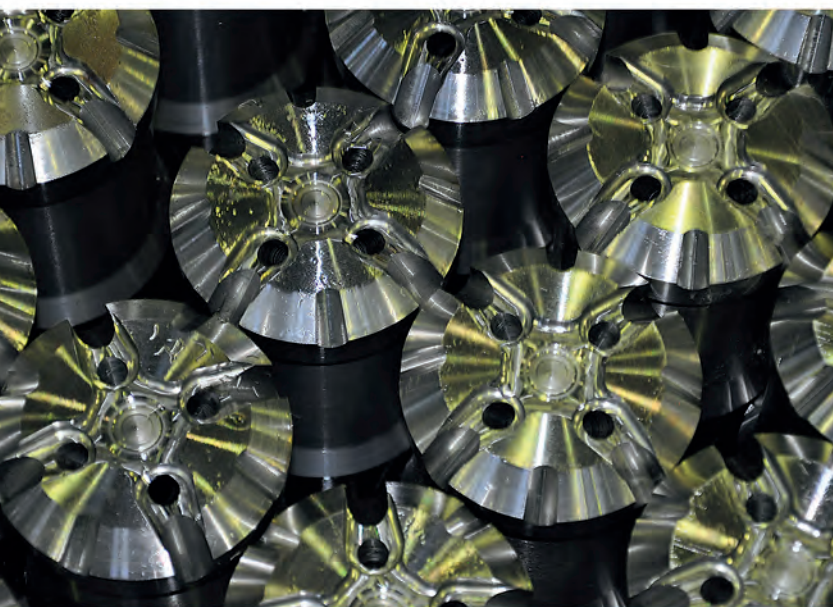


DTH DRILLING TOOLS

CATALOGUE

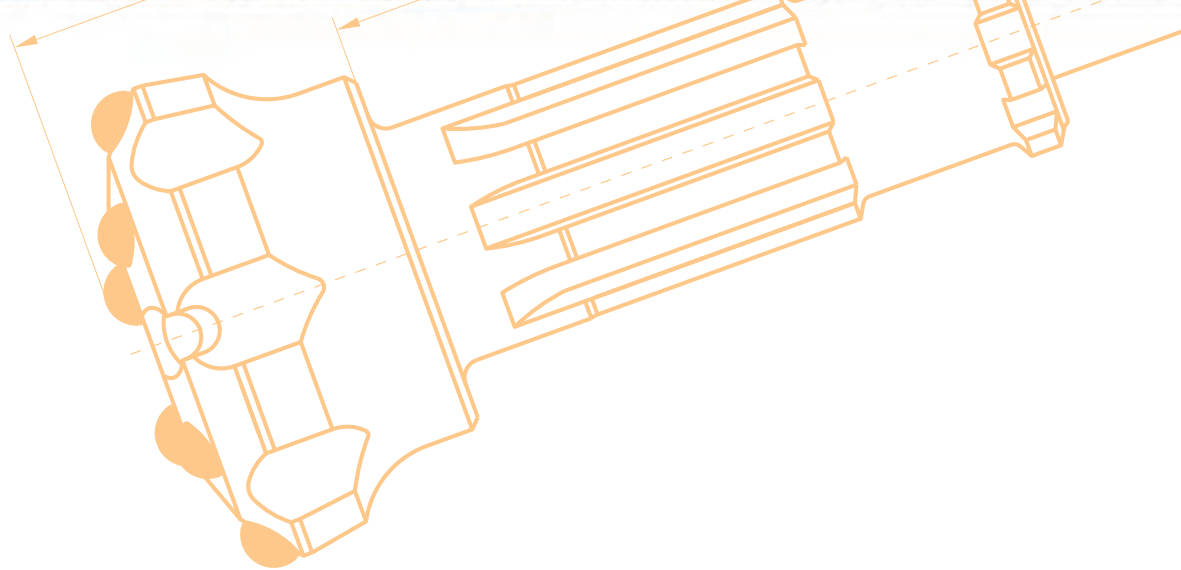




GONAR Co. Ltd. has been operating on the international market since 1974. We have 40 years of expertise in manufacturing of mining, tunnelling & geotech tools. Using raw materials only from certified suppliers in combination with high-tech innovative production facilities, we can guarantee high quality of fully carburised drill steels. Our R&D Department equipped with a testing lab and our Sinter Plant producing carbides in controlled vacuum ovens, assure high manufacturing quality.

