread	4 1/2" API Reg Pin
Spanner Flat	5" - 127mm x 2.75" - 70mm
Overall Length S/S	50.8" - 1290mm
Weight (less bit)	406lbs - 184kg
Wear Sleeve O.D	7.20" - 183mm
Reverse Wear Sleeve	6.81" - 173mm
Wear Sleeve O.D min	6.45" - 164mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

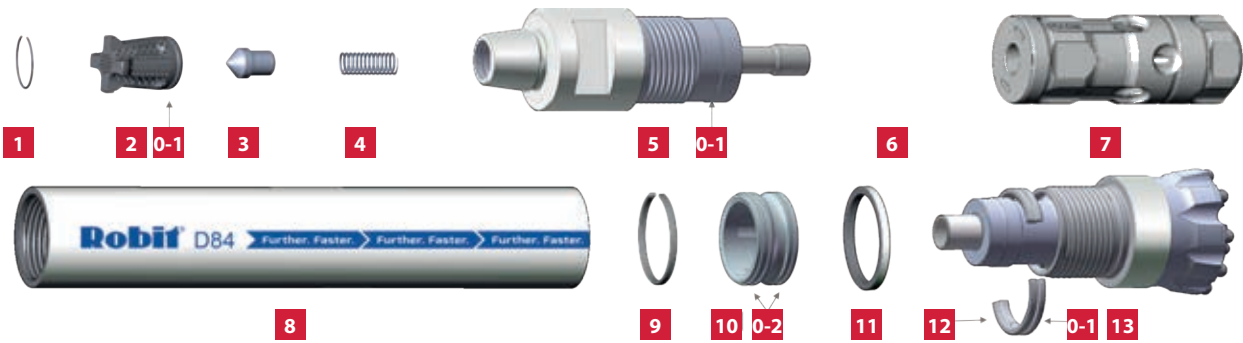
PSI	bar	CFM	m <sup>3</sup> /min
100	6.9	350	8.9
150	10.3	552	15.4
200	13.8	755	21.1
250	17.2	960	26.8
300	20.7	1166	32.6
350	24.1	1367	38.2
400	27.6	1611	45.1

### Spare Parts

1107750	QL80 Foot Valve
1061461	O Ring Kit – Contains O rings for items 2, 5, 10, 12
	External Rebuild Kit – Contains items 5, 6, 8, 11, 13
	Internal Rebuild Kit – Contains items 1, 2, 3, 4, 7, 9, 10, 12

# BLAST HOLE HAMMERS

## D84 QL80 4½" BECO



### 1117319 D84 QL80 4½" BECO HAMMER ASSEMBLY

1	1016402	Check Valve Screen Retainer
2	1016401	Check Valve Screen
3	1061460	Check Valve
4	1061459	Check Valve Spring
5	1221162	Top Sub Assembly 4 ½" Beco
6	1101540	Breakout Ring
7	1061458	QL80 Piston
8	1101539	Wear Sleeve
9	1101541	Piston Retaining Ring
10	1101537	QL80 Guide Bush
11	1101540	Breakout Ring
12	1061457	QL80 Bit Retaining Ring
13	1061456	QL80 Chuck Tungsten Armoured
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	QL80
Bit Range	8" - 203mm to 9" - 229mm
Top Sub Thread	4 ½" Beco Pin
Spanner Flat	5" - 127mm x 2.75" - 70mm
Overall Length S/S	50.8" - 1290mm
Weight (less bit)	406lbs - 184kg
Wear Sleeve O.D	7.20" - 183mm
Reverse Wear Sleeve	6.81" - 173mm
Wear Sleeve O.D min	6.45" - 164mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m³/min
100	6.9	350	8.9
150	10.3	552	15.4
200	13.8	755	21.1
250	17.2	960	26.8
300	20.7	1166	32.6
350	24.1	1367	38.2
400	27.6	1611	45.1

### Spare Parts

1107750	QL80 Foot Valve
1061461	O Ring Kit – Contains O rings for items 2, 5, 10, 12
	External Rebuild Kit – Contains items 5, 6, 8, 11, 13
	Internal Rebuild Kit – Contains items 1, 2, 3, 4, 7, 9, 10, 12

# BLAST HOLE HAMMERS

## D88 QL80 4 1/2" API REG



### 1066482 D88 QL80 4 1/2" API REG HAMMER ASSEMBLY

1	1016402	Check Valve Screen Retainer
2	1016401	Check Valve Screen
3	1061460	Check Valve
4	1061459	Check Valve Spring
5	1104279	Top Sub Assembly 4 1/2" API Reg
6	1104266	Breakout Ring
7	1061414	QL80 Piston
8	1104264	Wear Sleeve
9	1104273	Piston Retaining Ring
10	1104261	QL80 Guide Bush
11	1104266	Breakout Ring
12	1097056	QL80 Bit Retaining Ring
13	1104258	QL80 Chuck Tungsten Armoured
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	QL80
Bit Range	8 1/2" - 216mm to 9 1/2" - 241mm
Top Sub Thread	4 1/2" API Reg Pin
Spanner Flat	5" - 127mm x 2.75" - 70mm
Overall Length S/S	50.6" - 1286mm
Weight (less bit)	465lbs - 211kg
Wear Sleeve O.D	7.6" - 194mm
Reverse Wear Sleeve	7.2" - 184mm (if required)
Wear Sleeve O.D min	6.8" - 174mm
Oil Consumption	2.5 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m³/min
100	6.9	370	10.3
150	10.3	585	16.3
200	13.8	800	22.4
250	17.2	1016	28.4
300	20.7	1235	34.5
350	24.1	1447	40.5
400	27.6	1706	47.7

### Spare Parts

1107750	QL80 Foot Valve
1104288	O Ring Kit – Contains O rings for items 2, 5, 10, 12
1280233	External Rebuild Kit – Contains items 5, 6, 8, 11, 13
	Internal Rebuild Kit – Contains items 1, 2, 3, 4, 7, 9, 10, 12





# DTH HAMMERS

## RC HAMMERS

Hammer	Shank	Top sub thread options	Wear Sleeve O.D.		Length		Weight [kg]	Piston weight [kg]
			[mm]	[in]	[mm]	[in]		
DR38	DR38	3 ½" REMET	95	3 ¾	886	34,9	30	5,5
DR43	DR43	3 ½" REMET	107	4 ⅜	1105	43,5	46	10,2
		4" REMET	107	4 ⅜	1097	43,2	46	10,2
		4" METZKE	107	4 ⅜	1097	43,2	46	10,2
DR44	DR44	4" REMET	121	4 ¾	1216	47,9	70	13,6
		4" METZKE	121	4 ¾	1216	47,9	70	13,6
		4 ½" REMET	121	4 ¾	1216	47,9	70	13,6
DR53	DR53	4 ½" REMET	121	4 ¾	1226	48,3	68	14
		4 ½" METZKE	121	4 ¾	1226	48,3	68	14
DR53 HEAVY DUTY	DR53	4 ½" METZKE	126	5	1226	48,3	74	14
DR53 RETENTION	DR53 RETENTION	4 ½" REMET	121	4 ¾	1269	50,0	68	14
DR55	DR55	4 ½" REMET	130	5 ⅛	1252	49,3	81	16,5
		4 ½" METZKE	130	5 ⅛	1252	49,3	81	16,5
DR55 RETENTION	DR55 RETENTION	4 ½" REMET	130	5 ⅛	1294	50,9	81	16,5
		4 ½" METZKE	130	5 ⅛	1294	50,9	81	16,5



## RC HAMMERS

# DR38 3 1/2" REMET



### 1043652 DR38 3 1/2" REMET HAMMER ASSEMBLY

1	1000891	Circlip Internal
2	1106899	Adaptor Air Screen 3 1/2" Remet
3	1044415	Top Sub 3 1/2" Remet
4	1044411	Check Valve
5	1106900	Check Valve Spring
6	1043640	Adaptor Tube
7	1044418	Steel Make Up Ring
8	1044419	Make Up Ring
9	1044421	Distributor
10	1043641	Sample Tube Venturi
11	1044422	Sample Tube Mount
12	1044423	Inner Cylinder
13	1031969	Piston
14	1043643	Wear Sleeve
15	1107024	Piston Retaining Ring
16	1044424	Guide Bush
17	1042513	Bit Retaining Ring
18	1043646	Chuck Sleeve 3 15/16"
19	1043650	Chuck
O-1		O Ring Location – Quantity

### Hammer Specifications

Bit Shank	DR38
Bit Range	4" - 102mm - to 4 1/2" - 114mm
Top Sub Thread	3 1/2" Remet
Spanner Flat	3.16" - 80.5mm A/F x 1.96" - 50mm
Overall Length S/S	34.9" - 886mm
Weight (less bit)	66lbs. - 30kg
Wear Sleeve O.D.	3.74" - 95mm
Oil Consumption	1.5 - 2.0 litres per hour

### Air Pressure

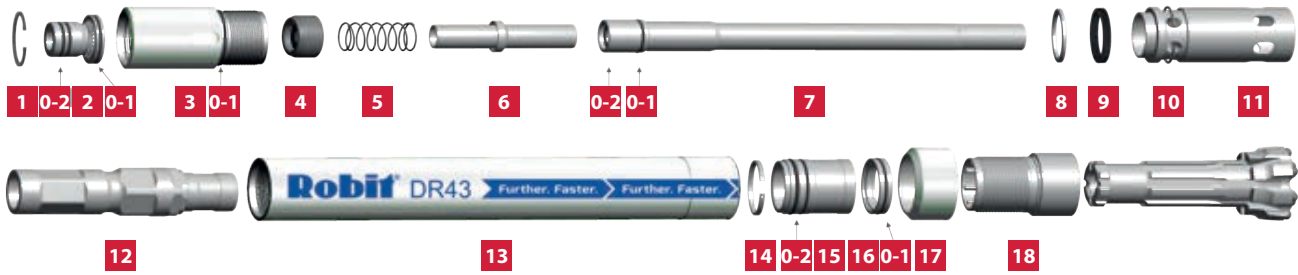
### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
150	10.3	260	7.3
220	15.3	320	9.0
250	17.2	377	10.7
300	20.7	459	13
350	24.1	544	15.4
400	27.5	627	17.8

### Spare Parts

1050386	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1050385	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1256709	Sample Tube Standard





**1270069 DR43 3 1/2" REMET HAMMER ASSEMBLY**

1	1000892	Circlip Internal
2	1270077	Adaptor Air Screen 3 1/2" Remet
3	1270073	Top Sub 3 1/2" Remet
4	1270079	Check Valve
5	1270080	Check Valve Spring
6	1270078	Adaptor Tube
7	1270086	Sample Tube Venturi
8	1270083	Steel Make Up Ring
9	1270082	Make Up Ring
10	1270089	Inner Cylinder Retaining Ring
11	1270088	Inner Cylinder
12	1270090	Piston
13	1270087	Wear Sleeve
14	1270091	Piston Retaining Ring
15	1270092	Guide Bush
16	1270093	Bit Retaining Ring
17	1270105	Chuck Sleeve 4 13/16"
18	1270094	Chuck
O-1	O Ring Location - Quantity	

**Hammer Specifications**

Bit Shank	DR43
Bit Range	4 5/8" - 117mm to 5 1/8" - 130mm
Top Sub Thread	3 1/2" Remet
Spanner Flat	N/A
Overall Length S/S	43.5" - 1105mm
Weight (less bit)	100.8lbs. – 45.7kg
Wear Sleeve O.D.	4.21" - 107mm
Oil Consumption	2 - 3 litres per hour

**Air Pressure**

**Air Consumption**

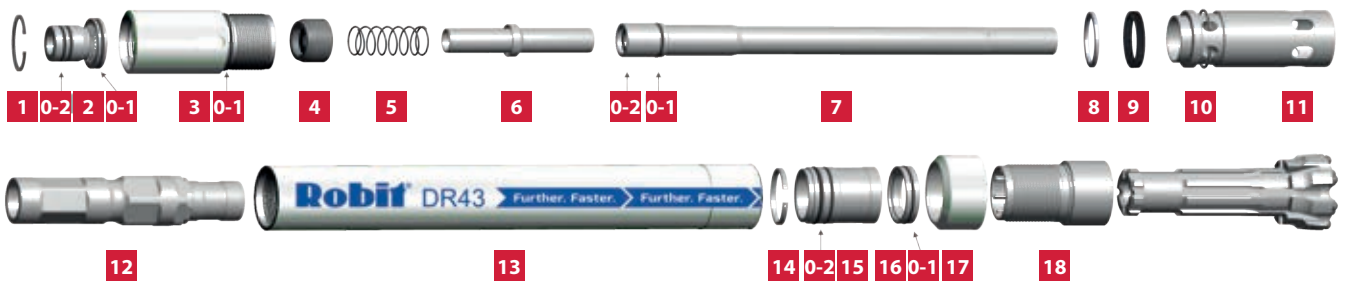
PSI	bar	CFM	m <sup>3</sup> /min
150	10.3	300	8.4
200	13.8	340	9.5
250	17.2	415	11.7
300	20.7	504	14.2
350	24.1	585	16.5
400	27.5	670	18.8

**Spare Parts**

1270108	O Ring Kit – Contains O Rings for items 2, 3, 7, 15, 16
1270109	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 9
1270085	Sample Tube Standard

## RC HAMMERS

# DR43 4" REMET



### 1270065 DR43 4" REMET HAMMER ASSEMBLY

1	1000895	Circlip Internal
2	1270075	Adaptor Air Screen 4" Remet
3	1270071	Top Sub 4" Remet
4	1270079	Check Valve
5	1270080	Check Valve Spring
6	1270078	Adaptor Tube
7	1270086	Sample Tube Venturi
8	1270083	Steel Make Up Ring
9	1270082	Make Up Ring
10	1270089	Inner Cylinder Retaining Ring
11	1270088	Inner Cylinder
12	1270090	Piston
13	1270087	Wear Sleeve
14	1270091	Piston Retaining Ring
15	1270092	Guide Bush
16	1270093	Bit Retaining Ring
17	1270105	Chuck Sleeve 4 13/16"
18	1270094	Chuck
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DR43
Bit Range	4 5/8" - 117mm to 5 1/8" - 130mm
Top Sub Thread	4" Remet
Spanner Flat	N/A
Overall Length S/S	43.5" - 1105mm
Weight (less bit)	100.8lbs. – 45.7kg
Wear Sleeve O.D.	4.21" - 107mm
Oil Consumption	2 - 3 litres per hour

### Air Pressure

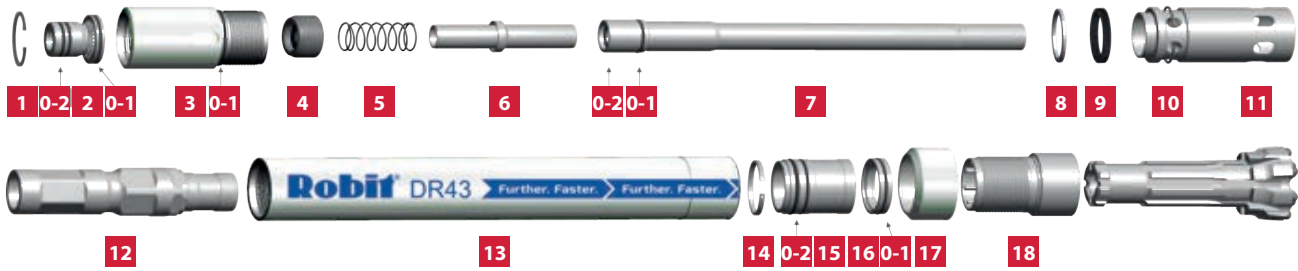
### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
150	10.3	300	8.4
200	13.8	340	9.5
250	17.2	415	11.7
300	20.7	504	14.2
350	24.1	585	16.5
400	27.5	670	18.8

### Spare Parts

1270108	O Ring Kit – Contains O Rings for items 2, 3, 7, 15, 16
1270109	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 9
1270085	Sample Tube Standard

# DR43 4" REMET RETENTION



**1280212 DR43 4" REMET RETENTION ASSEMBLY**

1	1000895	Circlip Internal
2	1270075	Adaptor Air Screen 4" Remet
3	1270071	Top Sub 4" Remet
4	1270079	Check Valve
5	1270080	Check Valve Spring
6	1270078	Adaptor Tube
7	1270086	Sample Tube Venturi
8	1270083	Steel Make Up Ring
9	1270082	Make Up Ring
10	1270089	Inner Cylinder Retaining Ring
11	1270088	Inner Cylinder
12	1270090	Piston
13	1270087	Wear Sleeve
14	1270091	Piston Retaining Ring
15	1270092	Guide Bush
16	1270093	Bit Retaining Ring
17	1280218	Chuck Sleeve 4 13/16" Retention
18	1280213	Chuck Retention
O-1		O Ring Location - Quantity

**Hammer Specifications**

Bit Shank	DR43
Bit Range	4 3/4" - 121mm to 5 1/8" - 130mm
Top Sub Thread	4" Remet
Spanner Flat	N/A
Overall Length S/S	43.5" - 1105mm
Weight (less bit)	100.8lbs. – 45.7kg
Wear Sleeve O.D.	4.21" - 107mm
Oil Consumption	2 - 3 litres per hour

**Air Pressure**

**Air Consumption**

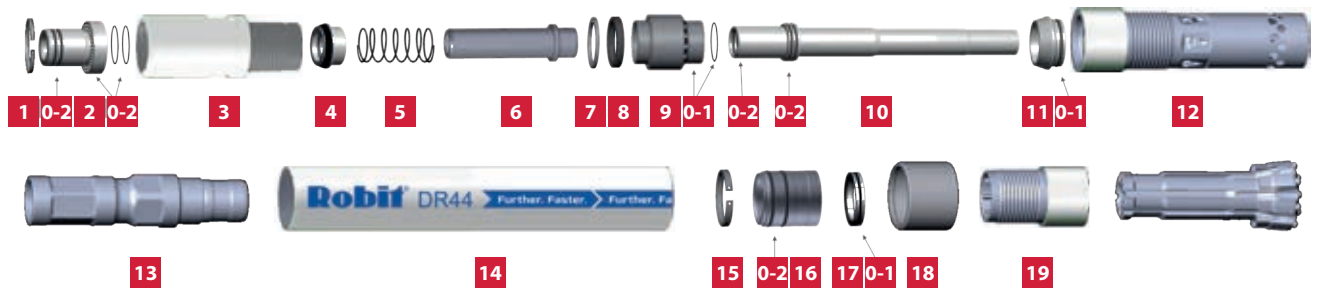
PSI	bar	CFM	m <sup>3</sup> /min
150	10.3	300	8.4
200	13.8	340	9.5
250	17.2	415	11.7
300	20.7	504	14.2
350	24.1	585	16.5
400	27.5	670	18.8

**Spare Parts**

1270108	O Ring Kit – Contains O Rings for items 2, 3, 7, 15, 16
1270109	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 9
1270085	Sample Tube Standard

# RC HAMMERS

## DR44 4" REMET



### 1059546 DR44 4" REMET HAMMER ASSEMBLY

1	1000895	Circlip Internal
2	1107035	Adaptor Air Screen 4" Remet
3	1107041	Top Sub 4" Remet
4	1046940	Check Valve
5	9001056	Check Valve Spring
6	1043770	Adaptor Tube
7	1046943	Steel Make Up Ring
8	1046942	Make Up Ring
9	1066177	Distributor
10	1046945	Sample Tube Venturi
11	1107120	Sample Tube Mount
12	1046946	Inner Cylinder 104.9mm A/F
13	1046947	Piston
14	1046948	Wear Sleeve
15	1061501	Piston Retaining Ring
16	1046950	Guide Bush
17	1046951	Bit Retaining Ring
18	1046958	Chuck Sleeve 5 3/16"
19	1043771	Chuck
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DR44
Bit Range	5" - 127mm to 5 1/2" - 140mm
Top Sub Thread	4" Remet
Spanner Flat	3.7" - 94mm A/F x 1.96" - 50mm
Overall Length S/S	47.9" - 1216mm
Weight (less bit)	154lbs. - 70kg
Wear Sleeve O.D.	4.76" - 121mm
Oil Consumption	2 - 3 litres per hour

### Air Pressure

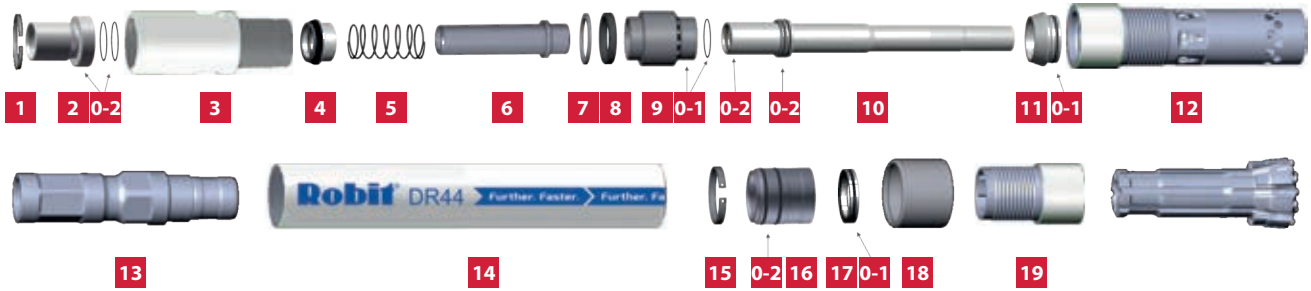
### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	504	13.6
300	20.7	614	16.6
350	24.1	708	19.1
400	27.5	808	21.8
450	31	903	24.2
500	34.5	987	26.6

### Spare Parts

1071679	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1059550	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1046944	Sample Tube Standard

# DR44 4" METZKE



**1261532 DR44 4" METZKE HAMMER ASSEMBLY**

1	1000895	Circlip Internal
2	1107037	Adaptor Air Screen 4" Metzke
3	1107040	Top Sub 4" Metzke
4	1046940	Check Valve
5	9001056	Check Valve Spring
6	1043770	Adaptor Tube
7	1046943	Steel Make Up Ring
8	1046942	Make Up Ring
9	1066177	Distributor
10	1046944	Sample Tube
11	1107120	Sample Tube Mount
12	1107122	Inner Cylinder
13	1046947	Piston
14	1046948	Wear Sleeve
15	1061501	Piston Retaining Ring
16	1046950	Guide Bush
17	1046951	Bit Retaining Ring
18	1046958	Chuck Sleeve 5 3/16"
19	1043771	Chuck
O-1		O Ring Location - Quantity

**Hammer Specifications**

Bit Shank	DR44
Bit Range	5" - 127mm to 5 1/2" - 140mm
Top Sub Thread	4" Metzke
Spanner Flat	3.7" - 94mm A/F x 1.96" - 50mm
Overall Length S/S	47.9" - 1216mm
Weight (less bit)	154lbs. - 70kg
Wear Sleeve O.D.	4.76" - 121mm
Oil Consumption	2 - 3 litres per hour

