

YOUR DRILLING EXPERT



# PRODUCT CATALOGUE

Contents



### Our commitment to you

At Halco we pride ourselves on providing exemplary levels of customer service, support and training no matter what your drilling requirements are.

Having manufactured drilling consumables for over seventy years, our support team are well placed to provide accurate and timely solutions to optimise your drilling performance.

Halco is a world class manufacturer of Down The Hole (DTH) drilling equipment with manufacturing locations in The United Kingdom and Australia . Our headquarters are in the North of England, where Halco pioneered the development and distribution of DTH hammers and bits in the 1950's

Produced for more than seventy years, our products continue to be regarded as some of the most reliable and durable available today. This is due to our commitment to meet our customers needs, design expertise, and rigorous product testing in extreme drilling

We offer a wide range of specialist products necessary for the rigours of every drilling application.

- Mining
- Quarrying
- · Oil and Gas
- Exploration
- Waterwell
- · Geotechnical/Civil Engineering

Our team of specialists, together our dedicated dealer network are available to help you select the optimal product for your drilling application and equipment.

To find you nearest Halco dealer contact our sales teams at one of our sales locations shown on the back page of this document.



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### Hammer Selection Guide

# Choosing the right hammer is essential to your productivity and operating cost.

All Halco hammers are built to last and manufactured to an exceptional standard. Our hammers provide the outstanding performance and productivity expected by drillers worldwide.

Versatility and variety are key to Halco products and you can be assured that all Halco hammers are suitable for a wide range of rock drilling applications.

All our high performance hammers are built at our state-of-the-art lean manufacturing plant using the highest quality heat treated nickel chrome alloy steels and processes that meet ISO 9001:2008 standards. It is imperative to Halco that every hammer we produce surpasses your expectations and we constantly strive to improve our service and product quality.



### Our hammer range includes:

### **Superior Range**

Halco's Superior range are the obvious choice for the Oil & Gas industry where both maximum speed and reliability are expected.

Standard features of the Superior range include diamond enhanced drill bits and a bit catcher system. Variable bypass ports have been added to the top adaptor as well as live air bleed pistons. Together these features give the driller the ability to inject greater volumes of air and drilling additives to increase the uphole velocity required to drill deeper holes.

### **RC** Range

The Halco reverse circulation (RC) product range has been designed to give maximum performance in Exploration and Grade Control applications.

Unlike standard DTH hammers, RC hammers return the rock cuttings back to the surface through the internals of the hammer and drill string.

Geologists worldwide trust Halco RC products to help them explore prospects and identify mineral lithologies.

### Dominator Range.

The Dominator range of hammers offer higher performance and are ideally suited for medium to higher air pressures in blast-hole applications.

This design is simple with fewer components, which makes servicing and onsite maintenance easy. With a range of heavy duty models on offer this extends the life of the hammer considerably.

### Mach Range

This is a proven hammer which has been around for over 35 years. Designed for all kinds of drilling conditions but excels in overburden drilling due to the high frequency with less blow energy, particularly in unstable ground conditions. This hammer can drill smaller diameters than the standard range and is ideal for civil engineering applications.

### **GP** Range

The GP series offers breakthrough performance across some of the most challenging applications. The robust non ported piston design dramatically improves drilling performance when operating under a column of water.

A built-in choke facility allows the driller to adjust the volume of air through the hammer to optimise cutting evacuation.



2" Mach 20

### 1" Dominator 10

### **DOMINATOR 10**

One piece top adaptor reduces

internal parts. No makeup required.

Revised chamber volumes and cycle \_\_\_\_ timing to optimize performance.

Simplified piston geometry for improved balance and location

within cylinder

External N.R.V. for easy maintenance.

### The Dominator 10 is designed for small diameter drilling operations.

The Dominator 10 provides high performance at both low and high pressures. The strong robust design withstands heavy duty applications and includes an N.R.V (Non Return Valve) which is fitted into the hammer to prevent flooding where ground water is present.



Hammer Overview	
Hammer Model	Dominator 10
Part Number	600422
Shank	Halco 1
Thread connection	40mm DIN 405 6 TPI Box
Minimum bit diameter	55 MM
Hammer flat size	38mm (1.5")
Weight	7.0 Kg (15.4 lbs)
Outside diameter	47mm (17/8")
Length (shoulder to shoulder)	772mm (30.9")
Maximum weight on bit	120 Kg (264 lbs)

<i>-</i>	Parts List				
)	Hammer type	Dominator 10			
	Shank	Halco 1		Ki	
)	Part number	600422		Service Kit	Repair Kit
	Item	Description	Part No.	SK31	RK54
)	1	Thread Protector	200005		
	2	Snap Ring	783041	1	
	3	Non Return Valve Seat	603448		
	4	0-Ring	768174	1	
	5	Non Return Valve	603447		
	6	N.R.V. Spring	760100	1	
	7	Top Adaptor	603413		
`	8	O-Ring	768168	1	
)	9	0-Ring	768175	1	
	10	Cylinder	603410		
	11	Piston	603450		
	12	Snap Ring	783037	1	
	13	Bit Retaining Ring	603449		
	14	Chuck Spacer	603412	1	
	15	Chuck	603411		1

300					
250					
200				. 4	
150			•		
100	-				
50					350
0 100	150	200	250	300	2575

**Air Consumption** 

### AT A GLANCE:

2 3/4 - 3"

Maximum weight on bit

**Air Consumption** 









150 Kg (330 lbs)

Hammer Overview	
Hammer Model	Mach 20
Part Number	600169
Shank	Halco 2
Thread connection	50mm DIN405 6 TPI Box
Minimum bit diameter	70 MM
Hammer flat size	48mm (1.89")
Weight	13.0 Kg (28.6 lbs)
Outside diameter	62mm (2.44")
Length (shoulder to shoulder)	840mm (33.0")

Parts List				
Hammer type	Mach 20			
Shank	Halco 2		Ki	
Part number	600423		Service Kit	Repai Kit
Item	Description	Part No.	SK18	SK30
1	Thread Protector	200002		
2	Top Adaptor	602715		
3	Wear-Space (Option)	602726	- 1	
4	Non Return Valve	602727		
5	N.R.V. Spring	760111	1	
6	N.R.V. Housing	602720		
7	Valve Centraliser	602724	- 1	
8	Valve	602725	- 1	
9	Solid bleed plug -Std	732025	1	
	3mm Bleed Plug	602736	1	
10	Air Distributor	602719		
11	Liner	602717		
12	Cylinder	602714		
13	Piston	602718		
14	Piston Guide Bush	602723		
15	Bottom Spacer	602722		
16	Bit Retaining Ring	602721		
17	Chuck Lock Ring	602729	1	
18	Chuck	602716		

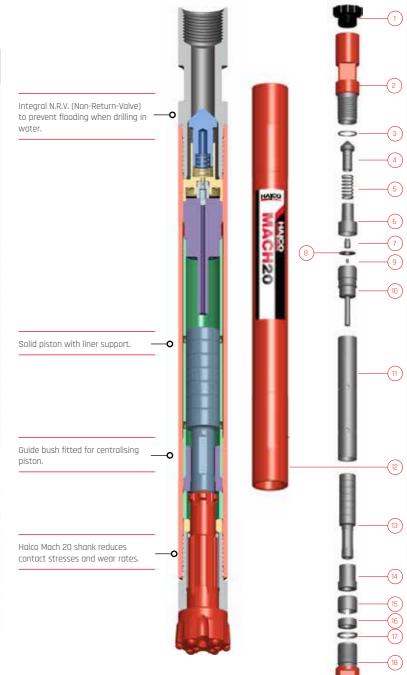
### 400 350 300 250 E 200 150 100 100 150 200 250

### **MACH 20**

The valved design of the Mach 20 provides high performance at low pressure. A non return valve is fitted to prevent flooding when

The Mach 20 has a strong robust design to withstand heavy duty applications. The Mach 20 is fitted with adjustable chokes to give three levels of air volumes for different drilling conditions. The unique drill bit design for Mach 20 does not use foot valve which reduces the possibility of hammer failure. Mach 20 shank has a long service life and reduces contact stresses and wear rates.

Suitable for operation at air pressures of 100 - 250 psi (7 - 17 bar). Drilling diameters of 70 - 76mm (2 3/4 - 3").



www.halco.uk

The Halco shank reduces contact stress and wear rates.

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3" GP300

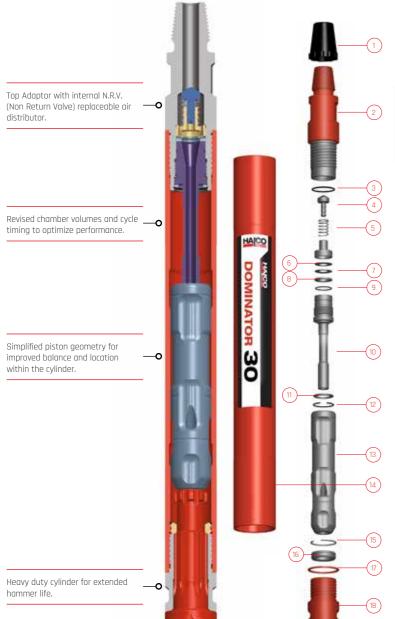
### 3" Dominator 30

### **DOMINATOR 30**

The Dominator 30 hammer is a high performance hammer for medium to hard rock conditions.

This hammer has no internal liner which allows a larger piston diameter for greater blow energy.

The Dominator 30 has fewer parts than other 3 inch hammers in the market, which allows for easy maintenance and servicing.



### AT A GLANCE: SIZE SHANK **AIR PRESSURE** 90mm - 105mm I.R.3.5 100 - 362 psi 3 1/2 - 4 1/8" (7 - 25 bar)

Dominator 30
600424
IR3.5
2 3/8" API Reg Pin Up
90 MM
63mm (2.48")
23Kg (83.8 lbs)
81mm (3.35")
832mm (32.25")
150 Kg (330lbs)
300 Kg (660lbs)

Hammer type Shank	Dominator 30 IR3.5			
Part number	600424		Service Kit	Repair Kit
Item	Description	Part No.	SK27	RK47
1	Thread Protector	200111		
2	Top Adaptor	602980		
3	O-Ring	768098	1	
4	Non Return Valve	602328		
5	N.R.V. Spring	760100	1	
6	N.R.V. Housing	602971		
7	Disk Springs	760094	1	
8	Thrust Washer	602972		
9	O-Ring	768033	1	
10	Air Distributor	603108		
11	Washer	602979		
12	Snap Ring	783035	1	
13	Piston	603107		
14	Cylinder	602974		
15	Spacer	783036	1	
16	Bit Retaining Ring	602976		
17	Chuck Spacer	602977	1	
18	Chuck	602978		
	Foot Valve	602922		1

A	ir Co	nsui	mpt	ion										
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								PS	I					

Figures are based on theoretical data

# AT A GLANCE:

SIZE

**Hammer Overview** 

SHANK

AIR PRESSURE

95mm - 105mm MD3.5 3 1/2 - 4 1/8"

	(7 - 25	bar)
GP300	1	
60039	3	
MDOE		

Hammer Model	GP300
Part Number	600393
Shank	MD3.5
Thread connection	2 3/8" API Reg Pin Up
Minimum bit diameter	95 MM
Hammer flat size	64mm (2.520")
Weight	24 Kg (52.91 lbs)
Outside diameter	85mm (3.35")
Length (shoulder to shoulder)	885mm (34.84")
Minimum weight on bit	150 Kg (330lbs)
Maximum weight on bit	300 Kg (660lbs)

Hammer type	GP300			
Shank	MD3.5			
Part number	600393		Service Kit	Repai Kit
Item	Description	Part No.	SK64	RK10
1	Thread Protector	200111		
2	Top Adaptor	604371		
3	Choke - Blank	604480	1	
	Choke - 1/8"	604481	1	
	Choke - 3/16"	604482	1	
4	Non Return Valve	604378	1	
5	N.R.V. Spring	760154		
6	Make up Shim - 4.9mm	602634		
	Make up Shim - 5.3mm	602635		
	Make up Shim - 5.7mm	602636		
7	Compression Spring	760107		
8	Air Distributor	604461		
9	O-Ring	768099	- 1	
10	Liner	604459		
11	Cylinder	604458		
12	Piston	604460		
13	Snap Ring	783051	1	
14	Retaining Ring band	792040	1	
15	Bit Retaining Ring	604457		
16	Chuck	604456		
	Foot Valve	602922		

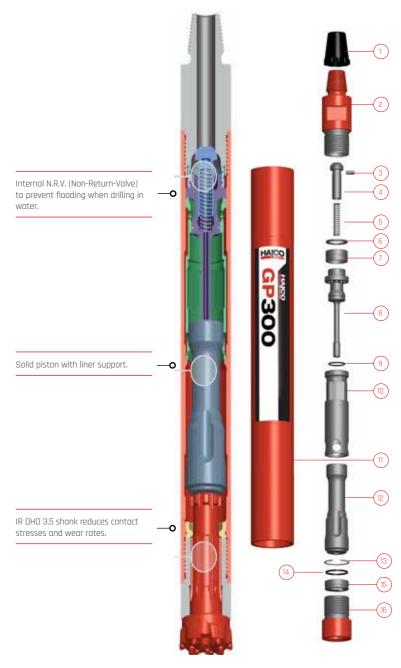
\*Alternative 600394 IR3.5 Shank

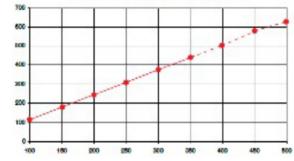
# Air Consumption

### **GP300**

Dominator 375 hammer gives up to 25% increase in performance compared to Dominator 350 and Dart 350.

This exceptional hammer is simple, robust and has a high penetration rate. The Dominator 375 has an integral N.R.V. (Non-Return-Valve) with an adjustable air bleed system to adjust air volume, this hammer has a liner and solid piston design. This hammer has few internal parts which makes on site servicing easy with minimum tools needed. The MD 3.5 shank drill bit can be fitted for improved service life and heavy duty applications. Suitable for operation at air pressures of 100 - 350 psi (7 - 24 bar). Drilling diameters of 95mm - 115mm (3 1/2 - 4 1/8").





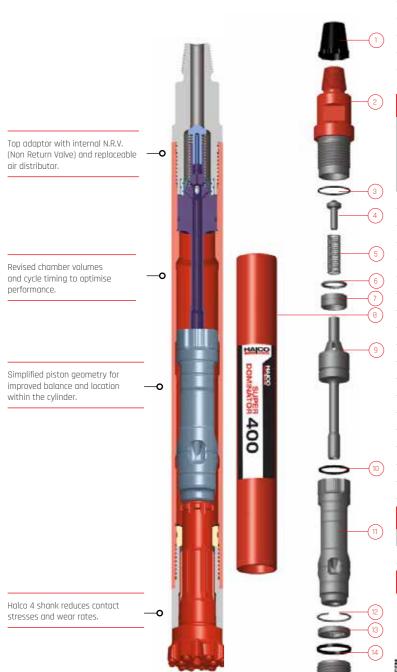


### 4" Super Dominator 400

### **SUPER DOMINATOR 400**

The Super Dominator 400 is a heavy duty hammer with thicker 98mm (3.8") diameter outer components to provide extra service life in abrasive conditions and is suitable for waterwell drilling.

The Super Dominator 400 is designed for maximum performance at high pressures.



### AT A GLANCE:

(41/4-57/8")

Maximum weight on bit

SIZE

SHANK



500 Kg (1100 lbs)

Hammer Overview	
Hammer Model	SD0M400
Part Number	600258
Shank	DHD340A
Thread connection	2 3/8" API Reg Pin Up
Minimum bit diameter	108 MM
Hammer flat size	65mm (2.56")
Weight	38 Kg (83.8 lbs)
Outside diameter	98mm (3.875")
Length (shoulder to shoulder)	1042mm (41")
Minimum weight on bit	250 Kg (550 lbs)

Hammer type Shank	SDOM400 DHD340A			
Part number	600258		Service	Repai
Purt Humber	000256		Kit	Kit
Item	Description	Part No.	SK45	RK83
1	Thread Protector	200111		
2	Top Adaptor	603215		
3	O-Ring	768040	1	
4	Non Return Valve	602633		
5	N.R.V. Spring	760108	1	
6	Make up Shim - 4.9mm	602634		
	Make up Shim - 5.3mm	602635		
	Make up Shim - 5.7mm	602636		
7	Compression Spring	760107		
8	Cylinder	603384		
9	Air Distributor	603266		
10	0-Ring	768050	1	
11	Piston	603383		
12	Snap Ring	783029	1	
13	Bit Retaining Ring	603586		
14	Chuck Spacer	602733	1	
15	Chuck	603218		
	Foot Valve	601773		

### Alternative thread connections Thread connection 2 3/8" API Reg Pin Plain Diameter

100	7.1	17	11			
100						
00						
000				•		
60			1			
00		-	-			
00	-					
00						

Figures are based on theoretical data

### AT A GLANCE:

108mm - 150mm

(4 1/4 - 5 7/8")

SIZE



HALCO 4

**AIR PRESSURE** 100 - 507 psi (1 - 30 bar)

Hammer Overview	
Hammer Model	Super Dominator 400
Part Number	600224
Shank	Halco 4
Thread connection	2 3/8" API Reg Pin
Minimum bit diameter	108 mm
Hammer flat size	65 mm (2.560")
Weight	38 Kg (83.77 lbs)
Outside diameter	98 mm (3 7/8")
Length (shoulder to shoulder)	1065 mm (42")
Minimum weight on bit	250 Kg (550 lbs)
Maximum weight on bit	500 Kg (1100 lbs)

Hammer type	Super Dominator 400			
Shank			Mainte Ki	
Snank	HALCO 4		Service	
Part number	600224		Kit	Kepu
Item	Description	Part No.	SK30	RK5
1	Thread Protector	200111		
2	Top Adaptor	603215		
3	0-Ring	768040	2	
4	N.R.V.	602633		
5	N.R.V. Spring	760108	2	
6	Shim - 4.9mm	602634		
	Shim 5.3mm	602635		
	Shim - 5.7mm	602636		
7	Compression Spring	760107		
8	Air Distributor	603266		
9	O'Ring	768050	2	
10	Cylinder	603390		
11	Piston	603396		
12	Snap Ring	783029	1	
13	Containment Band	792037	2	
14	Bit Retaining Ring	603793		
15	Chuck Lock Ring	602733	2	
16	Chuck	603273		
17	End Cap	741019		
	Foot Valve	601641		

# Air Consumption

Figures are based on theoretical data

### 4" Super Dominator 400

### **SUPER DOMINATOR 400**

The Super Dominator 400 is a heavy duty hammer with thicker 98mm (3.8") diameter outer components to provide extra service life in abrasive conditions and is suitable for waterwell drilling.

