



YOUR DRILLING EXPERT

HAICO
Rock Tools

GENERAL PURPOSE CATALOGUE

At Halco Rock Tools we pride ourselves on exemplary levels of customer service, support and training to reflect your drilling needs.

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

Halco Rock Tools is a world class manufacturer of Down-The-Hole (DTH) drilling equipment with locations around the globe, and headquartered in the UK. Halco pioneered the development and distribution of DTH hammers in the 1950s.

Produced for more than 65 years, our products continue to be regarded as one of the most reliable and durable available today. This is due to our commitment to exceeding customer needs, design expertise and rigorous product testing in extreme drilling conditions.

The hammers and drill bits in this catalogue are designed to offer optimum drilling performance in Civil Engineering, Construction, Geothermal and Waterwell applications. Additional hammers and bits are available for the following applications:

- Mining and Quarrying
- Oil and Gas
- Exploration

We can offer training in hammer and bit selection, service, maintenance and repair. With specialists available at all of our locations, you're never far away from the support you require. Halco's superb team of engineers are only a phone call away.

Further Learning Aids:

- A-Z of DTH Drilling
- DTH Maintenance Manual
- User Guide
- www.halcorocktools.com

HOLE SIZE	HAMMER	SHANK	PAGE
1"	DOMINATOR 10	HALCO 1	10-11
2"	DOMINATOR 20	HALCO 2	12-13
3"	DOMINATOR 30	I.R. 3.5	14-15
4"	MACH 44	HALCO 4	16-17
	GP 400	DHD 340	18-19
5"	MACH 50	HALCO 5	20-21
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6"	MACH 60	HALCO 6	24-25
	GP 600	QL 60	26-27
7"	DOMINATOR 750	SD 8	28-29
8"	DOMINATOR 800	DHD 380	30-31
	DOMINATOR 850	QL 80	32-33
	DOMINATOR 880 DW	QL 80	34-35
10"	DOMINATOR 1000	SD 10	36-37
12"	MACH 122	SD 12	38-39

What are “Down-The-Hole” Drill Bits and how are they used?

“Down-the-hole” (DTH) drill bits are used with “Down-the-hole” hammers for drilling holes through a wide range of rocks types. In conjunction with DTH hammers, drill bits are designed with a splined drive for rotating the bit in the ground. Drill bits are available in different sizes and configurations so they can drill a wide range of hole sizes, in different ground conditions.

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 the hole hammers were “cross bit” design. Four chisel shaped lengths of tungsten carbide were brazed into the bit body. The action of brazing created 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 1960’s however, the button bit was introduced, this was a landmark in the progress of DTH equipment which led to bit lives previously unheard of. The button bit design eliminated the primary shortcomings of the cross bit.

Cylindrical button inserts are precision ground to extremely close tolerances and pressed into the drill bit as an interference fit. This resulted in improved carbide insert retention by eliminating brazing stresses and other defects associated with brazing and braze materials. Button 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 increased drilling rates particularly in hard rocks.

While the cross bit design is still used in some rotary and drifter 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 the hole simultaneously using an 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 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 on drill bits on offer so you can be sure that you will definitely find a suitable bit for any project you are undertaking.

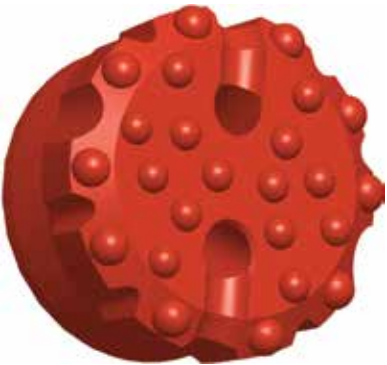
Our carburised drill bits are among the best in the world providing outstanding performance and durability. We produce all our drill bits at our specialized plant where they are made out of high quality nickel chrome alloy steel, carburised and heat-treated to offer extra protection against wear and 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, Convex, Flat Face and Concave, also with three different inserts we guarantee 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. If the rock formation is on the hard to very hard side, it is more advisable to use a domed insert with convex head this will result in a longer drill bit life.

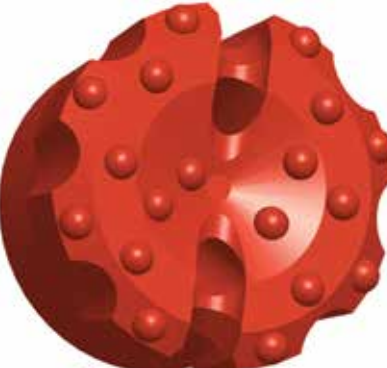
HEAD DESIGNS

INSERTS TYPES



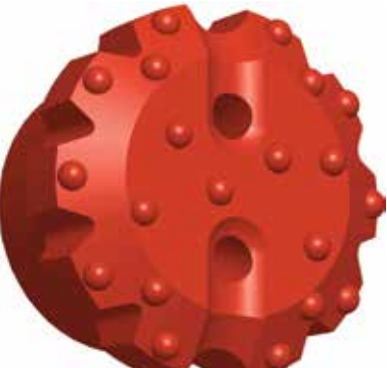
Flat Face

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



Concave

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



Convex

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



Ballistic Inserts

Suitable for soft and medium compact low abrasive rocks producing large cuttings. Not suitable for badly fractured rocks.





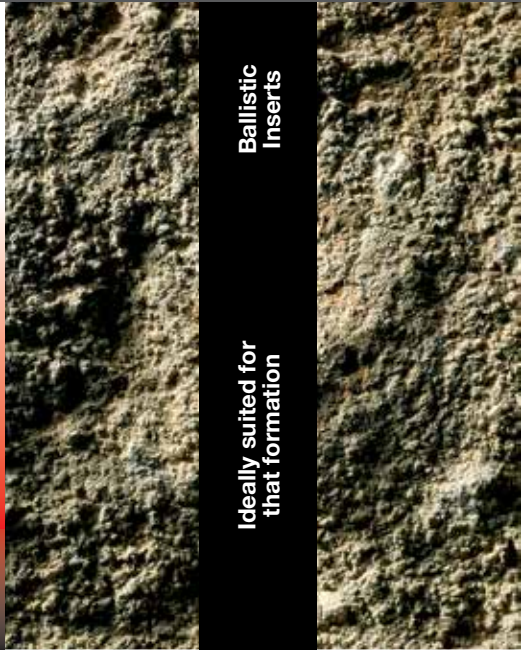





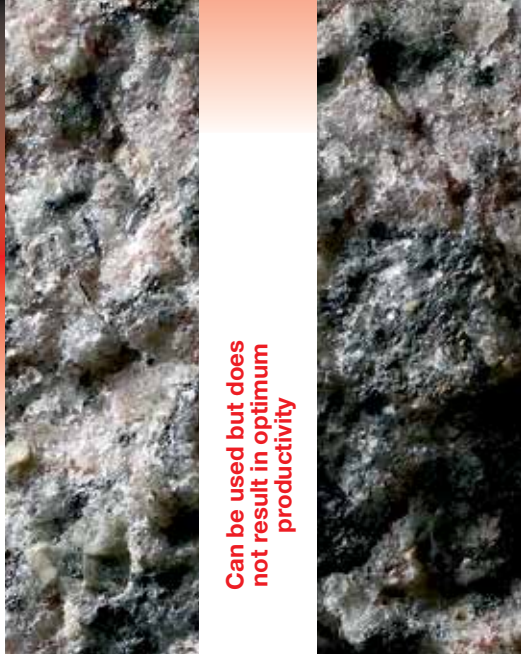
Domed Inserts

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



Semi-Ballistic Inserts

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

 <div>SOFT ROCK <100 MPA (e.g. Limestone, Sandstone, Shale)</div>	<div>Domed Inserts</div> <div>Can be used but does not result in optimum productivity</div>	 <div>Semi-Ballistic Inserts</div> <div>Can be used with satisfactory results</div>	 <div>Ballistic Inserts</div> <div>Ideally suited for that formation</div>
 <div>MEDIUM ROCK 100 - 150 MPA (e.g. Slate, Dolomite)</div>	<div>Can be used with satisfactory results</div>	 <div>Ideally suited for that formation</div>	 <div>Can be used with satisfactory results</div>
 <div>HARD ROCK >150 MPA (e.g. Granite, Basalt, Quartz)</div>	<div>Ideally suited for that formation</div>	 <div>Can be used with satisfactory results</div>	 <div>Can be used but does not result in optimum productivity</div>

Here at Halco we pride ourselves on **our commitment to fully supporting every project right until completion.**

Every driller always wants to get the maximum level of production from their drilling tools, and we ensure this through our exceptional technical and service support.

Using Halco service, repair and life kits can further your drilling production rates and prevent down time when it matters most.

We have implemented three different maintenance levels to ensure that you get the right level of support at the right cost. These range from a basic service right through to a full overhaul repair of a hammer.

- Benefits of Halco maintenance kits**
- Increased hammer life
 - Improved drilling rate of penetration
 - Prevention of lost time+
 - Ease of maintenance
 - Ability to repair hammer on site



SERVICE KIT (SK)

Halco service kits are recommended for routine maintenance, providing an easy and convenient method for replacing essential consumable items. Extending hammer life and ensuring that they are available when you need them.

Service Kit Contents: Snap Rings, O' Rings, N.R.V. Springs



REPAIR KIT (RK)

In applications where longer term hammer usage or multiple hammers are in service, the Halco repair kits offer additional protection. Providing key replacement componets in addition to those of the relevant service kits. These kits are ideal for drilling projects in remote locations where performance up-time is critical.

Repair Kit Contents: Chuck, Snap Rings, O' Rings, N.R.V, N.R.V. Spring, Bit Guide Bush



LIFE KIT (LK)

When drilling in highly abrasive ground conditions a Halco life kit is used to replace the external hammer parts that become worn. Extending hammer life and ensuring optimum productivity.

Life Kit Contents: Top-Adaptor, Cylinder and Chuck

Halco Recommended Maintenance Levels			
Maintenance Level	Rock Formation	Hammer Life	Required Kit(s)
Basic	None Abrasive	> 10,000 m	SK
Intermediate	Medium Abrasive	5,000 - 10,000 m	RK
Extensive	Highly Abrasive	< 5,000 m	LK

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.

Every hammer is constructed at our state-of-the-art manufacturing plant using the highest quality heat treated nickel chrome alloy steels. Our processes meet the requirements for ISO9001:2008 standards.

It is a Halco imperative that every hammer we produce surpasses our customers expectations and we're constantly striving to improve our service and product quality.

Our hammer range includes:

MACH RANGE

This is a proven hammer that 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 unstable ground conditions. This hammer can drill smaller diameters than the standard range. This range of hammer is ideal for civil engineering applications.

GP RANGE

The GP series of DTH hammers from Halco Rock Tools offer 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 cuttings evacuation. These hammers are suitable for operation at air pressures up to 30 bar (435 psi).

DOMINATOR RANGE

The Dominator is a higher performance hammer ideally suited for medium to higher air pressures in blast-hole applications.

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

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.

The integral adaptor housing allows easy access to the long lasting sample tubes. The enhanced performance stems from a simple design that reduces complicated maintenance procedures, providing less down time and lower drilling costs.

Introducing the Halco overburden drill bits for casing applications.

Available in a wide range of sizes from 4" - 32" casing diameters.

This Halco winged design simultaneous casing system benefits from the latest in CFD modelling for optimum performance and with its simple replaceable wings is easily maintained.

This casing advancement system is used by drillers worldwide for a number of varied projects including:

- Micropiling
- Underpinning
- Marine Work
- Horizontal drilling

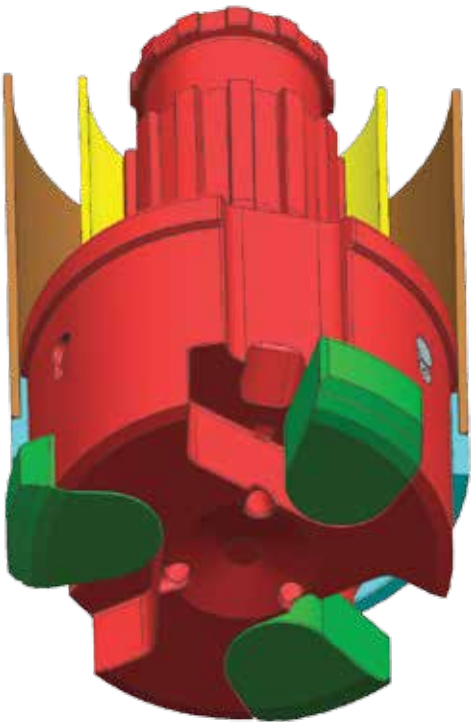
What is the Sim-Cas Concentric (SCC) system?

The Sim-Cas Concentric casing system has been designed to overcome the problems of drilling in soft and loose ground conditions where a stable cased hole is required.

The Sim-Cas Concentric system achieves this by enabling the "down-the-hole" drill string and casing to be lowered simultaneously. A down the hole hammer is used to which is fitted a driver and a one-piece concentric bit.

What are the advantages of the Sim-Cas Concentric system?

