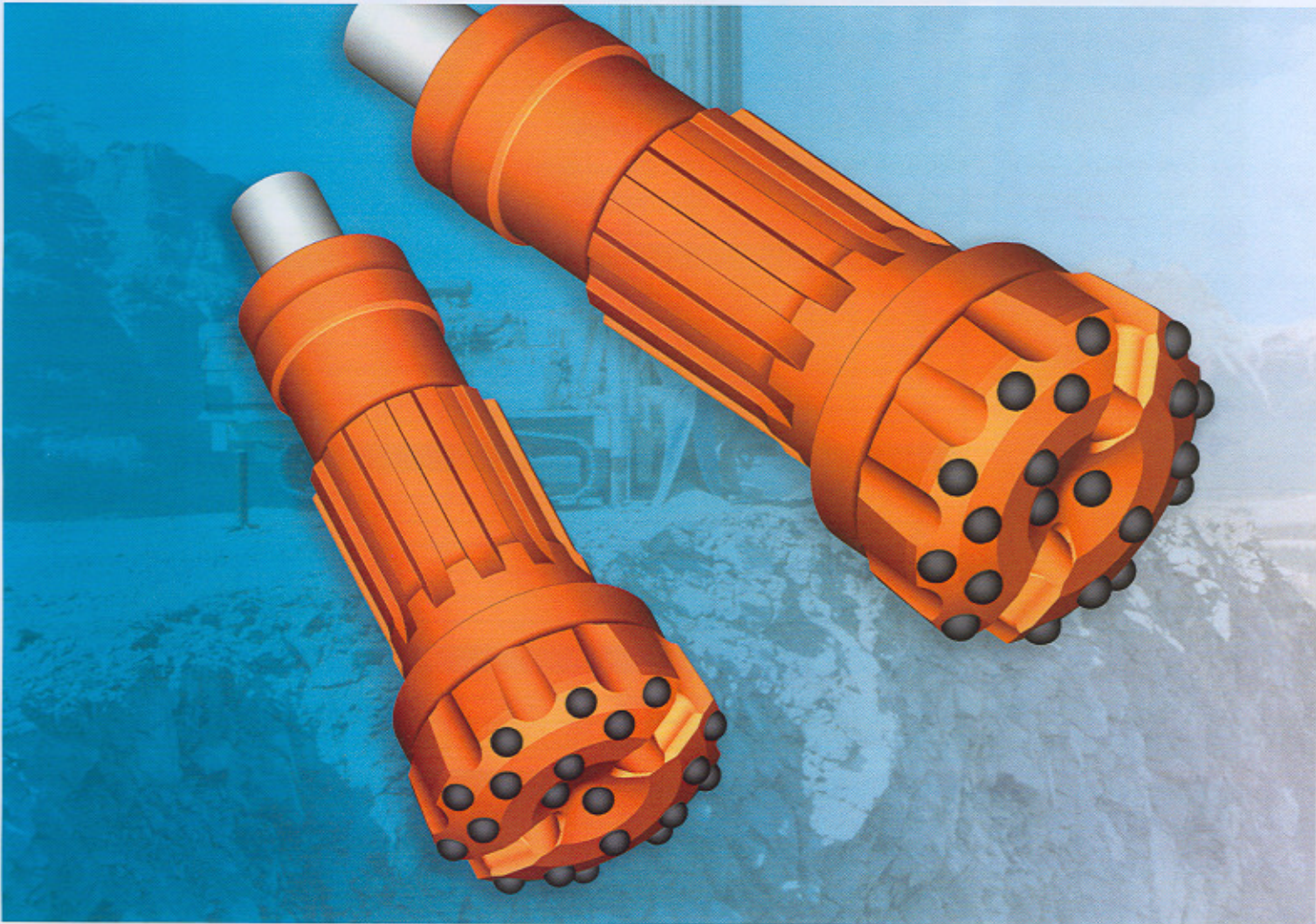


Atlas Copco Rock Drilling Tools

SECOROC Down-the-hole equipment

Drill Bits

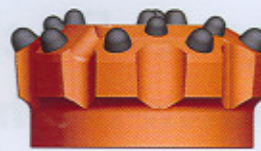


Exceptionally low cost-per-foot

Our down-the-hole drill bits are designed to meet the needs of drilling contractors who demand low cost and high reliability, hole after hole. Atlas Copco has bits specifically designed for all down-hole applications, including water well, oil and gas, blast holes, and construction.

Our bits are engineered to handle the unusually high power output of Quantum Leap®, Total Depth and COP hammers. We know how to combine alloy-steel, state-of-the-art tungsten carbide, precision heat-treatment, and skilled workmanship to achieve exceptionally low cost-per-foot and repeatability.