We offer a wide range of products with carbide sinters and have the possibility to quickly turn around on prototype tooling and urgent requirements. To sum up we are a dynamic company with an aim to become leaders in technology and product innovation.





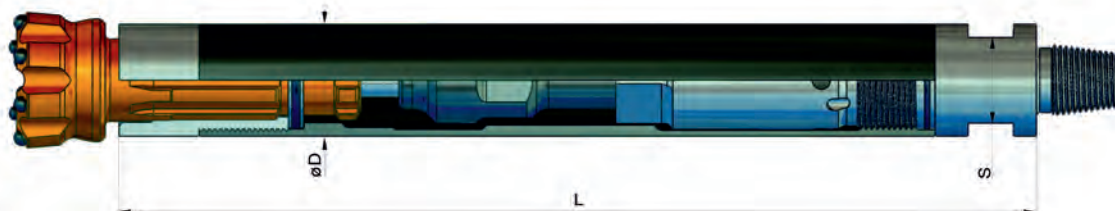
DTH Drilling Tools

– Hammers	Page 2-6
– Bit Shanks Identification	Page 7-9
– Drill Bits	Page 10-27
– Drill Pipes	Page 28-29
– Drilling Equipment	Page 30

GON 350

3.5" DTH "HP" Hammer

Part No. DTH350305238REG

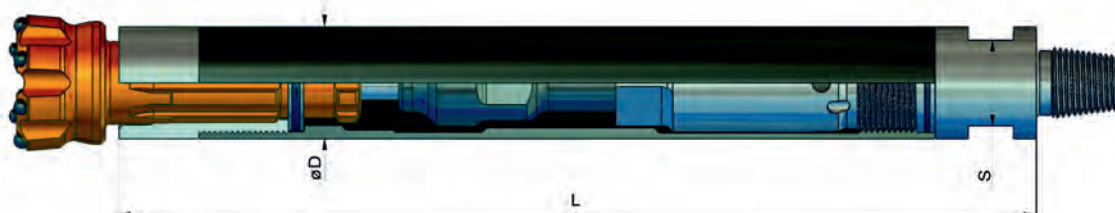


Dimensions	inch	mm
D	3.1	78.7
L	39.6	1006
S	2.5	64
Hole Size Range	3 1/2 to 4 1/4	89 to 108
Technical Data		
Total Weight	56 lbs	25.4 kg
Piston Weight	11.7 lbs	5.31 kg
Drillpipe Connection	2 3/8 Reg API pin	
Bit Shank Required	305	
Minimum Air Volume Required	150 cfm	4.5 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 400

4" DTH Hammer

Part No. DTH400340238REG

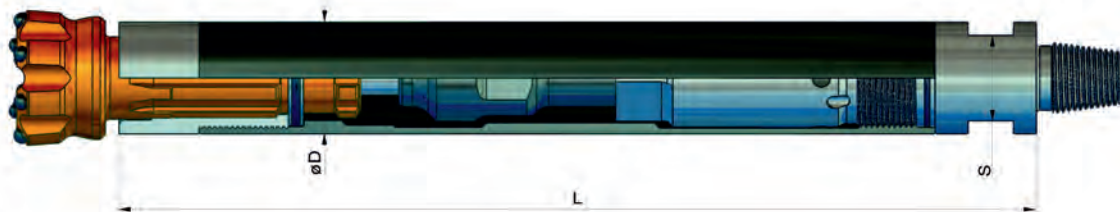


Dimensions	inch	mm
D	3.63	92.2
L	41.9	1064
S	2.95	75
Hole Size Range	4 to 5 1/8	107 to 130
Technical Data		
Total Weight	82 lbs	37 kg
Piston Weight	20 lbs	9 kg
Drillpipe Connection	2 3/8 Reg API pin	
Bit Shank Required	340	
Minimum Air Volume Required	150 cfm	4.5 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 450