The Super Dominator 400 is designed for maximum performance at high pressures.



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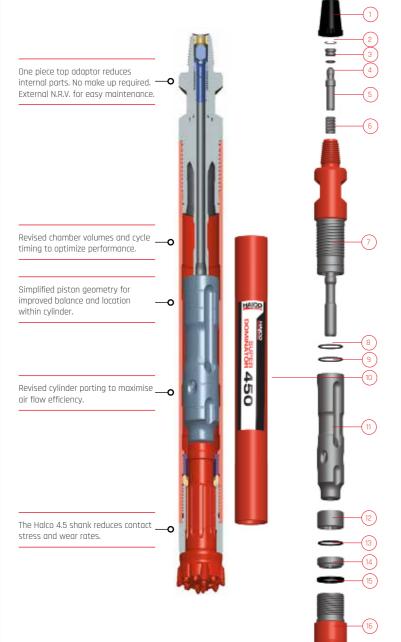
### 4" Super Dominator 450

### **SUPER DOMINATOR 450**

The Super Dominator 450 has been specifically designed for high production drilling in blast hole applications.

The hammer is robust and has few parts, making it user friendly and reliable. The Super Dominator 450 is fitted with a N.R.V (Non Return Valve) in the top adaptor for a quick, easy inspection and maintenance operation. A fixed air distributor in the top adaptor means the 450 requires no shimming which simplifies servicing. It also has no liner which increases the piston power output.

The Super Dominator 450 utilizes Halco's 12 spline shank which has a simplistic robust geometry combined with increased drive contact area.



### AT A GLANCE: SIZE SHANK **AIR PRESSURE** 100 - 507 psi 110mm - 140mm 4 5/16 - 5 1/2" (7 - 35 bar)

Hammer Overview	
Hammer Model	SD0M450
Part Number	600382
Shank	Halco 4.5
Thread connection	2 3/8" API Reg Pin Up
Minimum bit diameter	110 MM
Hammer flat size	65mm (2.56")
Weight	38.5 Kg (84.7 lbs)
Outside diameter	100.5mm (4.0")
Length (shoulder to shoulder)	914mm (36.0")
Minimum weight on bit	250 Kg (550 lbs)
Maximum weight on bit	500 Kg (1100 lbs)

Parts List				
Hammer type	SD0M400		Mainte	
Shank	Halco 4.5	Kits		
Part number	600382		Service Kit	Repai Kit
Item	Description	Part No.	SK59	RK93
1	Thread Protector	200111		
2	Snap Ring	783049	1	
3	N.R.V. Seat	603919		
4	0-Ring	768187	1	
5	Non Return Valve	603918		
6	N.R.V. Spring	760142	1	
7	Top Adaptor	603946		
8 & 9	0-Ring (2)	768190	2	
10	Cylinder	604387		
11	Piston	604392		
12	Bit Guide Bush	604314		
13	O-Ring	768189	1	
14	Bit Retaining Ring	603948		
15	Chuck Lock Ring	602733	1	
16	Chuck	603939		
	Foot Valve	603951		

Alternative thread	connections
Part Number	TBA
Thread connection	2 7/8" API Reg Pin

900								
900				-	-			_ 4
700			-	-				-1
600								
500	_					-	-	
400			-					
300				_	_	-		
200				-				
100		-	-	_	_	-	_	
100								

Figures are based on theoretical data

### 4" Super Dominator 450HD

### SHANK

Halco 4.5 110mm - 140mm 4 5/16 - 5 1/2"

AT A GLANCE:

SIZE

***
AIR PRESSURE
100 - 507 psi
(7 - 35 bar)

Hammer Overview	
Hammer Model	SDOM450HD
Part Number	600421
Shank	Halco 4.5
Thread connection	2 3/8" API Reg Pin Up
Minimum bit diameter	115MM
Hammer flat size	65mm (2.56")
Weight	42.0 Kg (92.6 lbs)
Outside diameter	103.5mm (4.074")
Length (shoulder to shoulder)	914mm (36.0")
Minimum weight on bit	250 Kg (550 lbs)
Maximum weight on bit	500 Kg (1100 lbs)

Hammer type	Super Dominator 450HD		Mainte	enance ts
Shank	Halco 4.5			
Part number	600421		Service Kit	Repaiı Kit
Item	Description	Part No.	SK59	RK141
1	Thread Protector	200111		
2	Snap Ring	783049	2	
3	N.R.V. Seat	603919		
4	0-Ring	768187	2	
5	Non Return Valve	603918		
6	N.R.V. Spring	760142		
7	Top Adaptor	600677		
8 & 9	0-Ring (2)	768190	2	
10	Cylinder	602555		
11	Piston	604392		
12	Guide Bush	604314		
13	0-Ring	768189	2	
14	Bit Retaining Ring	603948		
15	Chuck Lock Ring	602733	2	
16	Chuck	DP516		
17	End Cap	741019		
	Foot Valve	603951		

Alternative three	ad connections	
Part Number	ТВА	
Thread connection	2 7/8" API Reg Pin	

900				7		
700						
600				1000	.0	
E 500				•		-
E 400						
300			-	-		-
200	-		-	_		-
100		-	_			
0				-		- 1

Figures are based on theoretical data

### **SUPER DOMINATOR 450HD**

The Super Dominator 450HD has been specifically designed to provide more impact for high production drilling in blast hole

The hammer is robust and has few parts, making it user friendly and reliable. The Super Dominator 450HD is fitted with a N.R.V (Non Return Valve) in the top adaptor for a quick, easy inspection and maintenance operation. A fixed air distributor in the top adaptor means the 450HD requires no shimming which simplifies servicing. It also has no liner which increases the piston power output.

The Super Dominator 450HD utilizes Halco's 12 spline shank which has a simplistic robust geometry combined with increased drive contact area. contact area.



Hammers

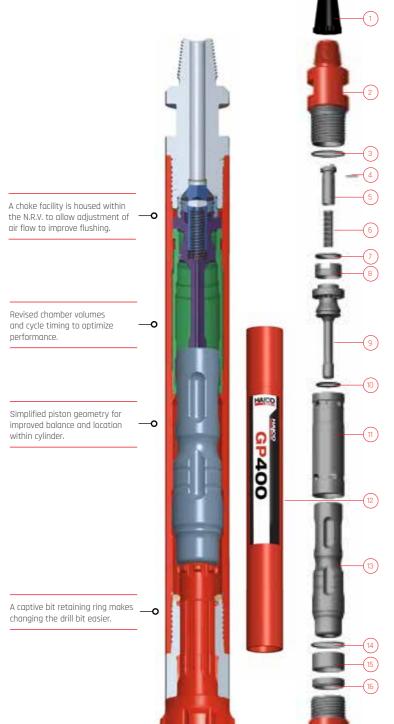
4" Mach 44

### 4" GP400 - DHD340

### **GP 400**

The GP400 is a high performance hammer which can drill under a head of water, typically suited to Waterwell and Geothermal applications due to its non-ported piston design.

It features a choke facility which helps to adjust air flow through the hammer.



### AT A GLANCE: SIZE SHANK **AIR PRESSURE** 108mm - 140mm DHD 340 100 - 435 psi

TD 40

(7 - 30 bar)

4 1/4 - 5 1/2"

Hammer Overview	
Hammer Model	GP400
Part Number	600466
Shank	DHD340
Thread connection	2 3/8" API Reg Pin Up
Minimum bit diameter	108 MM
Hammer flat size	66mm (2.560")
Weight	40 Kg (122.3 lbs)
Outside diameter	98mm (3.858")
Length (shoulder to shoulder)	954mm (37.5")
Minimum weight on bit	250 Kg (550lbs)
Maximum weight on bit	500 Kg (1100lbs)

Hammer type	GP400			enance
Shank	DHD340		Ki	
Part number	600466		Service Kit	Repo Kit
Item	Description	Part No.	SK72	RK12
1	Thread Protector	200111		
2	Top Adaptor	602646		
3	0-Ring	768190	1	
4	Choke - Solid	604480	1	
	Choke - 1/8"	604481	1	
	Choke - 3/16"	604482	1	
5	Non Return Valve	604444		
6	N.R.V. Spring	760079	1	
7	Make up Shim - 4.9mm	602634		
	Make up Shim - 5.3mm	602635		
	Make up Shim - 5.7mm	602636		
8	Compression Ring	604994		
9	Air Distributor	604992		
10	0-Ring	768204	1	
11	Liner	604991		
12	Cylinder	604990		
13	Square Snap Ring	604995		
14	Piston	604993		
15	Snap Ring	783029	1	
16	Bit Retaining Ring	603255		
17	Chuck	603932		

GW400
— GW400 — GW400
GW400

Figures are based on theoretical data

### AT A GLANCE:

SIZE

110mm - 140mm

4 5/6 - 5 1/2"





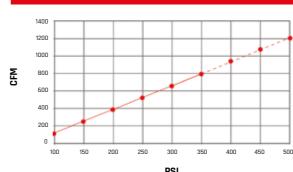
Halco 4

(7 - 30 bar)

Hammer Overview	
Hammer Model	MACH44
Part Number	600070
Shank	Halco 4
Thread connection	2 3/8" API Reg Pin Up
Minimum bit diameter	110 MM
Hammer flat size	65mm (2.560")
Weight	35.3 Kg (77.82 lbs)
Outside diameter	95mm (3.75")
Length (shoulder to shoulder)	1000mm (39.38")
Minimum weight on bit	250 Kg (550lbs)
Maximum weight on bit	500 Kg (1100lbs)

Hammer type	MACH44			
Shank	Halco 4			
Part number	600070		Service Kit	Repai: Kit
Item	Description	Part No.	SK02	RK02
1	Thread Protector	200111		
2	Top Adaptor	601632		
3	O-Ring	768040	1	
4	Non Return Valve	602330		
5	N.R.V. Spring	760084	1	
6	N.R.V. Seat	601778		
7	N.R.V. Finger	601717		
8	Make up Shim 0.5mm	601640	1	
	Make up Shim 1.0mm	601720	1	
	Make up Shim 1.5mm	601721	1	
8	Compression Ring	601635	1	
10	0-Ring	768050	1	
11	Air Distributor	601868		
12	Cylinder	601865		
13	Snap Ring	783014	1	
14	Piston	602456		
15	Snap Ring	783014	1	
16	Bit Retaining Ring	601945		
17	Chuck Spacer	601431	1	
18	Chuck	601439		
	Foot Valve	601641		

### Air Consumption

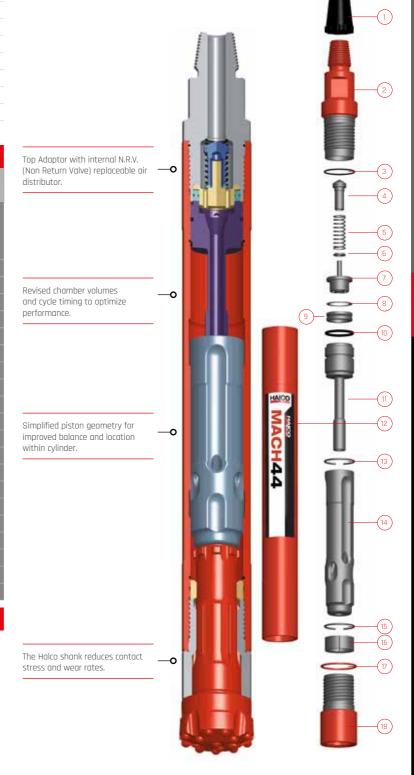


Figures are based on theoretical data

### **MACH 44**

The Mach 44 is a general purpose hammer suitable for all rock conditions at a wide range of air pressures.

With a proven track record of performance and reliability, the Mach 44 operates at a high frequency which makes it ideal for broken unstable ground conditions.



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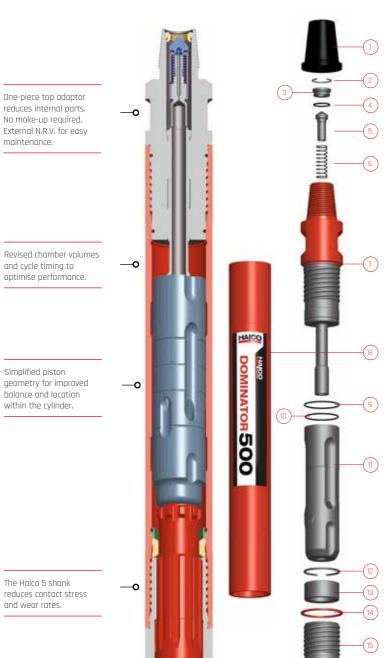
### 5" Dominator 500

### **DOMINATOR 500**

The Dominator 500 is suitable for drilling at a wide range of air pressures making it a class leader in performance.

The Dominator 500 is ideal for General purpose and Drill & Blast applications. The Dominator 500 has a one-piece top adaptor with N.R.V fitted to eliminate shimming and it has no liner which increases the piston blow energy.

The Dominator 500 uses a few tools for maintenance, making it easy to maintain and service.



### AT A GLANCE: $\bigcirc$ SIZE SHANK **AIR PRESSURE** 100 - 507 psi (7 - 35 bar) 5 - 6 1/2

Hammer Model	D0M500
Part Number	600120
Shank	Halco 5
Thread connection	3 1/2" API Reg Pin Up
Minimum bit diameter	127 MM
Hammer flat size	90mm (3.54")
Weight	58.0 Kg (83.8 lbs)
Outside diameter	118mm (4.65")
Length (shoulder to shoulder)	980mm (38.6")
Minimum weight on bit	400 Kg (900 lbs)
Maximum weight on bit	900 Kg (1980 lbs)

Parts List				
Hammer type	D0M500		Mainte	enance
Shank	HALCO 5		Ki	
Part number	600120		Service Kit	Repair Kit
Item	Description	Part No.	SK72	RK123
1	Thread Protector	201701		
2	Snap Ring	783028	1	
3	N.R.V. Seat	602703		
4	O-Ring	768144	1	
5	Non Return Valve	602330		
6	N.R.V. Spring	760084	1	
7	Top Adaptor	602704		
8	Cylinder	602457		
9	O-Ring	768091	1	
10	O-Ring	768043	1	
11	Piston	602459		
12	Snap Ring	783025	1	
13	Bit Retaining Ring	602430		
14	Chuck Spacer	602433	1	
15	Chuck	602458		
	Foot Valve	601843		

40	300	400 200	_	•			
	1000	800				•	
800	VA.7	1000					

### Figures are based on theoretical data

AT A GLANCE:

SIZE

140mm - 165mm

Hammer Overview

5 1/2 - 6 1/2"

Hammer Model

Thread connection

Hammer flat size

Parts List

Part number

Shank

Minimum bit diameter

Part Numbe

Shank

Weight

### 5" Super Dominator 500

### **SUPER DOMINATOR 500** SHANK **AIR PRESSURE**

100 - 507 psi

(7 - 35 bar)

SD0M500

600267

DHD350

140 MM

90mm (3.54")

3 1/2" API Reg Pin Up

Super Dominator 500 is a class leader in performance and is suitable for drilling at a wide range of air pressures but excels at high working pressures.

Combining the raw power of the Super Dominator 500 with extended life for abrasive conditions, the Super Dominator 500 has a one piece top adaptor with N.R.V (Non Return Valve) fitted for easy inspection and an integral finger to reduce maintenance and eliminating shimming.

The Super Dominator 500 has no liner which increases the piston blow energy and reduces parts required.



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### 5" Super Dominator 550HD

### **SUPER DOMINATOR 550HD**

Choke system to allow adjustment of air flow to improve flushing.

Optimised drive chamber capacities \_

Robust piston design for optimum —o

strength and performance.

A captive bit retaining ring makes changing the drill bit easier.

to maximise hammer performance.

Super Dominator 550HD is a class leader in performance and is suitable for drilling at a wide range of air pressures but excels at high working pressures.

Combining the raw power of the Super Dominator 500 with extended life for abrasive conditions, the Super Dominator 550HD has a larger outside diameter, a one piece top adaptor with N.R.V (Non Return Valve) fitted for easy inspection and an integral finger to reduce maintenance and eliminating shimming,

The Super Dominator 550HD has no liner which increases the piston blow energy and reduces parts required.