**Air Pressure**

**Air Consumption**

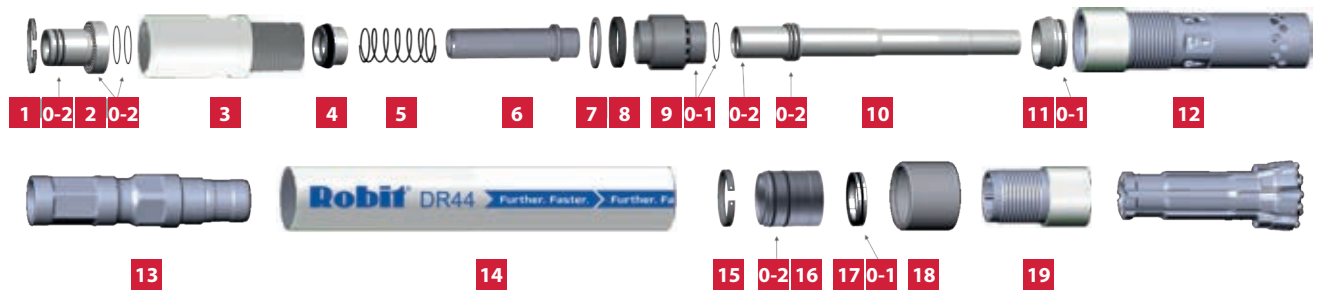
PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	504	13.6
300	20.7	614	16.6
350	24.1	708	19.1
400	27.5	808	21.8
450	31	903	24.2
500	34.5	987	26.6

**Spare Parts**

1071679	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1059550	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1046945	Sample Tube Venturi

## RC HAMMERS

# DR44 4 1/2" REMET



### 1063065 DR44 4 1/2" REMET HAMMER ASSEMBLY

1	1000896	Circlip Internal
2	1084159	Adaptor Air Screen 4 1/2" Remet
3	1046939	Top Sub 4 1/2" Remet
4	1046940	Check Valve
5	9001056	Check Valve Spring
6	1043770	Adaptor Tube
7	1046943	Steel Make Up Ring
8	1046942	Make Up Ring
9	1066177	Distributor
10	1046945	Sample Tube Venturi
11	1107120	Sample Tube Mount
12	1046946	Inner Cylinder 104.9mm A/F
13	1046947	Piston
14	1046948	Wear Sleeve
15	1061501	Piston Retaining Ring
16	1046950	Guide Bush
17	1046951	Bit Retaining Ring
18	1046958	Chuck Sleeve 5 3/16"
19	1043771	Chuck
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DR44
Bit Range	5" - 127mm to 5 1/2" - 140mm
Top Sub Thread	4 1/2" Remet
Spanner Flat	3.7" - 94mm A/F x 1.96" - 50mm
Overall Length S/S	47.9" - 1216mm
Weight (less bit)	154lbs. - 70kg
Wear Sleeve O.D.	4.76" - 121mm
Oil Consumption	2 - 3 litres per hour

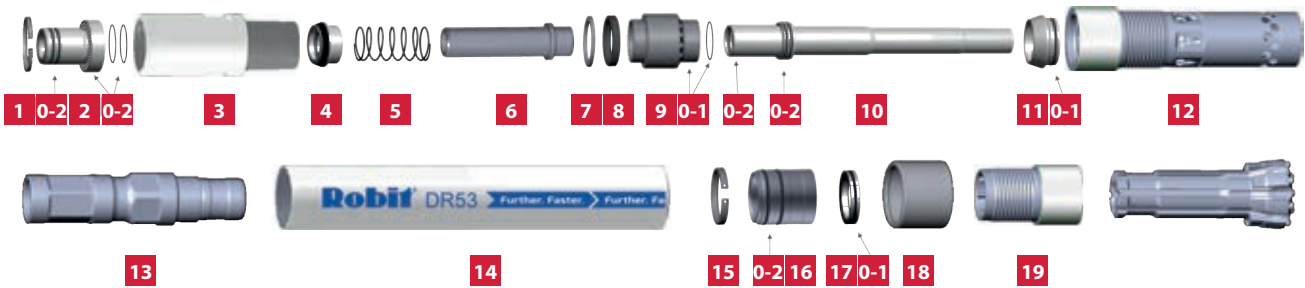
### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	504	13.6
300	20.7	614	16.6
350	24.1	708	19.1
400	27.5	808	21.8
450	31	903	24.2
500	34.5	987	26.6

### Spare Parts

1071679	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1059550	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1046944	Sample Tube Standard



**1108034 DR53 4 1/2" REMET HAMMER ASSEMBLY**

1	1000896	Circlip Internal
2	1084159	Adaptor Air Screen 4 1/2" Remet
3	1107182	Top Sub 4 1/2" Remet
4	1046940	Check Valve
5	9001056	Check Valve Spring
6	1043770	Adaptor Tube
7	1046943	Steel Make Up Ring
8	1046942	Make Up Ring
9	1066177	Distributor
10	1107637	Sample Tube Venturi
11	1107183	Sample Tube Mount
12	1107185	Inner Cylinder 101.6mm A/F
13	1107186	Piston
14	1258073	Wear Sleeve
15	1107191	Piston Retaining Ring
16	1107192	Guide Bush
17	1118005	Bit Retaining Ring
18	1107221	Chuck Sleeve 5 7/16"
19	1107227	Chuck
O-1	O Ring Location - Quantity	

**Hammer Specifications**

Bit Shank	DR53
Bit Range	5" - 127mm to 5 5/8" - 143mm
Top Sub Thread	4 1/2" Remet
Spanner Flat	3.7" - 95mm A/F x 1.96" - 50mm
Overall Length S/S	48" - 1226mm
Weight (less bit)	146lbs. - 66kg
Wear Sleeve O.D.	4.76" - 121mm
Oil Consumption	2 - 3 litres per hour

**Air Pressure**

**Air Consumption**

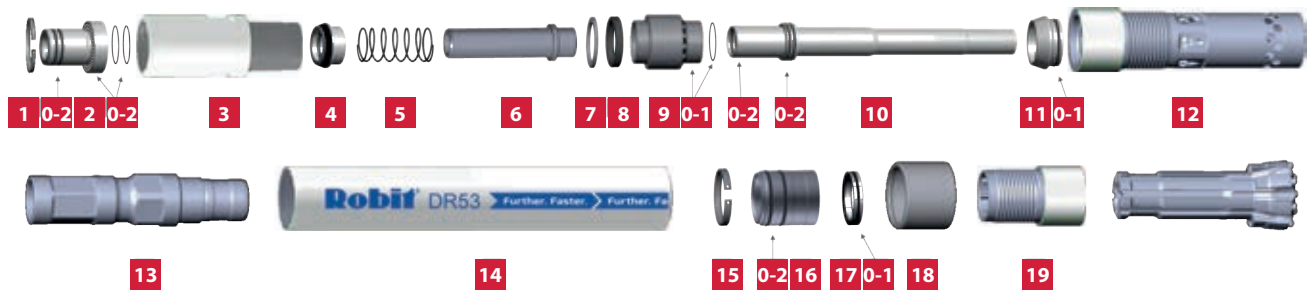
PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	550	16.1
300	24.1	660	19.3
400	27.5	750	21.9
450	31.0	925	27.0
500	34.5	1030	30.1

**Spare Parts**

1103213	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1103211	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1118004	Sample Tube Standard

## RC HAMMERS

# DR53 4<sup>1</sup>/<sub>2</sub>" REMET RETENTION



### 1252172 DR53 4<sup>1</sup>/<sub>2</sub>" REMET RETENTION HAMMER ASSY

1	1000896	Circlip Internal
2	1084159	Adaptor Air Screen 4 1/2" Remet
3	1107182	Top Sub 4 1/2" Remet
4	1046940	Check Valve
5	9001056	Check Valve Spring
6	1043770	Adaptor Tube
7	1046943	Steel Make Up Ring
8	1046942	Make Up Ring
9	1066177	Distributor
10	1107637	Sample Tube Venturi
11	1107183	Sample Tube Mount
12	1107185	Inner Cylinder 101.6mm A/F
13	1107186	Piston
14	1258073	Wear Sleeve
15	1107191	Piston Retaining Ring
16	1107192	Guide Bush
17	1118005	Bit Retaining Ring
18	1216716	Chuck Sleeve 5 7/16" Retention
19	1216711	Chuck Retention
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DR53
Bit Range	5 3/8" - 137mm to 5 5/8" - 143mm
Top Sub Thread	4 1/2" Remet
Spanner Flat	3.7" - 95mm A/F x 1.96" - 50mm
Overall Length S/S	50" - 1269mm
Weight (less bit)	150lbs. - 68kg
Wear Sleeve O.D.	4.76" - 121mm
Oil Consumption	2 - 3 litres per hour

### Air Pressure

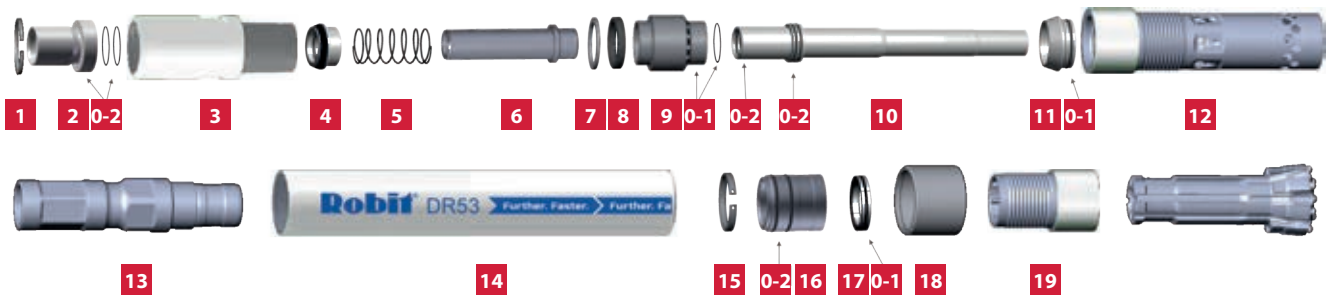
### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	550	16.1
300	24.1	660	19.3
400	27.5	750	21.9
450	31.0	925	27.0
500	34.5	1030	30.1

### Spare Parts

1103213	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1103211	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1118004	Sample Tube Standard





**1108033 DR53 4 1/2" METZKE HAMMER ASSEMBLY**

1	1000896	Circlip Internal
2	1107736	Adaptor Air Screen 4 1/2" Metzke
3	1107181	Top Sub 4 1/2" Metzke
4	1046940	Check Valve
5	9001056	Check Valve Spring
6	1043770	Adaptor Tube
7	1046943	Steel Make Up Ring
8	1046942	Make Up Ring
9	1066177	Distributor
10	1107637	Sample Tube Venturi
11	1107183	Sample Tube Mount
12	1107184	Inner Cylinder
13	1107186	Piston
14	1258073	Wear Sleeve
15	1107191	Piston Retaining Ring
16	1107192	Guide Bush
17	1118005	Bit Retaining Ring
18	1107221	Chuck Sleeve 5 7/16"
19	1107227	Chuck
O-1		O Ring Location - Quantity

**Hammer Specifications**

Bit Shank	DR53
Bit Range	5" - 127mm to 5 5/8" - 143mm
Top Sub Thread	4 1/2" Metzke
Spanner Flat	3.7" - 95mm A/F x 1.96" - 50mm
Overall Length S/S	48" - 1226mm
Weight (less bit)	146lbs. - 66kg
Wear Sleeve O.D.	4.76" - 121mm
Oil Consumption	2 - 3 litres per hour

**Air Pressure**

**Air Consumption**

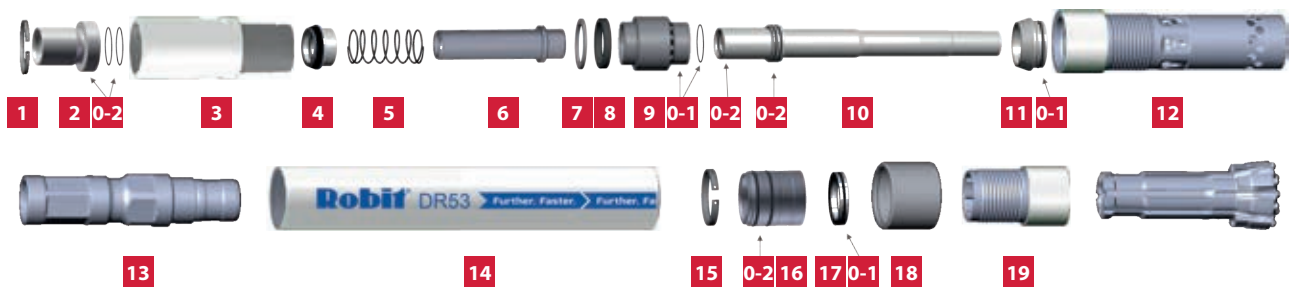
PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	550	16.1
300	24.1	660	19.3
400	27.5	750	21.9
450	31.0	925	27.0
500	34.5	1030	30.1

**Spare Parts**

1103213	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1103211	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1118004	Sample Tube Standard

## RC HAMMERS

# DR53 4½" METZKE HEAVY DUTY



### 1220145 DR53 4½" METZKE HEAVY DUTY ASSEMBLY

1	1000896	Circlip Internal
2	1107736	Adaptor Air Screen 4 ½" Metzke
3	1107181	Top Sub 4 ½" Metzke
4	1046940	Check Valve
5	9001056	Check Valve Spring
6	1043770	Adaptor Tube
7	1046943	Steel Make Up Ring
8	1046942	Make Up Ring
9	1066177	Distributor
10	1107637	Sample Tube Venturi
11	1107183	Sample Tube Mount
12	1107184	Inner Cylinder
13	1107186	Piston
14	1216718	Wear Sleeve Heavy Duty
15	1107191	Piston Retaining Ring
16	1107192	Guide Bush
17	1118005	Bit Retaining Ring
18	1220142	Chuck Sleeve 5 7/16" Heavy Duty
19	1216305	Chuck SF
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DR53
Bit Range	5 ⅜" - 137mm to 5 ⅝" - 143mm
Top Sub Thread	4 ½" Metzke
Spanner Flat	3.7" - 95mm A/F x 1.96" - 50mm
Overall Length S/S	48" - 1226mm
Weight (less bit)	163lbs. - 74kg
Wear Sleeve O.D.	4.96" - 126mm
Oil Consumption	2 - 3 litres per hour

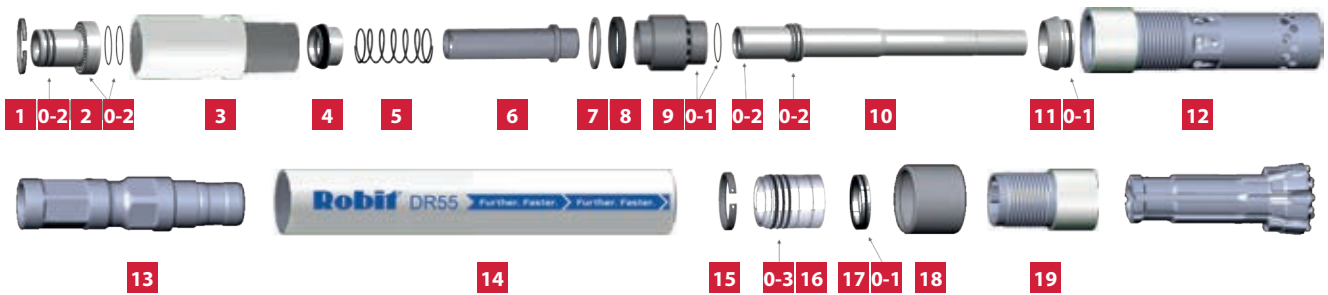
### Air Pressure

### Air Consumption

PSI	bar	CFM	m³/min
250	17.2	550	16.1
300	24.1	660	19.3
400	27.5	750	21.9
450	31.0	925	27.0
500	34.5	1030	30.1

### Spare Parts

1103213	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1103211	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1118004	Sample Tube Standard



**1051842 DR55 4 1/2" REMET HAMMER ASSEMBLY**

1	1000897	Circlip Internal
2	1048119	Adaptor Air Screen 4 1/2" Remet
3	1048188	Top Sub 4 1/2" Remet
4	1048189	Check Valve
5	9001055	Check Valve Spring
6	1048192	Adaptor Tube
7	1009562	Steel Make Up Ring
8	1010627	Make Up Ring
9	1048194	Distributor
10	1048195	Sample Tube Venturi
11	1048196	Sample Tube Mount
12	1048197	Inner Cylinder
13	1107238	Piston
14	1248977	Wear Sleeve
15	1044582	Piston Retaining Ring
16	1009572	Guide Bush
17	1009573	Bit Retaining Ring
18	1051774	Chuck Sleeve 5 7/16"
19	1051849	Chuck
O-1		O Ring Location - Quantity

**Hammer Specifications**

Bit Shank	DR55
Bit Range	5 3/8" - 137mm to 5 3/4" - 146mm
Top Sub Thread	4 1/2" Remet
Spanner Flat	4.09" - 104mm A/F x 1.96" - 50mm
Overall Length S/S	49.3" - 1252mm
Weight (less bit)	179 lbs - 81kg
Wear Sleeve O.D.	5.1" - 130mm
Oil Consumption	2 - 3 litres per hour

**Air Pressure**

**Air Consumption**

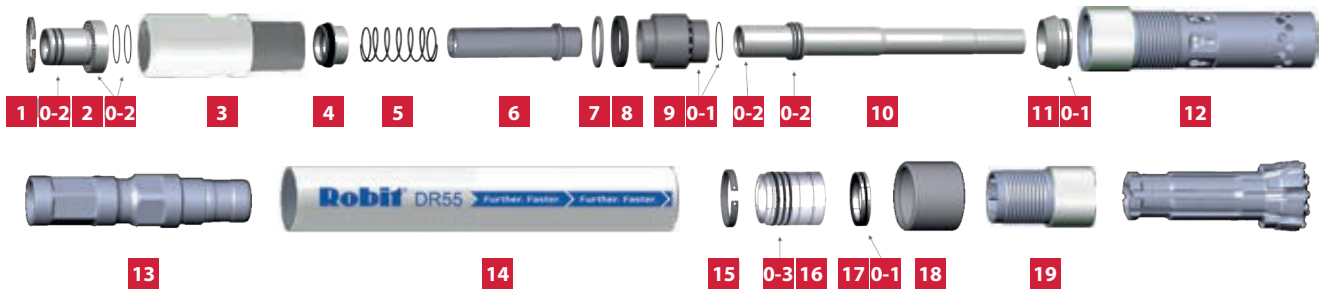
PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	577	16.3
350	24.1	787	22.3
450	31	971	27.5
550	37.9	1156	32.7
650	44.8	1445	40.9
750	51.7	1806	51.1

**Spare Parts**

1048201	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1048200	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1113851	Sample Tube Standard

## RC HAMMERS

# DR55 4<sup>1</sup>/<sub>2</sub>" REMET RETENTION



### 1051843 DR55 4<sup>1</sup>/<sub>2</sub>" REMET RETENTION HAMMER ASSY

1	1000897	Circlip Internal
2	1048119	Adaptor Air Screen 4 1/2" Remet
3	1048188	Top Sub 4 1/2" Remet
4	1048189	Check Valve
5	9001055	Check Valve Spring
6	1048192	Adaptor Tube
7	1009562	Steel Make Up Ring
8	1010627	Make Up Ring
9	1048194	Distributor
10	1048195	Sample Tube Venturi
11	1048196	Sample Tube Mount
12	1048197	Inner Cylinder
13	1107238	Piston
14	1248977	Wear Sleeve
15	1044582	Piston Retaining Ring
16	1009572	Guide Bush
17	1009573	Bit Retaining Ring
18	1051761	Chuck Sleeve 5 7/16" Retention
19	1046868	Chuck Retention
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DR55
Bit Range	5 3/8" - 137mm to 5 3/4" - 146mm
Top Sub Thread	4 1/2" Remet
Spanner Flat	4.09" - 104mm A/F x 1.96" - 50mm
Overall Length S/S	51" - 1294mm
Weight (less bit)	179 lbs - 81kg
Wear Sleeve O.D.	5.1" - 130mm
Oil Consumption	2 - 3 litres per hour

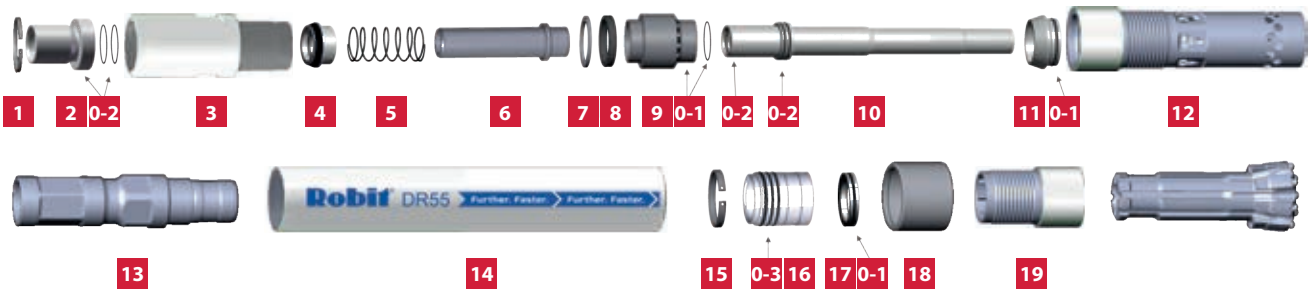
### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	577	16.3
350	24.1	787	22.3
450	31	971	27.5
550	37.9	1156	32.7
650	44.8	1445	40.9
750	51.7	1806	51.1

### Spare Parts

1048201	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1048200	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1113851	Sample Tube Standard



**1108035 DR55 4 1/2" METZKE HAMMER ASSEMBLY**

1	1107229	Circlip Internal
2	1059984	Adaptor Air Screen 4 1/2" Metzke
3	1107234	Top Sub 4 1/2" Metzke
4	1048189	Check Valve
5	9001055	Check Valve Spring
6	1048192	Adaptor Tube
7	1009562	Steel Make Up Ring
8	1010627	Make Up Ring
9	1048194	Distributor
10	1048195	Sample Tube Venturi
11	1048196	Sample Tube Mount
12	1048197	Inner Cylinder
13	1107238	Piston
14	1248977	Wear Sleeve
15	1044582	Piston Retaining Ring
16	1009572	Guide Bush
17	1009573	Bit Retaining Ring
18	1051774	Chuck Sleeve 5 7/16"
19	1051849	Chuck
O-1		O Ring Location - Quantity

**Hammer Specifications**

Bit Shank	DR55
Bit Range	5 3/8" - 137mm to 5 3/4" - 146mm
Top Sub Thread	4 1/2" Metzke
Spanner Flat	4.09" - 104mm A/F x 1.96" - 50mm
Overall Length S/S	49.3" - 1252mm
Weight (less bit)	179 lbs - 81kg
Wear Sleeve O.D.	5.1" - 130mm
Oil Consumption	2 - 3 litres per hour

