

# 6"

# SUPERIOR 650

## AT A GLANCE



**SIZE**  
165 - 241mm  
(6 1/2" - 9 1/2")



**SHANK**  
QL 60

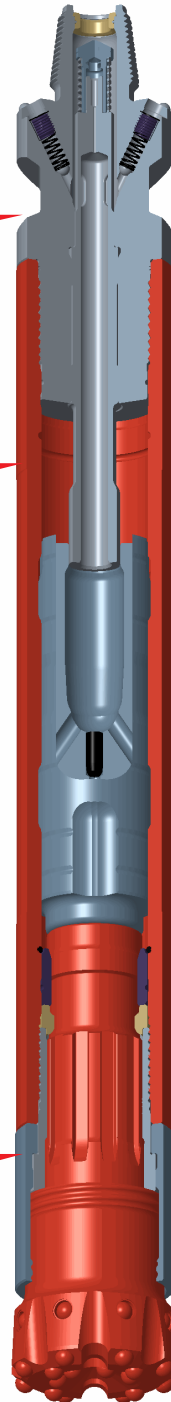


**AIR PRESSURE**  
100 - 435 psi  
(7 - 30 bar)

Variable bypass porting has been added to the top adaptor

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

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



## SUPERIOR 650

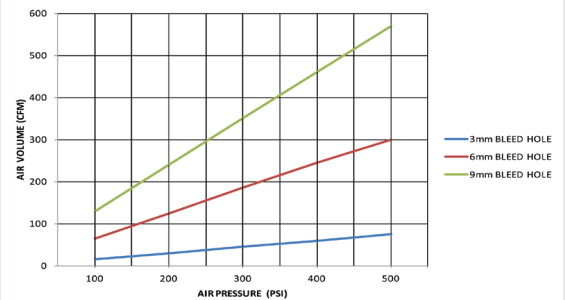
The Superior 650 is typically suited to the air pressures and time and money saving efficiencies of the Oil & Gas industry.

In hard rock formations, air drilling provides an ROP that is up to five times faster than drilling with conventional fluids.

Design features include a jetted back head, a live air bleed piston and a bit catcher system and diamond enhanced inserts.

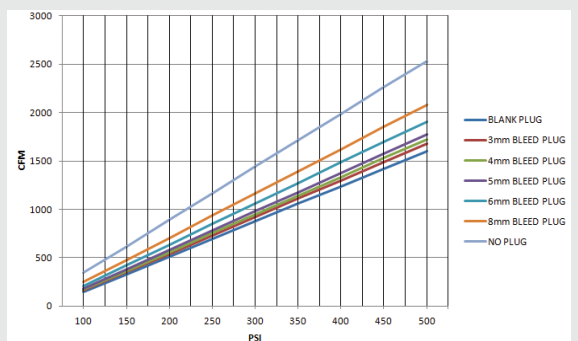
### Air Consumption

#### Bypass Top Adaptor



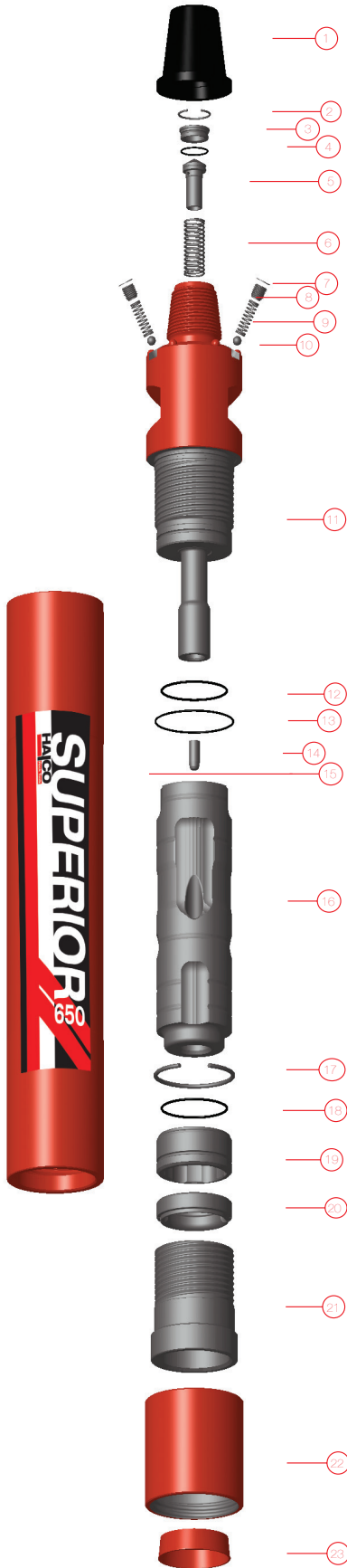
Note: The air volumes quoted above are based upon one bleed plug.

### Hammer



Figures are based on theoretical data

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## Hammer Overview

Hammer Type	Superior 650
Top Thread	3 1/2" API Reg Pin
Flat Hammer Size	101mm (3.976")
Weight	100 Kg
Outside Diameter	146mm (5.748")
Make Up Length	1043mm (41.07")
Recommended Minimum Thrust	500 Kg (1100 lbs)
Recommended Maximum Thrust	1500 Kg (3300 lbs)

## Parts List

Hammer Type	Superior 650	Maintenance Kits		
Shank	QL 60	Service Kit	Repair Kit	Life Kit
Model Number	600439	SK88	RK145	LK09
Item	Description			
1	Thread Protector	-	-	-
2	Snap Ring	1	1	-
3	N.R.V. Seat	-	1	-
4	O'Ring	2	2	-
5	N.R.V	-	1	-
6	N.R.V. Spring	-	1	-
7	Circlip	-	4	-
8	Bleed Plugs	-	4	-
9	Bypass Spring	-	4	-
10	Ball Bearing	-	4	-
11	Top Adaptor	-	-	1
12	O'Ring	2	2	-
13	O'Ring	2	2	-
14	Bleed Plug	-	1	-
15	Cylinder	-	-	1
16	Piston	-	-	1
17	Snap Ring	1	1	-
18	O'Ring	2	2	-
19	Guide Bush	-	-	-
20	Bit Retaining Ring	-	1	-
21	Chuck	-	1	-
22	Shroud	-	-	-
23	End Cap	-	-	-

## Drill Bits

Part Number	Diameter	Face	Buttons	Over Size	Weight (Kg)	
	mm	Inch	Design	Type	Qty / Dia	
<b>QL60</b>						
653520	159	6 1/4"	Concave	Diamond	24 x 18mm	25
653528	159	6 1/4"	Concave	Diamond Gauge	8 x 18mm Carbide, 16 x 18mm	25
653536	200	7 7/8"	Concave	Diamond	30 x 18mm	Y 35
653537	200	7 7/8"	Concave	Diamond Gauge	10x18mm Carbide, 20x 18mm	Y 38

Additional drill bit configurations are available upon request.