550 HD



Hammer Overview	
Hammer Model	SDOM550HD
Part Number	600293
Shank	DHD350
Thread connection	3 1/2" API Reg Pin Up
Minimum bit diameter	140 MM
Hammer flat size	90mm (3.54")
Weight	67.0 Kg (147.4 lbs)
Outside diameter	124.5mm (4.85")
Length (shoulder to shoulder)	975mm (38.4")
Minimum weight on bit	400 Kg (900 lbs)
Maximum weight on bit	900 Kg (1980 lbs)

Parts List				
Hammer type Shank	SDOM550HD DHD350			
Part number	600293		Service Kit	Repair Kit
Item	Description	Part No.	SK72	RK123
1	Thread Protector	201701		
2	Snap Ring	783028	1	
3	N.R.V. Seat	603510		
4	O-Ring	786144	1	
5	Non Return Valve	603554		
6	N.R.V. Spring	760135	1	
7	N.R.V. Shield	603652	1	
8	Top Adaptor	603661		
9	Cylinder	603370		
10	O-Ring	768091	1	
11	O-Ring	768043	1	
12	Piston	603369		
13	Snap Ring	783025	1	
14	Bit Retaining Ring	602706		
15	Chuck Lock Ring	603104	1	
16	Chuck Spacer	602863	1	
17	Chuck	602866		
	Foot Valve	601902		

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1000	_							
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5 600				-				
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### AT A GLANCE:

# SIZE



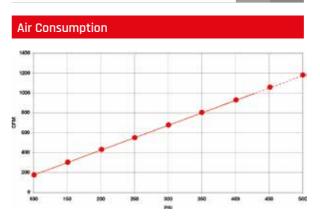


140mm - 165mm 5 1/2 - 6 1/2" SHANK QL50

100 - 507 psi (7 - 35 bar)

### Hammer Overview Hammer Model SDOM550HD Part Number 600294 Shank QL50 Thread connection 3 1/2" API Reg Pin Up 140 MM Minimum bit diameter Hammer flat size 90mm (3.54") 67.0 Kg (147.4 lbs) Weight 124.5mm (4.85") 955mm (37.6") Length (shoulder to shoulder) Minimum weight on bit 400 Kg (900 lbs) Maximum weight on bit 900 Kg (1980 lbs)

Maximum Weigh	C OIT DIC	500 Ng (	נכטו טטכו	
Parts List				
Hammer type	SDOM550HD			
Shank	QL50			
Part number	600294		Service Kit	Repai Kit
Item	Description	Part No.	SK02	RK02
1	Thread Protector	201701		
2	Snap Ring	783028	1	
3	N.R.V. Seat	603510		
4	O-Ring	786144	1	
5	Non Return Valve	603554		
6	N.R.V. Spring	760135	1	
7	N.R.V. Shield	603652	1	
8	Top Adaptor	603661		
9	Cylinder	603370		
10	O-Ring	768091	1	
11	O-Ring	768043	1	
12	Piston	603524		
13	Snap Ring	783025	1	
14	0-Ring	768043	1	
15	Guide Bush	603520		
16	Bit Retaining Ring	604981		
17	Chuck Lock Ring	603104	1	
18	Chuck	604980		
	Foot Valve	603252		



Figures are based on theoretical data

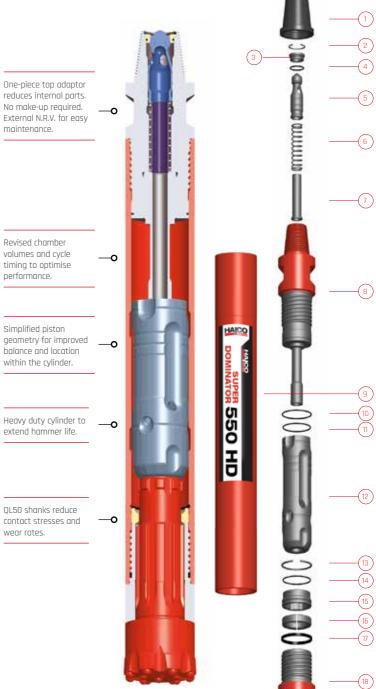
### 5" Super Dominator 550HD

### **SUPER DOMINATOR 550HD**

Super Dominator 550HD is a class leader in performance and is suitable for drilling at a wide range of air pressures but excels at high working pressures.

Combining the raw power of the Super Dominator 500 with extended life for abrasive conditions, the Super Dominator 550HD has a larger outside diameter, a one piece top adaptor with N.R.V (Non Return Valve) fitted for easy inspection and an integral finger to reduce maintenance and eliminating shimming.

The Super Dominator 550HD has no liner which increases the piston blow energy and reduces parts required.



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YOUR DRILLING EXPERT

Hammers

### 5" GP500 - DHD350

### **GP500**

The GP500 is a high performance hammer which can drill under a head of water, typically suited to Waterwell and Geothermal applications due to its non-ported piston design.



Choke system to allow adjustment of air flow to improve flushing.

Optimised drive chamber capacities to maximise hammer performance.

Robust piston design for optimum strength and performance.

A captive bit retaining ring makes changing the drill bit easier.

### AT A GLANCE: SIZE SHANK **AIR PRESSURE** 140mm - 165mm 100 - 435 psi

(7 - 30 bar)

5 1/2 - 6 1/2"

	Hammer Overview	
	Hammer Model	GP500
	Part Number	600426
	Shank	DHD350
	Thread connection	3 1/2" API Reg Pin Up
	Minimum bit diameter	140 MM
١.	Hammer flat size	66mm (64.750")
)	Weight	60 Kg (132.3 lbs)
	Outside diameter	126mm (4.96")
	Length (shoulder to shoulder)	1074mm (42.3")
	Minimum weight on bit	400 Kg (900 lbs)
)	Maximum weight on bit	900 Kg (1980 lbs)

Hammer type	GP500			enance
Shank	DHD350			ts
Part number	600426		Service Kit	Repai: Kit
Item	Description	Part No.	SK83	RK138
1	Thread Protector	201701		
2	Top Adaptor	604558		
3	Choke - Blank	604480	1	
	Choke - 1/8"	604481	1	
	Choke - 3/16"	604482	1	
4	Non Return Valve	604444		
5	N.R.V. Spring	760079	1	
6	Make up Shim - 4.5mm	604446		
	Make up Shim - 5.0mm	604447		
	Make up Shim - 5.5mm	604448		
7	Compression Spring	760109		
8	Air Distributor	604442		
9	O-Ring	768202	1	
10	Liner	604932		
11	Square Snap Ring	604937	- 1	
12	Cylinder	604931		
13	Piston	604439		
14	Snap Ring	783054	1	
15	Bit Retainer Ring	604689		
16	Chuck	604688		
	Foot Valve	601902		

### Alternative thread connections 600429

2 3/8" API Reg Pin Up Thread connection

Ai	ir Co	nsun	nptio	n						
16	00									
14	00	-				-				
⊋ 12	00	_				_				
AIR CONSUMPTION (CFM)	00									
MPT.	100									——GW500 (blank) ——GW500 (1/8")
R CONS	00	_							-	GW500 (3/16")
₹ 4	00									
2	00									
	100	150	200	250	300	350	400	450	500	

Figures are based on theoretical data

### AT A GLANCE:

140mm - 165mm

5 1/2 - 6 1/2"

SIZE

SHANK

QL50

**AIR PRESSURE** 100 - 435 psi (7 - 30 bar)

Hammer Overview	
Hammer Model	GP500
Part Number	600448
Shank	QL50
Thread connection	3 1/2" API Reg Pin Up
Minimum bit diameter	130 MM
Hammer flat size	90mm (3.543")
Weight	60 Kg (132.3 lbs)
Outside diameter	126mm (4.96")
Length (shoulder to shoulder)	1053mm (41.456")
Minimum weight on bit	400 Kg (900 lbs)
Maximum weight on bit	900 Kg (1980 lbs)

Parts List					
Hammer type	GP500				
Shank	QL50				
Part number	600448		Service Kit	Repai Kit	
Item	Description	Part No.	SK83	RK158	
1	Thread Protector	201701			
2	Top Adaptor	604558			
3	Choke - Blank	604480	1		
	Choke - 1/8"	604481	1		
	Choke - 3/16"	604482	1		
4	Non Return Valve	604444			
5	N.R.V Spring	760079	1		
6	Make up Shim - 4.5mm	604446			
	Make up Shim - 5.0mm	604447			
	Make up Shim - 5.5mm	604448			
7	Compression Spring	760109			
8	Air Distributor	604442			
9	O-Ring	768202	1		
10	Liner	604932			
11	Square Snap Ring	604937	1		
12	Cylinder	604931			
13	Piston	604936			
14	Snap Ring	783054	1		
15	Guide Bush	604935			
16	O-Ring	768043	1		
17	Bit Retaining Ring	604933			
18	Chuck Lock ring	604949			
19	Chuck	604934			
	Foot Valve	603252			

### Alternative thread connections 600429 Part Number

2 3/8" API Reg Pin Up Thread connection

# **Air Consumption**

### **GP500 - QL50**

The GP500 high performance hammer drills under a head of water typically suited to Waterwell and Geothermal applications due to its non-ported piston design.

5" GP500 - QL50

It features a choke facility which helps to adjust air flow through the hammer.





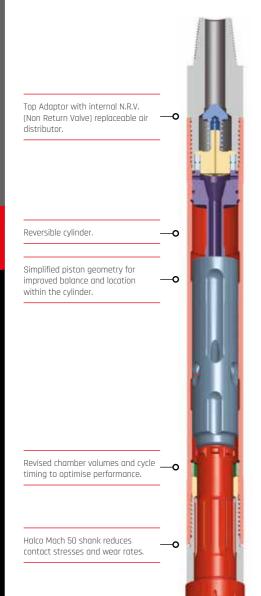
### 5" Mach 50

### **MACH 50**

The Mach 50 is a general purpose hammer suitable for all rock conditions at a wide range of air pressures.

With a proven track record of performance and reliability, the Mach 50 operates at a high frequency which makes it ideal for broken unstable ground conditions.

The hammer is fitted with a reversible cylinder to prolong the service life, it also requires only a few tools to service and maintain.





Hammer Overview	
Hammer Model	MACH 50
Part Number	600046
Shank	Halco 5
Thread connection	3 1/2" API Reg Pin Up
Minimum bit diameter	127MM
Hammer flat size	90mm (3.544")
Weight	54 Kg (119.0 lbs)
Outside diameter	114mm (4.5")
Length (shoulder to shoulder)	1012mm (40")
Minimum weight on bit	400 Kg (900 lbs)
Maximum weight on bit	900 Kg (1980 lbs)

Hammer type	GP500			
Shank	Halco 5			ts
Part number	600046		Service Kit	Rep Ki
Item	Description	Part No.	SK03	RKI
1	Thread Protector	201701		
2	Top Adaptor	601698		
3	O-Ring	768043	1	1
4	Non Return Valve	602285		1
5	N.R.V. Spring	760084	1	1
6	N.R.V. Finger	601702		
7	Make up Shim 0.5mm	601706	1	1
	Make up Shim 1MM	601795	1	1
	Make up Shim 1.5MM	601796	1	1
8	Make up Ring	601700	1	1
9	Air Distributor	601699		
10	Cylinder	601694		
11	O-Ring	768101	1	1
12	Snap Ring	783013		1
13	Piston	601695		
14	Snap Ring	783103	1	
15	Spacer	601705		1
16	Bit Retaining Ring	602117		1
17	Chuck Spacer	601603	1	1
18	Chuck	601602		1
	Foot Valve	601843		1

	Air Co	nsump	tion						
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					PSI				

### AT A GLANCE:



152mm - 241mm

6" - 9 1/2"







(7 - 35 bar)

Hammer Overview	
Hammer Model	SD0M600
Part Number	600272
Shank	DHD360
Thread connection	3 1/2" API Reg Pin Up
Minimum bit diameter	152 MM
Hammer flat size	101mm (4.0")
Weight	100 Kg (220 lbs)
Outside diameter	140.0mm (5.511")
Length (shoulder to shoulder)	1139mm (44.8")
Minimum weight on bit	500 Kg (1100 lbs)
Maximum weight on bit	1500 Kg (3300 lbs)

Hammer type Shank	SD0M600 DHD360			
Part number	600272		Service Kit	Repair Kit
Item	Description	Part No.		
1	Thread Protector	201701		
2	Snap Ring	783050	1	
3	N.R.V. Seat	603872		
4	O-Ring	768112	1	
5	Non Return Valve	603554		
6	N.R.V. Spring	760135	1	
7	N.R.V. Shield	603652		
8	Top Adaptor	603506		
9	O-Ring	768140	1	
10	O-Ring	768055	1	
11	Cylinder	603584		
12	Piston	602891		
13	Snap Ring	783017	1	
14	O-Ring	747105	1	
15	Bit Guide Bush	602239		
16	Bit Retaining Ring	603749		
17	O-Ring	747105	1	
18	Chuck Spacer	601942	1	
19	Chuck	602495		
	Foot Valve	601595		

# **Air Consumption**

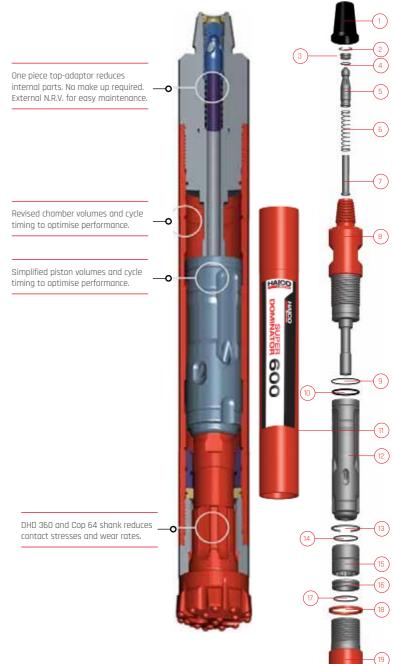
### 6" Super Dominator 600

### **SUPER DOMINATOR 600**

The Super Dominator 600 is one of the fastest 6" hammers specifically designed for high production drilling in blast-hole

The Super Dominator 600 is a reduced weight hammer with waterwell drilling capabilities. The unique one piece top-adaptor with N.V.R. (Non-Return-Valve) makes it easy to maintain and service the hammer.

Super Dominator 600 requires only few tools to service and maintain the hammer. Suitable for operation at air pressures of 100 - 500psi (7 - 35bar). Drilling diameters of 152mm - 241mm (6 1/8 - 9 1/2").





Hammers

6" GP600

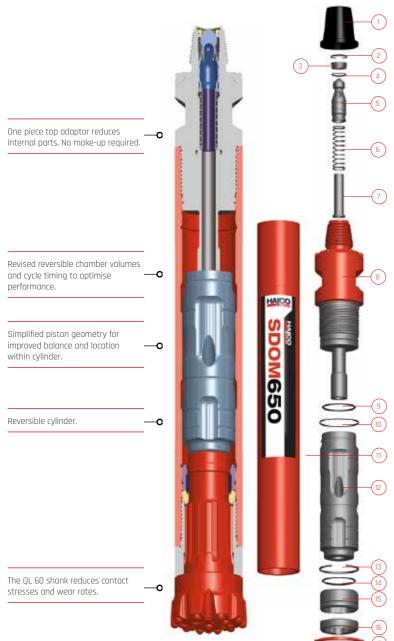
### 6" Super Dominator 650HD Snub

### **SUPER DOMINATOR 650HD SNUB**

The Super Dominator 650 HD combines the raw power of the Super Dominator 600 with the extended hammer life in abrasive conditions due to its heavy duty and reversible cylinder.

The unique one piece top adaptor with N.R.V (Non Return Valve) makes it easy to maintain and service.

Super Dominator 650 requires only a few simple tools to service and maintain the hammer.