- Ease and cost effective replacement of wear parts (replacement wing kits available for these models)
- Hole alignment is improved due to geometry of face design
- Available in most shank designs



Model	No. of Wings	Bit Diameter (mm)		Casing Size (mm)			Shank
		Expanded	Retracted	I.D.	O.D.	Wall	
SCC 90	2	126	88	102.8	114	5.6	I.R 3.5
SCC 115	2	152	114	126.6	141.3	7.4	DHD 340
SCC 140	2	185	140	149.8	162	6.1	DHD 350
SCC 165	2	213	162	178	194	8.0	DHD 360
SCC 190	3	240	187	203.8	219	7.6	DHD 360
SCC 215	3	265	213	225.9	244.4	9.3	DHD 380
SCC 240	3	295	240	254.6	273	9.2	DHD 380
SCC 250	3	317	248	270	300	15.0	SD 10
SCC 280	3	345	280	304.8	323.9	9.6	SD 10
SCC 315	3	380	319	335.6	355.6	10.0	SD 12
SCC 365	3	425	356	387.4	406.4	9.5	SD 12
SCC 410	3	480	408	425	457	16.0	SD 15
SCC 460	3	530	460	482.6	508	12.7	SD 15
SCC 510	3	581	508	533.4	558.8	12.7	N180
SCC 560	3	630	557	584.2	609.6	12.7	N180
SCC 610	3	684	605	635	660.4	12.7	H550
SCC 660	3	735	655	685.8	711.2	12.7	H550
SCC 710	3	784	702	736.6	762	12.7	H550
SCC 745	3	835	752	780.2	812.8	16.0	H550

* Please note other sizes/ shanks are available upon customers request

AT A GLANCE



SIZE
55- 64mm
(2 1/6- 2 1/2")



SHANK
Halco 1



AIR PRESSURE
100- 250 psi
(7 -17 bar)

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Revised chamber volumes and cycle timing to optimize performance.

Simplified piston geometry for improved balance and location within the cylinder.

Heavy duty cylinder for extended hammer life.

DOMINATOR 10

The Dominator 10 is designed for small diameter drilling operations. Its superior drilling performance makes it one of the fastest small hammers on the market. The valveless design of the Dominator 10 provides high performance at both low and high pressures. The Dominator 10's robust design allows it to withstand heavy duty applications. A non-return-valve (N.R.V) is fitted into the Dominator 10 to prevent flooding where ground water is present.

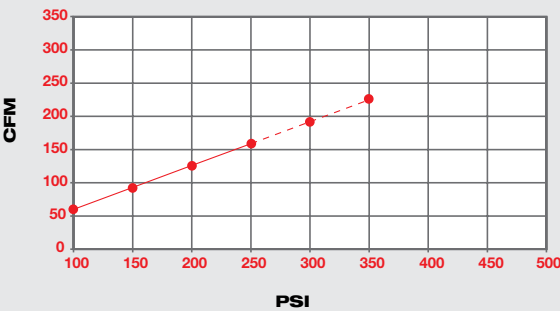
Suitable for operation at air pressures of 100 - 250 psi (7 - 17 bar).

Drilling diameters of 55 - 64mm (2 1/8 - 2 1/2").

Available Shanks

Halco 1

Air Consumption



Figures are based on theoretical data

Hammer Overview

Hammer Type	Dominator 10
Part Number	600422
Shank	Halco 1
Top Thread	40 mm DIN 405 6 TPI BOX
Hammer Flat Size	38 mm (1.500")
Weight	7 kg
Outside Diameter	47 mm (1 7/8")
Make Up Length	772 mm (30 3/8")
Recommended Maximum Thrust	120 kg (264 lbs)

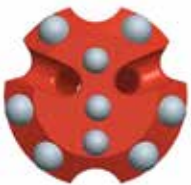
Description

Hammer Type	Dominator 100	Maintenance Kits	
Shank	Halco 1	Service Kit	Repair Kit
Model Number	600422	SK80	RK135
Item	Description		
1	Thread Protector	-	-
2	Snap Ring	2	2
3	N.R.V. Seat	-	1
4	O'Ring	2	2
5	N.R.V.	-	1
6	N.R.V. Spring	2	2
7	Top-Adaptor	-	-
8	O'Ring	2	2
9	O'Ring	2	2
10	Cylinder	-	-
11	Piston	-	-
12	Snap Ring	2	2
13	Bit Retaining Ring	-	1
14	Chuck Spacer	1	1
15	Chuck	-	1
16	Protective Cap	-	-


Drill Bits

Part Number	mm	Inch	Face Design	Buttons Type	Buttons Qty/Dia	Weight (kg)
Halco 1						
650017	55	2 1/6	Flat	Domed	6 x 11 mm / 2 x 9 mm	1.16
650032	64	2 1/2	Flat	Domed	6 x 11 mm / 3 x 9 mm	1.37


Additional drill bit configurations are available upon request




AT A GLANCE



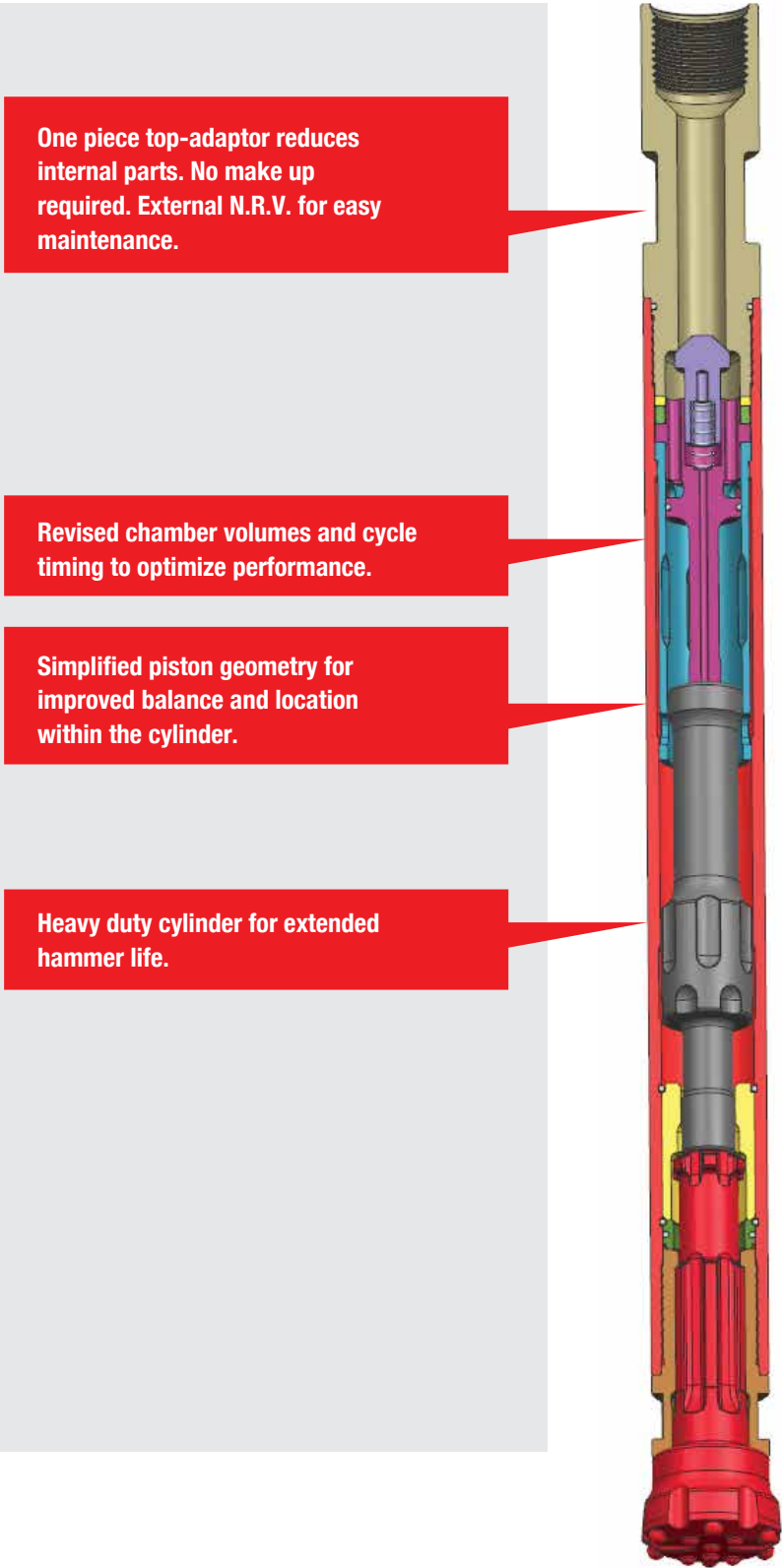
SIZE
70- 76mm
(2 3/4- 3")



SHANK
Halco 2



AIR PRESSURE
100- 250 psi
(7 -17 bar)



DOMINATOR 20

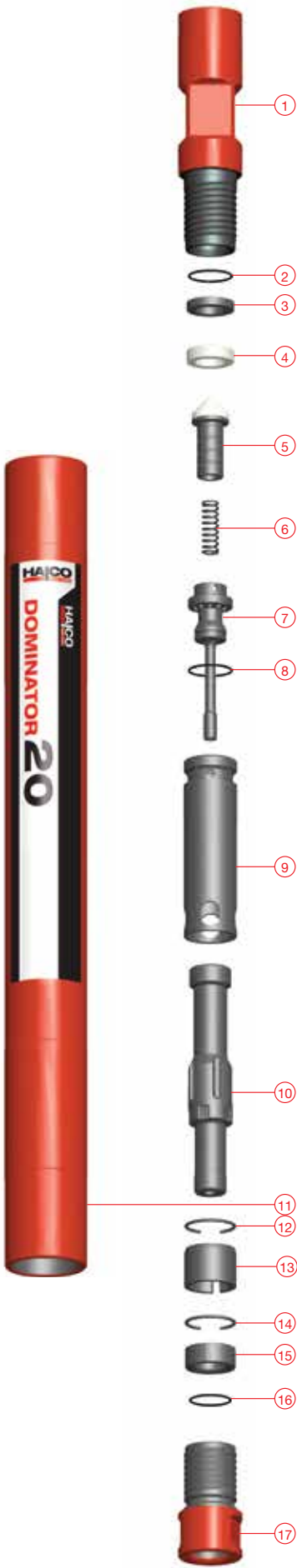
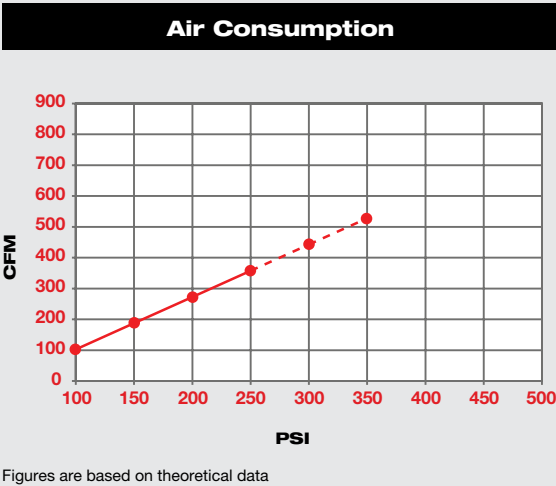
The Dominator 20 is designed for small diameter drilling operations. Its superior drilling performance makes it one of the fastest small hammers on the market. The valveless design of the Dominator 20 provides high performance at both low and high pressures. The Dominator 20's robust design allows it to withstand heavy duty applications. A non-return-valve (N.R.V) is fitted into the Dominator 20 to prevent flooding where ground water is present. The unique drill bit design for the Dominator 20 does not use foot valves which reduces the possibility of hammer failure.

Suitable for operation at air pressures of 100 - 250 psi (7- 17 bar).

Drilling diameters of 70 - 76mm (2 3/4 - 3").

Available Shanks

Halco 2



Hammer Overview

Hammer Type	Dominator 20
Part Number	600423
Shank	Halco 2
Top Thread	50mm DIN 405 6 TPI Box
Hammer Flat Size	48mm (1.890")
Weight	12.4 Kg
Outside Diameter	62 mm (2.44")
Make Up Length	817 mm (32.16")
Recommended Maximum Thrust	150 Kg (330lbs)

Description

Hammer Type	Mach 20	Maintenance Kits	
		Service Kit	Repair Kit
Shank	Halco 2		
Model Number	600423		
Item	Description	SK86	RK142
1	Top Adaptor	-	-
2	O' Ring	1	1
3	Spacer Ring	-	1
4	Make-Up Ring	1	1
5	N.R.V	-	1
6	Spring	1	1
7	Air Distributor	-	-
8	O' Ring	1	1
9	Liner	-	-
10	Piston	-	-
11	Cylinder	-	-
12	Snap Ring	2	2
13	Bit Guide Bush	-	-
14	Snap Ring	-	1
15	Bit Retaining Ring	-	1
16	O' Ring	1	1
17	Chuck	1	1

Drill Bits

Part	Diameter		Face	Buttons		Weight
Number	mm	Inch	Design	Type	Qty/Dia	(kg)
Halco 2						
650952	70	2 3/4	Flat	Domed	4 x 9 mm / 6 x 11 mm	2.4
650953	76	3	Flat	Domed	5 x 9 mm / 6 x 11 mm	2.5

Additional drill bit configurations are available upon request



3" DOMINATOR 30

AT A GLANCE



SIZE
90 - 104mm
(3 1/2 - 4 1/8")



SHANK
I.R 3.5



AIR PRESSURE
100- 350 psi
(7 -24 bar)

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Revised chamber volumes and cycle timing to optimize performance.

Simplified piston geometry for improved balance and location within the cylinder.

Heavy duty cylinder for extended hammer life.

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 any other 3 inch hammer in the market. This allows for easy maintenance and servicing with only a few simple tools required.