4.5" DTH "HP" Hammer

Part No. DTH450340238REG

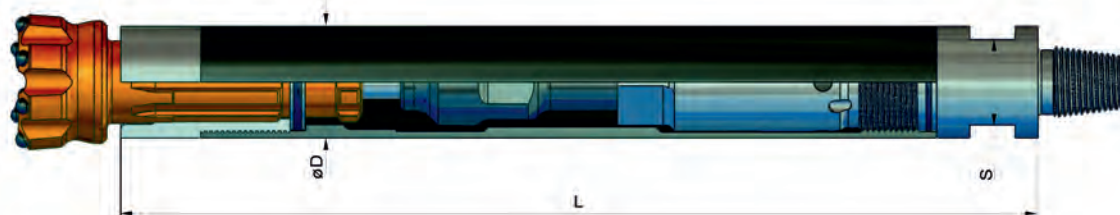


Dimensions	inch	mm
D	4.0	101.6
L	40.7	1034
S	2.95	75
Hole Size Range	4 1/2 to 5 1/8	114 to 130
Technical Data		
Total Weight	112 lbs	50 kg
Piston Weight	22 lbs	10 kg
Drillpipe Connection	2 3/8 Reg API pin	
Bit Shank Required	340	
Minimum Air Volume Required	150 cfm	4.5 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 500QL

5" DTH "HP" Hammer

Part No. DTH500QL5312REG

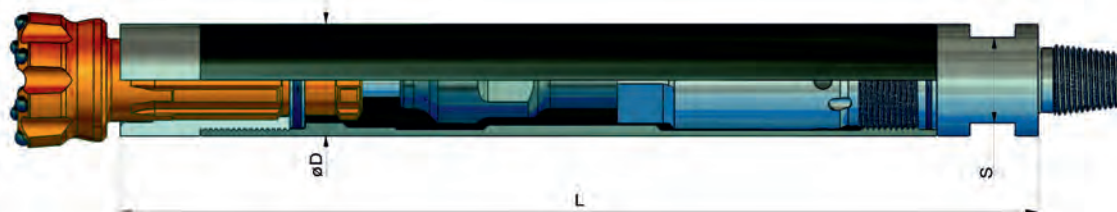


Dimensions	inch	mm
D	4.53	115
L	47.1	1196
S	3.5	89
Hole Size Range	5 to 6	127 to 152
Technical Data		
Total Weight	143 lbs	64.8 kg
Piston Weight	30 lbs	13.6 kg
Drillpipe Connection	3 1/2 Reg API pin	
Bit Shank Required	QL5	
Minimum Air Volume Required	250 cfm	7 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 500

5" DTH "HP" Hammer

Part No. DTH500350312REG

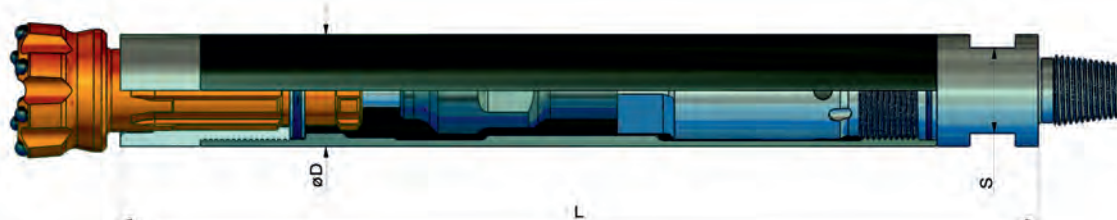


Dimensions	inch	mm
D	4.53	115
L	48.1	1222
S	3.5	89
Hole Size Range	5 to 6	127 to 152
Technical Data		
Total Weight	143 lbs	64.8 kg
Piston Weight	30 lbs	13.6 kg
Drillpipe Connection	3 1/2 Reg API pin	
Bit Shank Required	350	
Minimum Air Volume Required	250 cfm	7 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 550

5.5" DTH "HP" Hammer

Part No. DTH550QL5312REG



Dimensions	inch	mm
D	5.0	127
L	44.6	1133
S	3.5	89
Hole Size Range	5 1/2 to 6	140 to 152
Technical Data		
Total Weight	148 lbs	67.1 kg
Piston Weight	31 lbs	14.0 kg
Drillpipe Connection	3 1/2 Reg API pin	
Bit Shank Required	QL5	
Minimum Air Volume Required	250 cfm	7 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 600