AT A GLANCE:		
SIZE	© SHANK	** AIR PRESSURE
165mm - 220mm 6 1/2" - 8 5/8"	QL60	100 - 500 psi (7 - 35 bar)

Hammer Overview	Hammer Overview					
Hammer Model	SDOM650HD Snub					
Part Number	600467					
Shank	QL60					
Thread connection	3 1/2" API Reg Pin with carbides					
Minimum bit diameter	165 MM					
Hammer flat size	101mm (4.0")					
Weight	100 Kg (220 lbs)					
Outside diameter	146mm (5.478")					
Length (shoulder to shoulder)	1043mm (41.1")					
Minimum weight on bit	500 Kg (1100 lbs)					
Maximum weight on bit	1500 Kg (3300 lbs)					

Parts List				
Hammer type	SDOM650HD Snub			
Shank	QL60		Ki	
Part number	600467		Service Kit	Repair Kit
Item	Description	Part No.	SK03	RK04
1	Thread Protector	201701		
2	Snap Ring	783050	1	
3	N.R.V. Seat	603872		
4	O-Ring	768112	1	
5	Non Return Valve	603554		
6	N.R.V. Spring	760135	1	
7	N.R.V. Shield	603652		
8	Top Adaptor	603806		
9	O-Ring	747105	1	
10	O-Ring	768140	1	
11	Cylinder	605004		
12	Piston	605003		
13	Snap Ring	783017	1	
14	O-Ring	747105	1	
15	Bit Guide Bush	605005		
16	Bit Retaining Ring	603866		
17	Chuck Spacer	601928		
18	Chuck	604122		
	Foot Valve	602852		1

1860					-1	
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400						

### AT A GLANCE:

SIZE

6 1/8 - 8"







**AIR PRESSURE** 

100 - 500 psi (7 - 35 bar)

Hammer Overview	
Hammer Model	GP600
Part Number	600427
Shank	QL60
Thread connection	3 1/2" API Reg Pin Up
Minimum bit diameter	152 MM
Hammer flat size	101mm (3.976")
Weight	86 Kg (132.3 lbs)
Outside diameter	140mm (5.51")
Length (shoulder to shoulder)	1035mm (40.7")
Minimum weight on bit	500 Kg (1100 lbs)
Maximum weight on bit	1500 Kg (3300 lbs)

Hammer type	GP600		Mainte	enance
Shank	QL60			
Part number	600427		Service Kit	Repo Kit
Item	Description	Part No.	SK68	RK10
1	Thread Protector	201701		
2	Top Adaptor	604521		
3	O-Ring	768140	1	
4	Shim - 4MM	601946		
	Shim - 5MM	601947		
	Shim - 6MM	601948		
	Shim - 7MM	601949		
5	Compression Ring	760096		
6	Choke Plug - Blank	604480	1	
	Choke 1/8"	604481	1	
	Choke 3/16"	604482	1	
7	Non Return Valve	604444		
8	N.R.V Spring	760079	1	
9	Air Distributor	604514		
10	O-Ring	768043	1	
11	Liner	604930		
12	Square Snap Ring	604929	1	
13	Cylinder	604517		
14	Piston	604520		
15	Snap Ring	783056	1	
16	Guide Bush	604518		
17	O-Ring	747105	1	
18	Bit Retaining Ring	604693		
19	Chuck	604692		
	Foot Valve	602852		

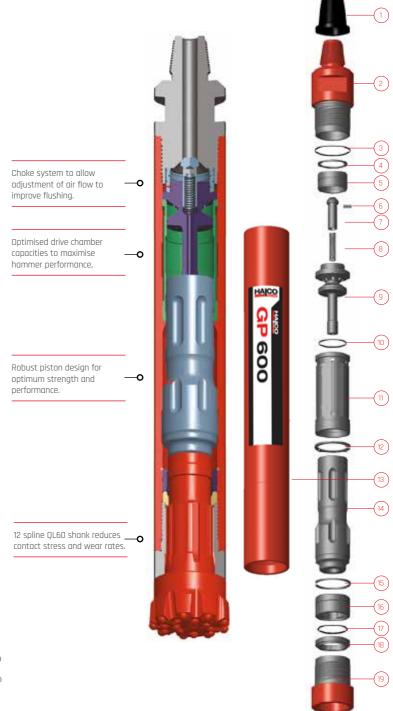
# **Air Consumption** GW600 (1/8") ----GW600 (3/16")

Figures are based on theoretical data

### **GP 600**

The GP600 is a high performance hammer which can drill under a head of water, typically suited to Waterwell and Geothermal applications due to its non-ported piston design.

It features a choke facility which helps to adjust air flow through the hammer.



YOUR DRILLING EXPERT

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ROCK TOOLS

**27** 

### 6" GP600 - QL60HD

### GP600HD - QL60HD

Choke system to allow adjustment of air flow to improve flushing.

Optimised drive chamber

Robust piston design for

12 spline QL60 shank reduces —o contact stress and wear rates.

optimum strenath and

performance.

capacities to maximise hammer performance,

The GP600 is a high performance hammer which can drill under a head of water, so it is typically suitable for Waterwell and Geothermal applications due to its robust non-ported piston design.

A choke facility helps to adjust air flow through the hammer.



	Hammer Overview	
	Hammer Model	GP600HD
	Part Number	600480
	Shank	QL60
	Thread connection	3 1/2" API Reg Pin Up
	Minimum bit diameter	156 MM
)	Hammer flat size	101mm (3.976")
	Weight	86 Kg (189.2 lbs)
	Outside diameter	146mm (5.75")
	Length (shoulder to shoulder)	1035mm (40.7")
)	Minimum weight on bit	500 Kg (1100 lbs)
	Maximum weight on bit	1500 Kg (3300 lbs)

Hammer type	GP600HD		Mainte	nance	
Shank	QL60				
Part number	600480		Service Kit	Repair Kit	
Item	Description	Part No.	SK84	RK156	
1	Thread Protector	201701			
2	Top Adaptor	604562			
3	O-Ring	768140	1		
4	SHIM 4MM	601946			
	Make up Shim - 5mm	601947			
	Make up Shim - 6mm	601948			
	Make up Shim - 7mm	601949			
5	Compression Ring	760096			
6	Choke - Solid	604480	1		
	Choke - 1/8"	604481	1		
	Choke - 3/16"	604482	1		
7	Non Return Valve	604444			
8	N.R.V. Spring	760079	1		
9	Air Distributor	604514			
10	O-Ring	768043	1		
11	Liner	604930			
12	Square Snap Ring	604929			
13	Cylinder	605023			
14	Piston	604520			
15	Snap Ring	783056	1		
16	Guide Bush	604518			
17	O-Ring	747105			
18	Bit Retaining Ring	604693			
19	Chuck	605022			
	Foot Valve				

Α	ir Co	nsur	nptio	n						
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AIR CONSUMPTION (CFM)	600	-			+			+	_	GW600 (3/16")
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	200			_	_			-	-	
	ا ٥									
	100	150	200	250 AIR	300 PRESSURE (	350 PSI)	400	450	500	

### AT A GLANCE: 6" GP600HD - DHD360

SHANK

6 1/8 - 8"

SIZE

DHD360

**AIR PRESSURE** 100 - 500 psi (7 - 35 bar)

Hammer Overview	
Hammer Model	GP600HD
Part Number	600449
Shank	DHD360
Thread connection	3 1/2" API Reg Pin Up
Minimum bit diameter	156 MM
Hammer flat size	101mm (3.976")
Weight	86 Kg (189 lbs)
Outside diameter	144.75mm
Length (shoulder to shoulder)	1035mm (40.7")
Minimum weight on bit	500 Kg (1100 lbs)
Maximum weight on hit	1500 Kg (3300 lbs)

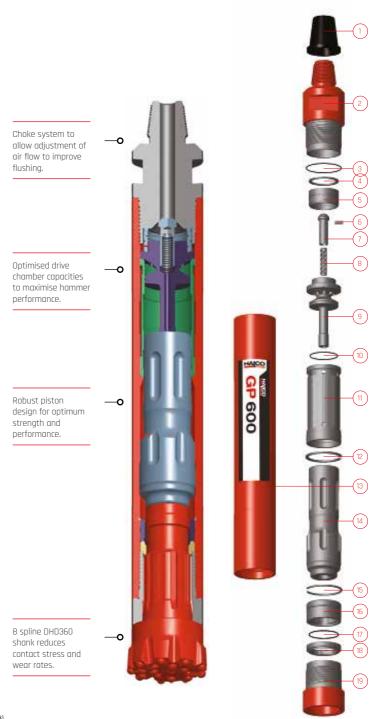
Parts List					
Hammer type	GP600HD				
Shank	DHD360		Kits		
Part number	600449		Service Kit	Repa Kit	
Item	Description	Part No.	SK68		
1	Thread Protector	201701			
2	Top Adaptor	604562			
3	O-Ring	768140	1		
4	Shim 4MM	601946			
	Shim 5MM	601947			
	Shim 6MM	601948			
	Shim 7MM	601949			
5	Compression Ring	760096			
6	Choke Plug-Blank	604480	1		
	Choke - 1/8"	604481	1		
	Choke - 3/16"	604482	1		
7	N.R.V.	604444			
5	N.R.V Spring	760079	1		
8	Air Distributor	604514			
10	O-Ring	768043	1		
11	Liner	604930			
12	Square Snap Ring	604929	1		
13	Cylinder	604938			
14	Piston	604942			
15	Snap Ring	783056			
16	Guide Bush	604941	1		
17	O-Ring	747105	1		
15	Bit Retaining Ring	604940			
17	Chuck	604939			
	Foot Valve	601595			

# **Air Consumption** ---GW600 (1/8")

### **GP600HD - DHD360**

The GP600 is a high performance hammer which can drill under a head of water, so it is typically suitable for Waterwell and Geothermal applications due to its robust non-ported piston design.

A choke facility helps to adjust air flow through the hammer.





6" Mach 60

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Hammers

28

### AT A GLANCE:

### SIZE

152mm - 203mm

6 1/8 - 8"





SHANK HALCO 6

\* AIR PRESSURE 100 - 435 psi (7 - 30 bar)

### Hammer Overview Hammer Model MACH 60 600035 Part Number Shank Halco 6 3 1/2" API Reg Pin Up Thread connection Minimum bit diameter 152 MM Hammer flat size 90mm (3.54") 89 Kg (196.2 lbs) Weight 138mm (5.43") Outside diameter Length (shoulder to shoulder) 1095mm (3.54") Minimum weight on bit 500 Kg (1100 lbs) 1500 Kg (3300 lbs) Maximum weight on bit

Hammer type Shank	GP600 Halco 6		Maintenance Kits		
Part number	600035		Service	Repai	
			Kit	Kit	
Item	Description	Part No.	SK07	RK10	
1	Thread Protector	201701			
2	Top Adaptor	601555			
3	Non Return Valve	601560			
4	N.R.V. Spring	760079	1		
5	N.R.V. Housing	601558			
6	Compression Ring	601562	1		
7	Make up Shim 0.5mm	601590	1		
	Make up Shim 1.0mm	601797	1		
	Make up Shim 1.5mm	601798	1		
8	Air Distributor	601557			
10	O-Ring	768130	1		
11	Snap Ring	783012	1		
12	Cylinder	601553			
13	Piston	601554			
14	Snap Ring	783012	1		
15	Bottom Spacer	601571			
16	Bit Retaining Ring	601573			
	O-Ring	747105	1		
17	Chuck Spacer	601563	1		
18	Chuck	601556			
	Foot Valve	601570			

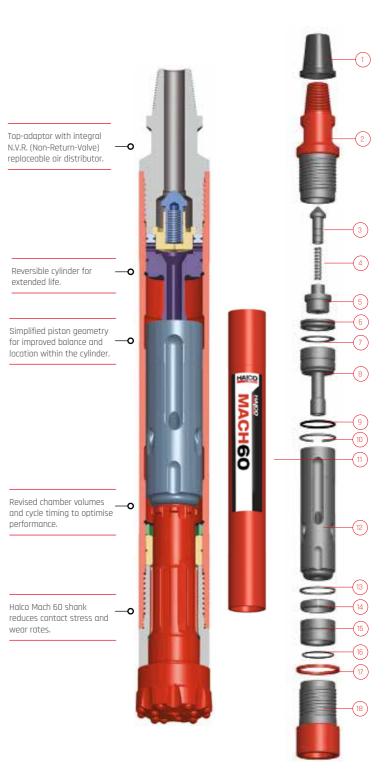
# **Air Consumption** 300 400 PSI

### **MACH 60**

The Mach 60 is a general purpose hammer suitable for all rock conditions at a wide range of air pressures.

With a proven track record of performance and reliability, the Mach 50 operates at a high frequency which makes it ideal for broken unstable ground conditions.

The hammer is fitted with a reversible cylinder to prolong the service life, it also requires only a few tools to service and maintain.



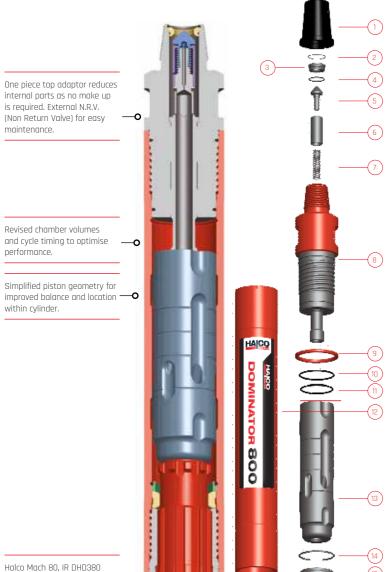
Hammers

### 8" Dominator 800

### **DOMINATOR 800**

The Dominator 800 is a general purpose hammer suitable for a wide range of air pressures.

A low to mid range air volume hammer with a one piece top adaptor. The Dominator 800 has a unique air distributor finger which is integral with the top adaptor and requires no shimming which simplifies servicing.



### AT A GLANCE: SIZE SHANK **AIR PRESSURE** DHD 380 100 - 500 psi 200mm - 311mm

(7 - 35 bar)

77/8 - 12 1/4"

Hammer Overview	
Hammer Model	D0M800
Part Number	600309
Shank	DHD380
Thread connection	4 1/2" API Reg Pin
Minimum bit diameter	200 MM
Hammer flat size	156mm (6.142")
Weight	181 Kg (399.03 lbs)
Outside diameter	182mm (7.165")
Length (shoulder to shoulder)	1254mm (49.37")
Minimum weight on bit	800 Kg (1760 lbs)
Maximum weight on bit	2000 Kg (4400 lbs)

Hammer type Shank	D0M800		Mainte	enance ts
	DHD380		Service	Repair
Part number	600309		Kit	Kit
Item	Description	Part No.	SK25	RK64
1	Thread Protector	207295		
2	Snap Ring	783034	1	
3	N.R.V. Seat	602887		
4	O-Ring	768150	1	
5	Non Return Valve	602285		
6	Spring Cover	603696		
7	N.R.V. Spring	760108	1	
8	Top Adaptor	603607		
9	Spacer	603576		
10	O-Ring	768103	1	
11	O-Ring	768145	1	
12	Cylinder	603687		
13	Piston	603755		
14	Snap Ring	783015	1	
15	Spacer	602840		
16	Containment Band	603549	1	
17	Bit Retaining Ring	603043		
18	Chuck Spacer	603576	1	
19	Chuck	603495		
	Foot Valve	601819		

A	ir Co	nsum	otion						
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	ا ه								
	100	150	200	250	300	350	400	450	500
					PSI				

### AT A GLANCE:



7 7/8 - 12 1/4"





QL80

(7 - 35 bar)

Hammer Overview	
Hammer Model	D0M800
Part Number	600374
Shank	QL80
Thread connection	4 1/2" API Reg Pin
Minimum bit diameter	200 MM
Hammer flat size	156mm (6.14")
Weight	180 Kg (396.8 lbs)
Outside diameter	182mm (7.165")
Length (shoulder to shoulder)	1180mm (46.4")
Minimum weight on bit	800 Kg (1760 lbs)
Maximum weight on bit	2000 Kg (4400 lbs)

Parts List					
Hammer type Shank	DOM800 OL80			Maintenance Kits	
Part number	600374		Service Kit	Repair Kit	
Item	Description	Part No.	SK78	RK131	
1	Thread Protector	207295			
2	Snap Ring	783034	1		
3	N.R.V. Seat	602887			
4	O-Ring	768150	1		
5	Non Return Valve	602285			
6	N.R.V. Shield	603696			
7	N.R.V. Spring	760108	1		
8	Top Adaptor	603607			
9	Spacer	603576			
10	O-Ring	768103	1		
11	O-Ring	768145	1		
12	Cylinder	604344			
13	Piston	604343			
14	Snap Ring	783015	1		
15	O-Ring	768151	1		
16	Guide Bush	604346			
17	Bit Retaining Ring	604347			
18	Chuck Spacer	603576	1		
19	Chuck	604345			
	Foot Valve	603334			

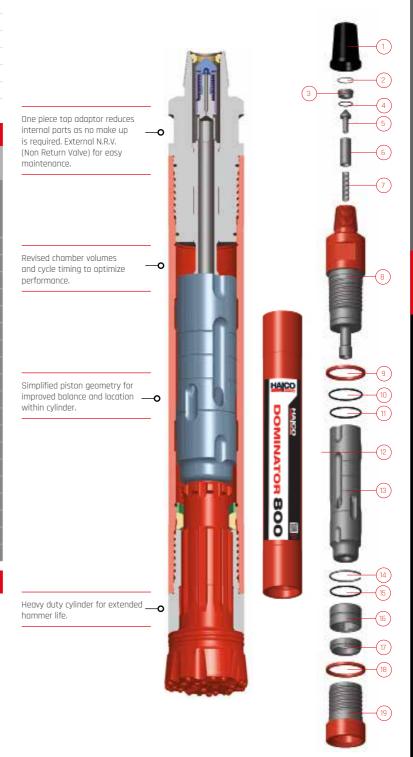
### 1200 600 400 PSI

### 8" Dominator 800

### **DOMINATOR 800**

The Dominator 800 is a general purpose hammer suitable for a wide range of air pressures.

A low to mid range air volume hammer with a one piece top adaptor. The Dominator 800 has a unique air distributor finger which is integral with the top adaptor and reduces requirements for shimming.





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and A63-SD8 shank reduces —o

contact stresses and wear

rates.

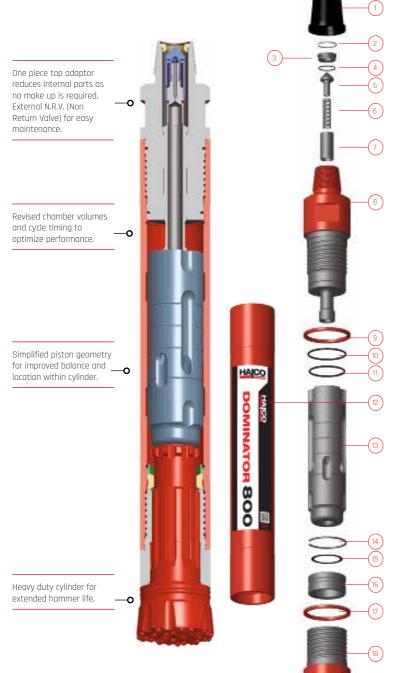
Hammers

### 8" Dominator 800

### **DOMINATOR 800**

The Dominator 800 is a general purpose hammer suitable for a wide range of air pressures.