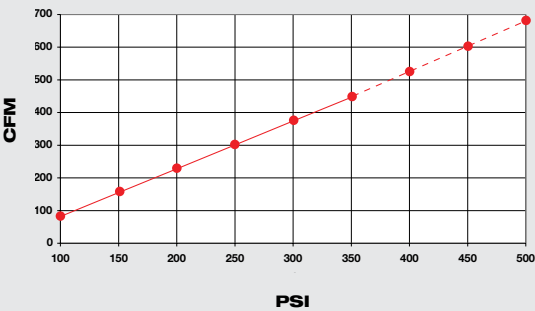
Suitable for operation at air pressures of 100 - 350 psi (7 - 24 bar).

Drilling diameters of 90mm - 104mm (3 1/2 - 4 1/8").

Available Shanks

I.R 3.5

Air Consumption



Figures are based on theoretical data

Hammer Overview

	Dominator 30
Part Number	600424
Shank	I.R 3.5
Top Thread	2 3/8 Api Reg Pin
Hammer Flat Size	63 mm (2.480")
Weight	23 kg
Outside Diameter	81 mm (3 1/16")
Make Up Length	832 mm (32 3/4")
Recommended Minimum Thrust	150 kg (330 lbs)
Recommended Maximum Thrust	300 kg (660 lbs)

Parts List

Hammer Type		Maintenance Kits	
Shank			
Model Number		Service Kit	Repair Kit
Item		SK81	RK136
1	Thread Protector	-	-
2	Top-Adaptor	-	-
3	O'Ring	2	2
4	N.R.V.	-	1
5	N.R.V. Spring	2	2
6	N.R.V. Housing	-	-
7	Disk Springs	2	2
8	Thrust Washer	-	-
9	O'Ring	2	2
10	Air Distributor	-	1
11	Washer	-	-
12	Snap Ring	2	2
13	Piston	-	-
14	Cylinder	-	-
15	Snap Ring	2	2
16	Bit Retaining Rings	-	1
18	Chuck Spacer	1	1
19	Chuck	-	1
20	End Cap	-	-

Drill Bits

Part Number	Diameter		Face Design	Buttons		Weight (kg)
	mm	Inch		Type	QTY/DIA	
I.R 3.5						
650622	90	3 1/2	Convex	Semi-Ballistic	13 x 11 mm	3.8
650609	95	3 3/4	Convex	Semi-Ballistic	15 x 11 mm	4.0
650621	100	3 15/16	Convex	Domed	15 x 11 mm	4.5
650624	104	4 1/8	Convex	Domed	8x13mm/8x11mm	4.9


Additional drill bit configurations are available upon request




Your Drilling Expert




AT A GLANCE



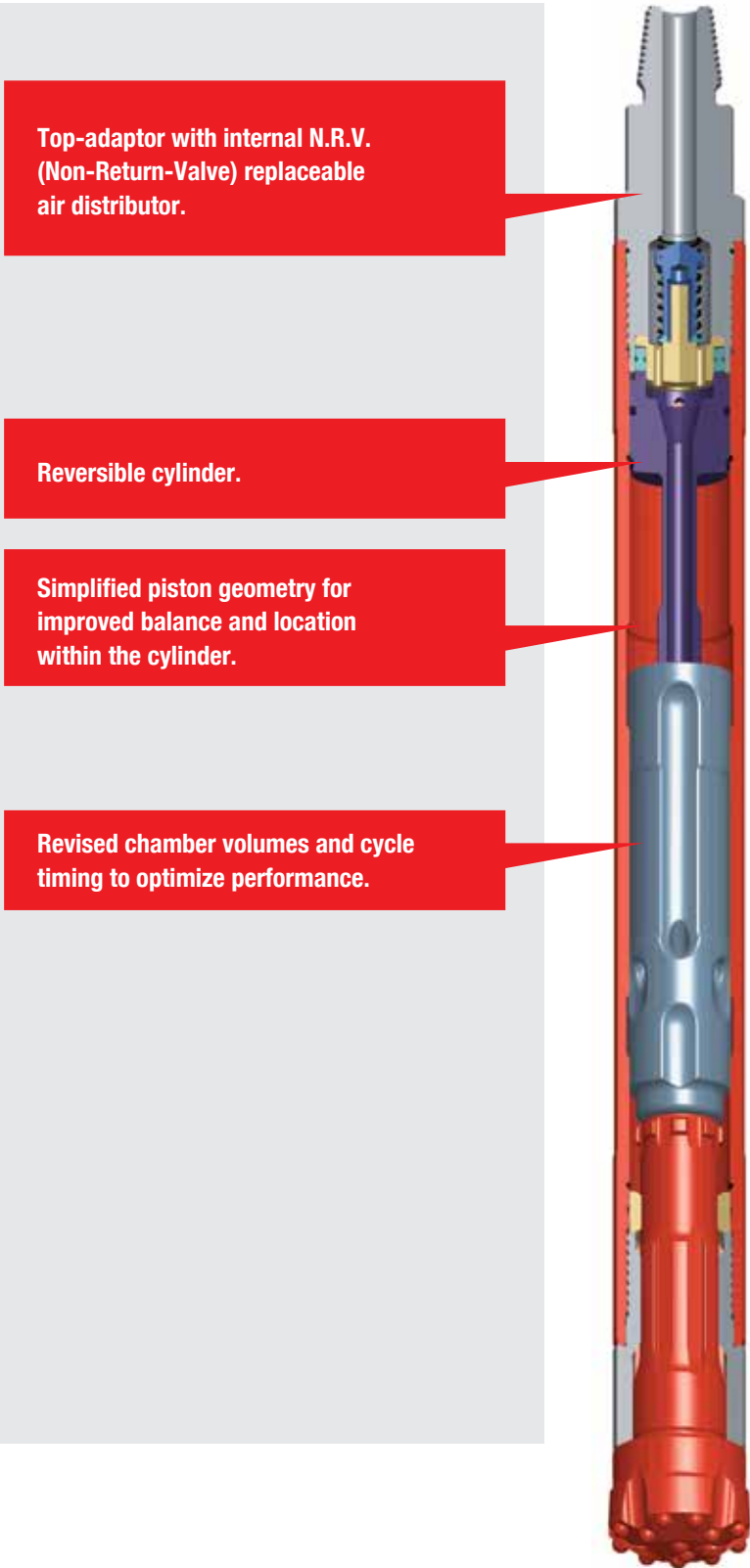
SIZE
110 - 150mm
(4 5/16- 5 7/8")



SHANK
Halco 4



AIR PRESSURE
100- 350 psi
(7 -24 bar)



MACH 44

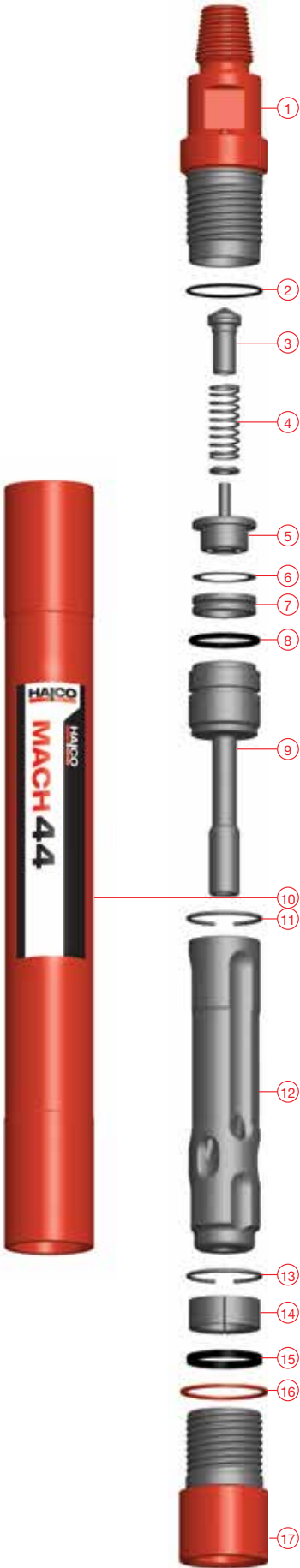
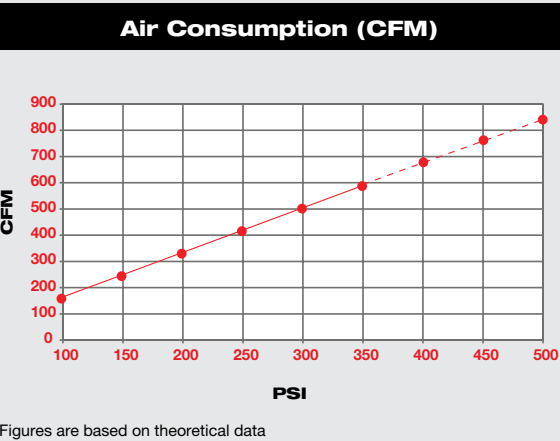
The Mach 44 is a general purpose hammer suitable for all rock conditions at a wide range of air pressures. The Mach 44 has a proven track record of performance and reliability. The high frequency of the Mach 44 makes it ideal when using overburden systems for broken or unstable ground conditions.

Suitable for operation at air pressures of 100 - 350 psi (7 - 24 bar).

Drilling diameters of 110mm - 150mm (4 5/16 - 5 7/8").

Available Shanks

Halco 4



Hammer Overview

Hammer Type	Mach 44
Part Number	600070
Shank	Halco 4
Top Thread	2 3/8 API REG PIN
Flat Hammer Size	65 mm (2.560")
Weight	35.3 kg
Outside Diameter	95 mm (3.3/4")
Make Up Length	1000 mm (39.3/8")
Recommended Minimum Thrust	250 kg (550 lbs)
Recommended Maximum Thrust	500 kg (1100 lbs)

Parts List

Hammer Type		Mach 44	Maintenance Kits	
Shank		Halco 4		
Model Number		600070	Service Kit	Repair Kit
Item	Description		SK02	RK02
1	Top-Adaptor	-	-	-
2	O Ring	-	-	1
3	N.R.V.	-	-	1
4	N.R.V. Spring	2	-	1
5	N.R.V. Seat	-	-	1
6	Shim - 0.5mm	3	-	1
	Shim - 1.0mm	3	-	1
	Shim - 1.5mm	3	-	1
7	Compression Ring	1	-	1
8	O Ring	-	-	1
9	Air Distributor	-	-	-
10	Cylinder	-	-	-
11	Snap Ring	-	-	-
12	Piston	-	-	-
13	Snap Ring	-	-	1
14	Bit Retaining Ring	-	-	1
15	Containment Band	-	-	-
16	Chuck Spacer	1	-	1
17	Chuck	-	-	1

Drill Bits

Part Number	Diameter mm	Inch	Face Design	Buttons Type	Buttons Qty/dia	Over Size	Weight (kg)
Halco 4							
650931	110	4 5/16	Convex	Domed	15 x 13 mm		9.6
650932	115	4 1/2	Convex	Domed	8 x 14 mm / 8 x 13 mm		9.7
650933	120	4 3/4	Convex	Domed	8 x 14 mm / 8 x 13 mm		10
650466	127	5	Convex	Domed	16 x 13 mm	Y	11
650444	140	5 1/2	Convex	Domed	17 x 13 mm	Y	12.5
650445	150	5 7/8	Convex	Domed	17 x 13 mm	Y	13.5

Additional drill bit configurations are available upon request



AT A GLANCE

SIZE

110- 140mm
(4 5/16- 5 1/2")

SHANK

DHD 340

AIR PRESSURE

100- 435 psi
(7 -30 bar)

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Revised chamber volumes and cycle timing to optimize performance.

Simplified piston geometry for improved balance and location within the cylinder.

Heavy duty cylinder for extended hammer life.

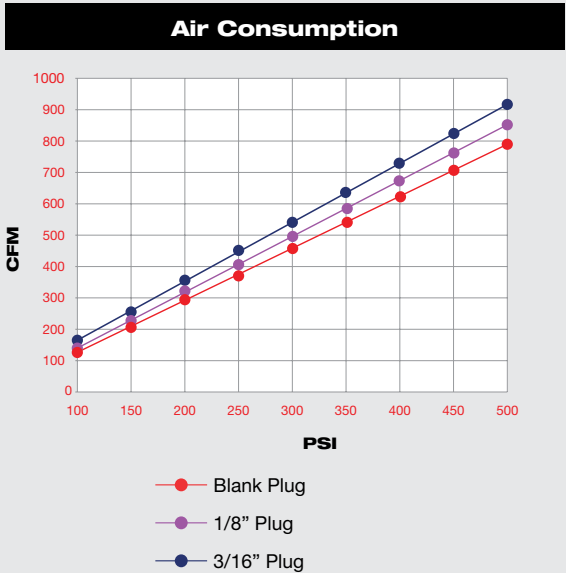
GP 400

The GP 400 High Performance hammer drills under a head of water typically suited to Waterwell and Geothermal applications. Its robust non-ported piston design improves the hammer strength and increases air flow efficiency. A choke facility helps to adjust air flow through the hammer.

Suitable for operation at air pressures up to 30 bar.

Drilling diameters of 110mm - 140mm
(4 5/16 - 5 1/2").