**Air Pressure**

**Air Consumption**

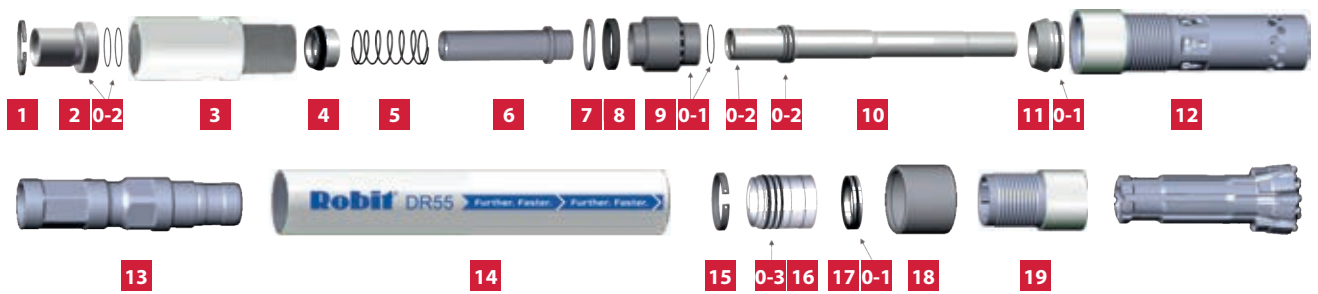
PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	577	16.3
350	24.1	787	22.3
450	31	971	27.5
550	37.9	1156	32.7
650	44.8	1445	40.9
750	51.7	1806	51.1

**Spare Parts**

1048201	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1048200	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1113851	Sample Tube Standard

## RC HAMMERS

# DR55 4<sup>1</sup>/<sub>2</sub>" METZKE RETENTION



### 1108037 DR55 4<sup>1</sup>/<sub>2</sub>" METZKE RETENTION ASSEMBLY

1	1107229	Circlip Internal
2	1059984	Adaptor Air Screen 4 1/2" Metzke
3	1107234	Top Sub 4 1/2" Metzke
4	1048189	Check Valve
5	9001055	Check Valve Spring
6	1048192	Adaptor Tube
7	1009562	Steel Make Up Ring
8	1010627	Make Up Ring
9	1048194	Distributor
10	1048195	Sample Tube Venturi
11	1048196	Sample Tube Mount
12	1048197	Inner Cylinder
13	1107238	Piston
14	1248977	Wear Sleeve
15	1044582	Piston Retaining Ring
16	1009572	Guide Bush
17	1009573	Bit Retaining Ring
18	1051761	Chuck Sleeve 5 7/16" Retention
19	1046868	Chuck Retention
O-1		O Ring Location - Quantity

### Hammer Specifications

Bit Shank	DR55
Bit Range	5 3/8" - 137mm to 5 3/4" - 146mm
Top Sub Thread	4 1/2" Metzke
Spanner Flat	4.09" - 104mm A/F x 1.96" - 50mm
Overall Length S/S	51" - 1294mm
Weight (less bit)	179 lbs - 81kg
Wear Sleeve O.D.	5.1" - 130mm
Oil Consumption	2 - 3 litres per hour

### Air Pressure

### Air Consumption

PSI	bar	CFM	m <sup>3</sup> /min
250	17.2	577	16.3
350	24.1	787	22.3
450	31	971	27.5
550	37.9	1156	32.7
650	44.8	1445	40.9
750	51.7	1806	51.1

### Spare Parts

1048201	O Ring Kit – Contains O Rings for items 2, 9, 10, 11, 16, 17
1048200	Make Up Kit – Contains O Ring Kit plus inner seal for 4 and item 8
1113851	Sample Tube Standard





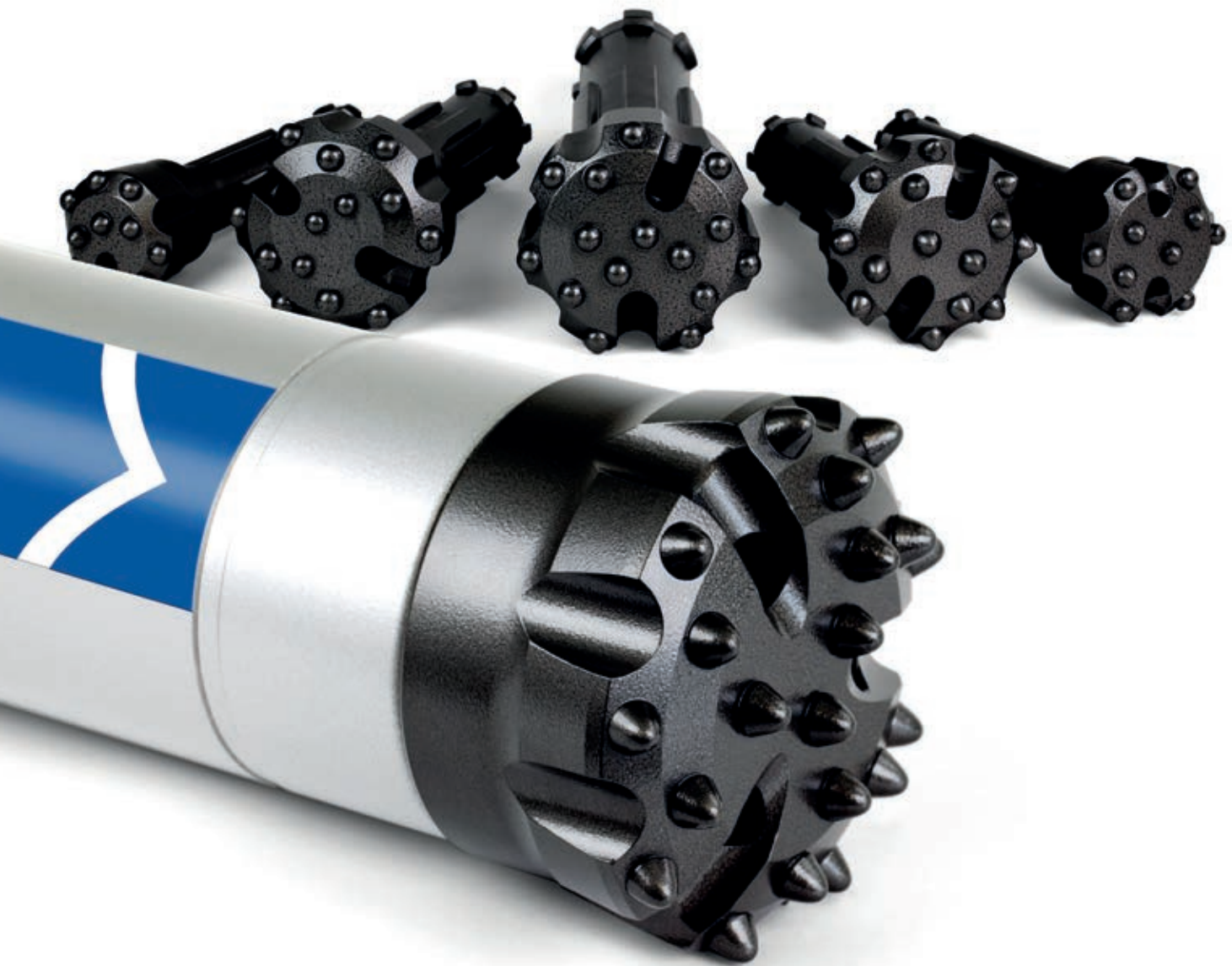


# DTH BITS

GENERAL PURPOSE BITS

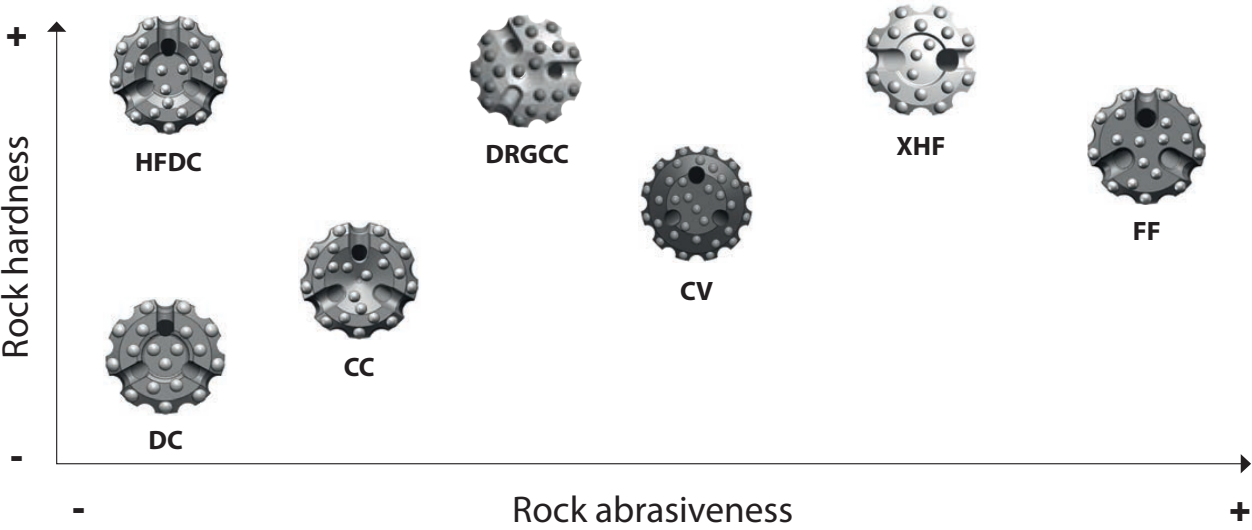
BLAST HOLE BITS

RC BITS

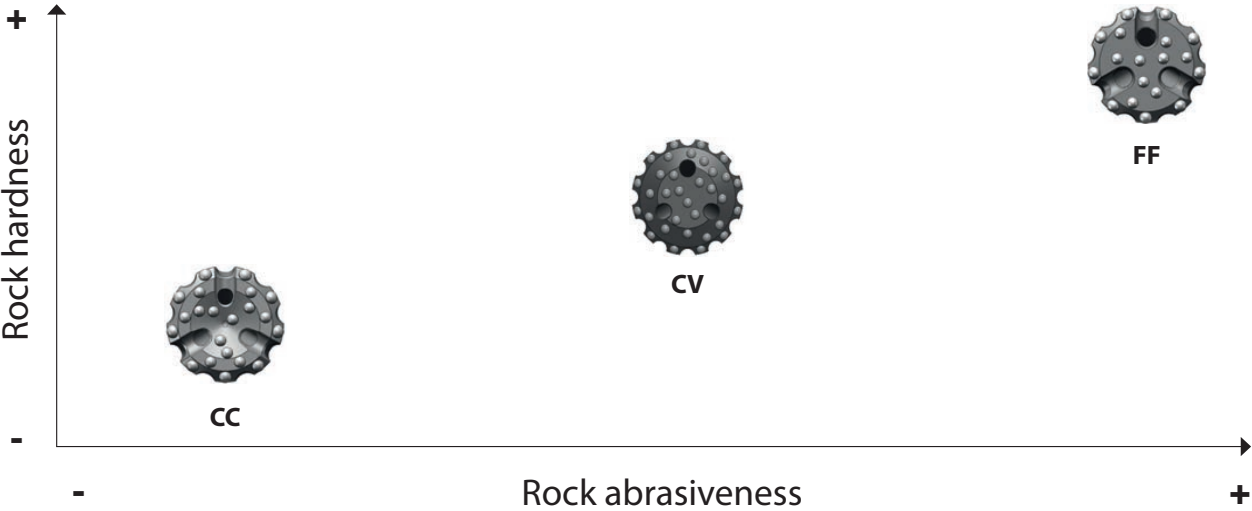


# BIT SELECTION GUIDE

## Mining (bench drilling & production)



## Geotechnical



## Conventional Bits



### Flat Face - FF

- Common face design in global market
- Excellent performing bit
- Hard to very hard rock
- Solid consistent formation



### Concave - CC

- Common face design in global market
- Excellent deviation control
- Medium hard to hard rock
- Broken and sloped angled formation



### Drop Centre - DC

- Good all rounder
- Excellent deviation control
- Medium rock
- Solid / fractured inconsistent formation



### Hard Formation Drop Centre - HFDC

- Good all rounder
- Excellent deviation control
- Hard rock
- Solid / fractured inconsistent formation



### Convex - CV

- Common in global market
- Excellent penetration rate
- Medium / hard formation
- Shales / sandstone formations

## Reverse Circulation Bits



### Extra Hard Formation - XHF

- Excellent penetration rate
- Solid consistent formation
- Good all round bit - excellent in hard to very hard rock



### Drop Centre - DC

- Cross slot for improved air flow
- Solid / fractured inconsistent formation
- Good all round bit - excellent in soft to medium hard rock

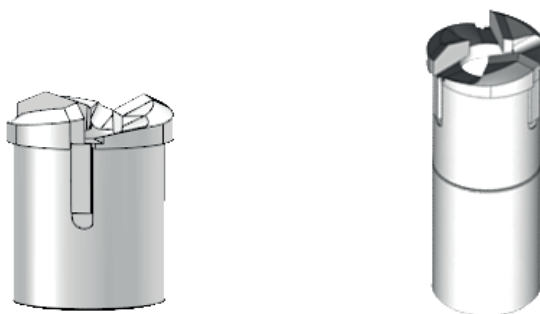
# EXPLORATION BITS CODES

## Air Core Drill Bit Assembly



Face Discharge

Vacuum



Air Core Drill Bit Range

Part No.	Description	Bit Size	Rod Size
<b>Vacuum Air Core Bit</b>			
1255734	BIT; 3 BLADE; 3IN; VACUUM AIR CORE	85mm	
1255729	SUB; BIT; 3IN; VACUUM AIR CORE TS/NQ		3"
1255730	INNER TUBE; BIT SUB; 3IN; VACUUM AIR CORE		
<b>Discharge Air Core Bit</b>			
1256049	BIT; 3 BLADE; 3IN; FACE DISCHARGE AIR CORE	85mm	
1256047	SUB; BIT; 3IN; FACE DISCHARGE AIR CORE TS/LW		3"
1243701	INNER TUBE AIR CORE BIT 3IN FACE DISCHARGE		



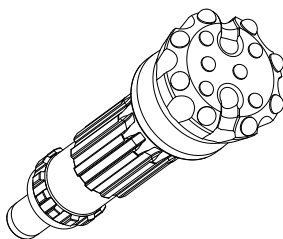


# DTH BITS

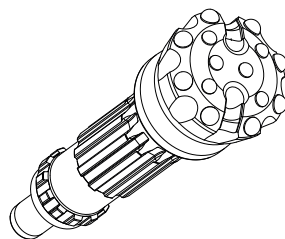
## GENERAL PURPOSE BITS

Order code	DTH Hammer	Diameter		*Weight	Face type		
		[mm]	[in]		Flat	Convex	Concave
DTH-Bit 90/3"	3"	90	3½	3,4		x	
DTH-Bit 95/3"	3"	95	3¾	3,8		x	
DTH-Bit 100/3"	3"	100	4	4,4		x	
DTH-Bit 105/4"	4"	105	4⅛	8,4		x	
DTH-Bit 110/4"	4"	110	4⅜	8,8	x	x	
DTH-Bit 115/4"	4"	115	4½	9	x	x	
DTH-Bit 127/4"	4"	127	5	9,9	x	x	
DTH-Bit 127/5"	5"	127	5	15,6	x	x	
DTH-Bit 140/5"	5"	140	5½	17,4	x	x	
DTH-Bit 152/5"	5"	152	6	18,9	x	x	
DTH-Bit 152/6"	6"	152	6	25,5	x		x
DTH-Bit 165/6"	6"	165	6½	26,3	x		x
DTH-Bit 200/8"	8"	200	7⅞	33,8			x
DTH-Bit 203/6"	6"	203	7	32,6	x		x
DTH-Bit 203/8"	8"	203	7	34,5			x
DTH-Bit 216/6"	6"	216	8½	34,4	x		x
DTH-Bit 216/8"	8"	216	8½	37,5			x
DTH-Bit 254/8"	8"	254	10	51,5			x
DTH-Bit 305/12"	12"	305	12	159			x
DTH-Bit 311/12"	12"	311	12¼	166			x
DTH-Bit 381/12"	12"	381	15	233			x
DTH-Bit 445/12"	12"	445	17½	312			x
DTH-Bit 445/14"	14"	445	17½	396			x
DTH-Bit 457/14"	14"	457	18	401			x
DTH-Bit 457/18"	18"	457	18	556			x
DTH-Bit 508/14"	14"	508	20	484			x
DTH-Bit 508/18"	18"	508	20	589			x
DTH-Bit 559/14"	14"	559	22	525			x
DTH-Bit 559/18"	18"	559	22	635			x
DTH-Bit 584/18"	18"	584	23	692			x
DTH-Bit 610/18"	18"	610	24	718			x
DTH-Bit 610/24"	24"	610	24	985			x
DTH-Bit 660/24"	24"	660	26	1058			x
DTH-Bit 711/24"	24"	711	28	2475			x
DTH-Bit 762/24"	24"	762	30	2622			x
DTH-Bit 813/24"	24"	813	32	3225			x
DTH-Bit 866/24"	24"	866	34	3410			x

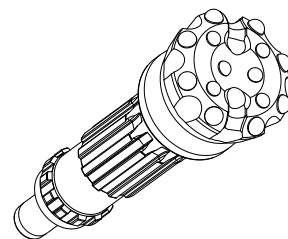
DTH Bits



Flat face



Convex face



Concave face

**DTH BITS**

**BLAST HOLE BITS**





# BLAST HOLE BITS

## IR3.5



HEAD DIAMETER (mm)	98	102	105	105	105	121
HEAD DIAMETER (inch)	3 7/8	4	4 1/8	4 1/8	4 1/8	4 3/4
FACE DESIGN	CC	CC	CC	CC	CC	CC
ITEM CODE	1100534	1280200	1100537	1280039	1280196	1100539
NUMBER OF PORTS	2	3	3	3	3	3
WEIGHT (kg)	4.9	5	5	5	5	5.7
BUTTON PROFILE	DM	BA	DM	DM	BA	BA
GAUGE ANGLE ( ° )	35	35	35	35	35	35
GAUGE CARBIDE QTY.	8	9	9	9	9	9
GAUGE CARBIDE DIA. (mm)	13.0	12.0	12.7	12.7	12.0	14.3
GAUGE CARBIDE DIA. (inch)	-	-	1/2	1/2	-	9/16
GAUGE CARBIDE GRADE	G20	G20	G20	G30	G20	G20
GAUGE 2 ANGLE ( ° )	-	-	-	-	-	-
GAUGE 2 CARBIDE QTY.	-	-	-	-	-	-
GAUGE 2 CARBIDE DIA. (mm)	-	-	-	-	-	-
GAUGE 2 CARBIDE DIA. (inch)	-	-	-	-	-	-
GAUGE 2 CARBIDE GRADE	-	-	-	-	-	-
FACE CARBIDE QTY.	6	6	6	6		6
FACE CARBIDE DIA. (mm)	11.0	11.0	11.0	11.0	11.0	12.0
FACE CARBIDE DIA. (inch)	-	-	-	-	-	-
FACE CARBIDE GRADE	G20	G20	G20	G20	G20	G20
CENTER CARBIDE QTY.	-	-	-	-	-	-
CENTER CARBIDE DIA. (mm)	-	-	-	-	-	-
CENTER CARBIDE DIA. (inch)	-	-	-	-	-	-
CENTER CARBIDE GRADE	-	-	-	-	-	-
CONE ANGLE ( ° )	-20	-20	-20	-20	-20	-15
CONE CARBIDE QTY.	3	3	3	3	3	3
CONE CARBIDE DIA. (mm)	11.0	11.0	11.0	11.0	11.0	12.0
CONE CARBIDE DIA. (inch)	-	-	-	-	-	-
CONE CARBIDE GRADE	G20	G20	G20	G20	G20	G20

# BLAST HOLE BITS

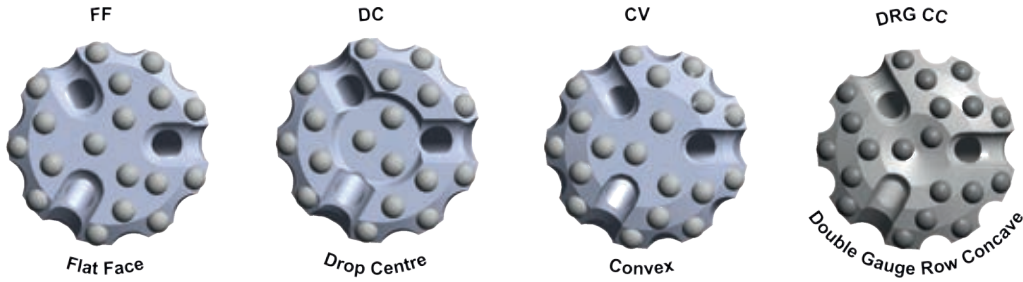
## DHD340



HEAD DIAMETER (mm)	110	110	115	115	115	121	127	127	127	127	127
HEAD DIAMETER (inch)	4 3/8	4 3/8	4 1/2	4 1/2	4 1/2	4 3/4	5	5	5	5	5
FACE DESIGN	DC	CV	DC	FF	CC	CC	DC	CC	CV	FF	FF
ITEM CODE	1261573	1280052	1242440	1056976	1049501	1100541	1249362	1066967	1127802	1054817	1262589
NUMBER OF PORTS	4	4	4	3	3	3	4	3	3	3	4
WEIGHT (kg)	7.7	7.4	7.9	7.5	7.9	8.1	8.7	8.6	8.6	8.6	8.9
BUTTON PROFILE	DM	BA	DM	DM	DM	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35	35	35	35	35	35
GAUGE CARBIDE QTY.	8	8	8	8	9	9	8	9	9	9	8
GAUGE CARBIDE DIA. (mm)	14.3	11	14.3	14.3	14.3	14.3	15.9	14.3	14.3	14.3	15.9
GAUGE CARBIDE DIA. (inch)	9/16	-	9/16	9/16	9/16	9/16	5/8	9/16	9/16	9/16	5/8
GAUGE CARBIDE GRADE	G20	G20	G20	G30	G20	G20	G20	G20	G30	G30	G20
GAUGE 2 ANGLE ( ° )	-	25	-	-	-	-	-	-	20	-	-
GAUGE 2 CARBIDE QTY.	-	4	-	-	-	-	-	-	6	-	-
GAUGE 2 CARBIDE DIA. (mm)	-	11	-	-	-	-	-	-	12.7	-	-
GAUGE 2 CARBIDE DIA. (inch)	-	-	-	-	-	-	-	-	1/2	-	-
GAUGE 2 CARBIDE GRADE	-	G20	-	-	-	-	-	-	G20	-	-
FACE CARBIDE QTY.	4	4	4	9	6	6	4	6	6	9	8
FACE CARBIDE DIA. (mm)	14.3	11	14.3	12.0	12.0	12.0	14.3	12	12.0	14.3	14.3
FACE CARBIDE DIA. (inch)	9/16	-	9/16	-	-	-	9/16	-	-	9/16	9/16
FACE CARBIDE GRADE	G20	G20	G20	G20	G20	G20	G20	G20	G20	G20	G20
CENTER CARBIDE QTY.	2	-	2	-	-	-	4	-	-	-	-
CENTER CARBIDE DIA. (mm)	14.3	-	14.3	-	-	-	14.3	-	-	-	-
CENTER CARBIDE DIA. (inch)	9/16	-	9/16	-	-	-	9/16	-	-	-	-
CENTER CARBIDE GRADE	G20	-	G20	-	-	-	G20	-	-	-	-
CONE ANGLE ( ° )	-	-	-	-	-15	-15	-	-15	-	-	-
CONE CARBIDE QTY.	-	-	-	-	4	4	-	4	-	-	-
CONE CARBIDE DIA. (mm)	-	-	-	-	12.0	12.0	-	12	-	-	-
CONE CARBIDE DIA. (inch)	-	-	-	-	-	-	-	-	-	-	-
CONE CARBIDE GRADE	-	-	-	-	G20	G20	-	G20	-	-	-