A low to mid range air volume hammer with a one piece top adaptor. The Dominator 800 has a unique air distributor finger which is integral with the top adaptor and reduces requirements for shimming.



### AT A GLANCE: SIZE SHANK **AIR PRESSURE** 200mm - 311mm HALCO 8 100 - 500 psi 7 7/8 - 12 1/4" (7 - 35 bar)

Hammer Overview	
Hammer Model	D0M800
Part Number	600310
Shank	Halco 8
Thread connection	4 1/2" API Reg Pin
Minimum bit diameter	200 MM
Hammer flat size	156mm (6.14")
Weight	175 Kg (385.8 lbs)
Outside diameter	182mm (7.165")
Length (shoulder to shoulder)	1254mm (49.4")
Minimum weight on bit	800 Kg (1760 lbs)
Maximum weight on bit	2000 Kg (4400 lbs)

Parts List					
Hammer type	D0M800				
Shank	Halco 8		Ki		
Part number	600310		Service Kit	Repair Kit	
Item	Description	Part No.	SK25	RK78	
1	Thread Protector	207295			
2	Snap Ring	783034	1		
3	N.R.V. Seat	602887			
4	0-Ring	768150	1		
5	Non Return Valve	602285			
6	N.R.V. Shield	603696			
7	N.R.V. Spring	760108	1		
8	Top Adaptor	603607			
9	Spacer	603576			
10	0-Ring	768103	1		
11	0-Ring	768145	1		
12	Cylinder	603687			
13	Piston	603754			
14	Snap Ring	783015	1		
15	Retaining Ring Band	603549			
16	Bit Retaining Ring	601677			
17	Chuck Spacer	603576	1		
18	Chuck	603685			
	Foot Valve	601675		1	

### **Air Consumption** 200 250 300 350 PSI

### AT A GLANCE:

### SIZE





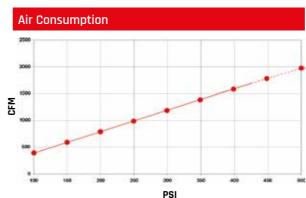
222mm - 270mm 8 3/4 - 10 5/8"

QL80

100 - 500 psi (7 - 35 bar)

Hammer OverviewHammer ModelDOM850Part Number600245ShankQL80Thread connection4 1/2" API Reg PinMinimum bit diameter222 MMHammer flat size125mm (6.14")Weight180 Kg (396.8 lbs)Outside diameter192mm (7.6")Length (shoulder to shoulder)1281mm (50.4")Minimum weight on bit800 Kg (1760 lbs)Maximum weight on bit2000 Kg (4400 lbs)		
Part Number 600245 Shank QL80 Thread connection 4 1/2" API Reg Pin Minimum bit diameter 222 MM Hammer flat size 125mm (6.14") Weight 180 Kg (396.8 lbs) Outside diameter 192mm (7.6") Length (shoulder to shoulder) 1281mm (50.4") Minimum weight on bit 800 Kg (1760 lbs)	Hammer Overview	
Shank QL80 Thread connection 4 1/2" API Reg Pin Minimum bit diameter 222 MM  Hammer flat size 125mm (6.14") Weight 180 Kg (396.8 lbs) Outside diameter 192mm (7.6") Length (shoulder to shoulder) 1281mm (50.4") Minimum weight on bit 800 Kg (1760 lbs)	Hammer Model	D0M850
Thread connection 4 1/2" API Reg Pin  Minimum bit diameter 222 MM  Hammer flat size 125mm (6.14")  Weight 180 Kg (396.8 lbs)  Outside diameter 192mm (7.6")  Length (shoulder to shoulder) 1281mm (50.4")  Minimum weight on bit 800 Kg (1750 lbs)	Part Number	600245
Minimum bit diameter  222 MM  Hammer flat size  125mm (6.14")  Weight  180 Kg (396.8 lbs)  Outside diameter  192mm (7.6")  Length (shoulder to shoulder)  Minimum weight on bit  800 Kg (1760 lbs)	Shank	QL80
Hammer flat size  125mm (6.14")  Weight  180 Kg (396.8 lbs)  Outside diameter  192mm (7.6")  Length (shoulder to shoulder)  Minimum weight on bit  1281mm (50.4")	Thread connection	4 1/2" API Reg Pin
Weight 180 Kg (396.8 lbs)  Dutside diameter 192mm (7.6")  Length (shoulder to shoulder) 1281mm (50.4")  Minimum weight on bit 800 Kg (1760 lbs)	Minimum bit diameter	222 MM
Outside diameter 192mm (7.6")  Length (shoulder to shoulder) 1281mm (50.4")  Minimum weight on bit 800 Kg (1750 lbs)	Hammer flat size	125mm (6.14")
Length (shoulder to shoulder)  Minimum weight on bit  1281mm (50.4")  800 Kg (1760 lbs)	Weight	180 Kg (396.8 lbs)
Minimum weight on bit 800 Kg (1760 lbs)	Outside diameter	192mm (7.6")
	Length (shoulder to shoulder)	1281mm (50.4")
Maximum weight on bit 2000 Kg (4400 lbs)	Minimum weight on bit	800 Kg (1760 lbs)
	Maximum weight on bit	2000 Kg (4400 lbs)

Hammer type	D0M850			Maintenance	
Shank	QL80				
Part number	600245		Service Kit	Rep Kit	
Item	Description	Part No.	SK32	RKE	
1	Thread Protector	207295			
2	Snap Ring	783034	1		
3	N.R.V. Seat	602887			
4	0-Ring	768150	1		
5	Non Return Valve	602285	1		
6	N.R.V. Cover	603696			
7	N.R.V. Spring	760108			
8	Top Adaptor	603353			
9	Spacer	603358			
10	0-Ring	768169	1		
11	Cylinder	603347			
12	Piston	603349			
13	Snap Ring	783039	1		
14	0-Ring	768169	1		
15	Bit Guide Bush	603360			
16	Bit Retaining Ring	603359			
17	Chuck Spacer	603358	1		
18	Chuck	603357			
	Foot Valve	603334			



Figures are based on theoretical data

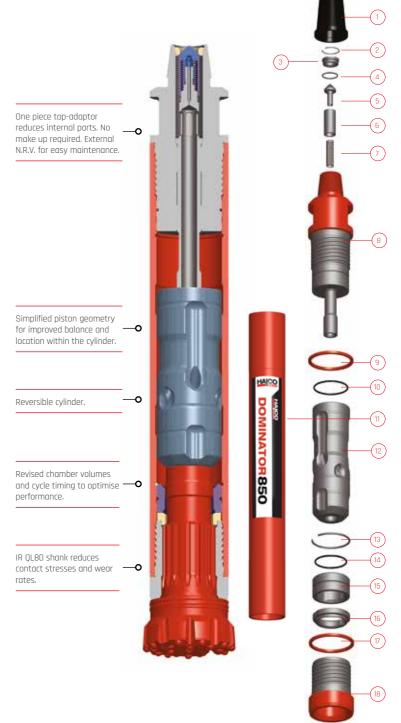
### 8" Dominator 850

### **DOMINATOR 850**

The Dominator 850 has been designed for high performance drilling in hard to medium rock formations, particularly mining applications.

Its class leading performance has been achieved with a larger piston and valveless air cycle providing 50% increase in stroke.

The Dominator 850 has a reversible cylinder for prolonged hammer life and benefits from a one piece top adaptor with N.R.V (Non Return Valve), this makes it easier to maintain and service the hammer.





### 8" Dominator 880 DW

### **DOMINATOR 880 DW**

The Dominator 880 Deep Well hammer has been specifically designed for drilling deep holes under a head of water.

The wide body diameter of the Dominator 880 DW allows for an increased piston weight and improved performance.

One piece top adaptor reduces internal parts as no make up is required. External N.R.V. (Non Return Valve) for easy maintenance.	<b>⊸</b>	
Reversible cylinder.	_ _o	

Simplified piston geometry for improved balance and location within cylinder.

Revised chamber volumes and cycle timing to optimize performance.

Optional bit catcher design to eliminate fishing —o operations in the event of a shank failure.



SIZE





200mm - 311mm 7 7/8 - 12 1/4"

DHD 380

AIR PRESSURE 100 - 507 psi (7 - 35 bar)

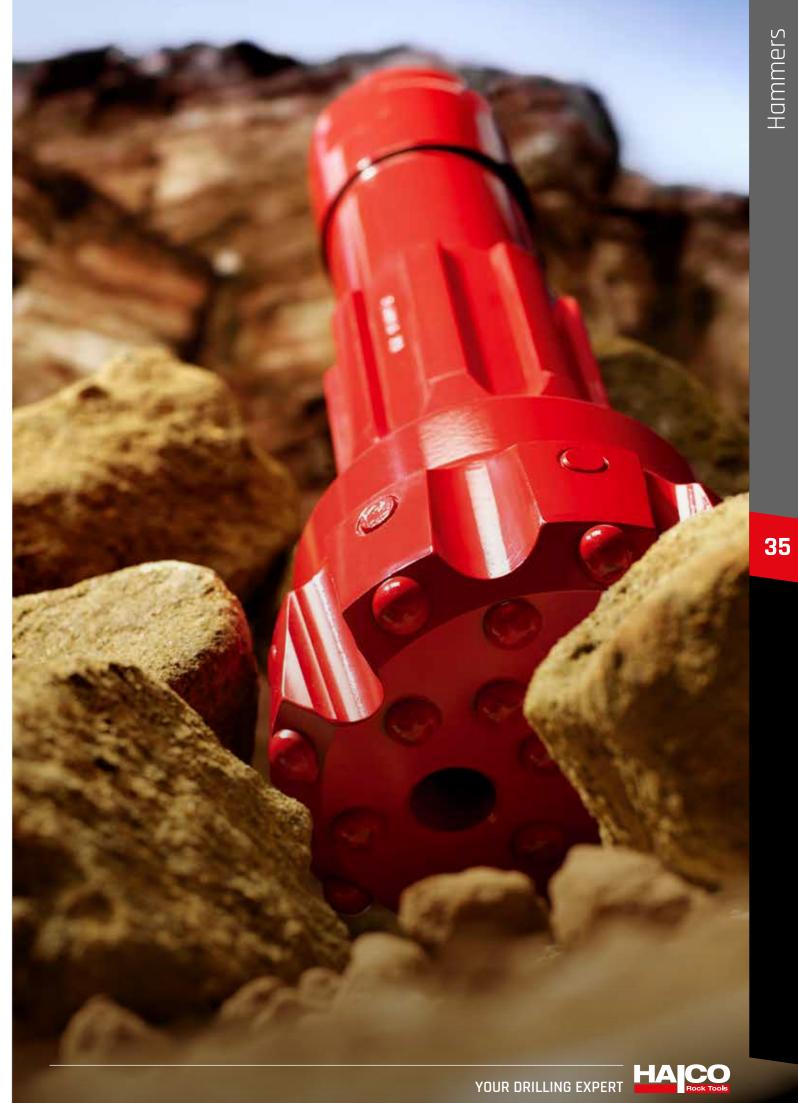
Hammer Overview	
Hammer Model	DOMINATOR 880 DW
Part Number	600261
Shank	DHD 380
Thread connection	4 1/2" API Reg Pin
Minimum bit diameter	200 MM
Hammer flat size	156 mm (6.142")
Weight	177 KG (390.21 lbs)
Outside diameter	182 mm (7.165")
Length (shoulder to shoulder)	1263 mm (49.724")
Minimum weight on bit	800 Kg (1760 lbs)
Maximum weight on bit	2000 Kg (4400 lbs)

)	Parts List				
)	Hammer type Shank	er type DOMINATOR 880 DW DHD 380			
	Part number	600261		Service Kit	Repair Kit
	Item	Description	Part No.	SK25	RK64
	1	Thread Protector	207295		
	2	Snap Ring	783034	1	
	3	N.R.V. Seat	602887		
)	4	O-Ring	768150	1	
	5	Non Return Valve	602285		
	6	N.R.V. Cover	603696		
	7	N.R.V. Spring	760108		
	8	Top Adaptor	603498		
	9	Spacer	603576		
	10	0-Ring	768103	1	
)	11	O-Ring	768145	1	
	12	Cylinder	603496		
)	13	Piston	602743		
	14	Snap Ring	783015	1	
	15	Spacer	602840	1	
	16	Containment Band	603549		
2)	17	Bit Retaining Ring	603043		
	18	Chuck Spacer	603576		
)	19	Chuck	603495		
		Foot Valve	601819		1

	3000								_
	2500		4						150
Ξ	2000	+	-	-	_	-	1	-	_
د	1500	+		-	1	-	-	-	
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	100	150	200	250	300	350	400	450	5

Figures are based on theoretical data

Air Consumption



Hammers

12" Mach 120

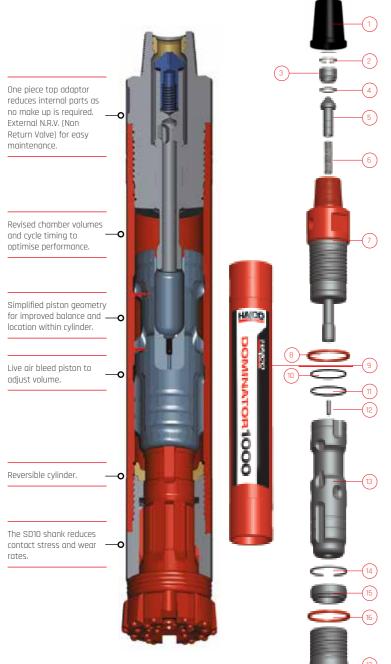
### 10" Dominator 1000

### **DOMINATOR 1000**

The Dominator 1000 incorporates a unique piston design for high performance and reliability especially in Waterwell applications.

This hammer is suitable for a wide range of air pressures. Though its optimum performance is reached at air pressures of 200psi (14 bar) and above. It has been designed with the heaviest piston in its class, (weighing in at 87.6 kg) to provide excellence performance. To assist with maintenance, it has a captive bit ring and a reversible cylinder thus prolonging its life and ultimately reducing costs.

The Dominator 1000 benefits from a one piece top adaptor with N.R.V (Non Return Valve), this makes it easier to maintain and service the hammer.



### AT A GLANCE: SIZE SHANK **AIR PRESSURE** 100 - 435 psi 254mm - 381mm (7 - 30 bar) 10 - 15"

Hammer Overview	
Hammer Model	D0M1000
Part Number	600248
Shank	SD10
Thread connection	6 5/8" API Reg Pin
Minimum bit diameter	254 MM
Hammer flat size	200mm (7.875")
Weight	367 Kg (809 lbs)
Outside diameter	230mm (9.06")
Length (shoulder to shoulder)	1390mm (54.7")
Minimum weight on bit	1500 Kg (3400 lbs)
Maximum weight on bit	3500 Kg (7700 lbs)

Hammer type	DOM1000				
Shank	SD10		Kits		
Part number	600248		Service Kit	Repai Kit	
Item	Description	Part No.	SK29	RK50	
1	Thread Protector	200112			
2	Circlip	777001	1		
3	N.R.V. Seat	602286			
4	0-Ring	768133	1		
5	Non Return Valve	602288			
6	N.R.V. Spring	760055	1		
7	Top Adaptor	603429			
8	Spacer	603432			
9	Cylinder	603434			
10 & 11	O-Ring	768172	2		
12	Bleed Plug - Blank	602499			
	Bleed Plug - 3mm	602500			
	Bleed Plug - 4mm	602501			
	Bleed Plug - 5mm	602502			
	Bleed Plug - 6mm	602503			
	Bleed Plug - 8mm	602874			
13	Piston	603433			
14	Snap Ring	783040	1		
15	Bit Retaining Ring	603435			
16	Chuck Spacer	603432	1		
17	Chuck	603436			
	Foot Valve	603186			

Ai	ir Co	nsui	mpti	on							
	4000										
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	3000		+	+			+	+			
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	500		+	+			+	+	+	$\rightarrow$	-
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	10	00	150	200	25	50	300	350	400	450	500
						PS	SI				

Figures are based on theoretical data

### AT A GLANCE:

SHANK SIZE

300mm - 445mm 11 7/8" - 17 1/2"

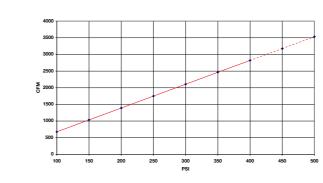
SD12

AIR PRESSURE 100 - 435 psi (7 - 30 bar)

Hammer Overview	
Hammer Model	Mach 120
Part Number	600108
Shank	SD12
Thread connection	6 5/8" API Reg Pin
Minimum bit diameter	300 MM
Hammer flat size	C Ring type
Weight	614 Kg (1,353 lbs)
Outside diameter	273mm (10.75")
Length (shoulder to shoulder)	1667mm (65.6")
Minimum weight on bit	1600 Kg (3520 lbs)
Maximum weight on bit	3500 Kg (7700 lbs)

Donto Link				
Parts List				
Hammer type	Mach 120	Maintenance		
Shank	SD12	Ki		
Part number	600108		Service Kit	Repair Kit
Item	Description	Part No.	SK12	RK19
1	Thread Protector	200112		
2	Circlip	777001	1	
3	O-Ring	768133	1	
4	N.R.V. Seat	602286		
5	Non Return Valve	602288		
6	N.R.V. Spring	760055	1	
7	Top Adaptor	602639		
8 & 9	O-Ring	768137	2	
10	Spacer	602366		
11	Cylinder	602013		
12	Piston	602047		
13	Snap Ring	783021	1	
14	0-Ring	768105	1	
15	Bit Retaining Ring	602102		
16	Chuck Spacer	602366	1	
17	Chuck	602052		
	Foot Valve	601811		

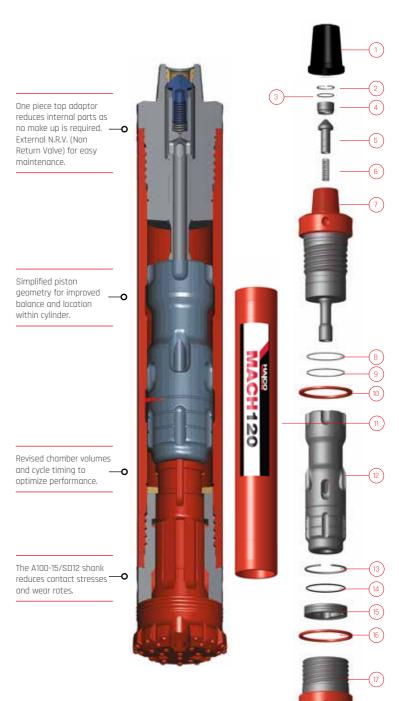
### **Air Consumption**



### **Mach 120**

Mach 120 has a working pressure range of 170-350 psi (12-24bar) whilst its optimum performance is reached at air pressures of 200psi (14 Bar) and above.