Available Shanks
DHD 340



Figures are based on theoretical data



Hammer Overview

Hammer Type	GP 400
Part Number	600425
Shank	DHD 340
Top Thread	2 3/8 API REG PIN
Weight	40 kg
Outside Diameter	98 mm (3.858")
Make Up Length	954 mm (37.559")
Recommended Minimum Thrust	250 kg (550 lbs)
Recommended Maximum Thrust	500 kg (1100 lbs)

Parts List

Hammer Type		Maintenance Kits		
Shank				
Model Number		Service Kit	Repair Kit	Life Kit
Item		SK72	RK123	LK01
1	Thread Protector	-	-	-
2	Top Adaptor	-	-	1
3	O Ring	2	2	-
4	NRV Plug	2	2	-
5	NRV	-	1	-
6	NRV Spring	2	2	-
7	Shims	-	3	-
8	Nested Wave Spring	-	1	-
9	Air Distributor	-	-	-
10	O Ring	2	2	-
11	Liner	-	-	-
12	Cylinder	-	-	1
13	Piston	-	-	-
14	Snap Ring	1	1	-
15	O Ring	2	2	-
16	Bit Retaining Rings	-	1	-
17	Chuck	-	1	1
18	End Cap	-	-	-

Drill Bits

Part Number	Diameter mm	Diameter Inch	Face Design	Button Type	Button Qty / Dia	Over Size	Weight (kg)
DHD 340							
650949	110	4 5/16	Convex	Domed	15 x 13 mm		8.1
650526	115	4 1/2	Convex	Domed	16 x 13 mm		8.2
650680	120	4 3/4	Concave	Domed/Semi-Ballistic	8 x 13 mm/8 x 13 mm		10
650013	127	5	Convex	Domed	16 x 13 mm	Y	10.6
653094	140	5 1/2	Concave	Domed	9 x 16 mm/9 x 14 mm	Y	11.8

Additional drill bit configurations are available upon request



AT A GLANCE

SIZE

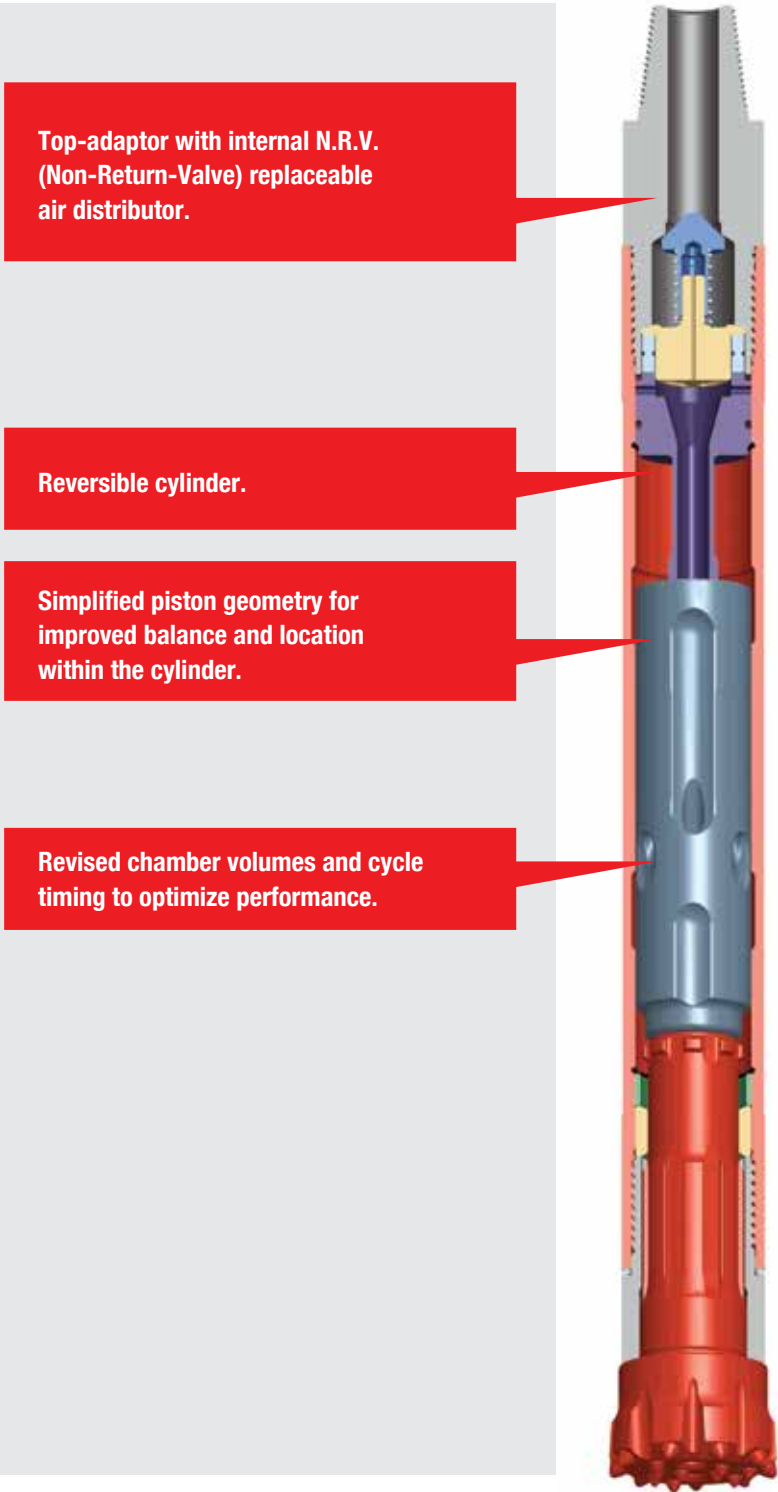
127- 165mm
(5- 6 1/2")

SHANK

Halco 5

AIR PRESSURE

100- 350 psi
(7 -24 bar)



MACH 50

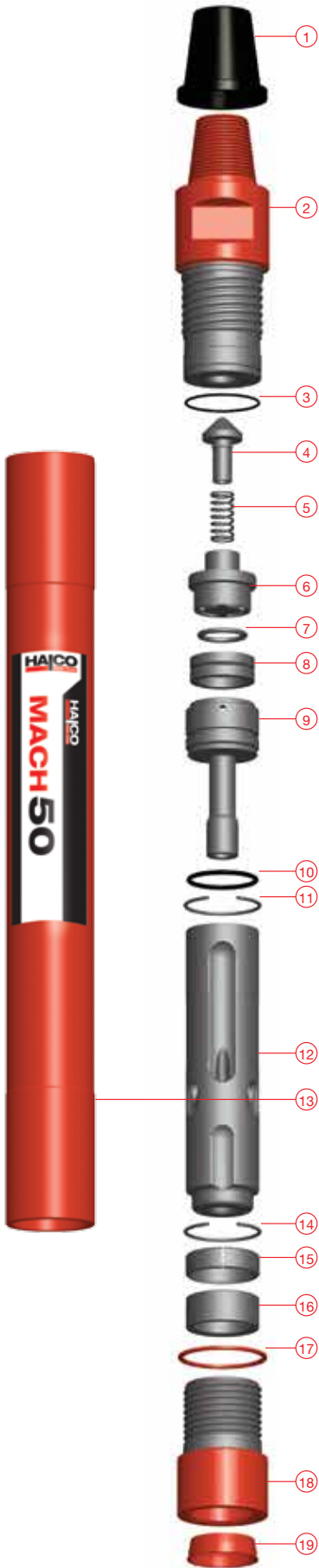
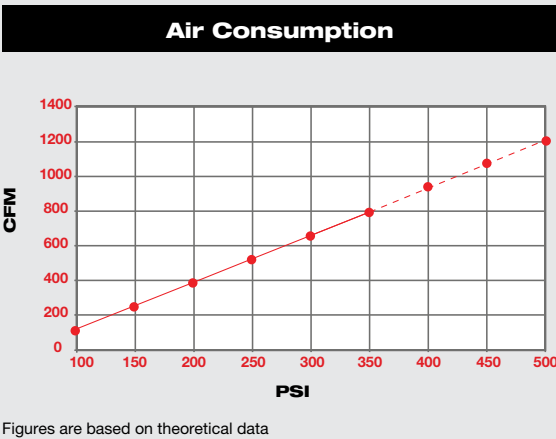
The Mach 50 is a general purpose hammer suitable for all rock conditions at a wide range of air pressures. The hammer is fitted with a reversible cylinder to prolong the service life. Mach 50 is versatile and reliable, requiring only a few simple tools for servicing and maintenance. This hammer is most suited for use with the Sim-Cas Concentric Overburden system because of the high frequency of the piston/cycle.

Suitable for operation at air pressures of 100 - 350 psi (7 - 24 bar).

Drilling diameters of 127mm - 165mm (5 - 6 1/2").

Available Shanks

Halco 5



Hammer Overview

Hammer Type	Mach 50
Part Number	600046
Shank	Halco 5
Top Thread	3 1/2" Api Reg Pin
Hammer Flat Size	90 mm (3.544")
Weight	54 kg
Outside Diameter	114 mm (4.5")
Make Up Length	1012 mm (40")
Recommended Minimum Thrust	400 kg (900 Lbs)
Recommended Maximum Thrust	900 kg (1980 Lbs)

Description

Model		Mach 50	
Shank		Halco 5	
Model Number		600046	
		Maintenance Kits	
		Service Kit	Repair Kit
Item		SK03	RK04
1	Thread Protector	-	-
2	Top-Adaptor	-	-
3	O'Ring	1	1
4	Non Return Valve	-	1
5	N.R.V. Spring	1	1
6	N.R.V. Finger	-	-
7	Shim	1	1
8	Make Up Ring	1	1
9	Air Distributor	-	-
10	O'Ring	1	1
11	Snap Ring	-	-
12	Piston	-	-
13	Cylinder	-	-
14	Snap Ring	1	1
15	Spacer	-	1
16	Bit Retaining Ring	-	1
17	Chuck Spacer	1	1
18	Chuck	-	1
19	End Cap	-	-

Drill Bits

Part	Diameter		Face	Buttons		Over	Weight
Number	mm	Inch	Design	Type	Qty / Dia	Size	(kg)
Halco 5							
650461	127	5	Convex	Domed	13 x 16 mm		15.0
650913	135	5 5/16	Flat	Semi-Ballistic	9 x 16 mm / 9 x 13 mm		16.0
650578	140	5 1/2	Convex	Domed	14 x 16 mm		15.5
650990	146	5 3/4	Concave	Domed	8 x 18 mm / 7 x 16 mm		17.8
650463	150	5 7/8	Convex	Domed	14 x 16 mm	Y	18.0
650464	165	6 1/2	Convex	Domed	16 x 16 mm	Y	18.5

Additional drill bit configurations are available upon request




AT A GLANCE



SIZE
140- 165mm
(5 1/2 - 6 1/2")

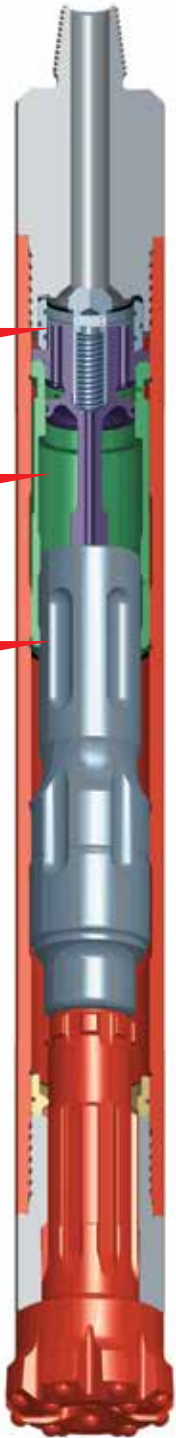


SHANK
DHD 350



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

- Choke system to allow adjustment of air flow to improve flushing.
- Optimised drive chamber capacities to maximise hammer performance.
- Robust simple piston design for optimum strength and performance.



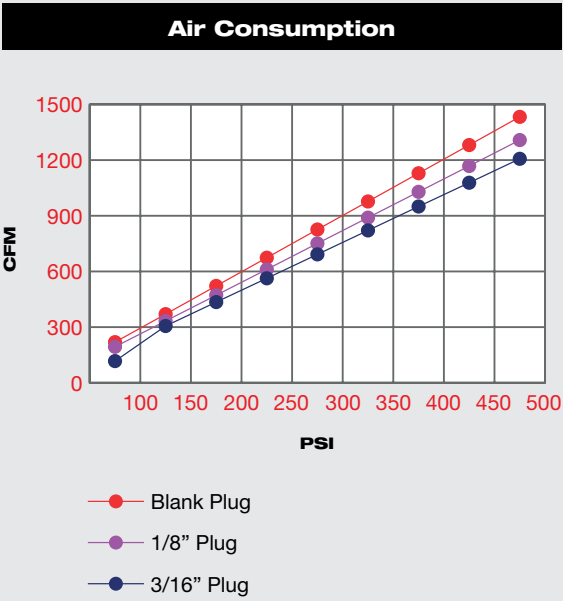
GP 500

The GP 500 High performance hammer drills under a head of water typically suited to Waterwell and Geothermal applications. Its robust non ported piston design improves the hammer strength and increases air flow efficiency. A choke facility helps to adjust air flow through the hammer.

Suitable for operation at air pressures up to 30 bar.

Drilling diameters of 140mm - 165mm (5 1/2 - 6 1/2").