# BLAST HOLE BITS

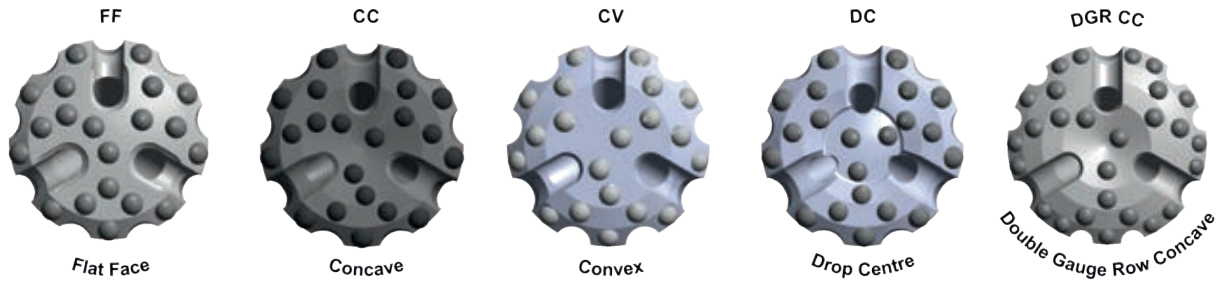
## QL50



HEAD DIAMETER (mm)	140	140	140	140	140	146	152	152	165	165
HEAD DIAMETER (inch)	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	5 3/4	6	6	6 1/2	6 1/2
FACE DESIGN	CV	CV	DC	FF	FF	DGR CC	DC	FF	CC	FF
ITEM CODE	1262999	1280032	1049141	1063139	1100652	1100656	1100659	1100661	1253696	1253717
NUMBER OF PORTS	3	3	3	3	3	3	3	3	3	3
WEIGHT (kg)	16.2	16	16.4	16.6	16.4	16.9	17.4	17.2	18.6	18.3
BUTTON PROFILE	DM	BA	DM	DM	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	40	35	35	35	35	35	35	35	35	35
GAUGE CARBIDE QTY.	9	9	9	9	9	9	9	9	9	9
GAUGE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	15.9	18.0	18.0	18.0	18.0
GAUGE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	5/8	-	-	-	-
GAUGE CARBIDE GRADE	G30	G30	G20	G20	G30	G20	G20	G30	G30	G30
GAUGE 2 ANGLE ( ° )	20	20	-	-	-	20	-	-	-	-
GAUGE 2 CARBIDE QTY.	6	6	-	-	-	6	-	-	-	-
GAUGE 2 CARBIDE DIA. (mm)	15.9	15.9	-	-	-	15.9	-	-	-	-
GAUGE 2 CARBIDE DIA. (inch)	5/8	5/8	-	-	-	5/8	-	-	-	-
GAUGE 2 CARBIDE GRADE	G20	G20	-	-	-	G20	-	-	-	-
FACE CARBIDE QTY.	4	4	4	9	9	3	6	9	6	9
FACE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
FACE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
FACE CARBIDE GRADE	G20	G20	G20	G20	G20	G20	G20	G20	G20	G30
CENTER CARBIDE QTY.	-	-	3	-	-	-	2	-	-	-
CENTER CARBIDE DIA. (mm)	-	-	15.9	-	-	-	14.3	-	-	-
CENTER CARBIDE DIA. (inch)	-	-	5/8	-	-	-	9/16	-	-	-
CENTER CARBIDE GRADE	-	-	G20	-	-	-	G20	-	-	-
CONE ANGLE ( ° )	-	-	-	-	-	-15	-30	-	-15	-
CONE CARBIDE QTY.	-	-	-	-	-	2	3	-	6	-
CONE CARBIDE DIA. (mm)	-	-	-	-	-	15.9	15.9	-	15.9	-
CONE CARBIDE DIA. (inch)	-	-	-	-	-	5/8	5/8	-	5/8	-
CONE CARBIDE GRADE	-	-	-	-	-	G20	G20	-	G20	-

# BLAST HOLE BITS

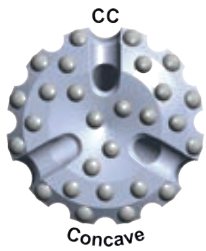
## QL60



	FF	CC	CV	DC	FF	FF	DGR CC	CV	CC	FF
HEAD DIAMETER (mm)	165	165	165	165	165	165	165	171	171	171
HEAD DIAMETER (inch)	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2	6 3/4	6 3/4	6 3/4
FACE DESIGN	CV	CC	CC	DC	FF	FF	DGR CC	CV	CC	FF
ITEM CODE	1280053	1100671	1053268	1061419	1000810	1100665	1100669	1262391	1100672	1259809
NUMBER OF PORTS	3	3	3	3	3	3	3	3	3	3
WEIGHT (kg)	24.5	23.3	23.1	21.3	23.2	22.9	23.2	25	24	23.7
BUTTON PROFILE	BA	DM	DM	DM	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35	35	40	35	35
GAUGE CARBIDE QTY.	9	9	9	9	9	9	15	9	9	9
GAUGE CARBIDE DIA. (mm)	18.0	18	18	18	18	18	14.3	18	18	18
GAUGE CARBIDE DIA. (inch)	-	-	-	-	-	-	9/16	-	-	-
GAUGE CARBIDE GRADE	G20	G20	G30	G20	G20	G30	G30	G40	G30	G20
GAUGE 2 ANGLE ( ° )	20	-	-	-	-	-	20	20	-	-
GAUGE 2 CARBIDE QTY.	6	-	-	-	-	-	6	6	-	-
GAUGE 2 CARBIDE DIA. (mm)	18.0	-	-	-	-	-	15.9	18	-	-
GAUGE 2 CARBIDE DIA. (inch)	-	-	-	-	-	-	5/8	-	-	-
GAUGE 2 CARBIDE GRADE	G20	-	-	-	-	-	G30	G30	-	-
FACE CARBIDE QTY.	4	6	6	6	11	9	3	6	6	11
FACE CARBIDE DIA. (mm)	18.0	15.9	15.9	15.9	18	15.9	15.9	18	15.9	18
FACE CARBIDE DIA. (inch)	-	5/8	5/8	5/8	-	5/8	5/8	-	5/8	-
FACE CARBIDE GRADE	G20	G20	G20	G20	G20	G20	G20	G30	G20	G20
CENTER CARBIDE QTY.	-	-	-	3	-	-	-	-	-	-
CENTER CARBIDE DIA. (mm)	-	-	-	15.9	-	-	-	-	-	-
CENTER CARBIDE DIA. (inch)	-	-	-	5/8	-	-	-	-	-	-
CENTER CARBIDE GRADE	-	-	-	G20	-	-	-	-	-	-
CONE ANGLE ( ° )	-	-15	-15	-20	-	-	-15	-	-15	-
CONE CARBIDE QTY.	-	6	6	3	-	-	3	-	6	-
CONE CARBIDE DIA. (mm)	-	15.9	15.9	15.9	-	-	15.9	-	15.9	-
CONE CARBIDE DIA. (inch)	-	5/8	5/8	5/8	-	-	5/8	-	5/8	-
CONE CARBIDE GRADE	-	G20	G20	G20	-	-	G20	-	G20	-

# BLAST HOLE BITS

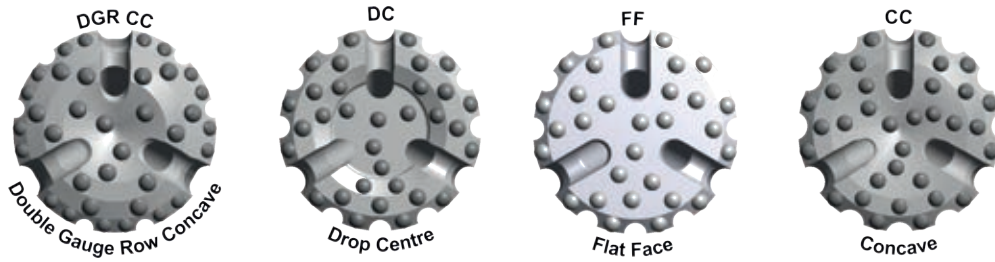
## D75



HEAD DIAMETER (mm)	203	203	229
HEAD DIAMETER (inch)	8	8	9
FACE DESIGN	DC	CC	DC
ITEM CODE	1030890	1280149	1255336
NUMBER OF PORTS	3	3	3
WEIGHT (kg)	42.2	42	45.9
BUTTON PROFILE	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35
GAUGE CARBIDE QTY.	12	12	12
GAUGE CARBIDE DIA. (mm)	19	19	19
GAUGE CARBIDE DIA. (inch)	3/4	3/4	3/4
GAUGE CARBIDE GRADE	G30	G30	G30
GAUGE 2 ANGLE ( ° )	-	-	-
GAUGE 2 CARBIDE QTY.	-	-	-
GAUGE 2 CARBIDE DIA. (mm)	-	-	-
GAUGE 2 CARBIDE DIA. (inch)	-	-	-
GAUGE 2 CARBIDE GRADE	-	-	-
FACE CARBIDE QTY.	12	9	15
FACE CARBIDE DIA. (mm)	18	18	19
FACE CARBIDE DIA. (inch)	-	-	3/4
FACE CARBIDE GRADE	G20	G30	G30
CENTER CARBIDE QTY.	4	-	5
CENTER CARBIDE DIA. (mm)	18	-	18
CENTER CARBIDE DIA. (inch)	-	-	-
CENTER CARBIDE GRADE	G20	-	G20
CONE ANGLE ( ° )	-	-15	-
CONE CARBIDE QTY.	-	6	-
CONE CARBIDE DIA. (mm)	-	18	-
CONE CARBIDE DIA. (inch)	-	-	-
CONE CARBIDE GRADE	-	G20	-

# BLAST HOLE BITS

## QL80



HEAD DIAMETER (mm)	203	216	229	229	229	229
HEAD DIAMETER (inch)	8	8 1/2	9	9	9	9
FACE DESIGN	DGR CC	DGR CC	DC	CC	FF	FF
ITEM CODE	1072556	1100745	1100749	1280150	1280116	1100748
NUMBER OF PORTS	3	3	3	3	3	3
WEIGHT (kg)	49.8	52.8	51.6	53.3	52.5	52.4
BUTTON PROFILE	DM	DM	DM	DM	BA	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35
GAUGE CARBIDE QTY.	18	18	12	12	12	12
GAUGE CARBIDE DIA. (mm)	15.9	15.9	19.0	19.0	19.0	19
GAUGE CARBIDE DIA. (inch)	5/8	5/8	3/4	3/4	3/4	3/4
GAUGE CARBIDE GRADE	G20	G30	G20	G30	G20	G30
GAUGE 2 ANGLE ( ° )	20	20	-	-	-	-
GAUGE 2 CARBIDE QTY.	6	6	-	-	-	-
GAUGE 2 CARBIDE DIA. (mm)	18.0	19.0	-	-	-	-
GAUGE 2 CARBIDE DIA. (inch)	-	3/4	-	-	-	-
GAUGE 2 CARBIDE GRADE	G20	G30	-	-	-	-
FACE CARBIDE QTY.	6	6	9	9	17	17
FACE CARBIDE DIA. (mm)	18.0	19.0	19.0	18.0	19.0	19
FACE CARBIDE DIA. (inch)	-	3/4	3/4	-	3/4	3/4
FACE CARBIDE GRADE	G20	G30	G20	G30	G20	G20
CENTER CARBIDE QTY.	-	-	5	-	-	-
CENTER CARBIDE DIA. (mm)	-	-	18.0	-	-	-
CENTER CARBIDE DIA. (inch)	-	-	-	-	-	-
CENTER CARBIDE GRADE	-	-	G20	-	-	-
CONE ANGLE ( ° )	-20	-20	-20	-15	-	-
CONE CARBIDE QTY.	4	5	6	12	-	-
CONE CARBIDE DIA. (mm)	18.0	18.0	18.0	18.0	-	-
CONE CARBIDE DIA. (inch)	-	-	-	-	-	-
CONE CARBIDE GRADE	20	20	20	20	-	-

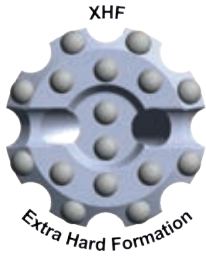


**DTH BITS**  
**RC BITS**





# RC BITS DR38



HEAD DIAMETER (mm)	102.0	108.0	114.3
HEAD DIAMETER (inch)	4	4 1/4	4 1/2
FACE DESIGN	XHF	XHF	XHF
ITEM CODE	1043635	1101408	1043638
RETENTION	NO	NO	NO
NUMBER OF PORTS	2	2	2
WEIGHT (kg)	7.3	7.5	7.7
BUTTON PROFILE	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35
GAUGE CARBIDE QTY.	8	8	8
GAUGE CARBIDE DIA. (mm)	12.7	14.3	14.3
GAUGE CARBIDE DIA. (inch)	1/2	9/16	9/16
GAUGE CARBIDE GRADE	G30	G30	G30
FACE CARBIDE QTY.	6	6	6
FACE CARBIDE DIA. (mm)	12	12	12.7
FACE CARBIDE DIA. (inch)	-	-	1/2
FACE CARBIDE GRADE	G20	G20	G20
CENTER CARBIDE QTY.	2	2	3
CENTER CARBIDE DIA. (mm)	12	12	12.7
CENTER CARBIDE DIA. (inch)	-	-	1/2
CENTER CARBIDE GRADE	G20	G20	G20

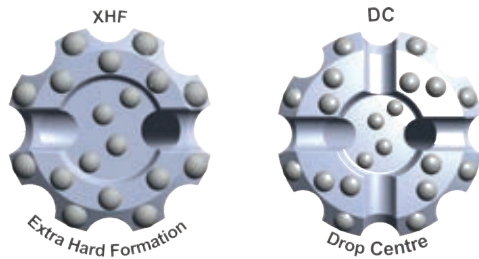
## NON-RETENTION

BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
102.0	4	1043646	100.0	3 15/16
108.0	4 1/4	1043648	106.4	4 3/16
114.3	4 1/2	1043649	112.7	4 7/16

\* For hole collaring only  
 \*\* Recommended Chuck Sleeve size is 1/16" smaller than nominated bit size.

# RC BITS

## DR43



HEAD DIAMETER (mm)	117.5	120.7	123.8	127.0	158.8	165.1
HEAD DIAMETER (inch)	4 5/8	4 3/4	4 7/8	5	6 1/4	6 1/2
FACE DESIGN	XHF	XHF	XHF	XHF	DC	DC*
ITEM CODE	1270096	1270097	1270098	1270099	1270095	1280223
NUMBER OF PORTS	2	2	2	2	2	2
WEIGHT (kg)	10.7	10.8	11	11.5	13.6	14.1
BUTTON PROFILE	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35
GAUGE CARBIDE QTY.	8	8	8	8	8	8
GAUGE CARBIDE DIA. (mm)	14.3	14.3	14.3	15.9	15.9	15.9
GAUGE CARBIDE DIA. (inch)	9/16	9/16	9/16	5/8	5/8	5/8
GAUGE CARBIDE GRADE	G30	G30	G30	G30	G30	G30
FACE CARBIDE QTY.	6	6	6	6	8	8
FACE CARBIDE DIA. (mm)	12.7	12.7	14.3	14.3	15.9	15.9
FACE CARBIDE DIA. (inch)	1/2	1/2	9/16	9/16	5/8	5/8
FACE CARBIDE GRADE	G20	G20	G20	G20	G20	G20
CENTER CARBIDE QTY.	4	4	4	4	4	4
CENTER CARBIDE DIA. (mm)	12.7	12.7	12.7	12.7	12.7	12.7
CENTER CARBIDE DIA. (inch)	1/2	1/2	1/2	1/2	1/2	1/2
CENTER CARBIDE GRADE	G20	G20	G20	G20	G20	G20

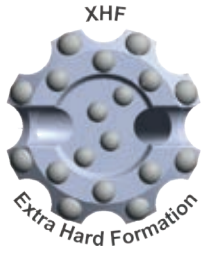
### CHUCK SLEEVE SIZING\*\*

BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
117.5	4 5/8	1270103	115.9	4 9/16
120.7	4 3/4	1270104	119.1	4 11/16
123.8	4 7/8	1270105	122.2	4 13/16
127.0	5	1270106	125.4	4 15/16
158.8	6 1/4	1270100	157.2	6 3/16
165.1	6 1/2	9001091	163.5	6 7/16

\* For hole collaring only

\*\* Recommended Chuck Sleeve size is 1/16" smaller than nominated bit size.

# DR43 RETENTION



HEAD DIAMETER (mm)	120.7	123.8	127.0
HEAD DIAMETER (inch)	4 3/4	4 7/8	5
FACE DESIGN	XHF	XHF	XHF
ITEM CODE	1280214	1280215	1280216
NUMBER OF PORTS	2	2	2
WEIGHT (kg)	10.8	11	11.5
BUTTON PROFILE	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35
GAUGE CARBIDE QTY.	8	8	8
GAUGE CARBIDE DIA. (mm)	14.3	14.3	15.9
GAUGE CARBIDE DIA. (inch)	9/16	9/16	5/8
GAUGE CARBIDE GRADE	G30	G30	G30
FACE CARBIDE QTY.	6	6	6
FACE CARBIDE DIA. (mm)	12.7	14.3	14.3
FACE CARBIDE DIA. (inch)	1/2	9/16	9/16
FACE CARBIDE GRADE	G20	G20	G20
CENTER CARBIDE QTY.	4	4	4
CENTER CARBIDE DIA. (mm)	12.7	12.7	12.7
CENTER CARBIDE DIA. (inch)	1/2	1/2	1/2
CENTER CARBIDE GRADE	G20	G20	G20
CENTER CARBIDE GRADE	G20	G20	G20

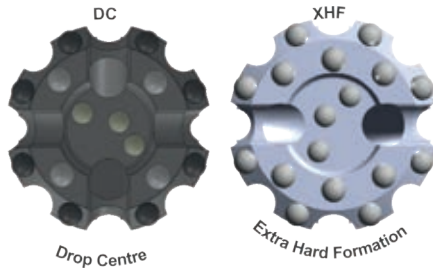
**CHUCK SLEEVE SIZING\*\***

BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
120.7	4 3/4	1280217	119.1	4 11/16
123.8	4 7/8	1280218	122.2	4 13/16
127.0	5	9001065	125.4	4 15/16

\* For hole collaring only  
 \*\* Recommended Chuck Sleeve size is 1/16" smaller than nominated bit size.

# RC BITS

## DR44



HEAD DIAMETER (mm)	130.2	133.4	133.4	136.5	139.7	139.7	139.7	165.1	190.5
HEAD DIAMETER (inch)	5 1/8	5 1/4	5 1/4	5 3/8	5 1/2	5 1/2	5 1/2	6 1/2	7 1/2
FACE DESIGN	XHF	XHF	XHF	XHF	DC	HF	XHF	DC	DC
ITEM CODE	1194335	1259378	1046952	1101419	1046955	1101420	1048174	1101421	1059558
RETENTION	NO	NO	NO	NO	NO	NO	NO	NO	NO
NUMBER OF PORTS	2	2	2	2	2	2	2	2	2
WEIGHT (kg)	14.7	14.4	14.4	15.3	15.5	15.7	15.7	17.7	22
BUTTON PROFILE	DM	DM	DM	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35	35	35	35
GAUGE CARBIDE QTY.	8	8	8	8	8	8	8	8	8
GAUGE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	15.9	15.9	18	18
GAUGE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	5/8	5/8	-	-
GAUGE CARBIDE GRADE	G30	G30	G30	G30	G30	G30	G30	G20	G20
FACE CARBIDE QTY.	6	6	6	6	4	6	6	8	10
FACE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
FACE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
FACE CARBIDE GRADE	G30	G30	G30	G30	G30	G30	G30	G20	G20
CENTER CARBIDE QTY.	3	4	4	3	3	3	3	2	2
CENTER CARBIDE DIA. (mm)	14.3	14.3	14.3	14.3	14.3	14.3	14.3	15.9	15.9
CENTER CARBIDE DIA. (inch)	9/16	9/16	9/16	9/16	9/16	9/16	9/16	5/8	5/8
CENTER CARBIDE GRADE	G20	G20	G20	G20	G20	G20	G20	G20	G20

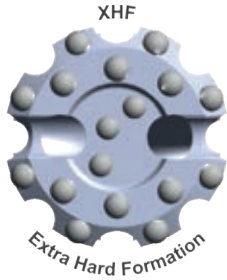
### CHUCK SLEEVE SIZING\*\*

BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
130.2	5 1/8	1046956	128.6	5 1/16
133.4	5 1/4	1046958	131.8	5 3/16
136.5	5 3/8	1046959	134.9	5 5/16
139.7	5 1/2	1046960	138.1	5 7/16
165.1	6 1/2	1107178	163.5	6 7/16
190.5	7 1/2	1059560	188.9	7 7/16

\* For hole collaring only

\*\* Recommended Chuck Sleeve size is 1/16" smaller than nominated bit size.