Mach120 has no liner which increases the 140kg piston's blow energy and reduces parts required.w





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Hammers

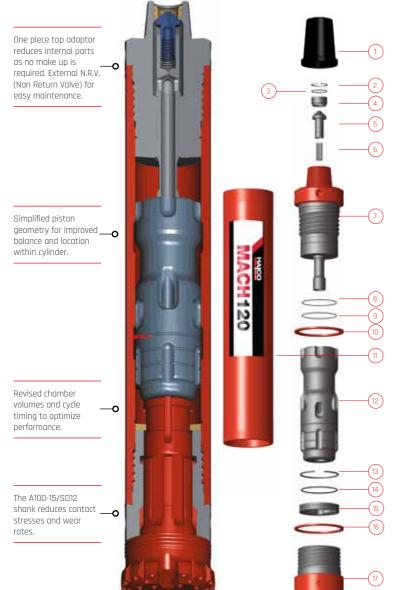
12" Mach 132

### 12" Mach 122

### **Mach 122**

The Mach 122 accepts A100-15 (SD12) shank bits and works over a wide pressure range with an optimum performance reached at air pressures of 200 psi (14 bar) and above as its higher air consumption provides increased uphole velocity, particularly when using oversized diameter drill bits.

Mach 122 has a one piece top-adaptor with N.R.V. (Non-Return-Valve) fitted for easy inspection and service, with integral finger to reduce maintenance and eliminate shimming which increases service intervals. Mach 122 has no liner which increases the 140 kg piston blow energy and reduces parts required. This hammer is suitable for use with overburden systems.



### AT A GLANCE: $\bigcirc$ SIZE SHANK **AIR PRESSURE** 300mm - 445mm 100 - 435 psi 11 7/8" - 17 1/2" (7 - 30 bar)

Hammer Overview	
Hammer Model	Mach 122
Part Number	600108
Shank	SD12
Thread connection	6 5/8" API Reg Pin
Minimum bit diameter	300 MM
Hammer flat size	C Ring type
Weight	614 Kg (1,353 lbs)
Outside diameter	273mm (10.75")
Length (shoulder to shoulder)	1667mm (65.6")
Minimum weight on bit	1600 Kg (3520 lbs)
Maximum weight on bit	3500 Kg (7700 lbs)

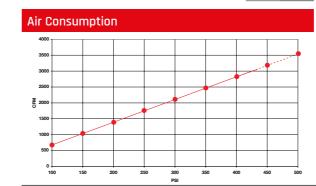
Parts List				
Hammer type	Mach 122		Mainte	nance
Shank	SD12			
Part number	600108		Service Kit	Repair Kit
Item	Description	Part No.	SK12	RK19
1	Thread Protector	200112		
2	Circlip	777001	1	
3	O-Ring	768133	1	
4	N.R.V. Seat	602286		
5	Non Return Valve	602288		
6	N.R.V. Spring	760055	1	
7	Top Adaptor	602639		
8 & 9	O-Ring	768137	2	
10	Spacer	602366		
11	Cylinder	602013		
12	Piston	602047		
13	Snap Ring	783021	1	
14	O-Ring	768105	1	
15	Bit Retaining Ring	602102		
16	Chuck Spacer	602366	1	
17	Chuck	602052		
	Foot Valve	601811		

4000	 	 	 	
3500				
3000				
2500				
2000				
1500				
1000				
500				-

### AT A GLANCE: SIZE SHANK **AIR PRESSURE** 381mm - 489mm 100 - 435 PSI DHD112 15 - 29 1/4" (7 - 30 bar)

Hammer Overview	
Hammer Model	Mach 132
Part Number	600142
Shank	DHD112 Pin Drive
Thread connection	6 5/8" API Reg Pin
Minimum bit diameter	381 MM
Hammer flat size	C Ring type
Weight	615 Kg (1,356 lbs)
Outside diameter	273mm (10.75")
Length (shoulder to shoulder)	1684mm (66.3")
Minimum weight on bit	1600 Kg (3520 lbs)
Maximum weight on bit	3500 Kg (7700 lbs)

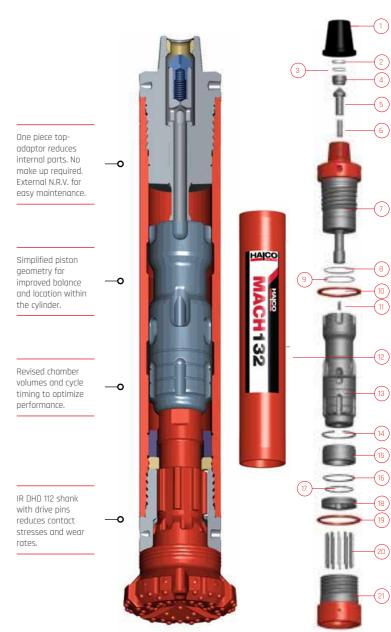
Parts List				
Hammer type	Mach 132		Mainte	enanc
Shank	DHD112 Pin Drive			
Part number	600142		Service Kit	Rep Ki
Item	Description	Part No.	SK14	RK
1	Thread Protector	200112		
2	Circlip	777001	1	
3	O-Ring	768133	1	
4	N.R.V. Seat	602286		
5	Non Return Valve	602288		
6	N.R.V. Spring	760055	1	
7	Top Adaptor	602639		
8 & 9	O-Ring	768137	2	
10	Bleed Plug - Blank	602499		
	Bleed Plug - 3mm	602500		
	Bleed Plug - 4mm	602501		
	Bleed Plug - 5mm	602502		
	Bleed Plug - 6mm	602503		
	Bleed Plug - 8mm	602874		
11	Spacer	602366		
12	Cylinder	602563		
13	Piston	604503		
14	Snap Ring	783021	1	
15	Bit Guide Bush	602531		
16	O-Ring	768184	1	
17	Viton Band Containment	603819	1	
18	Bit Retaining Ring	602530		
19	Chuck Spacer	602366	1	
20	Drive Pin Set (8)	600564	1	
21	Chuck	602528		
	Foot Valve	602522		



### Mach 132

The Mach 132 hammer accepts IR DHD112 shank bits. This hammer, although capable of high pressure drilling is particularly suitable at pressures between 100 - 200 psi (7 - 14 bar).

The Mach 132 has a pin drive system to prevent metal to metal contact thereby minimizing spline wear and damage which can result in drill bit shank failure. Mach 132 has a one piece top-adaptor with N.R.V. (Non-Return-Valve) fitted for easy inspection and service, with integral finger to reduce maintenance and eliminate shimming which increases service intervals. Servicing requires only a few simple tools. Mach 132 has no liner which increases the 140 kg piston blow energy and reduces parts required. This hammer is suitable for use with overburden systems.



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### 12" Superior 1200

### **Superior 1200**

The Superior 1200 incorporates a unique piston design for high performance and reliability especially in Oil & Gas applications.

This hammer is suitable for a wide range of air pressures. Its optimum performance is reached at air pressures of 200psi (14 bar) and above. Standard design features include a jetted back head, a variable air bleed piston and a bit catcher system to ensure your bits are not lost down the hole and diamond enhanced inserts.



A variable live air bleed to allow greater additives to increase up-hole velocity.



### AT A GLANCE:





DHD112



SIZE 381 - 660mm (15" - 19 1/4")

100 - 435psi (7 - 30 bar)

Hammer Overview					
Hammer Model	Superior 1200 - Thrd ctch				
Part Number	600435				
Shank	DHD112 Pin Drive				
Thread connection	6 5/8" API Reg Pin				
Minimum bit diameter	381mm				
Hammer flat size	C Ring type				
Weight	615 Kg (1,356 lbs)				
Outside diameter	273mm (10.75")				
Length (shoulder to shoulder)	1684mm (66.3")				
Minimum weight on bit	1600 Kg (3520 lbs)				
Maximum weight on bit	3500 Kg (7700 lbs)				

Part number 600435 Service R	mmer type	Superior 1200 - Thrd ctch			enance ts
Rit   Rit	ank	DHUTTZ PIN Drive			Repai
1         Thread Protector         200112           2         Circlip         777001           3         0-Ring         768133           4         N.R.V. Seat         602286           5         Non Return Valve         602288           6         N.R.V. Spring         760055         1           7         Top Adaptor         605000           8&9         O-Ring         768137         2           10         Bleed Plug - Blank         602499           Bleed Plug - 3mm         602500         Bleed Plug - 4mm         602501           Bleed Plug - 5mm         602502         Bleed Plug - 5mm         602502           Bleed Plug - 8mm         602503         Bleed Plug - 8mm         602503           Bleed Plug - 8mm         602503         Bleed Plug - 604875         13           13         Piston         604503         1           14         Snap Ring         783021         1           15         Bit Guide Bush         602531           16         O-Ring         768184         1           Viton Band Containment         603819         1           17         Bit Retaining Ring         602530         1	rt number	600435			Kepui
2         Circlip         777001         1           3         O-Ring         768133         1           4         N.R.V. Seat         602286           5         Non Return Valve         602288           6         N.R.V. Spring         760055         1           7         Top Adaptor         605000         889         0-Ring         768137         2           10         Bleed Plug - Blank         602499         8         602499         602500	ım	Description	Part No.	SK93	RK150
3		Thread Protector	200112		
4 N.R.V. Seat 602286 5 Non Return Valve 602288 6 N.R.V. Spring 760055 1 7 Top Adaptor 605000 8&9 O-Ring 768137 2 10 Bleed Plug - Blank 602499 Bleed Plug - 3mm 602500 Bleed Plug - 4mm 602501 Bleed Plug - 5mm 602502 Bleed Plug - 5mm 602502 Bleed Plug - 8mm 602503 Bleed Plug - 8mm 602503 Bleed Plug - 8mm 602874 11 Spacer 602366 12 Cylinder 604875 13 Piston 604503 14 Snap Ring 783021 1 15 Bit Guide Bush 602531 16 O-Ring 768184 1 Viton Band Containment 603819 17 Bit Retaining Ring 602530 18 Orive Pin Set (B) 600564 1		Circlip	777001	1	
5       Non Return Valve       602288         6       N.R.V. Spring       760055       1         7       Top Adaptor       605000         8&9       O-Ring       768137       2         10       Bleed Plug - Blank       602499         Bleed Plug - 3mm       602500       602500         Bleed Plug - 4mm       602501       602502         Bleed Plug - 5mm       602502       602502         Bleed Plug - 6mm       602503       602503         Bleed Plug - 8mm       602874       1         11       Spacer       602366         12       Cylinder       604875         13       Piston       604503         14       Snap Ring       783021       1         15       Bit Guide Bush       602531         16       0-Ring       768184       1         Viton Band Containment       603819       1         17       Bit Retaining Ring       602530         18       Drive Pin Set (B)       600564       1		0-Ring	768133	1	
6         N.R.V. Spring         760055         1           7         Top Adaptor         605000           8&9         0-Ring         768137         2           10         Bleed Plug - Blank         602499         8           Bleed Plug - 3mm         602500         602500         602500           Bleed Plug - 4mm         602501         602502         602502           Bleed Plug - 5mm         602503         602503         602503           Bleed Plug - 8mm         602874         602874         604875           12         Cylinder         604875         604875           13         Piston         604503         604503           14         Snap Ring         783021         1           15         Bit Guide Bush         602531         602531           16         0-Ring         768184         1           Viton Band Containment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (B)         600564         1		N.R.V. Seat	602286		
7 Top Adaptor 605000  8&9		Non Return Valve	602288		
8&9         O-Ring         768137         2           10         Bleed Plug - Blank         602499           Bleed Plug - 3mm         602500           Bleed Plug - 4mm         602501           Bleed Plug - 5mm         602502           Bleed Plug - 6mm         602503           Bleed Plug - 8mm         602874           11         Spacer         602366           12         Cylinder         604875           13         Piston         604503           14         Snap Ring         783021         1           15         Bit Guide Bush         602531           16         O-Ring         768184         1           Viton Band Containment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (B)         600564         1		N.R.V. Spring	760055	1	
Bleed Plug - Blank   602499   Bleed Plug - 3mm   602500   Bleed Plug - 4mm   602501   Bleed Plug - 5mm   602502   Bleed Plug - 5mm   602502   Bleed Plug - 6mm   602503   Bleed Plug - 8mm   602874   11   Spacer   602366   12   Cylinder   604875   13   Piston   604503   14   Snap Ring   783021   1   15   Bit Guide Bush   602531   16   O-Ring   768184   1   Viton Band Containment   603819   1   17   Bit Retaining Ring   602530   18   Orive Pin Set (8)   600564   1		Top Adaptor	605000		
Bleed Plug - 3mm   602500	9	O-Ring	768137	2	
Bleed Plug - 4mm   602501     Bleed Plug - 5mm   602502     Bleed Plug - 6mm   602503     Bleed Plug - 8mm   602874     11		Bleed Plug - Blank	602499		
Bleed Plug - 5mm   602502     Bleed Plug - 6mm   602503     Bleed Plug - 8mm   602874     11   Spacer   602365     12   Cylinder   604875     13   Piston   604503     14   Snap Ring   783021   1   15   Bit Guide Bush   602531     16   O-Ring   768184   1   Viton Band Containment   603819   1   17   Bit Retaining Ring   602530     18   Orive Pin Set (B)   600564   1     1   1     1     1     1		Bleed Plug - 3mm	602500		
Bleed Plug - 6mm   602503		Bleed Plug - 4mm	602501		
Bleed Plug - 8mm   602874   11   Spacer   602366   12   Cylinder   604875   13   Piston   604503   14   Snap Ring   783021   1   15   Bit Guide Bush   602531   16   O-Ring   768184   1   Viton Band Containment   603819   1   17   Bit Retaining Ring   602530   18   Drive Pin Set (B)   600564   1		Bleed Plug - 5mm	602502		
11         Spacer         602366           12         Cylinder         604875           13         Piston         604503           14         Snap Ring         783021         1           15         Bit Guide Bush         602531           16         O-Ring         768184         1           Viton Band Containment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (B)         600564         1		Bleed Plug - 6mm	602503		
12         Cylinder         604875           13         Piston         604503           14         Snap Ring         783021         1           15         Bit Guide Bush         602531           16         O-Ring         768184         1           Viton Band Containment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (B)         600564         1		Bleed Plug - 8mm	602874		
13         Piston         604503           14         Snap Ring         783021         1           15         Bit Guide Bush         602531         1           16         O-Ring         768184         1           Viton Band Containment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (B)         600564         1		Spacer	602366		
14     Snap Ring     783021     1       15     Bit Guide Bush     602531       16     O-Ring     768184     1       Viton Band Containment     603819     1       17     Bit Retaining Ring     602530       18     Drive Pin Set (8)     600564     1		Cylinder	604875		
15         Bit Guide Bush         602531           16         0-Ring         768184         1           Viton Band Containment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (8)         600564         1		Piston	604503		
16		Snap Ring	783021	1	
Viton Band Containment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (8)         600564         1		Bit Guide Bush	602531		
ment         603819         1           17         Bit Retaining Ring         602530           18         Drive Pin Set (8)         600564         1			768184	1	
18 Drive Pin Set (8) 600564 1			603819	1	
` '		Bit Retaining Ring	602530		
19 Bit Catcher Chuck 604727		Drive Pin Set (8)	600564	1	
		Bit Catcher Chuck	604727		
20 Threaded Catcher		Threaded Catcher			

2000 2000	$\mathbf{H}$		$\mathbb{H}$	$\mathbf{H}$		
\$100 \$100 \$100 \$100 \$100						SANK PLOS  Service PLOS  Servi
800 800 8	Tão 200	and no	180	400 498	100	—voltus



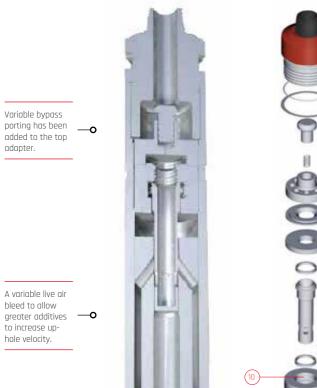
The Bit Catcher System has a specially designed chuck and drill bit

### 18" Superior 1800

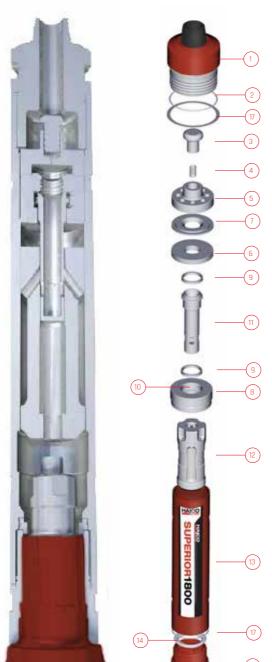
### **Superior 1800**

The Superior 1800 has been designed for high performance drilling in medium to hard rock conditions. Design features include a jetted back head and a variable air bleed piston to enable greater up hole velocity.