Available Shanks
DHD 350



Figures are based on theoretical data



Hammer Overview

Hammer Type	GP 500
Part Number	600426
Shank	DHD 350
Top Thread	3 1/2 API REG PIN
Weight	60 kg
Outside Diameter	126 mm (4.961")
Make Up Length	1074 mm (42.283")
Recommended Minimum Thrust	400 kg (900 lbs)
Recommended Maximum Thrust	900 kg (1980 lbs)

Parts List

Model		Maintenance Kits		
GP 500				
Shank		DHD 350		
Model Number		600426		
Item	Description	Service Kit SK83	Repair Kit RK139	Life Kit LK02
1	Thread Protector	-	-	-
2	Top Adaptor	-	-	1
3	NRV Plug	2	2	-
4	NRV	-	1	-
5	NRV Spring	2	2	-
6	Shims	-	3	-
7	Ringfeder Spring	-	1	-
8	Air Distributor	-	-	-
9	O Ring	2	2	-
10	Cylinder	-	-	1
11	Liner	-	-	-
12	Snap Ring	-	3	-
13	Piston	-	-	-
14	Snap Ring	3	-	-
15	Bit Retaining Rings	-	1	-
16	Chuck	-	1	1
17	End Cap	-	-	-

Drill Bits

Part	Diameter		Face		Button	Over	Weight
Number	mm	Inch	Design	Type	Qty / Dia	Size	(kg)
DHD350							
653205	140	5 1/2	Flat	Domed	7 x 16mm D/ 8 x 16mm Long		16.2
650676	150	5 7/8	Concave	Domed/Semi-Ballistic	9x16 mm D/ 10 x 16 mm SB	Y	17.8
650711	152	6	Convex	Domed	20 x 16 mm	Y	17.8
653099	160	6 1/4	Concave	Domed	10 x 16 mm / 8 x 20 mm	Y	21.4
653092	165	6 1/2	Concave	Domed	10 x 16 mm / 8 x 20 mm	Y	21.4

Additional drill bit configurations are available upon request



AT A GLANCE



SIZE
152mm - 245mm
(6 - 9 5/8")



SHANK
Halco 6



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

Top-adaptor with integral N.R.V.
(Non-Return-Valve) replaceable
air distributor.

Reversible cylinder for
extended life.

Simplified piston geometry for
improved balance and location
within the cylinder.

Revised chamber volumes and cycle
timing to optimize performance.

MACH 60

The Mach 60 is a general purpose hammer suitable for all rock conditions at a wide range of air pressures. The hammer is fitted with a reversible cylinder to prolong service life. The Mach 60 is versatile and reliable, requiring only a few simple tools for servicing and maintenance. The Mach 60 is very economical to operate due to its relatively low air consumption and has a unique Mach 60 shank for full bit support. This hammer is most suited for use with the Sim-Cas Concentric Overburden system because of the high frequency of the piston/cycle.

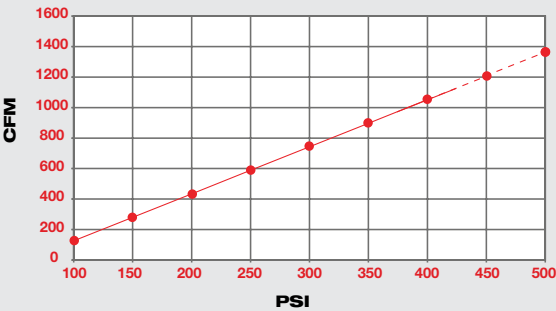
Suitable for operation at air pressures of 100 - 435 psi (7 - 30 bar).

Drilling diameters of 152mm - 245mm (6 - 9 5/8").

Available Shanks

Halco 6

Air Consumption



Figures are based on theoretical data

Hammer Overview

Hammer Type	Mach 60
Part Number	600035
Shank	Halco 6
Top Thread	3 1/2" Api Reg Pin
Flat Hammer Size	90 mm (3.544")
Weight	89 kg
Outside Diameter	138 mm (5.433")
Make Up Length	1095 mm (43.110")
Recommended Minimum Thrust	500 kg (1100 lbs)
Recommended Maximum Thrust	1500 kg (3300 lbs)

Parts List

Model		Mach 60	Maintenance Kits	
Shank		Halco 6		
Model Number	600401		Service Kit	Repair Kit
Item	Description		SK07	RK10
1	Thread Protector	-	-	-
2	Top-Adaptor	-	-	-
3	Non Return Valve	-	-	1
4	N.R.V. Spring	2	2	2
5	N.R.V. Housing	-	-	-
6	Compression Ring	1	1	1
7	Shims	3	3	3
8	Air Distributor	-	-	-
9	O'Ring	2	2	2
10	Snap Ring	2	-	-
11	Cylinder	-	-	-
12	Piston	-	-	-
13	Snap Ring	-	-	2
14	Bottom Spacer	-	-	1
15	Bit Retaining Ring	-	-	1
16	O'Ring	2	2	2
17	Chuck Spacer	1	1	1
18	Chuck	-	-	1
19	Cap	-	-	-


Drill Bits

Part	Diameter	Face		Button		Over	Weight
Number	mm	Inch	Design	Type	Qty	Size	(kg)
Halco 6							
650585	152	6	Convex	Domed	16 x 16 mm		23.5
650939	165	6 ½	Convex	Domed	19 x 16 mm		26
650927	170	6 ¾	Flat	Domed	19 x 16 mm		26
650474	178	7	Convex	Domed	18 x 16 mm	Y	30
650440	200	7 ⅞	Convex	Domed	20 x 16 mm	Y	34
650441	225	8 ⅞	Convex	Domed	26 x 16 mm	Y	42
650457	245	9 ⅝	Convex	Domed	27 x 16 mm	Y	49


Additional drill bit configurations are available upon request




AT A GLANCE



SIZE
156 - 241mm
(6 1/8 - 9 1/2")



SHANK
QL 60




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

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

Optimised drive chamber capacities to maximise hammer performance.

Robust simple piston design for optimum strength and performance.

12 spline QL60 shank reduces contact stress and wear rates.



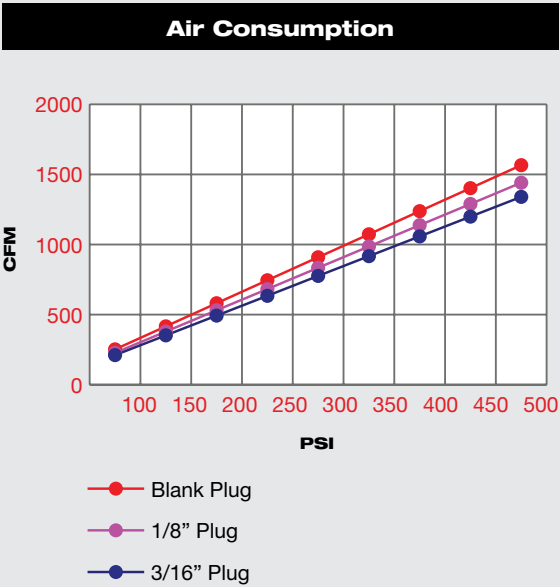
GP 600

The GP 600 high performance hammer drills under a head of water typically suited to Waterwell and Geothermal applications. Its robust non ported piston design improves the hammer strength and increases air flow efficiency. A choke facility helps to adjust air flow through the hammer.

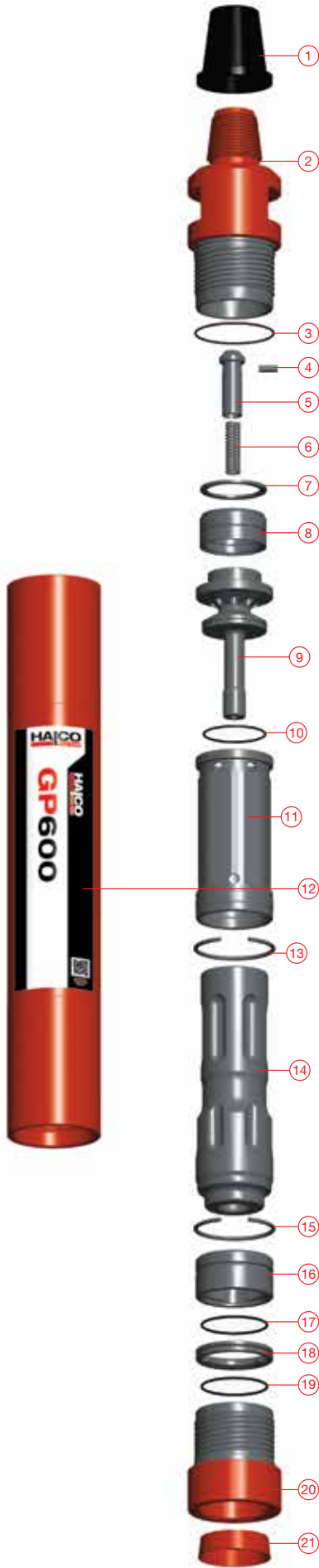
Suitable for operation at air pressures up to 30 bar.

Drilling diameters of 156 - 241mm (6 1/8 - 9 1/2").

Available Shanks
QL 60



Figures are based on theoretical data



Hammer Overview

Hammer Type	GP 600
Part Number	600427
Shank	QL 60
Top Thread	4 1/2" Api Reg Pin
Flat Hammer size	101 mm (3.976")
Weight	86 kg
Outside Diameter	140 mm (5.512")
Make Up Length	1035.15 mm (40.754")
Recommended Minimum Thrust	500 kg (1100 lbs)
Recommended Maximum thrust	1500 kg (3300 lbs)

Parts List

		Maintenance		
Hammer Type		GP 600		
Shank		QL 60		
Model Number	600427	Service Kit	Repair Kit	Life Kit
Item	Description	SK68	RK105	LK
1	Thread Protector	-	-	-
2	Top Adaptor	-	-	1
3	O-Ring	2	2	-
4	M/UP Shims	-	4	-
5	Compression Spring	-	2	-
6	NRV	-	1	-
7	NRV Bleed Plug	2	2	-
8	Spring	2	2	-
9	Air Distributor	-	-	-
10	O-Ring	2	-	-
11	Liner	-	-	-
12	Cylinder	-	-	1
13	Snap Ring	2	2	-
14	Piston	-	-	-
15	Snap Ring	2	2	-
16	Guide Bush	-	1	-
17	O-Ring	2	2	-
18	Bit Retaining Rings	-	1	-
19	O-Ring	2	2	-
20	Chuck	-	1	1
21	End Cap	-	-	-

Drill Bits

Part Number	Diameter mm	Face Inch	Design	Type	Buttons Qty / Dia	Over Size	Weight (kg)
QL 60							
650094	156	6 1/8	Concave	Domed	16 x 16 mm		23.2
653139	165	6 1/2	Concave	Domed	18 x 18 mm		24.4
653160	171	6 3/4	Convex	Domed	19 x 18 mm		25.3
653128	178	7	Concave	Domed	8 x 20 mm + 11 x 16 mm	Y	26.2
653227	190	7 1/2	Concave	Domed	24 x 16 mm	Y	31.7
653142	203	8	Concave	Domed	31 x 16 mm	Y	34.1
653211	241	9 1/2	Concave	Domed	18 x 20 mm / 10 x 16 mm	Y	39.5

Additional drill bit configurations are available upon request



AT A GLANCE

SIZE

200 - 300mm
(7 7/8 - 12")

SHANK

SD 8

AIR PRESSURE

100- 435 psi
(7 -30 bar)

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Revised chamber volumes and cycle timing to optimize performance.

Simplified piston geometry for improved balance and location within the cylinder.

Heavy duty cylinder for extended hammer life.

DOMINATOR 750

The Dominator 750 offers class leading performance. The Mining, Quarrying and Waterwell industries all benefit from the reliable design offered by a one piece top-adaptor/air distributor. A reversible cylinder is also fitted to the Dominator 750 to prolong hammer life and reduce costs. A few simple tools are required to maintain and service.

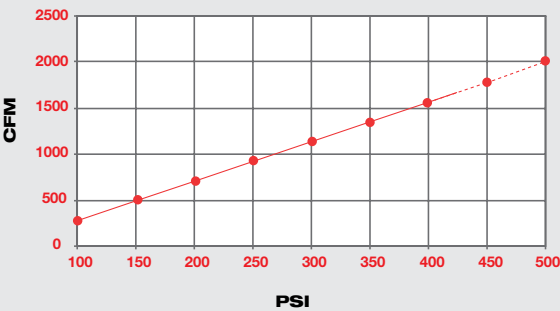
Suitable for operation at air pressures of 100 - 435 psi (7 - 30 bar).

Drilling diameters of 200 - 300mm (7 7/8 - 12").

Available Shanks

SD 8

Air Consumption



Figures are based on theoretical data

Hammer Overview

Hammer Type	Dominator 750
Part Number	600243
Shank	SD 8
Top Thread	4 1/2" Api Reg Pin
Flat Hammer Size	115 mm (4.528")
Weight	165 kg
Outside Diameter	172 mm (6.772")
Make Up Length	1232 mm (48.504")
Recommended Minimum Thrust	800 kg (1760 lbs)
Recommended Maximum Thrust	2000 kg (4400 lbs)

Parts List

Model		Dominator 750	Maintenance Kits	
Shank		SD8		
Model Number		600243	Service Kit	Repair Kit
Item	Description	SK23	RK37	
1	Thread Protector	-	-	
2	Snap Ring	2	2	
3	O'Ring	2	2	
4	N.R.V. Seat	-	1	
5	Non Return Valve	2	1	
6	N.R.V. Spring	2	2	
7	Top-Adaptor	-	-	
8	O'Ring	2	2	
9	O'Ring	2	2	
10	Spacer	-	-	
11	Cylinder	-	-	
12	Piston	-	-	
13	Snap Ring	2	2	
14	O'Ring	2	2	
15	Bit Retaining Ring	-	1	
16	Chuck Spacer	-	2	
17	Chuck	-	1	
18	Cap	-	-	

Drill Bits

Part	Diameter		Face	Buttons		Over Weight
Number	mm	Inch	Design	Type	Qty	Size (kg)
SD 8						
650959	200	7 7/8	Concave	Domed	12x16 mm/9x20 mm/6x13 mm	43.0
650375	203	8	Concave	Domed	10x20 mm / 14x16 mm	43.5
650705	222	8 3/4	Concave	Domed	24 x 20 mm	46.5
650606	254	10	Concave	Domed	11x16 mm / 18 x 20 mm	56.5
653105	270	10 5/8	Concave	Domed	34 x 18 mm	57.0
650039	300	12	Flat	Domed	29 x 20 mm	Y 84.5

Additional drill bit configurations are available upon request



8" DOMINATOR 800

AT A GLANCE



SIZE

200 - 311mm
(7 7/8 - 14 1/4")



SHANK

DHD 380
Halco 8



AIR PRESSURE

100- 435 psi
(7 -30 bar)

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Revised chamber volumes and cycle timing to optimize performance.