# RC BITS DR53



DTH Bits

HEAD DIAMETER (mm)	127.0	130.2	133.3	136.5	136.5	139.7	139.7	142.9	158.8	165.1	190.5
HEAD DIAMETER (inch)	5	5 1/8	5 1/4	5 3/8	5 3/8	5 1/2	5 1/2	5 5/8	6 1/4	6 1/2	7 1/2
FACE DESIGN	XHF	XHF	XHF	DC	XHF	DC	XHF	DC	DC*	DC*	DC*
ITEM CODE	1280156	1280155	1280157	1101424	1101423	1101425	1101437	1201146	1102120	1101441	1101443
NUMBER OF PORTS	2	2	2	2	2	2	2	2	2	2	2
WEIGHT (kg)	15.5	15.7	16.1	16.4	16.6	16.7	16.5	16.9	18.3	19	25.2
BUTTON PROFILE	DM	DM	DM	DM	DM	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35	35	35	35	35	35
GAUGE CARBIDE QTY.	8	8	8	8	8	8	8	8	8	8	8
GAUGE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	18	18
GAUGE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	-	-
GAUGE CARBIDE GRADE	G30	G30	G30	G30	G30	G30	G30	G30	G30	G20	G20
FACE CARBIDE QTY.	6	6	6	4	6	4	6	6	6	8	10
FACE CARBIDE DIA. (mm)	14.3	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
FACE CARBIDE DIA. (inch)	9/16	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
FACE CARBIDE GRADE	G30	G30	G30	G30	G30	G30	G30	G30	G30	G20	G20
CENTER CARBIDE QTY.	4	4	3	3	3	3	3	3	3	2	2
CENTER CARBIDE DIA. (mm)	12.7	12.7	14.3	14.3	14.3	14.3	14.3	14.3	14.3	15.9	15.9
CENTER CARBIDE DIA. (inch)	1/2	1/2	9/16	9/16	9/16	9/16	9/16	9/16	9/16	5/8	5/8
CENTER CARBIDE GRADE	G20	G20	G20	G20	G20	G20	G20	G20	G20	G20	G20

### CHUCK SLEEVE SIZING\*\*

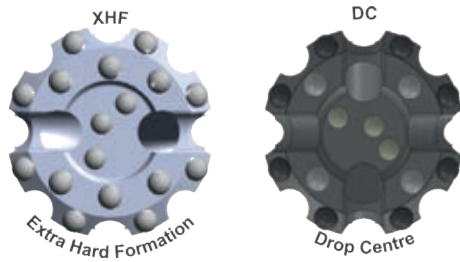
BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
127.0	5	1280151	125.4	4 15/16
130.2	5 1/8	1280153	128.6	5 1/16
133.3	5 1/4	1107216	131.8	5 3/16
136.5	5 3/8	1107219	134.9	5 5/16
139.7	5 1/2	1107221	138.1	5 7/16
142.9	5 5/8	1107224	141.3	5 9/16
158.8	6 1/4	1107661	157.2	6 3/16
165.1	6 1/2	1107225	163.5	6 7/16
190.5	7 1/2	1107226	188.9	7 7/16

\* For hole collaring only

\*\* Recommended Chuck Sleeve size is 1/16" smaller than nominated bit size.

## RC BITS

# DR53 RETENTION

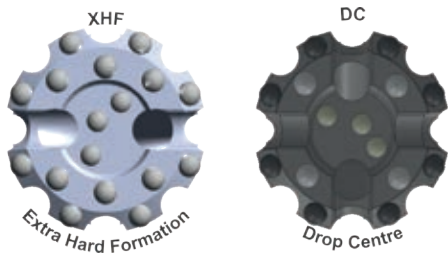


HEAD DIAMETER (mm)	136.5	139.7	142.9
HEAD DIAMETER (inch)	5 3/8	5 1/2	5 5/8
FACE DESIGN	XHF	XHF	XHF
ITEM CODE	1216712	1216713	1216714
NUMBER OF PORTS	2	2	2
WEIGHT (kg)	18	18.1	18.3
BUTTON PROFILE	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35
GAUGE CARBIDE QTY.	8	8	8
GAUGE CARBIDE DIA. (mm)	15.9	15.9	15.9
GAUGE CARBIDE DIA. (inch)	5/8	5/8	5/8
GAUGE CARBIDE GRADE	G30	G30	G30
FACE CARBIDE QTY.	6	6	6
FACE CARBIDE DIA. (mm)	15.9	15.9	15.9
FACE CARBIDE DIA. (inch)	5/8	5/8	5/8
FACE CARBIDE GRADE	G30	G30	G30
CENTER CARBIDE QTY.	3	3	3
CENTER CARBIDE DIA. (mm)	14.3	14.3	14.3
CENTER CARBIDE DIA. (inch)	9/16	9/16	9/16
CENTER CARBIDE GRADE	G20	G20	G20

### CHUCK SLEEVE SIZING\*\*

BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
136.5	5 3/8	1216717	134.9	5 5/16
139.7	5 1/2	1216716	138.1	5 7/16
142.9	5 5/8	1216715	141.3	5 9/16

# RC BITS DR55



HEAD DIAMETER (mm)	136.5	139.7	142.9	146.0	165.1	190.5
HEAD DIAMETER (inch)	5 3/8	5 1/2	5 5/8	5 3/4	6 1/2	7 1/2
FACE DESIGN	XHF	XHF	XHF	XHF	DC*	DC*
ITEM CODE	1193930	1194008	1194011	1194700	1070913	1045566
NUMBER OF PORTS	2	2	2	2	2	2
WEIGHT (kg)	17.9	18	18.2	18.4	18.7	24.3
BUTTON PROFILE	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35
GAUGE CARBIDE QTY.	8	8	8	8	8	8
GAUGE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	18
GAUGE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	-
GAUGE CARBIDE GRADE	G30	G30	G30	G30	G20	G20
FACE CARBIDE QTY.	6	6	6	6	8	10
FACE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	15.9
FACE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	5/8
FACE CARBIDE GRADE	G30	G30	G30	G30	G20	G20
CENTER CARBIDE QTY.	3	3	3	3	3	2
CENTER CARBIDE DIA. (mm)	14.3	14.3	14.3	14.3	14.3	15.9
CENTER CARBIDE DIA. (inch)	9/16	9/16	9/16	9/16	9/16	5/8
CENTER CARBIDE GRADE	G20	G20	G20	G20	G20	G20

## CHUCK SLEEVE SIZING\*\*

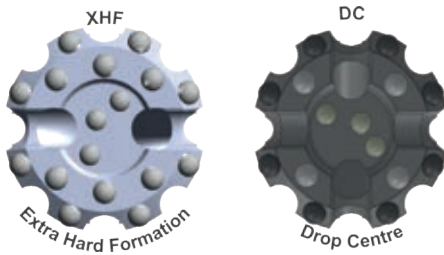
BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
136.5	5 3/8	1051770	134.9	5 5/16
139.7	5 1/2	1051774	138.1	5 7/16
142.9	5 5/8	1051779	141.3	5 9/16
146.0	5 3/4	1051781	144.5	5 11/16
165.1	6 1/2	1051782	163.5	6 7/16
190.5	7 1/2	1051784	188.9	7 7/16
158.8	6 1/4	1107661	157.2	6 3/16
165.1	6 1/2	1107225	163.5	6 7/16
190.5	7 1/2	1107226	188.9	7 7/16

\* For hole collaring only

\*\* Recommended Chuck Sleeve size is 1/16" smaller than nominated bit size.

# RC BITS

## DR55 RETENTION



HEAD DIAMETER (mm)	136.5	139.7	142.9	146.0	158.8	190.5
HEAD DIAMETER (inch)	5 3/8	5 1/2	5 5/8	5 3/4	6 1/4	7 1/2
FACE DESIGN	XHF	XHF	XHF	XHF	DC*	DC*
ITEM CODE	1101444	1045322	1054746	1101492	1048207	1046865
NUMBER OF PORTS	2	2	2	2	2	2
WEIGHT (kg)	17.5	18.6	18.8	18.9	19.6	23.5
BUTTON PROFILE	DM	DM	DM	DM	DM	DM
GAUGE ANGLE ( ° )	35	35	35	35	35	35
GAUGE CARBIDE QTY.	8	8	8	8	8	8
GAUGE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	18
GAUGE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	-
GAUGE CARBIDE GRADE	G30	G30	G30	G30	G20	G20
FACE CARBIDE QTY.	6	6	6	6	6	10
FACE CARBIDE DIA. (mm)	15.9	15.9	15.9	15.9	15.9	15.9
FACE CARBIDE DIA. (inch)	5/8	5/8	5/8	5/8	5/8	5/8
FACE CARBIDE GRADE	G30	G30	G30	G30	G20	G20
CENTER CARBIDE QTY.	3	3	3	3	3	2
CENTER CARBIDE DIA. (mm)	14.3	14.3	14.3	14.3	14.3	14.3
CENTER CARBIDE DIA. (inch)	9/16	9/16	9/16	9/16	9/16	9/16
CENTER CARBIDE GRADE	G20	G20	G20	G20	G20	G20

### CHUCK SLEEVE SIZING\*\*

BIT DIAMETER (mm)	BIT DIAMETER (inch)	CHUCK SLEEVE PART #	CHUCK SLEEVE DIA. (mm)	CHUCK SLEEVE DIA. (inch)
136.5	5 3/8	1051291	134.9	5 5/16
139.7	5 1/2	1051761	138.1	5 7/16
142.9	5 5/8	1051764	141.3	5 9/16
146.0	5 3/4	1051767	144.5	5 11/16
158.8	6 1/4	1048204	157.2	6 3/16
190.5	7 1/2	1070953	188.9	7 7/16

\* For hole collaring only

\*\* Recommended Chuck Sleeve size is 1/16" smaller than nominated bit size.







# CASING ADVANCING SYSTEMS

DTH Prime

DTH Prime DT

DTH-RoX(+)

DTH-RoX MU

DTH SR

DTH SF

CDS-R

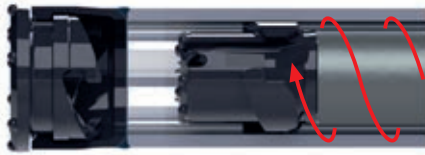
CDS-RS

DTH-REC

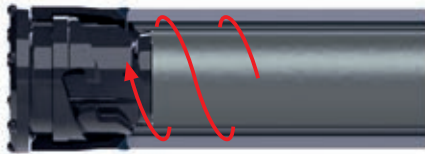


# CASING SYSTEMS CODES

## RoX – Automatic spiral locking (Patented)



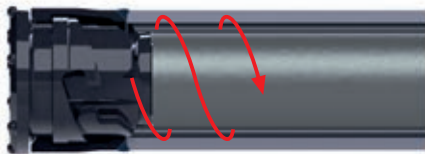
1.) Drive the pilot bit through the casing tube



2.) Rotate to locked position in the ring bit



3.) Robit® Casing System is READY TO DRILL



4.) Finish drilling by rotating the pilot bit in opposite direction and pulling it out

## Buttons

All the products are available with ballistic or SuperDome buttons.



Ballistic button












SuperDome button

## Casing Systems codes

e.g. **DTH** - **RoX** **MU** **114,3** / **10**

Maximum casing wall thickness	=	10 mm (0.394")
Casing outer diameter	=	114,3 mm (4 1/2")
Model	=	MU (Multi-Use)
Series type	=	RoX (Spiral locking)
Type of use	=	DTH (Down the Hole)

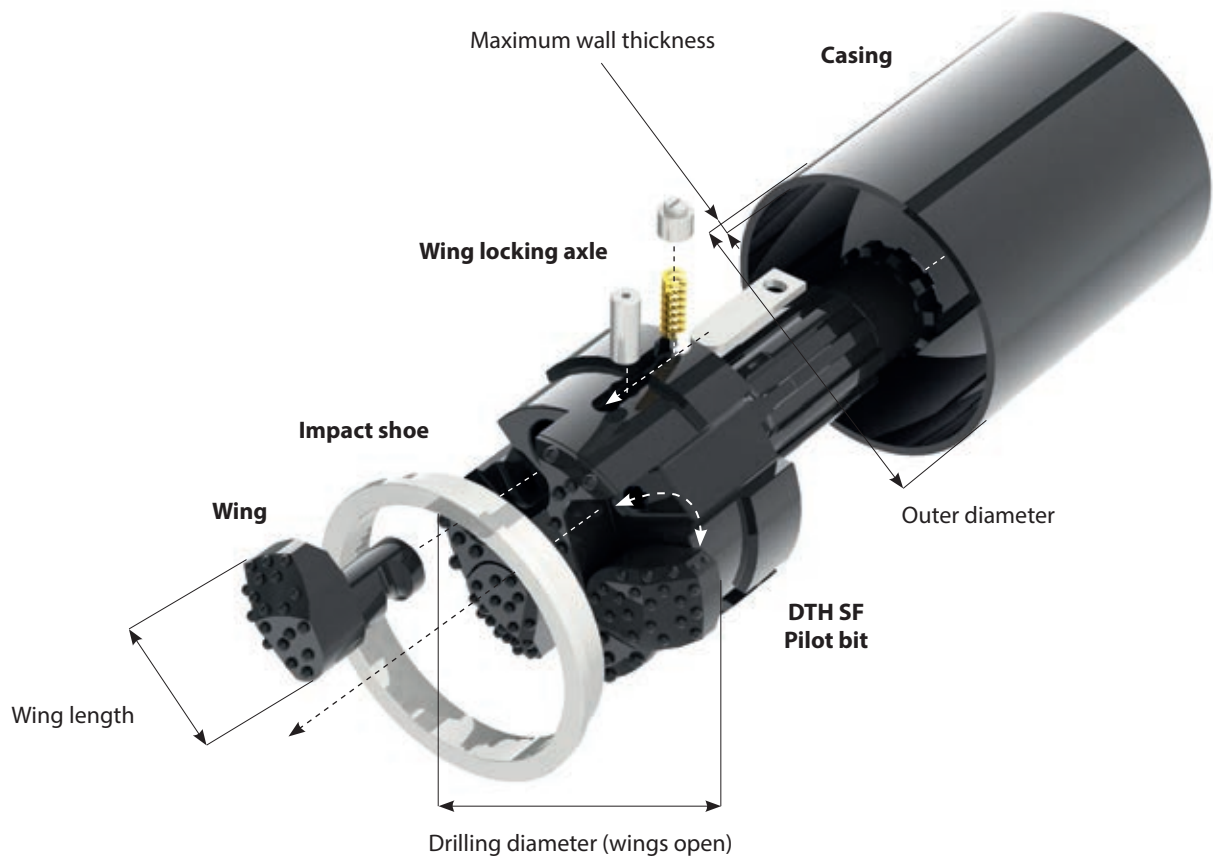
## Casing installation

Model		Permanent Casing	Temporary Casing
DTH-RoX+		X	
DTH-RoX++		X	
DTH Prime		X	
DTH Prime DT		X	
DTH SR		X	X
DTH SF		X	X
DTH-RoX MU		X	X
CDS-R(S)		X	X
DTH-REC		X	X

## DTH-RoX+ System parts and dimensions



## Steel Fist System parts and dimensions



# Standard shank designs

## Robit® system size

[mm]	[in]	
114,3	4 ½	DHD 3,5"
127,0	5	DHD 3,5", DHD 340, TD 40
139,7	5 ½	DHD 340, QL 40, SD-4, COP 42/44, TD 40
152,4	6	DHD 340, QL 40, SD-4, COP 42/44, TD 40
168,3	6 ⅝	DHD 350, QL 50, SD-5, COP 52/54
177,8	7	DHD 350, QL 50, SD-5, COP 52/54
193,7	7 ⅝	DHD 360, QL 60, SD-6
219,1	8 ⅝	DHD 360, QL 60, SD-6
244,5	9 ⅝	DHD 360/380, QL 60/80, SD-6/8
254,0	10	DHD 380, QL 80, SD-8
267,0	10 ½	DHD 380, QL 80, SD-8
273,0	10 ¾	DHD 380, QL 80, SD-8
323,9	12 ¾	DHD 380, QL 80, SD-8/10, N125

## Standard shank design

[mm]	[in]	
355,6	14	DHD 112, QL 120, SD-10/12, N120/125
406,4	16	DHD 112, QL 120, SD-10/12, N120/125
457,2	18	DHD 112/S, QL 120, SD-12/15, N120/125
508,0	20	DHD 112S, QL 120/200, SD-15/18, N125/180
558,8	22	DHD 112S, QL 120/200, SD-15/18, N180
609,6	24	QL 200, SD-18, N180
660,4	26	QL 200, SD-18, N180/240
711,2	28	QL 200S, SD-18, N180/240
762,0	30	QL 200S, SD-18, N180/240
812,8	32	QL 200S, N180/240
914,4	36	QL 200S, N180/240/330
1016,0	40	QL 300, N240/330
1220,0	48	N240/330, SS30
1320,0	52	H331

All inquiries for other shank designs please contact Robit sales.

## Drilling with DTH casing system

### 1. Pulldown/Feed force

The moderate pulldown force on pilot is 9 kg/ring bit OD in mm (500 lbs/inch)

### 2. Rotation speed

Normal operating RPM is 7620/ring bit OD in mm (see chart 1.)

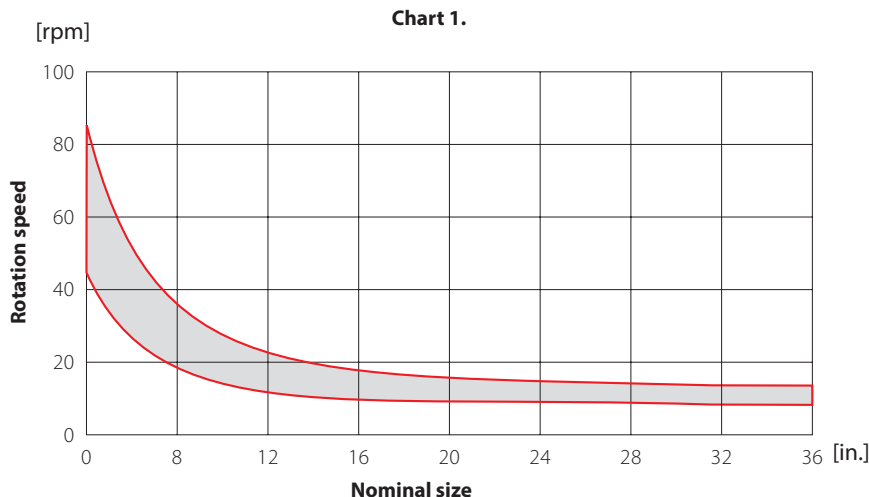
### 3. Compressor pressure

Normal operating pressure is from 12 to 15 bar or 180 to 225 psi. Note: in loose formation (i.e. sand) compressor can be set to 7 bar or 100 psi

### 4. Flushing

Drill exhaust air passes through the bit to clean the bit face and carry cuttings to the surface up the annular space between the drill pipe and the casing tube. Air velocity varies 12-18 m/s between drill rod and casing.

Drill rod and casing gap is typically ~50 mm under Ø406 mm systems. With the bigger diameters the gap will grow.



# DTH Prime

Durable piling solutions for demanding conditions

**Robit® DTH Prime** products allow you to drill **both threaded and welded casing tubes with the same ring bit**. **Fitting and welding** are made **easy** with a pile coupling structure, while the **ring bit carry capacity is guaranteed** to exceed the burden of maximum casing grades (S550). **Large gauge buttons** enhance ring bit durability with the long-life mentality carried over to pilot design. **Flushing grooves are optimized** for the toughest of conditions and optional **“Flow Control”** model also available, where the ring bit runs ahead of the pilot bit to minimize air escaping to surrounding ground. **Reliable spiral locking mechanism** is also used in the DTH Prime system. **With the Prime DT pilot bit you are able to drill with the same ring bit and continue drilling through the ring assembly deep to the bedrock to create a rock socket**. Robit® DTH Prime products are available for piling applications ranging from 114,3 to 1220 mm. Find out more from our sales representatives at +358 3 3140 3400 or sales@robitgroup.com. Meet us online at robitgroup.com.

## DTH Prime

### Drilling parameters example

Product	DTH Prime 219,1/12,7
Rock / Ground conditions	All rock and ground formations
Application	Piling
DTH hammer size	6”
Rotation speed	20 - 30 RPM
Torque	2200 - 3200 Nm
	20 - 24 m <sup>3</sup> /min Max:17 kg/cm <sup>2</sup>
Compressor output	707 - 848 CFM    250 psi
Compressor pressure	10 - 16 bar

**NOTE: Parameters may vary depending on ground / rock conditions, application and machinery.**



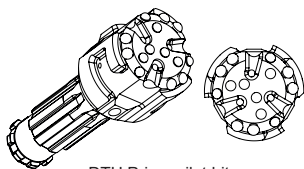


# DTH Prime

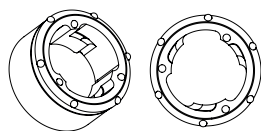
Order code	Casing				Ring bit				Pilot bit	Hammer	Weight		
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[kg]	[kg]	
DTH Prime 114,3/10	114,3	4 ½	10	0.394	80	3.150	135	5.315	91,5	3.602	3"	4.4	6.1
DTH Prime 139,7/10	139,7	5 ½	10	0.394	100	3.937	161	6.339	116	4.567	4"	5.8	10.2
DTH Prime 168,3/12,7	168,3	6 ¾	12,7	0.500	126	4.961	191	7.520	140	5.512	5"	8.4	17.9
DTH Prime 219,1/12,7	219,1	8 ¾	12,7	0.500	172	6.772	241	9.488	190	7.480	6"	11.6	30.6
DTH Prime 273/12,7	273	10 ¾	12,7	0.500	222	8.740	304	11.969	245	9.646	8"	17.5	66.3
DTH Prime XL2 273/12,7	273	10 ¾	12,7	0.500	222	8.740	327	12.874	245	9.646	8"	21.0	66.3
DTH Prime 323,9/12,7	323,9	12 ¾	12,7	0.500	272	10.709	350	13.780	295	11.614	8-10"	20.2	77.2
DTH Prime XL2 323,9/12,7	323,9	12 ¾	12,7	0.500	272	10.709	377	14.843	295	11.614	8-10"	24.1	77.2
DTH Prime 406,4/12,7	406,4	16	12,7	0.500	354	13.937	442	17.402	374	14.724	10-12"	34.0	180.0
DTH Prime XL2 406,4/12,7	406,4	16	12,7	0.500	354	13.937	460	18.110	374	14.724	10-12"	36.9	180.0
DTH Prime 508/16	508	20	16	0.630	438	17.244	548	21.575	467	18.386	12-18"	52.7	450.0
DTH Prime 609,6/19	609,6	24	19	0.748	534	21.024	650	25.591	562	22.126	18"	61.5	572.2
DTH Prime 813/23	813	32	23	0.906	723	28.465	860	33.858	757	29.803	20-24"	119.0	1220.0
DTH Prime 914/23	914	36	23	0.906	824	32.441	962	37.874	857	33.740	20-24"	131.4	1430.0
DTH Prime 1016/23	1016	40	23	0.906	932	36.693	1062	41.811	960	37.795	24"	172.5	2400.0
DTH Prime 1220/25,4	1220	48	25,4	1.000	1129	44.449	1272	50.079	1157	45.551	33"	221.0	3190.0
DTH Prime 1320/25,4	1320	52	25,4	1.000	1226	48.268	1374	54.094	1256	49.449	33"	250.0	3900.0
DTH Prime 1422/25,4	1422	56	25,4	1.000	1325	52.165	1476	58.110	1357	53.425	33"	270.0	4400.0
DTH Prime 1524/25,4	1524	60	25,4	1.000	1423	56.024	1580	62.205	1458	57.402	33"	300.0	5000.0