The Superior 1800 has a drive pin arrangement to prevent metal to metal contact, thereby minimising spline wear and damage, which can result in a drill bit shank failure.



A Halco Bit Catcher System is available upon request which has a specially designed chuck and drill bit arrangement.



### AT A GLANCE:







457 - 660mm 18 - 26"

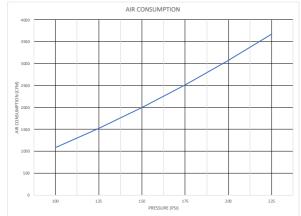
NUMA180, SD-18 QL 200

**AIR PRESSURE** 100 - 435 psi (7 - 30 bar)

Hammer Overview	
Hammer Model	Superior 1800
Part Number	600191
Shank	NUMA 180
Thread connection	8 5/8" API Reg Pin
Minimum bit diameter	
Hammer flat size	C Ring type
Weight	1600 Kg
Outside diameter	410mm (16.14")
Length (shoulder to shoulder)	1930mm (75.98")
Minimum weight on bit	1600 Kg (3520 lbs)
Maximum weight on bit	3500 Kg (7700 lbs)

Parts List				
Hammer type	Superior 1800		Mainte	
Shank	NUMA 180		Ki	
Part number	600191		Service Kit	Repair Kit
Item	Description	Part No.	SK98	RK155
1	Top Adaptor 8-5/8" Pin	605060		
2	Top Adaptor 'O' Ring	768224	1	
3	Check Valve	605047		
4	Check Valve Spring	760164	1	
5	Valve Chest	605048		
6	Compression Buffer	605049		
7	Buffer Cover	605050		
8	Tube Holder	605051		
9	Tube Buffers (2)	605052		2
10	Tube 'O' Ring	768225	1	
11	Control Tube	605053		
12	Piston	605054		
13	Cylinder	605055		
14	Bit Retaining Ring	605056		
15	Chuck	605057		
16	Chuck Bearing	605058	1	
17	Breakout Washer	605059	1	

### Air Consumption



# Drill Bits



Selection Guide

Bit

### Drill Bit Overview

### What are 'Down-the-Hole' (DTH) Drill Bits and how are they used?

Down-the-hole drill bits are used with down-the-hole hammers for drilling holes through a wide range of rock types.

In conjunction with our DTH hammers, our drill bits are designed with a splined drive



### How have DTH Drill Bits developed?

Rapid advances in drill bit technology have occurred throughout the last 40 years. The first type of drill bits used with down-thehole hammers were 'cross bit' design. Four chisel shaped lengths of tungsten carbide were brazed creating stresses within the drill bit thereby limiting its life. A further disadvantage of the cross bit design was that the majority of the carbide was situated around the centre of the bit face and not towards the outer edge of the drill bit where there is the most rock to cut.

In the late 1960s however, the button bit was introduced; this was a landmark in the progress of DTH equipment, which led to bit lives previously unheard of.

Cylindrical button inserts were precision ground to extremely close tolerances and pressed into the bit as an interference fit. This resulted in improved carbide insert retention by eliminating brazing stresses and other defects associated with brazing and braze

Buttons inserts are distributed more efficiently than cross bit inserts by providing more cutting power where it is needed at the outer edge of the drill bit face.

In many cases, the need to sharpen the drill bit was eliminated with the arrival of the button bit and the improved cutting action provided While the cross bit design is still used in some rotary and drifted applications where the rock is very soft, the button bit is now used in virtually every DTH application.

### **Applications for Overburden Systems**

Soft soil is normally drilled with augers or by the rotary method but DTH hammers have been adapted to handle soft conditions by being able to drill and case a hole simultaneously by using a concentric bit, which can be withdrawn on completion of the bore hole; leaving the casing in situ, thus preventing hole collapse.

"We guarantee to have a drill bit that can tackle any challenge."

### Drill Bit Selection Guide

As with all Halco hammers it is crucial that you choose the right drill bit otherwise it will cost you both in time and money. We pride ourselves on having a comprehensive range of drill bits on offer so you can be sure that you will definitely find a suitable bit for any project you are undertaking.

Our carburised drill bit are among the best in the world providing outstanding performance and durability.

We produce all our drill bits at our specialised plant where they are made out of high quality nickel chrome alloy steel, carburised and heat-treated to offer extra protection against wear and fatigue. Every hole in the bit head is machined to within microns and fitted with carbide inserts which provide the cutting action of the rock.

We have three different bit heads on offer, Flat Face, Concave and Convex, which are available with three different inserts. We guarantee that we have a drill bit that can tackle any challenge and rock face formation. The two most important factors in choosing the right drill bit are productivity and reliability.

For soft to medium rock formations where penetration rates are high, the ballistic and semi-ballistic inserts coupled with flat face or concave bit heads are more suitable.





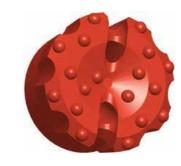
### Flat Face

Alternative design for all rock conditions especially fractured and fissured rock and changing formations.



### **Ballistic Inserts**

Suitable for soft and medium compact low abrasive rocks producing large cuttings.



### Concave

Alternative design for all rock conditions particularly deep hole drilling can improve hole alignment as a result of inverted pilot.



### **Domed Inserts**

Strong rugged shape for high performance and good service life in all conditions particularly suitable for very hard abrasive rocks and deep hole drilling.



### Convex

Strong design for all conditions especially hard abrasive rock. Good balance of fast drilling and long service life.



### Inserts

Suitable for all soft and medium rock conditions including fractured and fissured rock.



Shank Guide

### Shank Guide

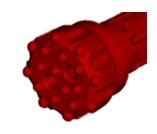




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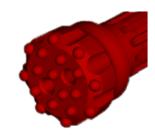
Orill Bits

### 1" Halco 1



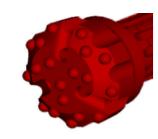
Flat Fac	2						
Part Number	Diar mm	meter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650017	55	2	Flat Face	Domed	2	11mm (6)	9mm (2)
650032	64	2 1/2	Flat Face	Domed	2	11mm (6)	9mm (2)
653001	64	2 1/2	Flat Face	Semi-Ballistic	2	11mm (6)	9mm (3)

### 2" Halco 2



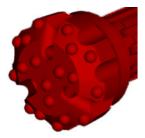
Flat Fac	2						
Part Number	Dia:	Diameter Face mm Inches design		Button Flushing hole shape		Gauge carbide diameter & Qty	Face carbide diameter & Qty
650952	70	2 3/4	Flat Face	Domed	2	11mm (6)	9mm (4)
650953	76	3	Flat Face	Domed	2	11mm (6)	9mm (5)
650954	76	3	Flat Face	Ballistic	2	11mm (6)	9mm (5)

3" IR3.5

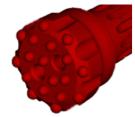


Convex							
Part	Diar	Diameter Face		Button	Flushing holes	Gauge carbide	Face carbide
Number	mm	Inches	design	shape	riasiling noics	diameter & Qty	& Qty
650622	90	3 1/2	Convex	Semi Ballistic	2	11mm (6)	11mm (7)
650623	90	3 1/2	Convex	Domed	2	11mm (6)	11mm (7)
650609	95	3 3/4	Convex	Semi Ballistic	2	11mm (8)	11mm (7)
650621	100	4	Convex	Domed	2	11mm (8)	11mm (7)
650610	100	4	Convex	Semi Ballistic	2	11mm (8)	11mm (7)
650624	104	4 1/10	Convex	Domed	2	13mm (8)	11mm (8)

### 3" MD3.5

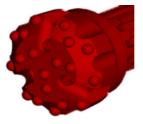


Convex								
Part			Face	Button	Flushing holes	Gauge carbide	Face carbide diameter	
Number	mm	. design shape		riasimig noics	diameter & Qty			
653354	95	3 3/4"	Convex	Semi Ballistic	2	14mm (6)	14mm (5)	
653628	105	4 1/4	Convex	Ballistic	2	11mm (10)	11mm (3)	



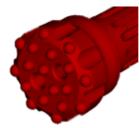
Flat Face	2						
Part Number	Dia:	neter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
653384	95	3 3/4	Flat Face	Domed	2	14mm (6)	14mm (5)
653349	100	4	Flat Face	Domed	2	11mm (8)	11mm (8)

### 4" DHD340 Bits



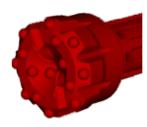
Convex								
Part Number	Dia mm	meter Inches	Face design	Oversize Bit	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650968	108		Convex		Semi Ballistic	2	13mm (12)	12mm (3)
653091	110	4 5/16	Convex		Parabolic	2	14mm (8)	14mm (6)
650526	115	4 1/2	Convex		Parabolic	2	13mm (12)	13mm (4)
650967	115	4 1/2	Convex		Parabolic	2	13mm (12)	13mm (4)
653482	127	5	Convex	•	Ballistic	3	13mm (15)	13mm (5)
653094	140	5 1/2	Concave	•	Domed	3	16mm (9)	14mm (9)
653683	150	5 7/8	Convex	•	Domed	2	13mm (12)	13mm (5)
653682	150	5 7/8	Convex	~	Ballistic	2	13mm (12)	13mm (5)

Note \* Oversize sold without warranty



Flat Fac	е							
Part Number	Dia mm	meter Inches	Face design	Oversize Bit	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650955	115	4 1/2	Flat Face		Domed	2	14mm (8)	13mm (10)
653623	115	4 1/2	Flat Face		Domed	2	16mm (8)	13mm (6)
650965	130	5 1/8	Flat Face	~	Domed	2	14mm (8)	14mm (10)

Note \* Oversize sold without warranty



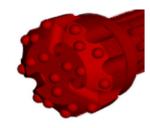
Concave								
Part	Diameter	Face	Oversize	Button	Flushing	Gauge carbide	Face carbide	
Number	mm	Inches	design	Bit	shape	holes	diameter & Qty	diameter & Qty
650625	115	4 1/2	Concave		Domed	2	14mm (8)	13mm (6) DWB
650680	120	4 3/4	Concave		Domed	2	13mm (8)	13mm (6) DWB
653094*	140	5 1/2	Concave	•	Domed	3	16mm (9)	14mm (9)



Orill Bits

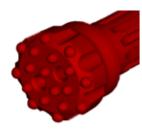
5" QL50 Bits

### 4" Halco 4.5 Bits



Convex								
Part	Diar	Diameter		Oversize			Gauge carbide	Face carbide diameter
Number	mm	Inches	design	Bit	shape	holes	diameter & Qty	& Qty
653223	110	4 5/16	Convex		Domed	2	14mm (8)	14mm (6)
653217	110	4 1/3	Convex		Ballistic	2	14mm (7)	14mm (7)
653224	115	4 1/2	Convex		Domed	2	14mm (8)	14mm (7)
653209	115	4 1/2	Convex		Ballistic	2	14mm (8)	14mm (7)
653197	127	5	Convex	~	Ballistic	2	14mm (9)	14mm (9)

Note \* Oversize sold without warranty



Flat Face	2							
Part Number	Diar mm	neter Inches	Face design	Oversize Bit	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
653230	115	4 1/2	Flat Face		Domed	2	14mm (8)	13mm (10)
653650	127	5	Flat Face	~	Domed	2	16mm (8)	13mm (8)

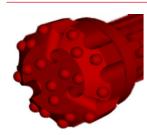
Note \* Oversize sold without warranty



diameter	Concave	:							
	Part Number						-	_	diameter
	653268	127	5	Concave	~	Domed	2	14mm (8)	13mm (8)

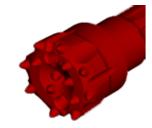
Note \* Oversize sold without warranty

### 4" Halco 4 Bits



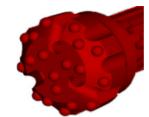
Convex								
Part Number	Dia:	meter Inches	Face design	Oversize Bit	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650931	110	4 5/16	Convex		Domed	2	13mm (12)	13mm (3)
650932	115	4 1/2	Convex		Domed	2	14mm (8)	13mm (8)
650933	120	4 3/4	Convex		Domed	2	14mm (8)	13mm (8)
650466	127	5	Convex	~	Domed	2	13mm (12)	13mm (4)
650444	140	5 1/2	Convex	~	Domed	2	13mm (12)	13mm (5)
650445	150	5 7/8	Convex	~	Domed	2	13mm (12)	18mm (5)

Note \* Oversize sold without warranty

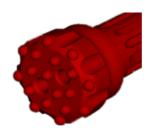


Concave	!						
Part Number	Dia:	meter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650925	127	5	Concave	Semi Ballistic	2	13mm (8)	13mm (8)

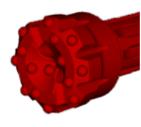
Note \* Oversize sold without warranty



Convex							
Part Number	Dian mm	neter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
653238	130	5 1/8	Convex	Ballistic	3	14mm (9)	14mm (9)
653593	140	5 1/2	Convex	D/B	3	14mm (9)	14mm (9)



Flat Face	≘						
Part Number	Diar mm	neter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
653235	140	5 1/2	Flat Face	Domed	2	16mm (8)	16mm (8)LGD



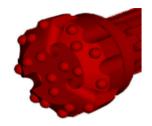
Concave	!							
Part Number	Diar mm	meter Inches	Face design	Oversize Bit	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
670249	140	5 1/2	Concave		Domed	2	16mm (8)	16mm (7)
670250	146	5 3/4	Concave		Domed	2	16mm (8)	16mm (8)
653639	152	6	Concave	•	Domed	3	16mm (15)	14mm (5)
670700	152	6	Concave	•	Domed	2	16mm (8)	16mm (8)
653715	165	6 1/2	Concave	~	Domed	3	16mm (15)	14mm (6)



Orill Bits

6" QL60 Bits

### 5" Halco 5 Bits



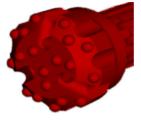
Convex								
Part	Diar	meter	Face	Oversize Button		Flushing holes	Gauge carbide	Face carbide
Number	mm	Inches	design	Bit	shape	riasiling noics	diameter & Qty	diameter & Qty
650461	127	5	Convex		Domed	2	13mm (10)	13mm (3)
650838	127	5	Convex		Domed	2	11mm (12)	11mm (6)
650578	140	5 1/2	Convex		Domed	2	16mm (11)	16mm (3)
650463	150	5 7/8	Convex		Domed	2	16mm (11)	16mm (3)
650464	165	6 1/2	Convex	•	Domed	2	16mm (12)	16mm (4)

### 5" Mission 50 Bits

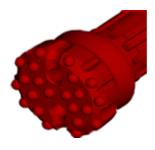


Conve	X						
Part Number	Did mm	imeter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
671105	140	5 1/2	Convex	Ballistic	3	16mm (9)	16mm (9)

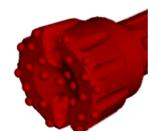




Dia:	neter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
171	6 3/4	Convex	Parabolic	3	18mm (13)	18mm (6)
	mm		mm Inches design	Face Button mm Inches design shape	Face Button Flushing holes mm Inches design shape	Face Button Flushing holes Gauge carbide mm Inches design shape flushing holes diameter & Qty



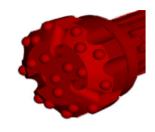
Flat Face	9						
Part Number	Diar mm	neter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
653352	165	6 1/2	Flat Face	Domed	2	18mm (10)	18mm (12)
653553	171	6 3/4	Flat Face	Domed	2	18mm (10)	18mm (12)



Part	Dian	neter	Face	Button	Flushing holes	Gauge carbide	Face carbide
Number	mm	Inches	design	shape	riusiling noies	diameter & Qty	diameter & Qty
670210	150	6	Concave	Domed	2	16mm (12)	16mm (4)
671131	155	6	Concave	Domed	2	16mm (8)	16mm (8)
670334	159	6 1/4	Concave	Domed			
670208	165	6 1/2	Concave	Domed	2	19mm (8)	16mm (8)
670216	165	6 1/2	Concave	Domed	2	16mm (8)	16mm (8)
670582	165	6 1/2	Concave	Domed	2	16mm (10)	16mm (9)
670592	171	6 3/4	Concave	Domed	3	19mm (9)	16mm (11)
670718	171	6 3/4	Concave	Domed	3	19mm (9)	16mm (11)
670449	171	6 3/4	CC CV	Domed	2		
653118	171	6 3/4	Concave	Domed	2	16mm (8)	16mm (10)
670665	178	7	Concave	Domed	3	16mm (9)	16mm (11)
653128	178	7	Concave	Domed	2	20mm (8)	16mm (11)
670722	190	7 1/2	Concave	Domed	2	16mm (10)	16mm (14)
653227	190	7 1/2	Concave	Domed	2	16mm (10)	16mm (14)
671064	200	7 7/8	Concave	Domed	3	19mm (9)	16mm (18)
670220	203	8	Concave	Domed	2	16mm (10)	16mm (13)