Simplified piston geometry for improved balance and location within the cylinder.

Heavy duty cylinder for extended hammer life.

DOMINATOR 800

The Dominator 800 is a general purpose hammer suitable for a wide range of air pressures. The Dominator 800 is a low to mid range air volume hammer. The one piece top-adaptor with N.R.V. (Non-Return-Valve) makes it easy to maintain and service. The Dominator 800 has a unique air distributor finger which is integral with the top-adaptor and reduces requirements for shimmming. The Dominator 800 has no liner which increases the piston blow energy and reduces parts required. This hammer is suitable for use with overburden systems.

Suitable for operation at air pressures of 100 - 435 psi (7 - 30 bar).

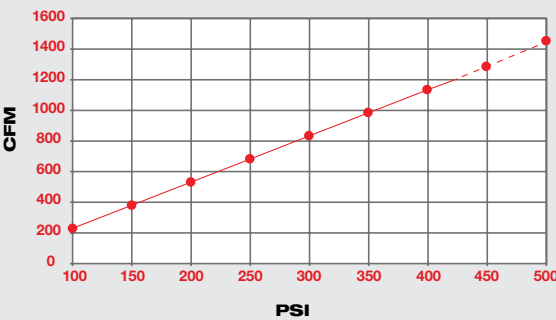
Drilling diameters of 200 - 311mm
(7 7/8 - 14 1/4").

Available Shanks

DHD 380

Halco 8

Air Consumption



Figures are based on theoretical data

Hammer Overview

Hammer Type	Dominator 800
Part Number	600309
Shank	DHD 380
Top Thread	4 1/2" Api Reg Pin
Flat Hammer Size	156 mm (6.142")
Weight	181 kg
Outside Diameter	182 mm (7.165")
Make Up Length	1254 mm (46.456")
Recommended Minimum Thrust	800 kg (1760 lbs)
Recommended Maximum Thrust	2000 kg (4400 lbs)

Parts List

Model	Dominator 800	Maintenance Kits	
Shank	DHD 380		
Model Number	600309	33.48	Repair Kit
Item	Description	SK25	RK64
1	Thread Protector	-	-
2	Snap Ring	2	2
3	N.R.V. Seat	-	1
4	O'Ring	2	2
5	N.R.V.	-	1
6	N.R.V. Cover	-	1
7	N.R.V. Spring	2	2
8	Top-Adaptor	-	-
9	Spacer	-	-
10	O'Ring	2	2
11	O'Ring	2	2
12	Cylinder	-	-
13	Piston	-	-
14	Snap Ring	2	2
15	Spacer	-	1
16	Containment Band	2	2
17	Bit Ring	-	1
18	Chuck Spacer	2	2
19	Chuck	-	1

Drill Bits

Part	Diameter		Face	Buttons		Over Weight
Number	mm	Inch	Design	Type	Qty	Size (kg)
DHD 380						
650977	200	7 7/8	Concave	Domed	31 x 16 mm	51.5
650373	203	8	Concave	Domed	10 x 20 mm / 14 x 16 mm	51.5
650022	241	9 1/2	Concave	Domed	10 x 16 / 18 x 20 mm	56.9
650389	254	10	Concave	Domed	18 x 20 mm / 10x16 mm	64.5
650898	300	11 7/8	Convex	Domed	34 x 20 mm	Y 84.5
653041	311	12 1/4	Concave	Domed	42 x 20 mm	Y 84.1

Additional drill bit configurations are available upon request



Your Drilling Expert



8"

DOMINATOR 850

AT A GLANCE



SIZE
222 - 270mm
(8 3/4 - 10 5/8")



SHANK
QL 80



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

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Revised chamber volumes and cycle timing to optimize performance.

Simplified piston geometry for improved balance and location within the cylinder.

Heavy duty cylinder for extended hammer life.

DOMINATOR 850

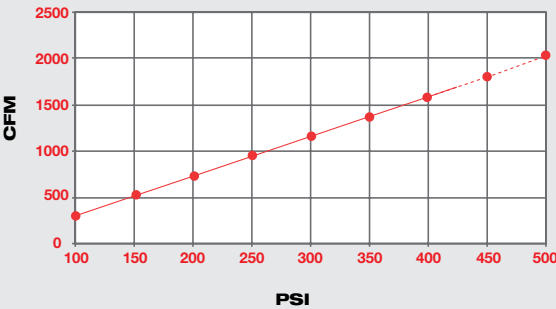
The Dominator 850 has been designed for high performance drilling in hard to medium rock formations, particularly mining applications. Its class leading performance has been achieved with a larger/heavier piston and a valveless air cycle providing a 50% increase in stroke. As well as a reversible cylinder for prolonged hammer life, the Dominator 850 benefits from a QL80 shank design. The one piece top-adaptor with N.R.V. (Non-Return-Valve) makes it easy to maintain and service the hammer. This hammer has few internal parts which makes on site servicing easy with minimum tools needed.

Suitable for operation at air pressures of 100 - 435 psi (7 - 30 bar).

Drilling diameters of 222 - 270mm (8 3/4 - 10 5/8").

Available Shanks
QL 80

Air Consumption



Figures are based on theoretical data



Hammer Overview

Hammer Type	Dominator 850
Part Number	600245
Shank	QL 80
Top Thread	4 1/2" Api Reg Pin
Flat Hammer Size	125 mm (4.921")
Weight	210 kg
Outside Diameter	192 mm (7.559")
Make Up Length	1281 mm (50.433")
Recommended Minimum Thrust	800 kg (1760 lbs)
Recommended Maximum Thrust	2000 kg (4400 lbs)

Parts List

Model		Dominator 850	Maintenance Kits	
Shank		QL80		
Model Number		600245	Service Kit	Repair Kit
Item	Description	SK78	RK131	
1	Thread Protector	-	-	
2	Snap Ring	2	2	
3	N.R.V. Seat	-	1	
4	O'Ring	2	2	
5	N.R.V.	-	1	
6	N.R.V. Cover	-	1	
7	N.R.V. Spring	1	2	
8	Top-Adaptor	-	-	
9	Spacer	2	-	
10	O'Ring	2	2	
11	Piston	-	-	
12	Cylinder	-	-	
13	Snap Ring	2	2	
14	O'Ring	2	2	
15	Bit Guide Bush	-	1	
16	Bit Ring	-	1	
17	Chuck Spacer	-	2	
18	Chuck	-	1	
19	End Cap	-	-	

Drill Bits

Part	Diameter		Face	Buttons		Over Weight
Number	mm	Inch	Design	Type	Qty	Size (kg)
QL 80						
653062	222	8 ¾	Concave	Domed	14 x 18 mm / 10 x 18 mm Long	56.8
653239	254	10	Concave	Domed	34x18 mm / 12x13 mm Retracks	64
653254	270	10 ⅝	Concave	Domed	42x18 mm / 12x13 mm Retracks	69.5
653263	270	10 ⅝	Concave	Parabolic	42x18 mm / 12x13 mm Retracks	69.5

Additional drill bit configurations are available upon request



8"

DOMINATOR 880 DW

AT A GLANCE

SIZE

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

SHANK

QL 80

AIR PRESSURE

100- 435 psi
(7 -30 bar)

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Reversible cylinder.

Simplified piston geometry for improved balance and location within the cylinder.

Revised chamber volumes and cycle timing to optimize performance.

QL80 shank reduces contact stresses and wear rates.

DOMINATOR 880 DW

The Dominator 880 Deep-Well hammer has been specifically designed for drilling deep holes under a head of water. The one piece top-adaptor with N.R.V. (Non-Return-Valve) makes it easy to maintain and service. The wide body diameter of the Dominator 880 DW allows for an increased piston weight and improved performance. A variable choke for increased air volume can be fitted to the Dominator 880 DW to suit compressor volume outputs.

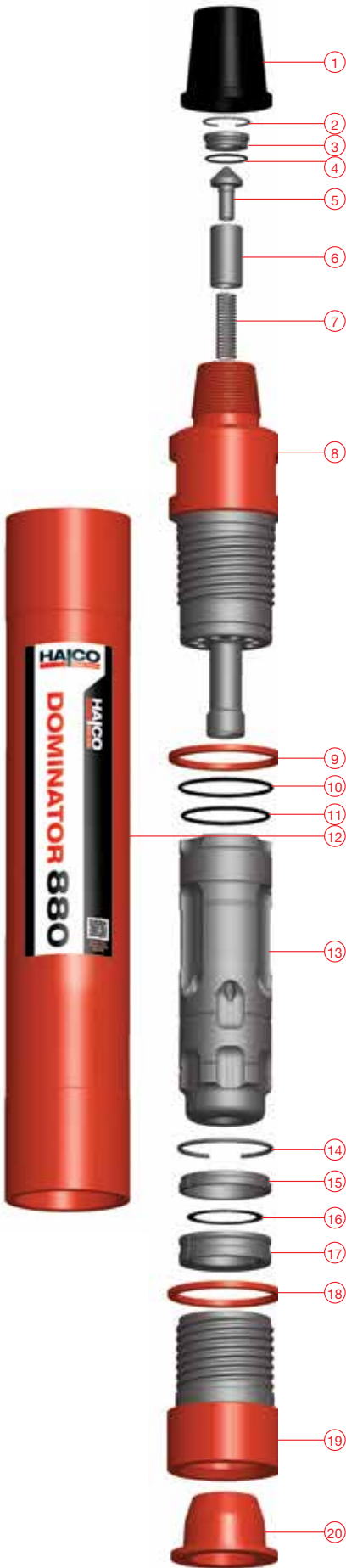
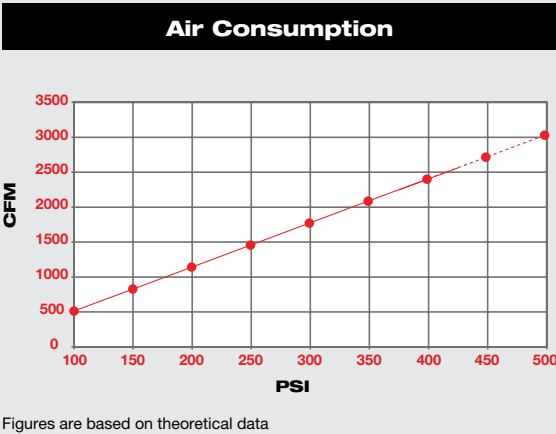
Compatible with Halco bit catcher system.

Suitable for operation at air pressures of 100 - 435 psi (7 - 30 bar).

Drilling diameters of 200 - 311 mm (7 7/8 - 12 1/4").

Available Shanks

QL 80



Hammer Overview

Hammer Type	Dominator 880DW
Part Number	600261
Shank	QL 80
Top Thread	4 1/2" Api Reg Pin
Flat Hammer Size	156 mm (6.142")
Weight	177 kg
Outside Diameter	182 mm (7.165")
Make Up Length	1263 mm (49.724")
Recommended Minimum Thrust	800 kg (1760 lbs)
Recommended Maximum Thrust	2000 kg (4400 lbs)

Parts List

Hammer Type		Dominator 880 DW		Maintenance Kits	
Shank		QL 80			
Model Number		600261		Service Kit	Repair Kit
Item	Description			SK36	RK64
1	Thread Protector			-	-
2	Snap Ring			2	2
3	N.R.V. Seat			-	1
4	O'Ring			2	2
5	Non Return Valve			-	1
6	N.R.V. Cover			-	1
7	N.R.V. Spring			2	2
8	Top-Adaptor			-	-
9	Spacer			2	2
10	O'Ring			2	2
11	O'Ring			2	2
12	Cylinder			-	-
13	Piston			-	1
14	Snap Ring			2	2
15	Spacer			-	1
16	Containment Band			2	2
17	Bit Ring			-	-
18	Chuck Spacer			-	-
19	Chuck			-	1
20	End Cap			-	-

Drill Bits

Part	Diameter		Face	Buttons		Over	Weight
Number	mm	Inch	Design	Type	Qty	Size	(kg)
QL 80							
650977	200	7 7⁄8	Concave	Domed	31 x 16 mm		52.0
650373	203	8	Concave	Domed	10 x 20 mm / 14 x 16 mm		51.5
650022	241	9 1⁄2	Concave	Domed	10 x 16 / 18 x 20 mm		56.9
650389	254	10	Concave	Domed	18 x 20 mm / 10x16 mm		64.5
650898	300	11 7⁄8	Convex	Domed	34 x 20 mm	Y	84.5
653041	311	12 1⁄4	Concave	Domed	42 x 20 mm	Y	84.1

Additional drill bit configurations are available upon request



10" DOMINATOR 1000

AT A GLANCE



SIZE

254 - 381mm
(10 - 15")



SHANK

SD 10



AIR PRESSURE

100- 435 psi
(7 -30 bar)

One piece top-adaptor reduces internal parts. No make up required. External N.R.V. for easy maintenance.