# DTH Prime DT (Drill Through)

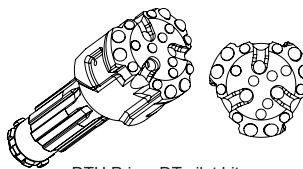
Order code	Casing				Ring bit				Pilot bit	Hammer	Weight		
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[kg]	[kg]	
DTH Prime DT 114,3/10	114,3	4 ½	10	0.394	80	3.150	135	5.315	90,6	3.567	3"	4.4	6.1
DTH Prime DT 139,7/10	139,7	5 ½	10	0.394	100	3.937	161	6.339	114	4.488	4"	5.8	10.4
DTH Prime DT 152,4/12,7	152,4	6	12,7	0.500	106	4.173	175	6.890	124	4.882	4"	7.5	11.4
DTH Prime DT 168,3/12,7	168,3	6 ¾	12,7	0.500	126	4.961	191	7.520	138	5.433	5"	8.4	18.1
DTH Prime DT 193,7/12,7	193,7	7 ¾	12,7	0.500	148	5.827	216	8.504	164	6.457	6"	10.0	28.7
DTH Prime DT 219,1/12,7	219,1	8 ¾	12,7	0.500	172	6.772	241	9.488	188	7.402	6"	11.6	30.0
DTH Prime DT 244,5/12,7	244,5	9 ¾	12,7	0.500	194	7.638	268	10.551	214	8.425	6"	14.1	54.2
DTH Prime DT 273/12,7	273	10 ¾	12,7	0.500	222	8.740	304	11.969	243	9.567	8"	17.5	65.1
DTH Prime DT 323,9/12,7	323,9	12 ¾	12,7	0.500	272	10.709	350	13.780	294	11.575	8-10"	20.2	77.8
DTH Prime DT 339,7/12,7	339,7	13 ¾	12,7	0.500	288	11.339	368	14.488	309	12.165	8-10"	22.3	80.0-145.0
DTH Prime DT 406,4/12,7	406,4	16	12,7	0.500	354	13.937	442	17.402	374	14.724	10-12"	34.0	180.0
DTH Prime DT 609,6/19	609,6	24	19	0.748	534	21.024	650	25.591	562	22.126	18"	61.5	572.2
DTH Prime DT 813/23	813	32	23	0.906	723	28.465	860	33.858	757	29.803	20-24"	119.0	1220.0
DTH Prime DT 914/23	914	36	23	0.906	824	32.441	962	37.874	857	33.740	20-24"	131.4	1430.0
DTH Prime DT 1016/23	1016	40	23	0.906	932	36.693	1062	41.811	960	37.795	24"	172.5	2400.0
DTH Prime DT 1220/25,4	1220	48	25,4	1.000	1129	44.449	1272	50.079	1157	45.551	33"	221.0	3190.0
DTH Prime DT 1320/25,4	1320	52	25,4	1.000	1226	48.268	1374	54.094	1256	49.449	33"	250.0	3900.0
DTH Prime DT 1422/25,4	1422	56	25,4	1.000	1325	52.165	1476	58.110	1357	53.425	33"	270.0	4400.0
DTH Prime DT 1524/25,4	1524	60	25,4	1.000	1423	56.024	1580	62.205	1458	57.402	33"	300.0	5000.0



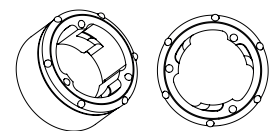
DTH Prime pilot bit



DTH Prime ring bit



DTH Prime DT pilot bit



DTH Prime DT ring bit

# DTH-RoX+, DTH-RoX++

## Single-use system for down the hole hammer

Sometimes overburden is thick and full of boulders. Robit® Single-Use Casing System for DTH Hammer enables easy, fast, and reliable drilling process in all conditions. Robit® Single-Use Casing Systems are available for all the common Down The Hole hammers and are designed for all the applications where the casing is left in the ground:

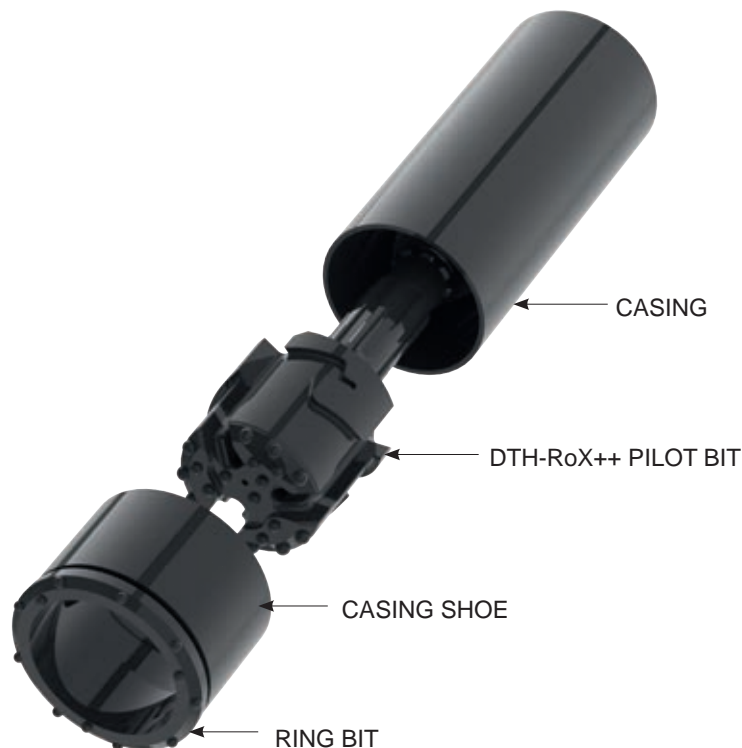
- Water well drilling (+, ++: ring bit ID optimized)
- Thermal well drilling (+, ++: ring bit ID optimized)

### DTH-RoX++

#### Drilling parameters example

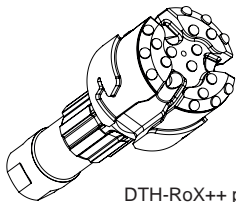
Product	DTH-RoX++ 168,3/6
Rock / Ground conditions	All rock and ground formations
Application	Well drilling
DTH hammer size	5"
Rotation speed	30 - 40 RPM
Torque	1500 - 2000 Nm
	15 - 24 m <sup>3</sup> /min Max:17 kg/cm <sup>2</sup>
Compressor output	530 - 848 CFM 250 psi
Compressor pressure	10 - 16 bar

**NOTE** Parameters may vary depending on ground / rock conditions, application and machinery.

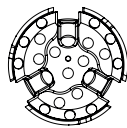


## DTH-RoX(+) . Ring bit ID optimized

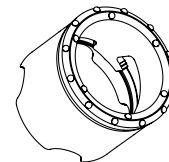
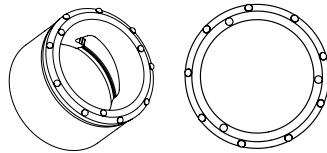
Order code	Casing				Ring bit				Pilot bit	Hammer	Weight		
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[kg]	[kg]	
DTH-RoX+ 114,3/5	114,3	4 ½	5	0.197	91	3.583	128	5.039	102	4.016	3 ½"	3.4	6.6
DTH-RoX++ 139,7/5,6	139,7	5 ½	5,6	0.220	116	4.567	154	6.063	127,5	5.020	4"	5.2	13.9
DTH-RoX++ 168,3/6	168,3	6 ⅝	6	0.236	142	5.591	184	7.244	155	6.102	5"	7.1	23.8
DTH-RoX+ 177,8/6,9	177,8	7	6,9	0.272	153,5	6.043	195	7.677	162	6.378	6"	7.0	27.0
DTH-RoX++ 193,7/6	193,7	7 ⅝	6	0.236	167	6.575	212	8.346	180	7.087	6"	9.0	35.2
DTH-ROX+ 219,1/5	219,1	8 ⅝	5	0.197	192	7.559	238	9.370	207	8.150	6"	10.4	37.8
DTH-RoX+ 219,1/6	219,1	8 ⅝	6	0.236	186	7.323	234	9.213	205	8.071	6"	10.0	37.2
DTH-RoX+ 273/8	273	10 ¾	8	0.315	232	9.134	292	11.496	255	10.039	8"	19.8	78.8
DTH-RoX++ 273/8	273	10 ¾	8	0.315	238	9.370	297,5	11.713	255	10.039	8"	19.4	74.3
DTH-RoX+ 323,9/8	323,9	12 ¾	8	0.315	281	11.063	343	13.504	306	12.047	8"	26.4	106.9
<b>Heavy duty rings</b>													
DTH-RoX++ HD 101,6/5	101,6	4	5	0.197	82,5	3.248	118	4.646	90,4	3.559	3"	3.2	6.0
DTH-RoX++ HD 139,7/5,6	139,7	5 ½	5,6	0.220	116	4.567	156	6.142			4"	6.3	13.9
DTH-RoX++ HD 168,3/6	168,3	6 ⅝	6	0.236	142	5.591	186	7.323			5"	8.6	23.8
DTH-RoX++ HD 193,7/6	193,7	7 ⅝	6	0.236	167	6.575	214	8.425			6"	10.9	35.2
DTH-RoX+ HD 219,1/6	219,1	8 ⅝	6	0.236	186	7.323	241	9.488			6"	11.4	37.2



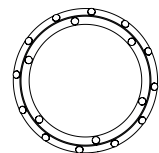
DTH-RoX++ pilot bit



DTH-RoX++ ring bit



Heavy Duty rings



# DTH-RoX MU

## Multi-use system for down the hole hammer

In some overburden drilling applications the casing has to be removed from the ground. This sets higher requirements on the durability of the equipment. Double groove design\* in the casing shoe and the best materials available guarantee that Robit® Multi-Use system does not fail even in the most difficult conditions. Robit® Multi-Use system is available for all the common DTH hammers. It is typically used in the following applications:

- Piling
- Anchoring
- Site investigation

### DTH-RoX MU

#### Drilling parameters example

Product	DTH-RoX MU 219,1/12,7
Rock / Ground conditions	All rock and ground formations
Application	Piling
DTH hammer size	6"
Rotation speed	20 - 30 RPM
Torque	2200 - 3200 Nm
	20 - 24 m <sup>3</sup> /min Max:17 kg/cm <sup>2</sup>
Compressor output	707 - 848 CFM    250 psi
Compressor pressure	10 - 16 bar

**NOTE** Parameters may vary depending on ground / rock conditions, application and machinery.



## DTH-RoX MU

Order code

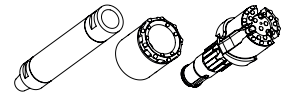
Casing

Ring bit

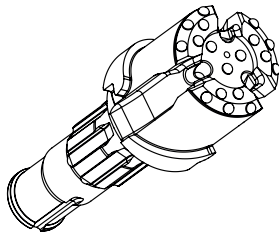
Pilot bit

Hammer

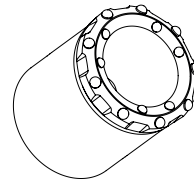
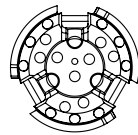
Weight



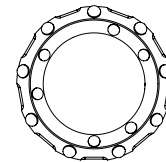
	Casing		Casing		Ring bit		Ring bit		Pilot bit		Hammer		Weight	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]		[kg]	[kg]	
DTH-RoX MU 114,3/10	114,3	4 1/2	10	0.394	78	3.071	122	4.803	92,5	3.642	3"	5.4	6.4	
DTH-RoX MU 127/10	127,0	5	10	0.394	95	3.740	136	5.354	105,2	4.142	3 1/2"	6.4	9.0	
DTH-RoX MU 139,7/10	139,7	5 1/2	10	0.394	104	4.094	147	5.787	117,5	4.626	4"	7.5	13.2	
DTH-RoX MU 152,4/10	152,4	6	10	0.394	115,8	4.559	159,5	6.280	130,6	5.142	4"	8.9	16.9	
DTH-RoX MU 168,3/10	168,3	6 5/8	10	0.394	129	5.079	178	7.008	146	5.748	5"	10.7	21.6	
DTH-RoX MU 177,8/10	177,8	7	10	0.394	142	5.591	191	7.520	155	6.102	5"	11.9	27.5	
DTH-RoX MU 193,7/10	193,7	7 5/8	10	0.394	154	6.063	204	8.031	172	6.772	6"	13.5	35.0	
DTH-RoX MU 219,1/12,7 219,1	219,1	8 5/8	12,7	0.500	172	6.772	229	9.016	192	7.717	6"	16.8	40.0	
DTH-RoX MU 273,0/12,7 273	273	10 3/4	12,7	0.500	211	8.307	286	11.260	243	9.567	8"	32.0	80.0	
DTH-RoX MU 323,9/12,7 323,9	323,9	12 3/4	12,7	0.500	257	10.118	338	13.307	293	11.535	8"	51.0	120.0	
DTH-RoX MU 355,6/12,7 355,6	355,6	14	12,7	0.500	305	12.008	368	14.488	326	12.835	8-12"	46.9	173.8	
DTH-RoX MU 406,4/12,7 406,4	406,4	16	12,7	0.500	328	12.913	423	16.654	374	14.724	10-12"	75.1	236.0	
DTH-RoX MU 508,0/15 508	508	20	15	0.591	414	16.299	526	20.709	472	18.583	12-15"	120.0	540.0	
DTH-RoX MU 609,6/12,7 609,6	609,6	24	12,7	0.500	554	21.811	645	25.394	581	22.874	18"	150.0	780.0	



DTH-RoX Multi-Use pilot bit



DTH-RoX Multi-Use ring bit



# DTH SR

## Solitary ring system for down the hole hammer

DTH SR products are economical and cost-effective to use when the ground is homogenous with few small boulders. With the same pilot you can install piles and interlocked Pipe-Pile-Wall piles just by using ring bits with different outside diameters. Robit® Solitary Ring Casing Systems are available for all the common Down The Hole hammers and can be used for all applications where the casing is left in the ground, but have been especially designed for:

- Piling
- Underpinning
- Micropiling

### DTH SR

#### Drilling parameters example

Product	DTH SR 219,1/12,7
Rock / Ground conditions	Homogenous soil with small boulders
Application	Piling and Pipe-Pile-Wall
DTH hammer size	6"
Rotation speed	20 - 30 RPM
Torque	2200 - 3200 Nm
	20 - 24 m <sup>3</sup> /min Max:17 kg/cm <sup>2</sup>
Compressor output	707 - 848 CFM    250 psi
Compressor pressure	10 - 16 bar

**NOTE** Parameters may vary depending on ground / rock conditions, application and machinery.



## DTH SR

Order code

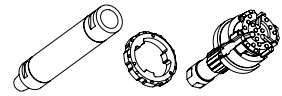
Casing

Ring bit

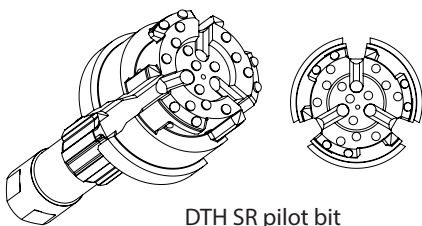
Pilot bit

Hammer

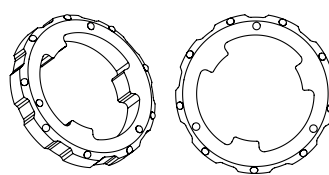
Weight



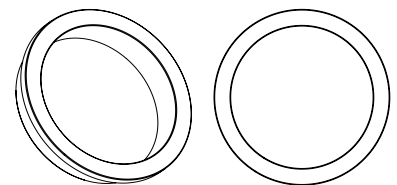
	[mm]		[in]		[mm]		[in]		[mm]		[in]		[kg]	[kg]
DTH SR 168,3/12,7	168,3	6 5/8	12,7	0.500	102	4.016	182	7.165	140,5	5.531	5"	6.8	20.0	
DTH SR 219,1/12,7	219,1	8 5/8	12,7	0.500	127	5.000	233	9.173	190,7	7.508	6"	10.0	36.4	
DTH SR XL2 219,1/12,7	219,1	8 5/8	12,7	0.500	127	5.000	273	10.748	190,7	7.508	6"	14.8	36.4	
DTH SR 273/12,7	273,0	10 3/4	12,7	0.500	194	7.638	287	11.299	244,6	9.630	8"	12.9	74.3	
DTH SR XL2 273/12,7	273,0	10 3/4	12,7	0.500	194	7.638	327	12.874	244,6	9.630	8"	18.5	74.3	
DTH SR 323,9/12,7	323,9	12 3/4	12,7	0.500	240	9.449	338	13.307	294,5	11.594	8-10"	15.9	97.4	
DTH SR XL2 323,9/12,7	323,9	12 3/4	12,7	0.500	240	9.449	378	14.882	294,5	11.594	8-10"	22.5	97.4	
DTH SR 406,4/12,7	406,4	16	12,7	0.500	322	12.677	420	16.535	376	14.803	10-12"	20.4	196.2	
DTH SR XL2 406,4/12,7	406,4	16	12,7	0.500	322	12.677	460	18.110	376	14.803	10-12"	30.5	196.2	
DTH SR 508/16	508	20	16	0.630	417	16.417	522	20.551	472	18.583	12"	26.6	297.0	
DTH SR XL2 508/16	508	20	16	0.630	417	16.417	562	22.126	472	18.583	12"	36.6	297.0	
DTH SR 609,6/16	609,6	24	16	0.630	504	19.843	625	24.606	571	22.480	18"	40.0	670.0	
DTH SR XL2 609,6/16	609,6	24	16	0.630	504	19.843	664	26.142	571	22.480	18"	52.5	670.0	
DTH SR 711/16	711	28	16	0.630	616	24.252	726	28.583	671	26.417	24"	44.0	730.0	
DTH SR XL2 711/16	711	28	16	0.630	616	24.252	765	30.118	671	26.417	24"	58.0	730.0	
DTH SR 813/23	813	32	23	0.906	705	27.756	828	32.598	758	29.843	20-24"	60.0	1080.0	
DTH SR XL2 813/23	813	32	23	0.906	705	27.756	867	34.134	758	29.843	20-24"	60.0	1080.0	
DTH SR 863/23	863	34	23	0.906	742	29.213	875	34.449	808	31.811	20-24"	57.0	1100.0	
DTH SR 914/23	914	36	23	0.906	795	31.299	930	36.614	858	33.780	20-24"	80.0	1500.0	
DTH SR 1016/23	1016	40	23	0.906	890	35.039	1035	40.748	959	37.756	24"	95.0	1800.0	
DTH SR 1220/25,4	1220	48	25,4	1.000	1080	42.520	1240	48.819	1156	45.512	33"	115.0	2500.0	
DTH SR 1320/25,4	1320	52	25,4	1.000	1185	46.654	1339	52.717	1256	49.449	33"	110.0	3500.0	
DTH SR 1422/25,4	1422	56	25,4	1.000	1283	50.512	1440	56.693	1357	53.425	33"	125.0	4000.0	
DTH SR 1524/25,4	1524	60	25,4	1.000	1379	54.291	1542	60.709	1458	57.402	33"	145.0	4600.0	



DTH SR pilot bit



DTH SR ring bit



DTH SR impact shoe

# DTH SF (STEEL FIST)

## Steel Fist system for down the hole hammer

Robit® Steel Fist product family is designed for specific piling operations, sizes from 273 mm up to 1220 mm. New economic way for traditional piling work, but also capable for installing water-proof Pipe-Pile-Walls. No ring bit is needed when piling with DTH SF. Usage in homogenous soil conditions with small boulders. Robit® Steel Fist Casing Systems are available for all the common Down The Hole hammers and can be used for all applications where the casing is left in the ground, but have been especially designed for:

- Piling
- Piling (Pipe-Pile-Walls)

### DTH SF

#### Drilling parameters example

Product	DTH SF 323,9/12,7
Rock / Ground conditions	Homogenous soil with small boulders
Application	Piling and Pipe-Pile-Wall
DTH hammer size	8" - 10"
Rotation speed	15 - 25 RPM
Torque	7000 - 10000 Nm
	24 - 33 m <sup>3</sup> /min Max:17 kg/cm <sup>2</sup>
Compressor output	848 - 1165 CFM 250 psi
Compressor pressure	10 - 14 bar

**NOTE** Parameters may vary depending on ground / rock conditions, application and machinery.





## DTH SF

Order code

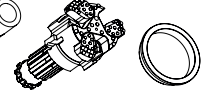
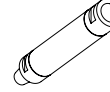
Pipe

Pilot bit

Wings

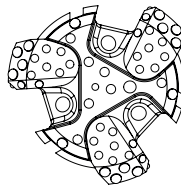
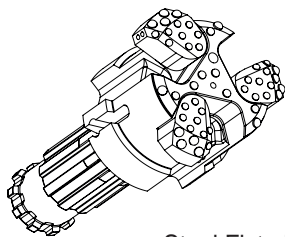
Hammer

Weight

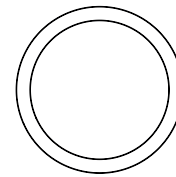
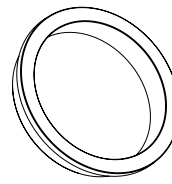


	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[in]	[pcs]		[kg]	[kg]
DTH SF 273/12,7	273,0	10 3/4	12,7	0.500	287	11.299	245	9.646	3	8"	86.1	4.2	
DTH SF 323,9/12,7	323,9	12 3/4	12,7	0.500	338	13.307	294,5	11.594	3	8"	117.5	5.1	
DTH SF XL2 323,9/12,7	323,9	12 3/4	12,7	0.500	374	14.724	294,5	11.594	3	8"	127.9	5.1	
DTH SF 406,4/12,7	406,4	16	12,7	0.500	420	16.535	376	14.803	3	10-12"	215.9	6.4	
DTH SF XL2 406,4/12,7	406,4	16	12,7	0.500	460	18.110	376	14.803	3	10-12"	227.9	6.4	
DTH SF 508/16	508	20	16	0.630	522	20.551	472	18.583	3	12"	353.0	8.6	
DTH SF XL2 508/16	508	20	16	0.630	562	22.126	472	18.583	3	12"	365.0	8.6	
DTH SF 609,6/16	609,6	24	16	0.630	624	24.567	571	22.480	3	18"	806.4	11.4	
DTH SF XL2 609,6/16	609,6	24	16	0.630	664	26.142	571	22.480	3	18"	820.1	11.4	
DTH SF 711/16	711	28	16	0.630	725	28.543	671	26.417	3	18"	1090.0	15.8	
DTH SF XL2 711/16	711	28	16	0.630	765	30.118	671	26.417	3	18"	1095.0	15.8	
DTH SF 813/23	813	32	23	0.906	826	32.520	758	29.843	3	18"	1455.8	19.6	
DTH SF XL2 813/23	813	32	23	0.906	867	34.134	758	29.843	3	18"	1471.5	19.6	
DTH SF 914/20	914	36	20	0.787	927	36.496	864	34.016	4	24-30"	1750.0	25.4	
DTH SF XL2 914/20	914	36	20	0.787	968	38.110	864	34.016	4	24-30"	1770.0	25.4	
DTH SF 1016/16	1016	40	16	0.630	1030	40.551	973	38.307	5	24-33"	2049.4	26.0	
DTH SF XL2 1016/16	1016	40	16	0.630	1070	42.126	973	38.307	5	24-33"	2080.0	26.0	
DTH SF 1220/20	1220	48	20	0.787	1234	48.583	1135	44.685	6	30-33"	2970.0	35.0	
DTH SF XL2 1220/20	1220	48	20	0.787	1274	50.157	1135	44.685	6	30-33"	3000.0	35.0	

When ordering, information about casing diameters (OD and ID) is necessary.