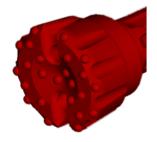






6" DHD360 Bits

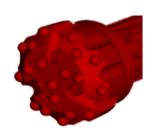
Convex							
Part Number		meter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650783	<b>mm</b> 152	6	Convex	Domed	2	16mm (15)	16mm (5)
650795	165	6 1/2"	Convex	Domed	2	16mm (15)	16mm (5)



Concave	!							
Part Number	Diameter mm Inches		Face design	Oversize Bits	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
670076	150	6	Concave		Domed	2	16mm (8)	16mm (8)
650783	152	6	Concave		Domed	2	16mm (15)	16mm (5)
670088	165	6 1/2	Concave		Domed	3	16mm (8)	16mm (8)
650789	165	6 1/2	Concave		Domed	2	16mm (8)	16mm (10)
653038	170	6 2/3	Concave		Domed	2	16mm (8)	16mm (10)
653097	180	7	Concave	<b>~</b>	Domed	2	16mm (8)	16mm (10)
653098	190	7 1/2	Concave	•	Domed	2	16mm (10)	16mm (14)

Note \* Oversize sold without shank warranty

### 6" Halco 6



Convex								
Part			Face	Oversize	Button	Flushing	Gauge carbide	Face carbide
Number	mm	Inches	design	Bits	shape	holes	diameter & Qty	diameter & Qty
650585	152	6	Convex		Domed	2	16mm (12)	16mm (4)
650440	200	77/8	Convex	~	Domed	3	16mm (12)	16mm (8)
650441	225	8 6/7	Convex	~	Domed	3	16mm (15)	16mm (11)
650457	245	9 5/8	Convex	~	Domed	3	16mm (15)	16mm (12)

Note \* Oversize sold without warranty

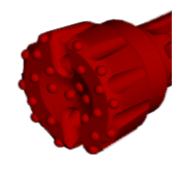


Flat Face	2							
Part Number	Dia mm	meter Inches	Face design	Oversize Bits	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650354	191	7 1/2	Flat Face	~	Domed	3	16mm (13)	16mm (8)

Note \* Oversize sold without warranty



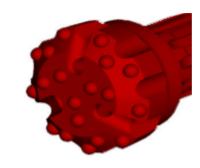
Flat Face							
Part Number	Dian mm	neter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
653490	203		Flat Face	Domed	2	18mm (10)	18mm (16)



Concave							
Part	Diam	neter	Face	Button	Flushing	Gauge carbide	Face carbide
Number	mm	Inches	design	shape	holes	diameter & Qty	diameter & Qty
653379	203	8	Concave	Domed	2	18mm (10)	18mm (14)
670415		8	Concave	Domed	2	19mm (10)	16mm (14)
671097	222	8 3/4	Concave	Domed	2	18mm (10)	18mm (16)
671116	225	8 7/8	Concave	Domed	3	18mm (9)	18mm (9)
670763	225	8 7/8	Concave	Domed		19mm (10)	19mm (8) 16mm (8)
653711	229	9	Concave	Domed	3	18mm (27)	18mm (9)
671100	229	9	Concave	Domed	3	19mm (21)	16mm (9)
670763	251	9 7/8	Concave	Domed	2	19mm (18)	16mm (8)

### 8" Halco 8

8" QL80 Bits



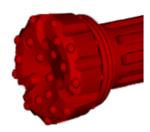
Convex								
Part	Dian	Diameter		Oversize	Button	Flushing	Gauge carbide	Face carbide diameter
Number	mm	Inches	design	Bits	shape	holes	diameter & Qty	& Qty
650571	225		Convex		Domed	3	16mm (16)	16mm (10)
650746	254	10	Convex	•	Domed	2	20mm (15)	20mm (5)
653510	290		Convex	•	Domed	4	16mm (20)	16mm (18)
650365	311	12 1/4	Convex	•	Domed	3	20mm (18)	20mm (11)



### 8" DHD380 Bits



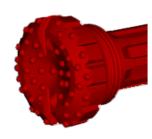
Flat Fac	е							
Part Number	Dia mm	meter Inches	Face design	Oversize Bits	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650898	300	11 4/5	FLAT FACE	~	DOMED	2	20mm (22)	20mm (12)



Concave	-							
Part	Dia	meter	Face	Oversize	Button	Flushing	Gauge carbide	Face carbide
Number	mm	Inches	design	Bits	shape	holes	diameter & Qty	diameter & Qty
650977	200	7 7/8	Concave		Domed	2	16mm (14)	20mm (10)
650373	203	8	Concave		Domed	2	20mm (10)	16mm (14)
650074	216	8 1/2	Concave		Domed	3	13mm (9)	20mm (20)
670437	222	8.3/4	Concave		Domed	2	19mm (14)	19mm (5)
650022	241	9 1/2	Concave		Domed	2	20mm (18)	16mm (10)
650389	254	10.0	Concave		Domed	2	20mm (18)	16mm (11)
653041	311	12 1/4	Concave	•	Domed	2	20mm (22)	20mm (20)

Note \* Oversize sold without warranty

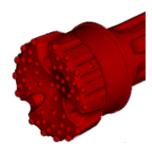
### 10" SD-10 Bits



Concave	2							
Part	Part	meter	Face	Oversize	Button	Flushing holes	Gauge carbide	Face carbide
Number	mm	Inches	design	Bits	shape	riusiling noies	diameter & Qty	diameter & Qty
650648	254	10	Concave		Domed	2	20mm (10)	20mm (8) 16mm (11)
650650	305	12	Concave		Domed	3	20mm (21)	20mm (13)
650071	311	12.1/4	Concave	~	Domed	2	20mm (22)	20mm (24)
650072	381	15	Concave	~	Domed	3	20mm (27)	20mm (38)

Note \* Oversize sold without warranty

### 12" DHD112 Bits



Extende	Extended Head bit catcher Concave											
Part	Diar	meter	Face	Button	Flushing holes	Gauge carbide	Face carbide					
Number	mber mm Inches design		shape	riasiling notes	diameter & Qty	diameter & Qty						
653631	381	15	Concave	Domed	3	20mm (36)	18mm (24)					
653704	422	16 5/8	Concave	Domed	3	20mm (61)	16mm (15)					
653552	444	17 1/2	Concave	Domed	3	22.2mm (48)	18mm (18)					

### 12" SD-12 Bits



Concave							
Part Number	Dia mm	meter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
650383	311	12 1/4	Concave	Domed	3	20mm (21)	20mm (10)
650376	445	17 1/2	Concave	Domed	3	20mm (48)	20mm (31)

Note standard concave bits have no fishing thread

### 18" NUMA 180 Bits



Flat Face	2						
Part Number	Dia mm	meter Inches	Face design	Button shape	Flushing holes	Gauge carbide diameter & Qty	Face carbide diameter & Qty
653762	660	26"	Flat Face	Domed	3	20mm (42)	20mm (89)



# SIM-CasX

### Shock Absorbers 2 - 6"



Size	2"	3"	4"	5"	6"
Complete Shock Absorber	600688	600689	600690	600691	600692
Effective Length (Shoulder to Shoulder)	346mm (13.62")	457mm (17.93")	483mm (19.02")	514mm (20.27")	578mm (22.76")
Outside Diameter	62mm (2.44")	79.4mm (3.13")	95.4mm (3.76")	115mm (4.54")	140mm (5.51")
Thread Connection	50mm DIN405	2 3/8" API Reg	2 3/8" API Reg	3 1/2" API Reg	3 1/2" API Reg
Net Weight	7.5kg (16.5lb)	14.3kg (31.5lb)	22.1kg (48.7lb)	33.2kg (73.2lb)	53.0kg (116.8lb)

### Shock Absorbers 8 - 10"



Size	8"	10"
Complete Shock Absorber	600693	600694
Effective Length (Shoulder to Shoulder)	585mm (23")	635mm (25")
Outside Diameter	178mm (7")	216mm (8.5")
Thread Connection	4 1/2" API Reg	6 5/8" API Reg
Net Weight	84kg (185.2lb)	98kg ( 216.1lb)

### Shock Absorber 12"



600695
724mm (28.5")
254mm (10")
6 5/8" API Reg
215kg (474lb)



### Casing advancing system for overburden and loose rock formations.

Halco's eccentric Sim-Cas system is still one of the most cost effective solutions for casing installation when drilling in difficult ground conditions. The eccentric system negates the need to leave expensive ring bits in the hole when installing permanent casing.

The updated Sim-CasX solution has several benefits over its predecessor while retaining Halco's renowned product quality:

- Two piece pilot and reamer, allowing high wear reamers to be
- Larger Pilot bit so the Reamer does less work resulting in longer reamer life
- Stronger Pilot bit shaft for better impact energy
- · Internal drive lug with pressurised cleaning channels, ensures the reamer is always in the correct drilling position
- Ball bearing retaining system to ensure nothing comes adrift down the hole



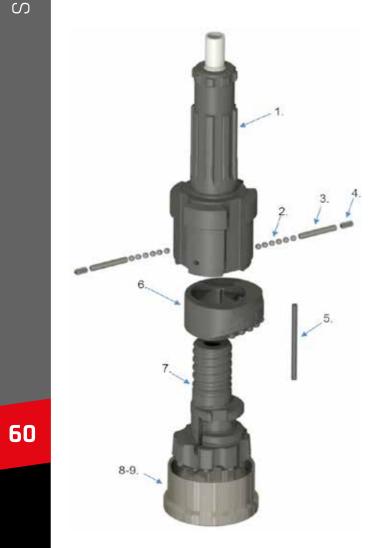
Size	Shank	Pilot Bit diameter	Reaming diameter	Maximum Casing OD	Minimum Casing ID
Sim-CasX 90	DHD 3.5	90	123	115	102
Sim-CasX 115	DHD 340	115.8	151.2	142	128
Sim-CasX 140	DHD 350	141.2	185.8	171	155.6
Sim-CasX 165	DHD 360	165.8	211.2	195.6	182.5
Sim-CasX 190	DHD 360	190.8	236.2	222	205
Sim-CasX 240	DHD 380	240.8	308	273	260.4





Conversion Table

### Conversion Table



System Size	90	115	140	165	190	240
Shank	DHD 3.5	DHD340	DHD350	DHD360	DHD360	DHD380
Pilot Bit diameter mm	90.0	115.8	141.2	165.8	190.8	240.8
Reaming diameter mm	123.0	151.2	185.8	211.2	236.2	308.0
Maximum Casing OD mm	115.0	142.0	171.0	195.6	222.0	273.0
Minimum casing ID mm	102.0	128.0	155.6	182.5	205.0	260.4
Casing thickness for thick wall shoe mm	6.0	5.6	5.6	5.6	6.3	6.3
Casing thickness for thin wall Shoe mm	4.5	4.5	4.5	4.5	5.0	

System Size	90	115	140	165	190	240
Sim-CasX System	651041	651040	651042	651043	651044	651045
1 - Guide Device	651046	651052	651058	651059	651069	651075
6 - Reamer	651048	651054	651060	651066	651071	651077
7 - Pilot Bit	651049	651055	651061	651067	651072	651078
8 - Casing Shoe - thick wall	651050	651056	651062	651073	651073	651079
9 - Casing Shoe - thin wall	651051	651057	651063	651074	651074	
Locking Kit	651047	651053	651059	651070	651070	651076
2 - Retaining balls						
3 - Solid locking pins						
4 - Spring Pins						
5 - Pusher Pin						

Air Volume	Example
1 cc = .001 litre	1000cc = 1 litre
1 litre = .001 m3	1000 litres = 1 m3

Air Flow	Example
1 cfm = 0.0283 m3/min	100 cfm = 2.83 m3/min
1 cfm = 0.4719 litre/sec	100 cfm = 47.19 litre/sec
1 m3/min = 35.315 cfm	10 m3/min = 353.15 cfm
1 m3/min = 16.667 litre/sec	10 m3/min = 166.67 litre/sec
1 litre/sec = 2.1189 cfm	100 litre/sec = 211.89 cfm
1 litre/sec = 0.0600 m3/min	100 litre/sec = 600 m3/min

Air Pressure	Example
1 psi = 0.0689 bar	100 psi = 6.89 bar
1 psi = 0.0703 kg/cm2	100 psi = 7.03 kg/cm2
1 psi = 0.0680 atm (Atmosphere)	100 psi = 6.80 atm
1 bar = 14.504 psi	10 bar = 145.04 psi
1 bar = 1.0197 kg/cm2	10 bar = 10.197 kg/cm2
1 bar = 0.9869 atm	10 bar = 9.869 atm
1 atm = 14.696 psi	10 atm = 146.96 psi
1 atm = 1.0132 bar	10 atm = 10.132 bar
1 atm = 1.0332 kg/cm2	10 atm = 10.332 kg/cm2

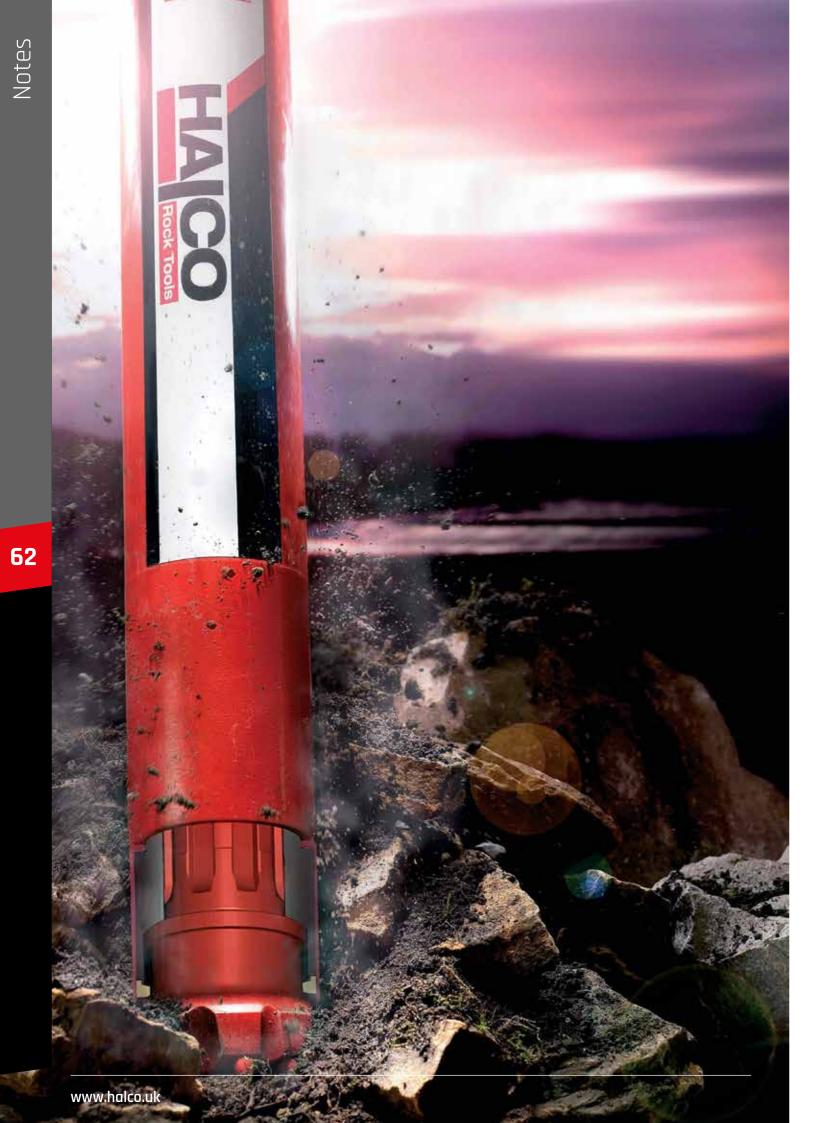
Velocity	Example
1 m/min = 3.2808 ft/min	1000 m/min = 3280.80 ft/min
1 m/min = 0.0167 m/sec	1000 m/min = 16.70 m/sec
1 ft/min = 03048 m/min	1000 ft/min = 304.80 m/min
1 ft/min = 0.0051 m/sec	1000 ft/min = 5.10 m/sec
1 m/sec = 60.00 m/min	10 m/sec = 600 m/min
1 m/sec = 196.85 ft/min	10m/sec = 1968.50 ft/min

Torque	Exumple
1 lb/ft = 0.1383 kgm	1000 lb/ft = 138.30 kgm
1 lb/ft = 1.3558 Nm	1000 lb/ft = 1355.80 Nm
1 lb/ft = 12.00 lb/in	1000 lb/ft = 12,000 lb/in
1 kgm = 7.233 lb/ft	100 kgm = 723,30 lb/ft
1 kgm = 9.8067 Nm	100 kgm = 980.67 Nm
1 kgm = 86.796 lb/in	100 kgm = 8679.60 lb/in
1 lb/in = 0.0833 lb/ft	1000 lb/min = 83.30 lb/ft
1 lb/in = 0.0115 kgm	1000 lb/in = 11.50 kgm
1 lb/in = 0.1130 Nm	1000 lb/in = 113 Nm



Notes

Notes





YOUR DRILLING EXPERT

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