Atlas Copco



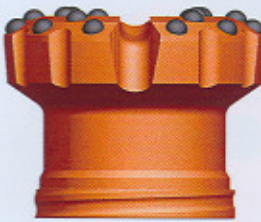
C2S Shown with Conical Inserts

F2S with Spherical Inserts

O2S Shown with Spherical Inserts

V3S Shown with Conical Inserts

O2ST Shown with Spherical Inserts



O2RT Shown with Spherical Inserts



O2LT Shown with Spherical Inserts

Stock Plan Codes

S	Stock with 95% service level
SB	Stock empty body with 95% service level
PS	Partial Stock with 80% service level
PSB	Partial Stock empty body with 80% service level
SO	Special Order - No stock, special order only
SOB	Special Order Body - No stock, special order only

Carbide Material Descriptions

D	Extreme Hardness (diamond)
Y	Hard and Tough (IMPAC)
S	Hard (size 10 and smaller)
A	Tough and Hard
S	Tough (size 12 and larger)
F, T	Extra Tough

Carbide Shape Descriptions

S	Spherical (dome)
C	Conical
B	Semi-Ballistic

Head Styles and Features

C	Concave face	F	Flat face
O	Dual-Gage concave (oilfield)	V	Convex
R	Rotating (cluster drill)	X	Special
G	Gage protection inserts	B	Back reaming inserts
S	Standard head length	T	Includes fish thread
R	Long retrieval head	L	Long head
W	Hard-faced skirt		

Carbide Size Code Cross Reference Chart

Size	US Fractional (inch)	US Decimal (inch)	Metric (mm)
7	7/16"	0.437	11.1
8	1/2"	0.500	12.7
9	9/16"	0.563	14.3
10	5/8"	0.625	15.9
12	3/4"	0.750	19.1
16	1"	1.000	25.4

Hammer Series

Hammer Series	Exhaust Tube	Drive Pins (qty)
DHD3.5/TD35	51297752	NA
DHD4/340A	51053726	NA
QL40	51365112	NA
DHD350R	56033467	NA
QL50/TD50	51858116	NA
DHD360/SF6	51357226	NA
DHD60/QL60/TD60	52335999	NA
DHD38056033525		NA
QL80/TD80/TD85/TD90	51955003	NA
CLUSTER DRILLS	52127719	NA
DHD310	51614188	51612620
DHD112	51915890	50794635
QL120	52107612	52107604
DHD112S	51915890	51050854
QL200/200s	51989432	51989424



Choosing a Down-the-hole Drill Bit

Face Design Features

Flat Face design — For hard rock formations where a very durable head is required. The flat face design is very stable and forgiving in fractured, voided or unconsolidated formations. The flat face design also handles abrasive formations well. Some models are available with face slots for improved hole cleaning.

Face code "F"

Concave Face design — For medium soft to medium hard rock conditions in consolidated ground conditions in medium abrasivity rock. Front face grooves provide excellent cuttings removal and the concave center provides optimal hole straightness. The concave design is the most common bit shape. **Face code "C"**

Convex Face design — For medium soft to medium hard rock in good ground conditions where maximum penetration rate is desired. The convex design will handle abrasive formations better than a concave or flat design. The convex design also enables the use of greater insert density for aggressive spherical, conical or ballistic tipped bits. Consider this bit with conical or ballistic inserts for high productivity in softer rock.

Face code "V"

Oilfield Face design — A combination of convex and concave designs, the oilfield head design provides the benefits of both in all applications. The second gage row shares the high loads on the gage inserts preserving life and reducing wear. The center cone provides stability and straightness. The oilfield head design is preferred for applications involving the use of polycrystalline diamond enhanced inserts (PCD) in formations of all types. Additionally, the dual gage provides ample room for extra inserts to provide longer service life. **Face code "O"**

Head Design Features

Other bit design features in addition to the face design are standard or optional.

Head code "S" — Indicates the bit head is standard length.

Head code "T" — Indicates the head is threaded for fishing tools.

Head code "R" — Indicates the head is equipped with a patented bit retrieval undercut. This undercut cooperates with a special chuck assembly to retain the bit head in case of shank-off.

Head code "L" — Indicates the bit head shoulder is extra long and threaded for fishing. Preferred for many deep-hole applications where risk must be mitigated.

Head code "B" — Back reaming inserts on the rear flank of the bit head assist retrieval from caved or dirty holes.

Head code "G" — Gage protection inserts prevent abrasive wear of the body material supporting gage inserts.

Head code "R" — Special rotating bit for Cluster Drill applications.

Head code "W" — Hard faced bit skirt to resist abrasive wear and bit wash.

Head code "X" — Specially configured bit design (variable)

Other Notes

Gage Diameter — Bits with fractional head sizes usually run .06" (1,5 mm) oversize. Decimal head sizes are maximum gage diameter. Consult the factory for exact gage sizes.

Carbide conventions — Bit symbols with three letters indicates the carbide assembly pattern with the gage, lead and face rows. For example: DYY would be Diamond gage, IMPAC second row and IMPAC face.

Bit Face & Head Symbols = Examples	
C2S	= C Concave Face
	2 Number of blow holes
	S Standard length head
O2ST	= O Oilfield (dual gage concave)
	2 Number of blow holes
	S Standard length head
	T Fishing threads