Steel Fist pilot bit



Steel Fist impact shoe

# CDS-R(S)

## Introducing the CDS-RS Overburden Drilling System

Drilling through loose material such as sand, clay or boulders can be problematic. Most of the Earth's surface is covered by this overburden material that may often collapse behind the drill bit resulting in loss of the hole and potential loss of the drill string.

Robit® concentric CDS-RS overburden drilling system range has been designed to allow continuous casing of a hole, through loose overburden material, down to and into solid bedrock. Using Robit's patented Airflow system, the CDS-RS's venturi effect vacuums cuttings away from the front of the drill bit and diverts the exhaust air back up the hole, greatly reducing the volume of air that would otherwise pass into the ground where it could cause potential problems.

The CDS-RS builds on the proven design of Robit® CDS and CDS-R Overburden Drilling Systems and is recommended for drilling in ground conditions where minimum disruption to sub structures and existing foundations is essential.



## CDS-R

Order code

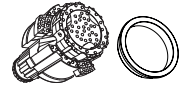
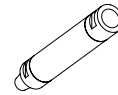
Pipe

Pilot bit

Wings

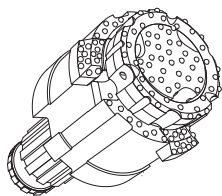
Hammer

Weight

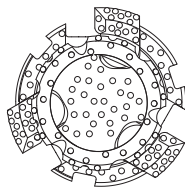


	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[pcs]		[kg]	[kg]
CDS 240R	273,0	10 ¾	13	0.512	296	13.307	240	9.450	3	8"	136.0	
CDS 280R	324,0	12 ¾	19	0.748	345	13.583	281	11.063	3	10"	200.0	16.5
CDS 295R	324,0	12 ¾	8	0.315	344	13.543	295	11.615	3	10"	250.0	11.0
CDS 310R	355,6	14	22,2	0.874	385	15.157	310	12.204	3	10"	300.0	19.0
CDS 315R	355,6	14	22,2	0.874	385	15.157	315	12.402	3	10"	350.0	19.0
CDS 360R	406,4	16	25,4	1.000	438	17.244	360	14.173	3	12"	380.0	27.0
CDS 365R	406,4	16	19,4	0.764	438	17.244	365	14.370	3	14"	401.0	27.0
CDS 460R	508	20	25	0.984	540	21.260	460	18.110	3	14"	1350.0	40.0
CDS 510R	559	22	26	1.024	583	22.953	510,5	20.100	3	14-18"	1230.0	28.0
CDS 560R	610	24	20	0.787	640	25.197	560	22.047	3	18"	1350.0	30.0
CDS 610R	660	26	27	1.063	692	27.244	610	24.016	3	18-24"	1790.0	36.0
CDS 660R	762	30	25,4	1.000	792	31.180	661,5	26.040	3	18-24"	1970.0	49.0
CDS 745R	813	32	33	1.299	843	33.189	746	29.370	4	24"	2500.0	55.0
CDS 835R	914,4	36	42,4	1.669	950	37.400	835	32.874	4	24"	2860.0	70.0

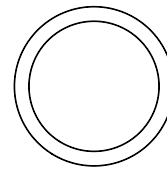
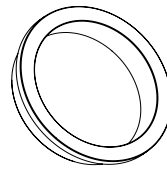
When ordering, information about casing diameters (OD and ID) is necessary.



CDS-R pilot bit



CDS-R impact shoe



## CDS-RS

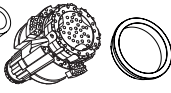
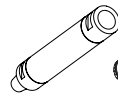
Pipe

Pilot bit

Wings

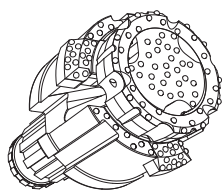
Hammer

Weight

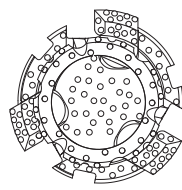


	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[pcs]		[kg]	[kg]
CDS 360RS	406,4	16	25,4	1.000	438	17.244	360	14.173	3	12"	380.0	27.0
CDS 365RS	406,4	16	19,4	0.764	438	17.244	365	14.370	3	14"	401.0	27.0
CDS 460RS	508	20	25	0.984	540	21.260	460	18.110	3	14"	1350.0	40.0
CDS 510RS	559	22	26	1.024	583	22.953	510,5	20.100	3	14-18"	1230.0	28.0
CDS 560RS	610	24	20	0.787	640	25.197	560	22.047	3	18"	1350.0	30.0
CDS 610RS	660	26	27	1.063	692	27.244	610	24.016	3	18-24"	1790.0	36.0
CDS 660RS	762	30	25,4	1.000	792	31.180	661,5	26.040	3	18-24"	1970.0	49.0
CDS 745RS	813	32	33	1.299	843	33.189	746	29.370	4	24"	2500.0	55.0
CDS 835RS	914,4	36	42,4	1.669	950	37.400	835	32.874	4	24"	2860.0	70.0

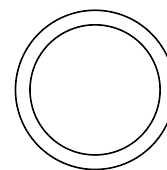
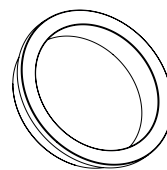
When ordering, information about casing diameters (OD and ID) is necessary.



CDS-RS pilot bit



CDS-RS impact shoe



# DTH-REC

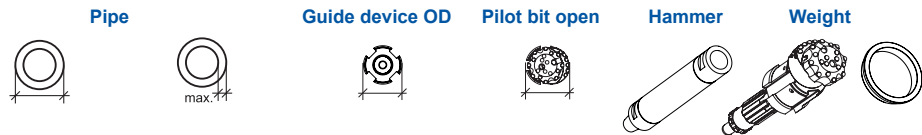
## Robit® Overburden Eccentric System

The new Robit® DTH-REC system is specially designed to offer a maximum reliability in overburden drilling conditions. This system enables driving the casing in all downward vertical directions/formations avoiding collapsing holes and lost equipment. DTH-REC system is a two-piece bit consisting of a concentric pilot bit and a swing-out eccentric reamer, which enlarges the hole's diameter driving the casing down into the hole. When the required depth has been reached, a reverse rotation is applied to retract the reamer, and then the full system can be pulled out and used again leaving the casing in place for further applications. DTH-REC system is applied worldwide in several ground drilling applications: Water well & Geothermal drilling, Micro piling, Dam and port projects.



## DTH-REC

### Order code



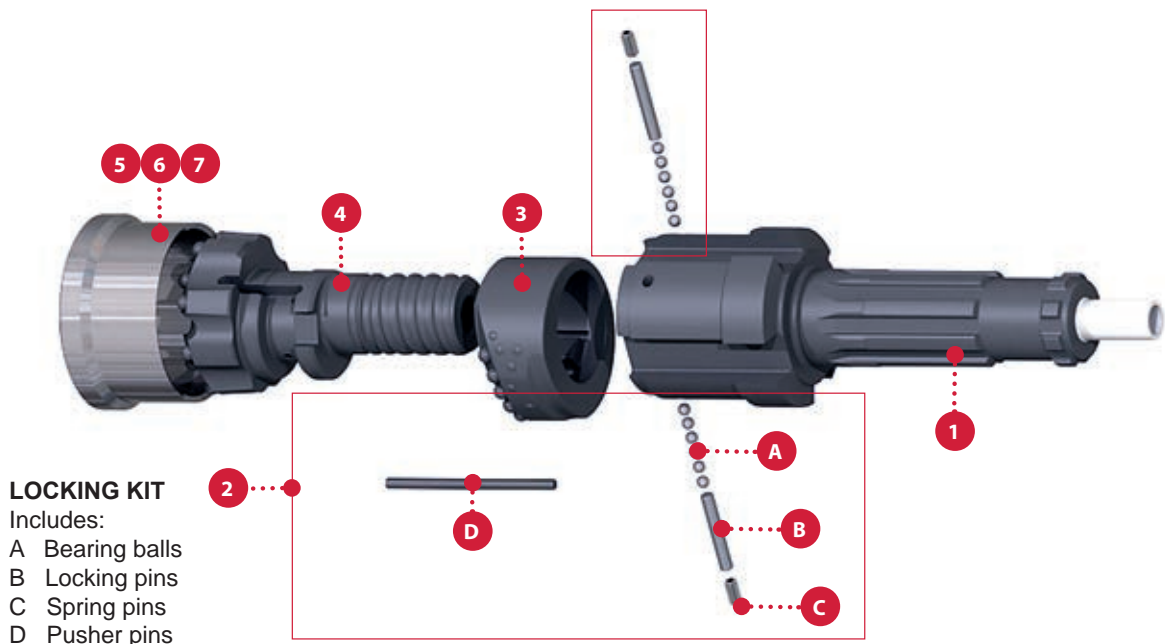
	Pipe		Guide device OD		Pilot bit open		Hammer	Weight			
	[mm]	[in]	[mm]	[in]	[mm]	[in]		[kg]	[kg]		
DTH-REC 114,3/6	114,3	4½	6	0.236	99,5	3.917	125	4.921	3"	12	1.2
DTH-REC 139,7/5,6	139,7	5½	5,6	0.220	125,5	4.941	153	6.023	4"	22	1.5
DTH-REC 168,3/5,6	168,3	6⅝	5,6	0.220	154	6.063	185	7.283	5"	36	2.5
DTH-REC 193,7/5	193,7	7⅝	5	0.196	179	7.047	212	8.346	6"	57	3.5
DTH-REC 219,1/6,3	219,1	8⅝	6,3	0.248	203	7.992	238	9.370	6"	79	4.0
DTH-REC 273/6,3	273	10¾	6,3	0.248	255	10.039	307	12.086	8"	136	6.5

\* Casing shoe wall thickness

\*\*Complete System does not include Casing shoes

### Component parts

Ref	Description	Item number					
		114,3/6 IR 3,5	139,7/5,6 IR 340	168,3/6,3 IR350	193,7/6,3 IR360	219,1/6,3 IR360	273/6,3 IR380
1	Guide device	2000272	2000179	2000064	2000329	2000249	03-581-273-0049
2	Locking kit	2000283	2000219	2000226	2000335	2000259	2000361
3	Reamer	2000276	2000184	2000060	2000333	2000254	03-620-273-0047
4	Pilot bit	2000274	2000182	2000062	2000331	2000252	03-610-273-0052
5	Casing shoe	2000281 (6)*	2000187 (5,6)*	2000508 (6,3)*	2000509 (6,3)*	2000255 (6,3)*	03-630-273-0054 (6,3)*
6	Casing shoe	2000282 (4,5)*	2000201 (4,5)*	2000058 (5,6)*	2000336 (5)*	2000256 (5)*	-
7	Casing shoe	-	-	2000203 (4,5)*	-	-	-
<b>Complete System**</b>		<b>2000499</b>	<b>2000500</b>	<b>2000501</b>	<b>2000502</b>	<b>2000498</b>	<b>2000503</b>





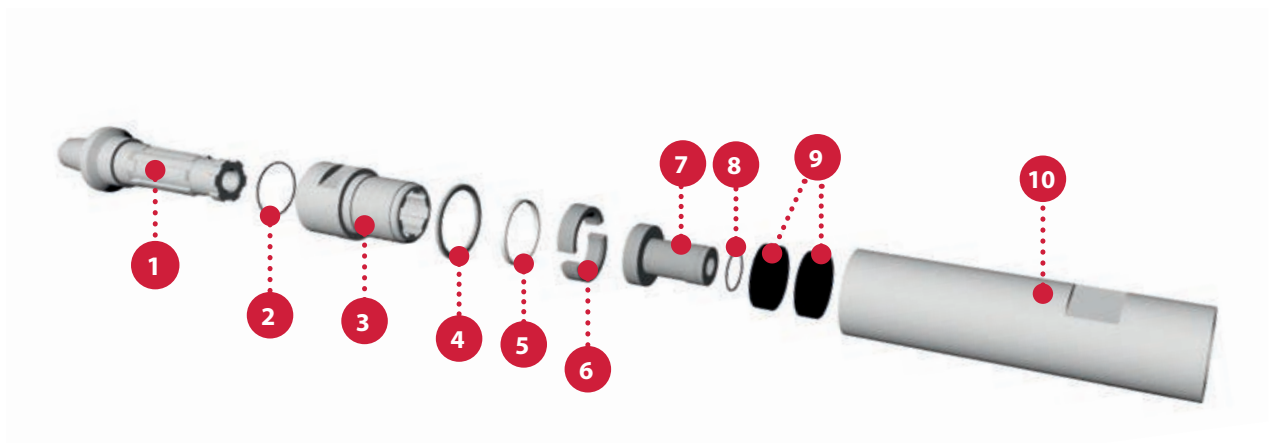
# SHOCK ABSORBERS

2" - 30"

Order code	DTH Hammer	Top connector	Bottom connector	Outside diameter		Length		Weight
				[mm]	[in]	[mm]	[in]	
Shock Absorber 2"	2"	23/8 reg pin	23/8 reg box	62,0	2.441	346	13.622	7,5
Shock Absorber 3"	3"	23/8 reg pin	23/8 reg box	79,4	3.126	457	17.992	14,3
Shock Absorber 4"	4"	23/8 reg pin	23/8 reg box	95,4	3.756	483	19.016	22,1
Shock Absorber 5"	5"	3½ reg pin	3½ reg box	115,0	4.528	514	20.236	33,2
Shock Absorber 6"	6"	3½ reg pin	3½ reg box	140,0	5.512	578	22.756	53,0
Shock Absorber 8"	8"	4½ reg pin	4½ reg box	178,0	7.008	591	23.268	84,0
Shock Absorber 10"	10"	65/8 reg pin	65/8 reg box	216,0	8.504	635	25.000	98,0
Shock Absorber 12"	12" - 14"	65/8 reg pin	65/8 reg box	254,0	10.000	V724	28.504	229,0
Shock Absorber 18"	18" - 24"	85/8 reg pin	85/8 reg box	406,0	15.984	711	27.992	598,0
Shock Absorber 30"	24" - 33"	10" Beco male	10" Beco female	508,0	20.000	950	37.402	1256,0



# 2"- 6" Shock Absorbers



Size	HDSA2	HDSA3	HDSA4	HDSA5	HDSA6
Effective length	346 mm / 13.62"	457 mm / 17.93"	483 mm / 19.02"	514 mm / 20.27"	578 mm / 22.76"
Outside diameter	62 mm / 2.44"	79.4 mm / 3.13"	95.4 mm / 3.76"	115 mm / 4.53"	140 mm / 5.51"
Net weight	7,5 kg / 16.5 lbs	14,3 kg / 31.5 lbs	22,1 kg / 48.7 lbs	33,2 kg / 73.2 lbs	53,0 kg / 116.8 lbs

Ref	Description	Part number				
		HDSA2	HDSA3	HDSA4	HDSA5	HDSA6
1	Top connector	SA02HD0810F	"SA03HD0801M (2 3/8" reg. pin)"	"SA04HD0801M (2 3/8" reg. pin)"	"SA05HD0803M (3 1/2" reg. pin)"	"SA06HD0803M (3 1/2" reg. pin)"
2	Seal 'O' ring*	N / A	SA03HD03	SA04HD03	SA05HD03	SA06HD03 (2 of)*
3	Splined Nut	HSB2837ST	SA03HD01	SA04HD01	SA05HD01	SA06HD01
4	Breakout washer	N / A	SA03HD25	SA04HD25	SA05HD25	SA06HD25
5	Splined Nut Seal	SA02HD10	SA03HD10	SA04HD10	SA05HD10	SA06HD10
6	Retainer ring	HSB2S37ST	SA03HD011	SA04HD011	SA05HD011	SA06HD011
7	Thrust guide	SA02HD12	SA03HD12	SA04HD12	SA05HD12	SA06HD12
8	Thrust guide'O' ring	SA02HD12A	SA03HD12A	SA04HD12A	SA05HD12A	SA06HD12A
9	Buffer x 2**	SA02HD05 (1 of)**	SA03HD05	SA04HD05	SA05HD05	SA06HD05
10	Bottom connector	SA02HD0911M	"SA03HD0901F (2 3/8" reg. box)"	"SA04HD0901F (2 3/8" reg. box)"	"SA05HD0903F (3 1/2" reg. box)"	"SA06HD0903F (3 1/2" reg. box)"
	<b>Complete Shock Absorber</b>	<b>SA02HD11MF-B</b>	<b>SA03HD01MF-B</b>	<b>S04HD01MF-B</b>	<b>S05HD03MF-B</b>	<b>S06HD03MF-B</b>



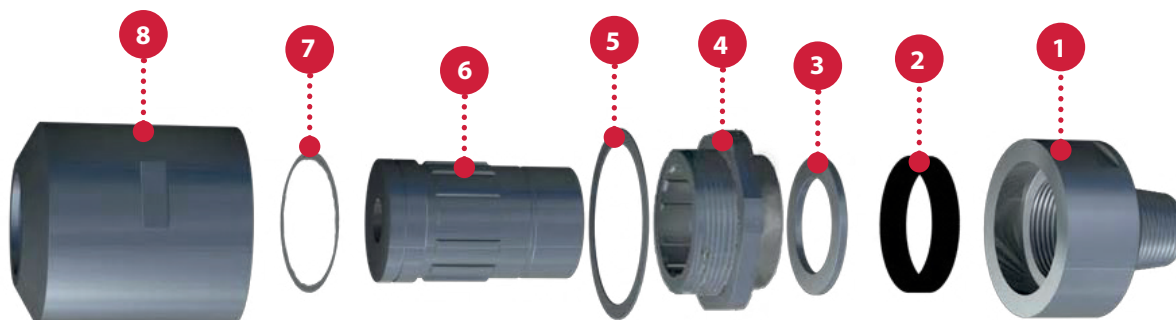
# 8"-10" Shock Absorbers



Size	HDSA8 (4 1/2 reg. pin)	HDSA10 (6 5/8 reg. pin)
Effective length	591 mm / 23.268 in.	635 mm / 25.000 in.
Outside diameter	178 mm / 7.008 in.	216 mm / 8.504 in.
Net weight	84 kg / 185.2 lbs	98 kg / 216.1 lbs

Ref	Description	Part number	
		HDSA8	HDSA10
1	Top connector	SA08ST0804M	SA10ST0880M
2	Buffer	SA08ST05	SA10ST05
3	Thrust Washer	SA08ST04	SA10ST04
4	Nut 'O' ring	SA08ST10	SA08ST10
5	Nut	SA08ST01	SA10ST01
6	Breakout Washer	SA08ST25	SA10ST25
7	Shaft	SA08ST02	SA10ST02
8	Shaft 'O' ring	SA08ST03	SA10ST03
9	Bottom Connector	SA08ST0904F	SA10ST0980F
	<b>Complete Shock Absorber</b>	<b>SA08ST04MF</b>	<b>SA10ST080MF</b>

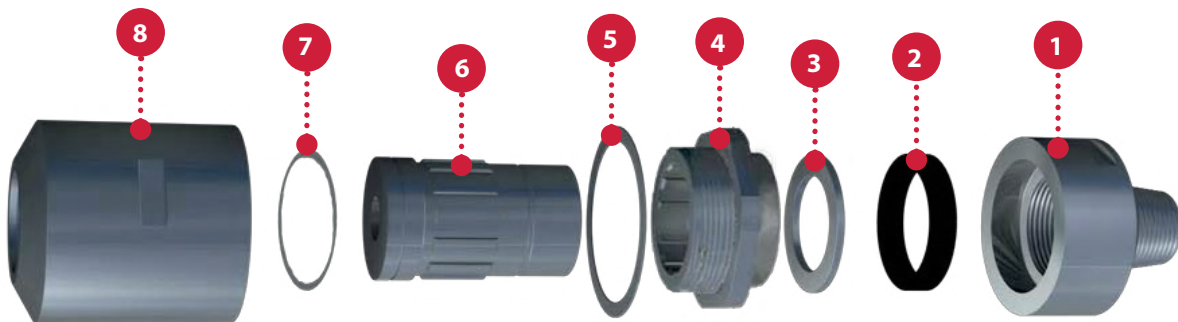
# 12" Shock Absorbers



Size	HDSA12
Effective length	724 mm / 28.5"
Outside diameter	254 mm / 10.00"
Net weight	229 kg / 504 lbs

Ref	Description	Part number
		<b>HDSA12</b>
1	Top Connector 6 5/8" API Reg Pin	SA12ST0880M
2	Buffer	SA12ST05
3	Thrust Washer	SA12ST04
4	Nut	SA12ST01
5	Breakout Washer	SA12ST25
6	Shaft	SA12ST02
7	Shaft 'O' Ring	SA12ST03
8	Bottom Connector 6 5/8" API Reg Box	SA12ST0980F
	<b>Complete Shock Absorber</b>	<b>SA12ST080MF</b>

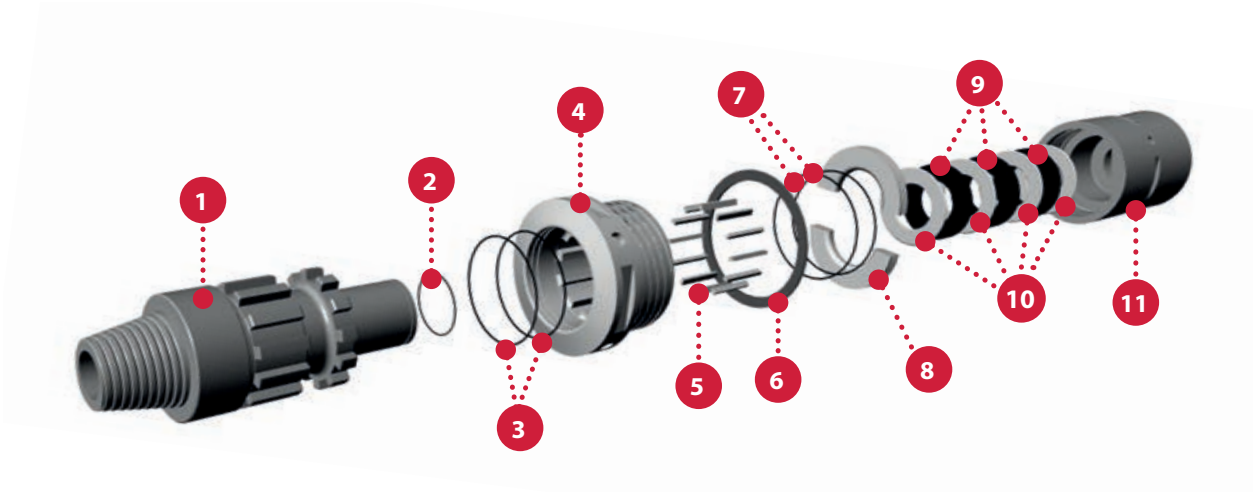
# 18" Shock Absorbers



Size	HDSA18
Effective length	711 mm / 28"v
Outside diameter	406 mm / 16"
Net weight	598 kg / 1316 lbs