Revised chamber volumes and cycle timing to optimize performance.

Simplified piston geometry for improved balance and location within the cylinder.

Live air bleed to adjust volume.

Reversible cylinder.

SM SD10 shank reduces contact stress and wear rates.

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. Its optimum performance is reached at air pressures of 200psi (14 bar) and above. The Dominator 1000 has a body diameter of 230mm and piston weight of 87.6kg, one of the heaviest in its class providing excellent performance. A reversible cylinder is fitted to the hammer to prolong its life and reduce cost. The 'Captive' bit retaining rings and an improved thread design ensures that the Dominator 1000 is simple to service with a few tools.

Compatible with Halco bit catcher system.

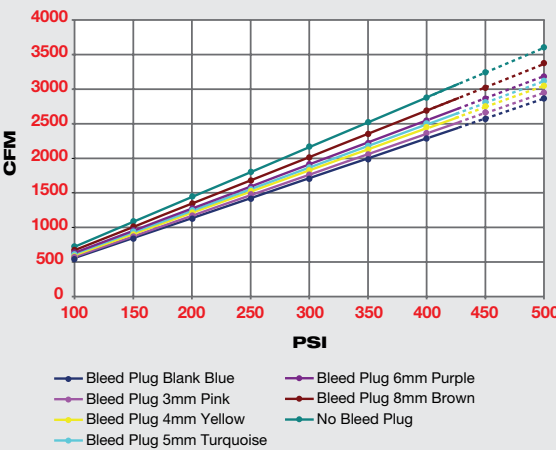
Suitable for operation at air pressures of 100 - 435 psi (7 - 30 bar).

Drilling diameters of 254 - 381mm (10 - 15").

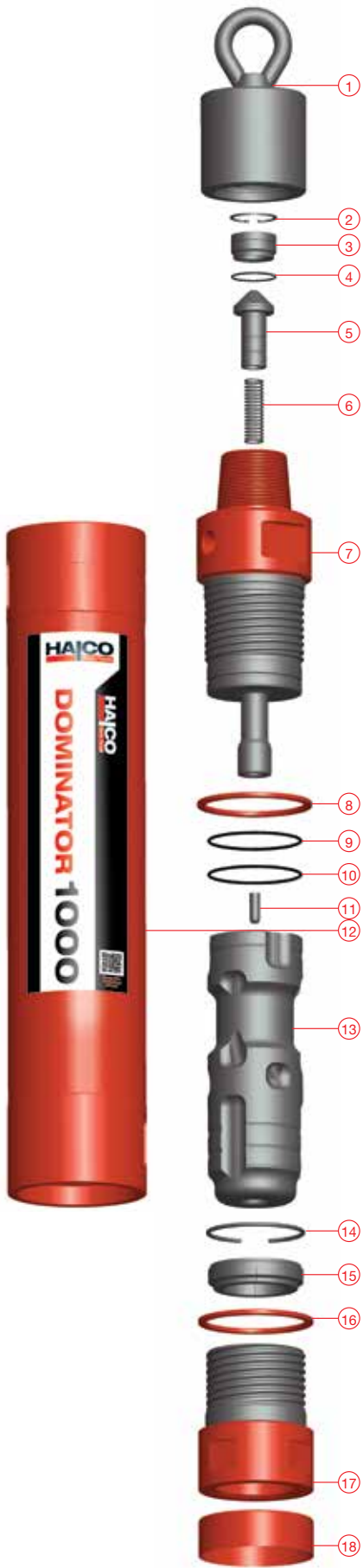
Available Shanks

SD 10

Air Consumption



Figures are based on theoretical data



Hammer Overview

Hammer Type	Dominator 1000
Part Number	600248
SD10	
Top Thread	6 5/8" Api Reg Pin
Flat Hammer Size	200 mm (7.874")
Weight	367 kg
Outside Diameter	230 mm (9.055")
Make Up Length	1390 mm (54.724")
Recommended Minimum Thrust	1500 kg (3400 lbs)
Recommended Maximum Thrust	3500 kg (7700 lbs)

Parts List

Hammer Type		Dominator 1000	
Shank		SD10	
Model Number		600248	
		Service Kit	Repair Kit
		SK29	RK50
Item	Description		
1	Lifting Cap	-	-
2	Circlip	2	2
3	N.R.V. Seat	-	1
4	O'Ring	2	2
5	NR Valve	-	1
6	N.R.V. Spring	2	2
7	Adaptor Assy	-	-
8	Top-Adaptor Spacer	-	-
9	O'Ring	2	2
10	O'Ring	2	2
11*	Bleed Plug Blank Blue	-	-
	Bleed Plug 3 mm Pink	-	-
	Bleed Plug 4 mm Yellow	-	-
	Bleed Plug 5 mm Turquoise	-	-
	Bleed Plug 6 mm Purple	-	-
	Bleed Plug 8 mm Brown	-	-
12	Cylinder	-	-
13	Piston	-	-
14	Snap Ring	2	2
15	Bit Retaining Ring	-	1
16	Chuck Spacer	2	2
17	Chuck	-	1
18	Cap	-	-

Drill Bits

Part	Diameter		Face	Buttons		Over	Weight
Number	mm	Inch	Design	Type	Qty	Size	(kg)
SD 10							
650648	254	10	Concave	Domed	11 x 16 mm / 18 x 20 mm		84.7
650644	280	11	Concave	Domed	34 x 18 mm		97.0
650650	305	12	Concave	Domed	34 x 20 mm		Y 96.4
650071	311	12 ¼	Concave	Domed	46 x 20 mm		Y 107.0
650072	381	15	Concave	Domed	65 x 20 mm		Y 146.0


Additional drill bit configurations are available upon request




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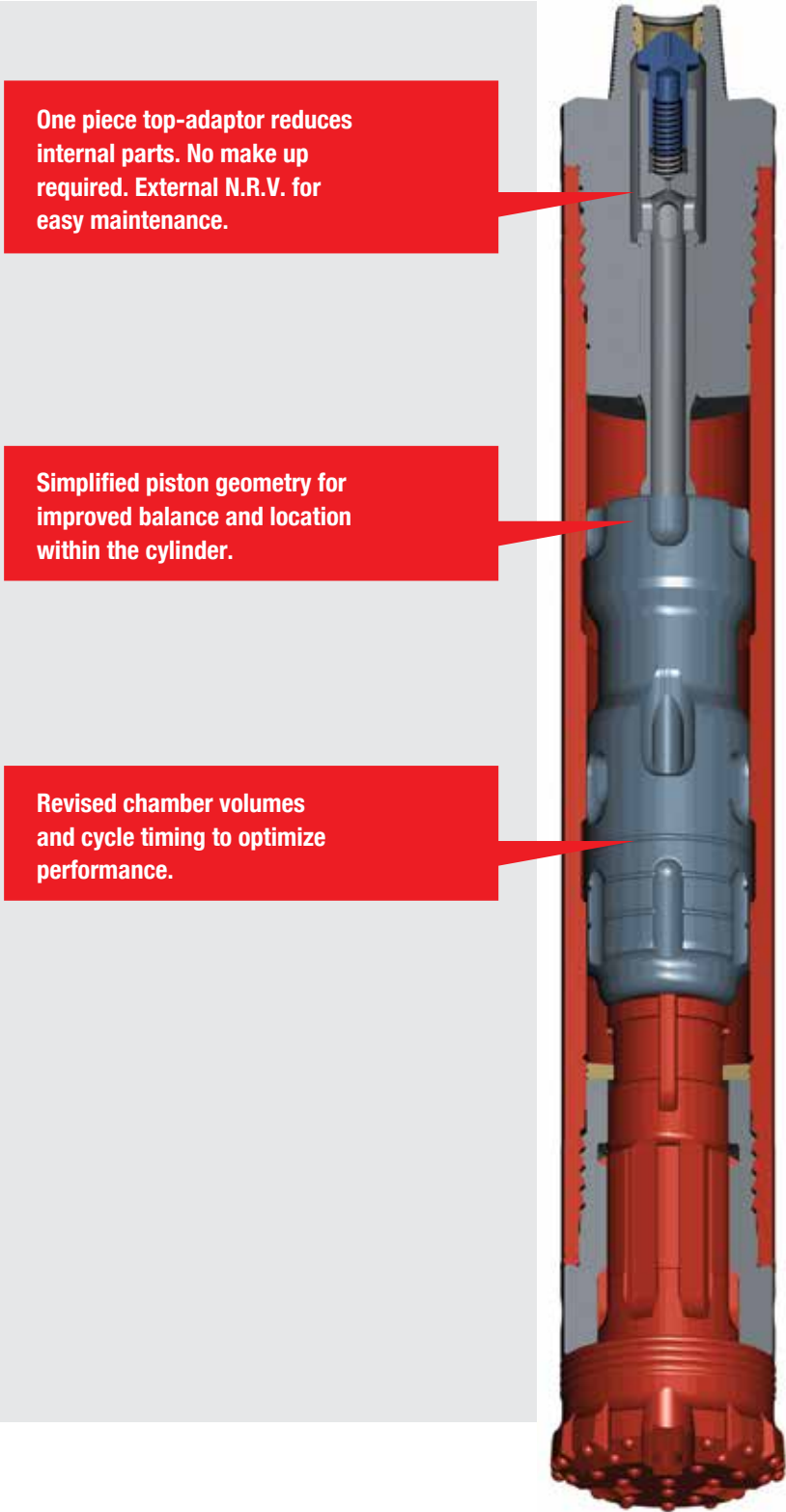
SIZE
300 - 445mm
(11 7/8 - 17 1/2")



SHANK
SD 12



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



MACH 122

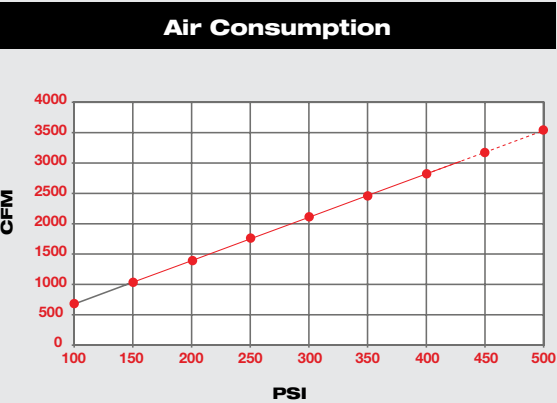
The Mach 122 accepts A100-15 (SD12) shank bits and works over a wide pressure range with an optimum performance reached at air pressures of 200 psi (14 bar) and above as its higher air consumption provides increased up hole velocity, particularly when using oversized diameter drill bits. The Mach 122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

Compatible with Halco bit catcher system.

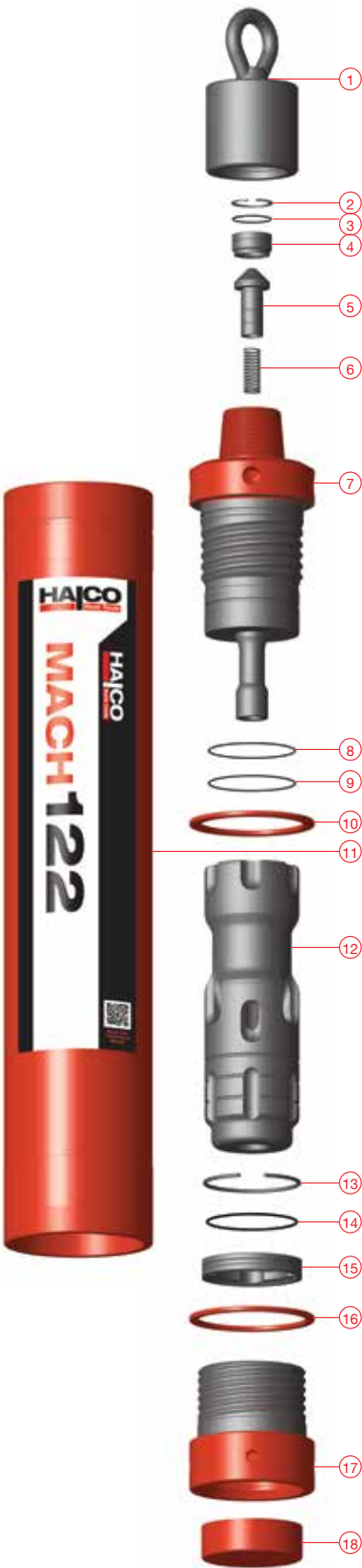
Suitable for operation at air pressures of 100 - 435 psi (7 - 30 bar).

Drilling diameters of 300 - 445mm (11 7/8 - 17 1/2").