Ref	Description	Part number
		<b>HDSA18</b>
1	Top Connector 8 5/8" API Reg Pin	SA18ST0882M
2	Buffer	SA18ST05
3	Thrust Washer	SA18ST04
4	Nut	SA18ST01
5	Breakout Washer	SA18ST25
6	Shaft	SA18ST02
7	Shaft 'O' Ring	SA18ST03
8	Bottom Connector 8 5/8" API Reg Box	SA18ST0982F
	<b>Complete Shock Absorber</b>	<b>SA18ST82MF</b>

# 30" Shock Absorbers



## Size

## HDSA30

Effective length	950 mm / 37.42"
Outside diameter	508 mm / 20.00"
Net weight	1256 kg / 2769.0 lbs

Ref	Description	Part number
		<b>HDSA30</b>
1	Shaft 10" BECO Pin	SA33HD0883M
2	Shaft 'O' Ring	9000425
3	Nut 'O' Ring x 2	9000426
4	Nut	SA33HD01
5	12off Drive Plates	SA33HD06
6	Breakout Washer	SA33HD25
7	Retainer 'O' Ring x 2	9000427
8	Split Retaining Ring	SA33HD11
9	Rubber Buffers x 3	SA33HD05
10	Steel Plates x 4	9000428
11	Bottom Connector 10" BECO Box	SA33HD0983F
	<b>Complete Shock Absorber</b>	<b>SA33HD83MF</b>





## DRILL PIPES

76 mm - 323 mm Single pipe

406 mm - 1220 mm Double pipe

89 - 114 mm RC pipe



Drill Pipes

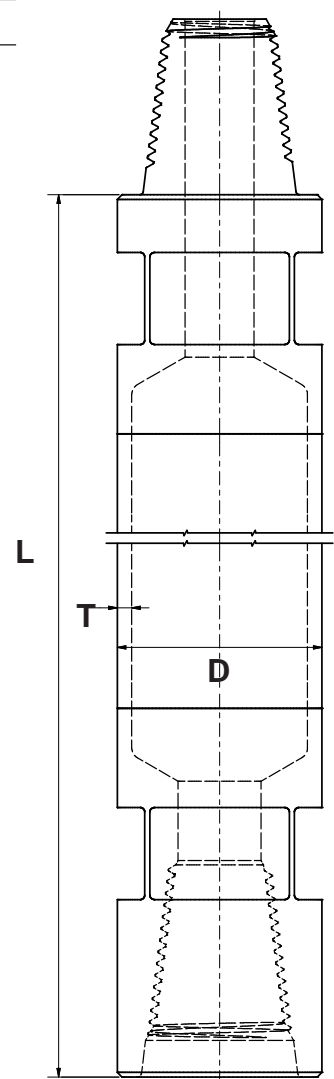
# Drill Pipes

Order code	Diameter D		Wall thickness T		Tool joint	Length L		*Weight [kg*]			
	[mm]	[in]	[mm]	[in]		[mm]	[in]				
Drill pipe 76	76	2.992	4	0.157	2 3/8" reg.	1000	39.370	12			
						1500	59.055	16			
						2000	78.740	19			
						3000	118.110	26			
			6,3	0.248	2 3/8" reg.	6000	236.220	47			
						1000	39.370	15			
						1500	59.055	21			
						2000	78.740	26			
Drill pipe 89	89	3.504	4	0.157	2 3/8" reg.	1000	39.370	16			
						1500	59.055	21			
						2000	78.740	25			
						3000	118.110	33			
			6,3	0.248	2 3/8" reg.	6000	236.220	58			
						1000	39.370	19			
						1500	59.055	26			
						2000	78.740	32			
Drill pipe 102	102	4.016	6,3	0.248	2 7/8" reg.	1000	39.370	25			
						1500	59.055	33			
						2000	78.740	40			
						3000	118.110	55			
			6000	236.220	100	1000	39.370	29			
									1500	59.055	38
									2000	78.740	46
									3000	118.110	63
Drill pipe 114	114	4.488	6,3	0.248	3 1/2" reg./ or 3" Beco	1000	39.370	29			
						1500	59.055	38			
						2000	78.740	46			
						3000	118.110	63			
			6000	236.220	114	1000	39.370	45			
									1500	59.055	59
									2000	78.740	76
									3000	118.110	104
Drill pipe 139	139	5.472	8,8	0.346	3 1/2" reg./ or 3 1/2" Beco	1000	39.370	45			
						1500	59.055	59			
						2000	78.740	76			
						3000	118.110	104			
			6000	236.220	139	1000	39.370	120			
									1500	59.055	145
									2000	78.740	170
									3000	118.110	228
Drill pipe 168	168	6.614	12,5	0.492	4 1/2" reg./ or 4" Beco	1000	39.370	120			
						1500	59.055	145			
						2000	78.740	170			
						3000	118.110	228			
			6000	236.220	168	1000	39.370	126			
									1500	59.055	154
									2000	78.740	181
									3000	118.110	236
12000	472.441	605	1000	39.370	126						
						1500	59.055	154			
						2000	78.740	181			
						3000	118.110	236			
Drill pipe 193	193	7.598	12,5	0.492	4 1/2" reg./ or 5 1/4" Beco	1000	39.370	126			
						1500	59.055	154			
						2000	78.740	181			
						3000	118.110	236			
			6000	236.220	193	1000	39.370	126			
									1500	59.055	154
									2000	78.740	181
									3000	118.110	236
12000	472.441	745	1000	39.370	126						
						1500	59.055	154			
						2000	78.740	181			
						3000	118.110	236			



Order code	Diameter D		Wall thickness T		Tool joint	Length L		*Weight [kg*]
	[mm]	[in]	[mm]	[in]		[mm]	[in]	
Drill pipe 219	219	8.622	12,5	0.492	4 1/2" reg./ or 6" Beco	1000	39.370	159
						1500	59.055	191
						2000	78.740	222
						3000	118.110	285
						6000	236.220	475
						12000	472.441	857
Drill pipe 254	254	10.000	12,5	0.492	6 5/8" reg.	1000	39.370	222
						1500	59.055	259
						2000	78.740	296
						3000	118.110	370
						6000	236.220	594
						12000	472.441	1041
					HEX150	1000	39.370	204
						1500	59.055	241
						2000	78.740	279
						3000	118.110	354
						6000	236.220	577
						12000	472.441	1024
Drill pipe 273	273	10.748	16	0.630	6 5/8" reg./ or 8" Beco	1000	39.370	248
						1500	59.055	299
						2000	78.740	349
						3000	118.110	451
						6000	236.220	755
						12000	472.441	1363
					HEX150	1000	39.370	282
						1500	59.055	333
						2000	78.740	383
						3000	118.110	484
						6000	236.220	788
						12000	472.441	1396
Drill pipe 323	323	12.717	16	0.630	6 5/8" reg.	1000	39.370	320
						1500	59.055	381
						2000	78.740	442
						3000	118.110	563
						6000	236.220	927
						12000	472.441	1654
					HEX190	1000	39.370	360
						1500	59.055	421
						2000	78.740	482
						3000	118.110	603
						6000	236.220	966
						12000	472.441	1693

Ø 76 - 323 mm



Drill Pipes

\*Weight can vary because of pipe joint details.

# Drill Pipes - Double Pipe

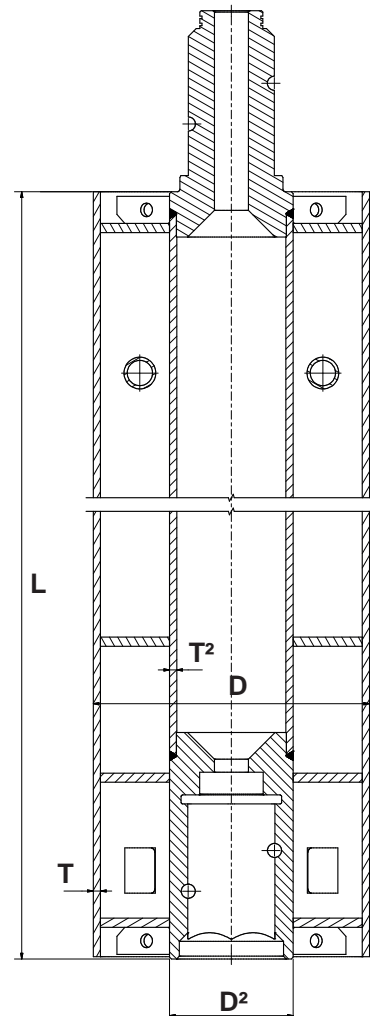
Order code	Diameter		Wall thickness		Diameter 2		Wall thickness 2		Tool joint	Length		*Weight [kg*]																		
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]		[mm]	[in]																			
Drill pipe 406	406	15.984	12,5	0.492	273	10.748	16	0.630	8 5/8" reg.	1000	39.370	387																		
										1500	59.055	487																		
										2000	78.740	598																		
										3000	118.110	821																		
										6000	236.220	1507																		
										12000	472.441	2860																		
									HEX190	1000	39.370	414																		
										1500	59.055	525																		
										2000	78.740	637																		
										3000	118.110	859																		
										6000	236.220	1545																		
										12000	472.441	2898																		
										Drill pipe 457	457	17.992	12,5	0.492	273	10.748	16	0.630	8 5/8" reg.	1000	39.370	401								
																				1500	59.055	521								
2000	78.740	640																												
3000	118.110	878																												
6000	236.220	1621																												
12000	472.441	3079																												
HEX190	1000	39.370	440																											
	1500	59.055	559																											
	2000	78.740	678																											
	3000	118.110	917																											
	6000	236.220	1660																											
	12000	472.441	3118																											
	Drill pipe 508	508	20.000	12,5	0.492	273	10.748	16	0.630										HEX190	1000	39.370	467								
																				1500	59.055	594								
2000										78.740	721																			
3000										118.110	975																			
6000										236.220	1777																			
12000										472.441	3341																			
Drill pipe 559										559	22.008	12,5	0.492	323,9	12.752	16	0.630	HEX190	1000	39.370	611									
																			1500	59.055	756									
																			2000	78.740	901									
																			3000	118.110	1191									
																			6000	236.220	2105									
																			12000	472.441	3890									
																		Drill pipe 610	610	24.016	12,5	0.492	323,9	12.752	16	0.630	HEX190	1000	39.370	641
																												1500	59.055	794
	2000	78.740	947																											
	3000	118.110	1252																											
	6000	236.220	2228																											
	12000	472.441	4120																											
	Drill pipe 711	711	27.992	12,5	0.492	323,9	12.752	16	0.630																		HEX190	1000	39.370	704
																												1500	59.055	872
2000										78.740	1040																			
3000										118.110	1377																			
6000										236.220	2478																			
12000										472.441	4589																			
Drill pipe 762										762	30.000	12,5	0.492	323,9	12.752	16	0.630										HEX190	1000	39.370	737
																												1500	59.055	913
																		2000	78.740	1090										
																		3000	118.110	1442										
																		6000	236.220	2608										
																		12000	472.441	4831										

Order code	Diameter		Wall thickness		Diameter 2		Wall thickness 2		Tool joint	Length		*Weight
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]		[mm]	[in]	[kg*]
Drill pipe 813	813	32.008	12,5	0.492	323,9	12.752	16	0.630	HEX210	1000	39.370	772
										1500	59.055	956
										2000	78.740	1140
										3000	118.110	1508
										6000	236.220	2740
Drill pipe 914	914	35.984	12,5	0.492	323,9	12.752	16	0.630	HEX210	1000	39.370	845
										1500	59.055	1044
										2000	78.740	1244
										3000	118.110	1643
										6000	236.220	3011
Drill pipe 1016	1016	40.000	12,5	0.492	323,9	12.752	16	0.630	HEX210	1000	39.370	923
										1500	59.055	1139
										2000	78.740	1354
										3000	118.110	1785
										6000	236.220	3294
Drill pipe 1220	1220	48.031	12,5	0.492	323,9	12.752	16	0.630	HEX210	1000	39.370	1094
										1500	59.055	1343
										2000	78.740	1590
										3000	118.110	2083
										6000	236.220	3891
										12000	472.441	7179

Ø 406 - 1220 mm

## Drill Pipes - RC Pipe

Diameter (OD)		Tool joint	Length L	
[mm]	[in]		[mm]	[in]
89	3½	3½" REMET	3000	118.110
			6000	236.220
102	4	4" REMET/ or 4" METZKE/ or DR102	3000	118.110
			6000	236.220
114	4½	4½" REMET/ or 4½" METZKE/ or DR115	3000	118.110
			6000	236.220



Drill Pipes



# ACCESSORIES

Subs

Check valves

Adapters

Hammer sleeves

Air hoses & chain keys

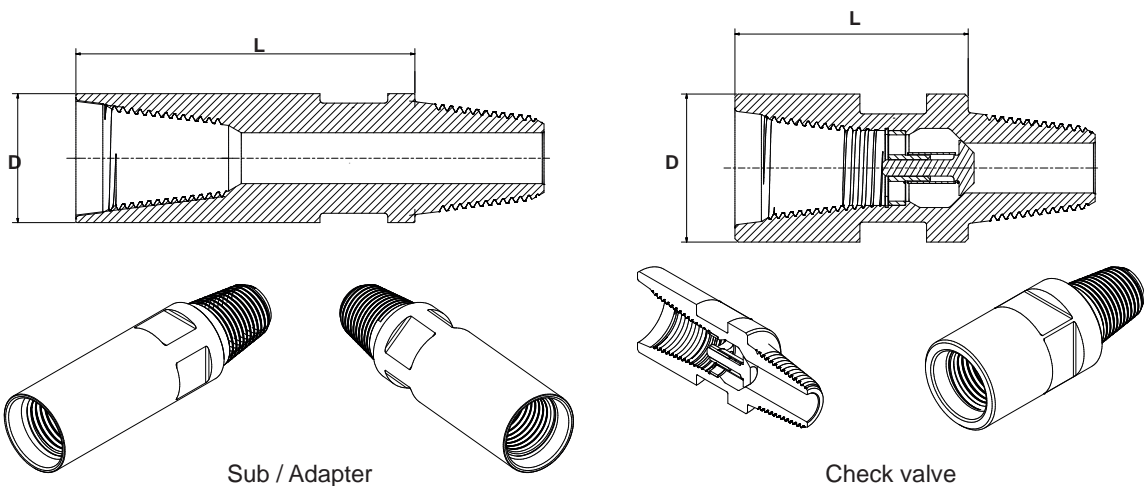


# Accessories

Order code	Diameter		Top connector	Bottom connector	Length		Weight
	[mm]	[in]			[mm]	[in]	
Sub 76,1 - 2 $\frac{3}{8}$ REG box & pin L140	76,1	3	2 $\frac{3}{8}$ REG box	2 $\frac{3}{8}$ REG pin	140	5.512	4
Sub 88,9 - 2 $\frac{3}{8}$ REG box & pin L140	88,9	3 $\frac{1}{2}$	2 $\frac{3}{8}$ REG box	2 $\frac{3}{8}$ REG pin	140	5.512	5
Sub 88,9 - 2 $\frac{3}{8}$ REG box & pin L225	88,9	3 $\frac{1}{2}$	2 $\frac{3}{8}$ REG box	2 $\frac{3}{8}$ REG pin	225	8.858	9
Sub 88,9 - 2 $\frac{3}{8}$ REG box & pin L305	88,9	3 $\frac{1}{2}$	2 $\frac{3}{8}$ REG box	2 $\frac{3}{8}$ REG pin	305	12.008	12
Adapter 114,3 - 2 $\frac{3}{8}$ -3 $\frac{1}{2}$ REG box & pin L120	114,3	4 $\frac{1}{2}$	2 $\frac{3}{8}$ REG box	3 $\frac{1}{2}$ REG pin	120	4.724	10
Adapter 88,9 - 2 $\frac{1}{8}$ -2 $\frac{3}{8}$ REG box & pin L134	88,9	3 $\frac{1}{2}$	2 $\frac{1}{8}$ REG box	2 $\frac{3}{8}$ REG pin	134	5.276	5
Adapter 114,3 - 2 $\frac{1}{8}$ -3 $\frac{1}{2}$ REG box & pin L145	114,3	4 $\frac{1}{2}$	2 $\frac{1}{8}$ REG box	3 $\frac{1}{2}$ REG pin	145	5.709	8
Sub 114,3 - 3 $\frac{1}{2}$ REG box & pin L250	114,3	4 $\frac{1}{2}$	3 $\frac{1}{2}$ REG box	3 $\frac{1}{2}$ REG pin	250	9.843	16
Adapter 114,3/88,9 - 3 $\frac{1}{2}$ -2 $\frac{3}{8}$ REG box & pin L300	114,3/88,9	4 $\frac{1}{2}$ / 3 $\frac{1}{2}$	3 $\frac{1}{2}$ REG box	2 $\frac{3}{8}$ REG pin	300	11.811	17
Adapter 114,3 - 3 $\frac{1}{2}$ -2 $\frac{3}{8}$ REG box & pin L160	114,3	4 $\frac{1}{2}$	3 $\frac{1}{2}$ REG box	2 $\frac{3}{8}$ REG pin	160	6.299	9
Adapter 140 - 3 $\frac{1}{2}$ -2 $\frac{1}{2}$ REG box & pin L104	140	5 $\frac{1}{2}$	3 $\frac{1}{2}$ REG box	4 $\frac{1}{2}$ REG pin	104	4.094	13
Adapter 140/114,3 - 4 $\frac{1}{2}$ -3 $\frac{1}{2}$ REG box & pin L220	140/114,3	5 $\frac{1}{2}$ / 4 $\frac{1}{2}$	4 $\frac{1}{2}$ REG box	3 $\frac{1}{2}$ REG pin	220	8.661	16
Sub 140 - 4 $\frac{1}{2}$ REG box & pin L180	140	5 $\frac{1}{2}$	4 $\frac{1}{2}$ REG box	4 $\frac{1}{2}$ REG pin	180	7.087	18
Adapter 196,8/140 - 4 $\frac{1}{2}$ -6 $\frac{5}{8}$ REG box & pin L215	196,8/140	7 $\frac{3}{4}$ / 5 $\frac{1}{2}$	4 $\frac{1}{2}$ REG box	6 $\frac{5}{8}$ REG pin	215	8.465	30
Adapter 196,8/114,3 - 6 $\frac{5}{8}$ -3 $\frac{1}{2}$ REG box & pin L265	196,8/114,3	7 $\frac{3}{4}$ / 4 $\frac{1}{2}$	6 $\frac{5}{8}$ REG box	3 $\frac{1}{2}$ REG pin	265	10.433	28
Adapter 196,8/140 - 6 $\frac{5}{8}$ -4 $\frac{1}{2}$ REG box & pin L240	196,8/140	7 $\frac{3}{4}$ / 5 $\frac{1}{2}$	6 $\frac{5}{8}$ REG box	4 $\frac{1}{2}$ REG pin	240	9.449	31
Adapter 254 - 6 $\frac{5}{8}$ -150 REG box & Hex pin L300	254	10	6 $\frac{5}{8}$ REG box	Hex 150 pin	300	11.811	120
Adapter 254 - 150-6 $\frac{5}{8}$ Hex box & REG pin L350	254	10	Hex 150 box	6 $\frac{5}{8}$ REG pin	350	13.780	148
Adapter 273 - 6 $\frac{5}{8}$ -190 REG box & Hex pin L300	273	10 $\frac{3}{4}$	6 $\frac{5}{8}$ REG box	Hex 190 pin	300	11.811	207
Adapter 273 - 190-6 $\frac{5}{8}$ Hex box & REG pin L550	273	10 $\frac{3}{4}$	Hex 190 box	6 $\frac{5}{8}$ REG pin	550	21.654	188
Adapter 273 - 8 $\frac{5}{8}$ -190 REG box & Hex pin L300	273	10 $\frac{3}{4}$	8 $\frac{5}{8}$ REG box	Hex 190 pin	300	11.811	208
Adapter 273 - 190-8 $\frac{5}{8}$ Hex box & REG pin L550	273	10 $\frac{3}{4}$	Hex 190 box	8 $\frac{5}{8}$ REG pin	550	21.654	189
Adapter 323 - 6 $\frac{5}{8}$ -210 REG box & Hex pin L300	323	10 $\frac{3}{4}$	6 $\frac{5}{8}$ REG box	Hex 210 pin	300	11.811	322
Adapter 323 - 210-6 $\frac{5}{8}$ Hex box & REG pin L550	323	10 $\frac{3}{4}$	Hex 210 box	6 $\frac{5}{8}$ REG pin	550	21.654	296

Order code	Diameter		Top connector	Bottom connector	Length		Weight
	[mm]	[in]			[mm]	[in]	
Check valve 76,1 - 2 $\frac{3}{8}$ REG box & pin L140	76,1	3	2 $\frac{3}{8}$ REG box	2 $\frac{3}{8}$ REG pin	140	5.512	6
Check valve 88,9 - 2 $\frac{3}{8}$ REG box & pin L140	88,9	3 $\frac{1}{2}$	2 $\frac{3}{8}$ REG box	2 $\frac{3}{8}$ REG pin	140	5.512	7
Check valve 114,3 - 3 $\frac{1}{2}$ REG box & pin L210	114,3	4 $\frac{1}{2}$	3 $\frac{1}{2}$ REG box	3 $\frac{1}{2}$ REG pin	210	8.268	16
Check valve 127 - 3 $\frac{1}{2}$ REG box & pin L210	127	5	3 $\frac{1}{2}$ REG box	3 $\frac{1}{2}$ REG pin	210	8.268	19
Check valve 140 - 4 $\frac{1}{2}$ -3 $\frac{1}{2}$ REG box & pin L230	140	5 $\frac{1}{2}$	4 $\frac{1}{2}$ REG box	3 $\frac{1}{2}$ REG pin	230	9.055	24

Hammer sleeves for request. Please contact Robit® sales, tel. +358 3 3140 3400 or sales@robitgroup.com



# Air hoses & chain keys

35 bar air hoses, lengths 20 m, 35 m and 40 m  
Hose covers



Chain key 3-5" & 3-8"

Chain 3-5" DA2344-C12 & 3-8" DA4174-C12

Key body 3-5" DA2344-C12 & 3-8" DA4174-C12



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