Available Shanks
SD 12



Figures are based on theoretical data



Hammer Overview

Hammer Type	Mach 122
Part Number	600110
Shank	SD 12
Top Thread	6 5/8" Api Reg Pin
Flat Hammer Size	N/A
Weight	614 kg
Outside Diameter	273 mm (10.748")
Make Up Length	1667 mm (65.629")
Recommended Minimum Thrust	1600 kg (3520 lbs)
Recommended Maximum Thrust	3500 kg (7700 lbs)

Parts List

Hammer Type		Dominator 1000		Maintenance Kits	
Shank		SD 12			
Model Number		600110		Service Kit	Repair Kit
Item	Description	SK12		RK19	
1	Lifting Cap	-	-	-	-
2	Circlip	2	2	2	2
3	O'Ring	2	2	2	2
4	N.R.V. Seat	-	-	1	1
5	Non Return Valve	-	-	1	1
6	N.R.V. Spring	2	2	2	2
7	Top-Adaptor	-	-	-	-
8	O'Ring	2	2	2	2
9	O'Ring	2	2	2	2
10	Top-Adaptor Spacer	-	-	2	2
11	Cylinder	-	-	-	-
12	Piston	-	-	-	-
13	Snap Ring	2	2	2	2
14	Containment Band	2	2	2	2
15	Bit Retaining Ring	-	-	1	1
16	Chuck Spacer	2	2	-	-
17	Chuck	-	-	1	1
18	End Cap	-	-	-	-

Drill Bits

Part	Diameter		Face	Buttons		Over	Weight
Number	mm	Inch	Design	Type	Qty	Size	(kg)
SD 12							
650874	300	11 7/8	Convex	Domed	29 x 20 mm		138
650383	311	12 1/4	Concave	Domed	31 x 20 mm		133.5
650988	381	15	Concave	Domed	65 x 20 mm D / 18 x 16 mm W		208
653138	406	16	Concave	Domed	74 x 20 mm D / 18 x 16 mm W		210
650376	445	17 1/2	Concave	Domed	79 x 20 mm	Y	245

Additional drill bit configurations are available upon request





DTH Drill Pipes

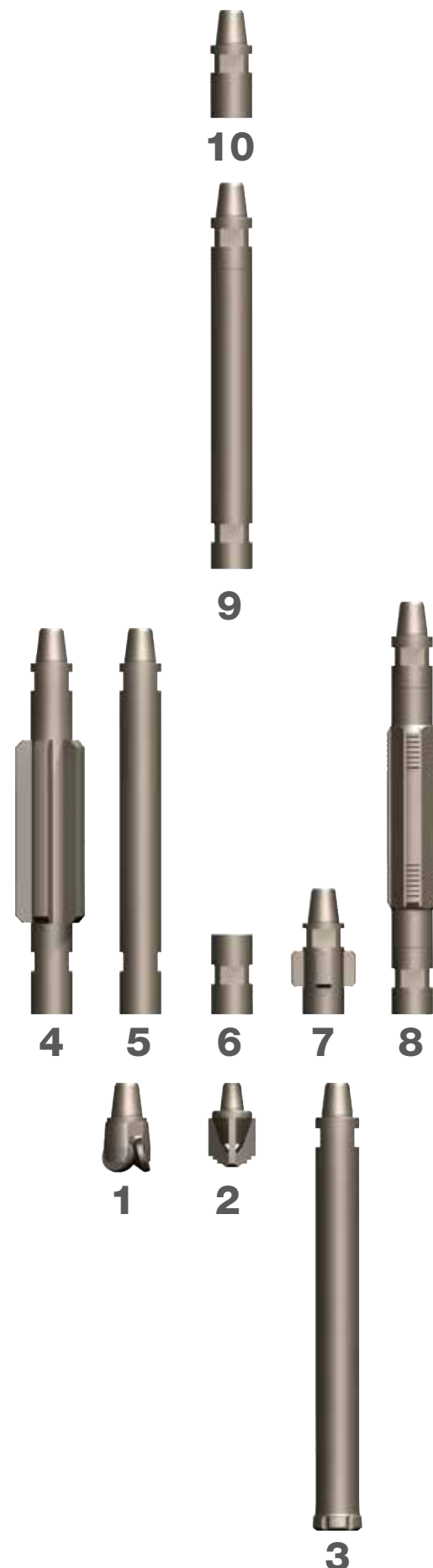
Using high quality drill pipe will give you trouble free drilling and a lower cost / meter average. Our standard DTH pipes are manufactured to exacting standards to ensure their straightness, even thickness and high strength.

This technological advantage gives the pipe a smoother surface, eliminating the risk of scaling, which could damage the hammer.

Material

Halco works together with the leading material manufacturers / suppliers in Europe to ensure that the very best quality steel is used. Our tool joints are made from micro alloy steel that is heat treated for superior thread life. With threads lasting more than 50% longer than normal material used in the industry.

1. Roller bit/Tricone
2. Drag bit
3. DTH hammer
4. Stabilizer
5. Drill collar
6. Cross over sub (bit)
7. Guide sleeve
8. Guide rod
9. Drill pipe
10. Saver sub



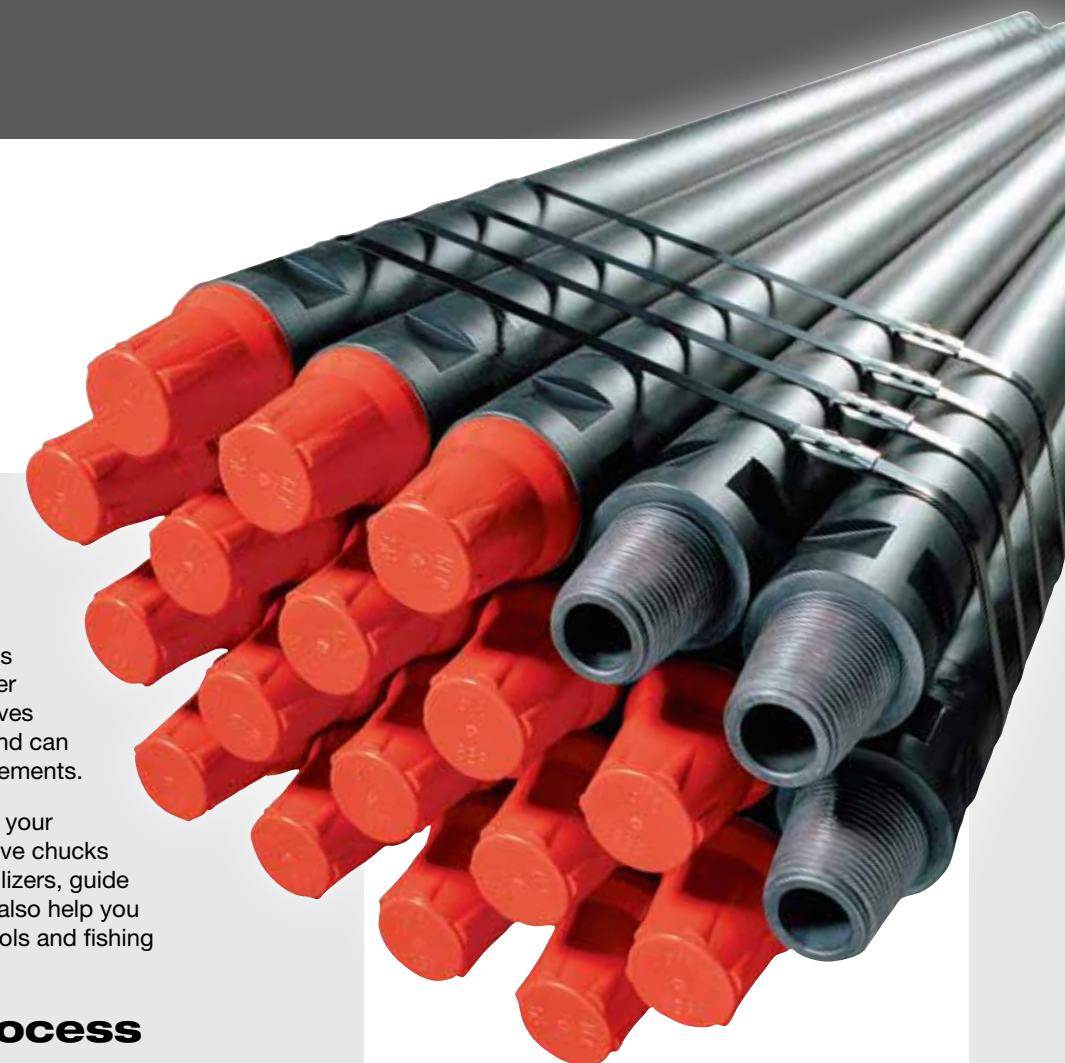
Equipment

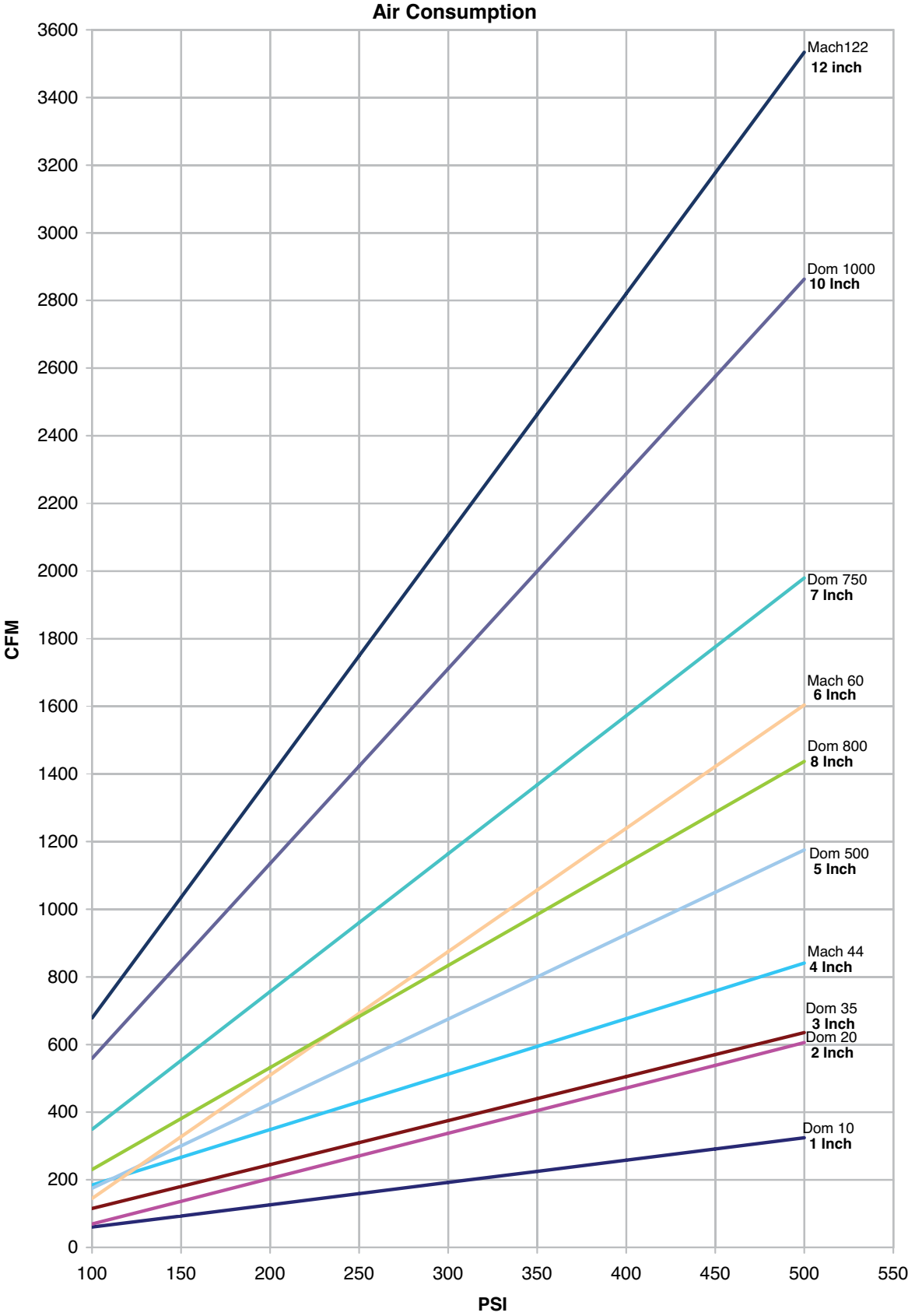
We supply top quality accessories / tools for all your needs. Saver subs, cross over subs, starter pipes and in line check valves are available in various configurations and can be customised to fit your specific requirements.

We can also supply equipment to assist your drilling accuracy. Equipment such as drive chucks and hammer sleeves with guiding. Stabilizers, guide rods, guide sleeves and drill collars will also help you drill more efficiently. Wrenches, lifting tools and fishing equipment is also available.

Manufacturing Process

Using the latest CNC technology machines for turning and milling, we use API certified thread gauges to ensure perfect threads. All threads are inspected before leaving the factory. Pipes up to 8 3/4" are available friction welded ensuring a stronger weld with even quality. Larger pipes, up to 16", are manually welded by licensed arc welders.





Air Volume	Example
1 cc = .001 litre	1000 cc = 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 = 6.00 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 = 0.3048 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	10 m/sec = 1968.50 ft/min

Torque	Example
1 lbft = 0.1383 kgm	1000 lbft = 138.30 kgm
1 lbft = 1.3558 Nm	1000 lbft = 1355.80 Nm
1 lbft = 12.00 lbin	1000 lbft = 12000 lbin
1 kgm = 7.233 lbft	100 kgm = 723.30 lbft
1 kgm = 9.8067 Nm	100 kgm = 980.67 Nm
1 kgm = 86.796 lbin	100 kgm = 8679.60 lbin
1 lbin = 0.0833 lbft	1000 lbin = 83.30 lbft
1 lbin = 0.0115 kgm	1000 lbin = 11.50 kgm
1 lbin = 0.1130 Nm	1000 lbin = 113 Nm

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