6" DTH "HP" Hammer

Part No. DTH600QL6312REG

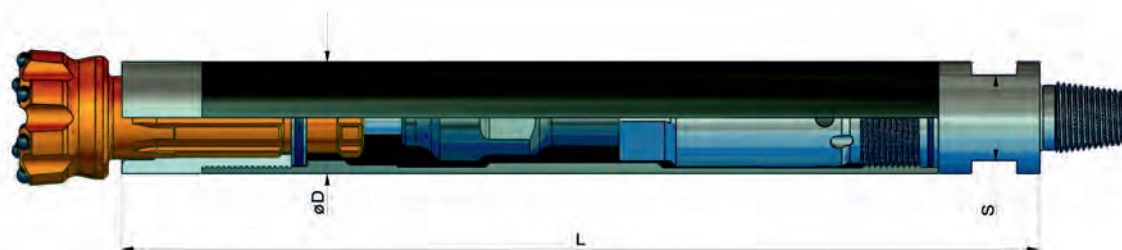


Dimensions	inch	mm
D	5.46	139
L	48.1	1222
S	4	102
Hole Size Range	6 1/2 to 7	152 to 178
Technical Data		
Total Weight	251 lbs	113.8 kg
Piston Weight	45 lbs	20.4 kg
Drillpipe Connection	3 1/2 Reg API pin	
Bit Shank Required	QL6	
Minimum Air Volume Required	450 cfm	13 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 650

6.5" DTH "HP" Hammer

Part No. DTH650QL6312REG

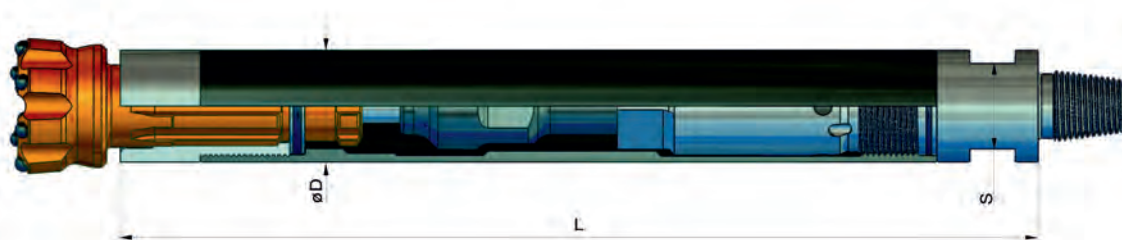


Dimensions	inch	mm
D	5.75	146
L	46.8	1189
S	4	102
Hole Size Range	6 1/2 to 7	165 to 178
Technical Data		
Total Weight	251 lbs	113.8 kg
Piston Weight	45 lbs	20.4 kg
Drillpipe Connection	3 1/2 Reg API pin	
Bit Shank Required	QL6	
Minimum Air Volume Required	450 cfm	13 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 800QL

8" DTH Hammer

Part No. DTH800QL8412REG

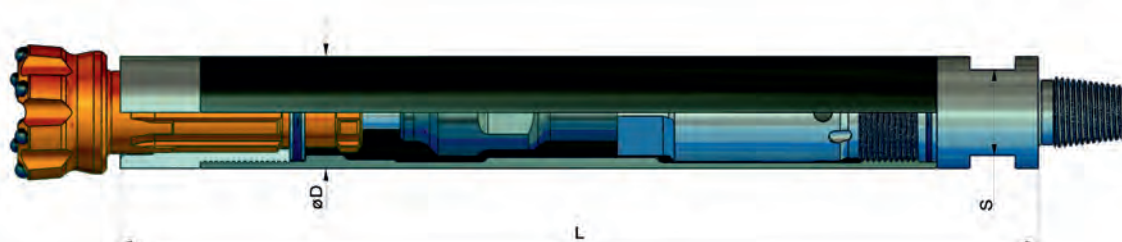


Dimensions	inch	mm
D	7.1	180
L	56.2	1427
S	5.9	150
Hole Size Range	7 7/8 to 10	200 to 254
Technical Data		
Total Weight	414 lbs	188 kg
Piston Weight	78 lbs	35 kg
Drillpipe Connection	4 1/2 Reg API pin	
Bit Shank Required	QL8	
Minimum Air Volume Required	900 cfm	26 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

GON 800

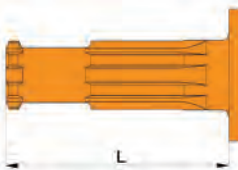
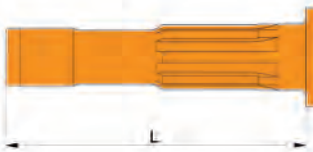
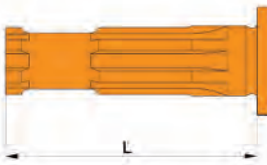
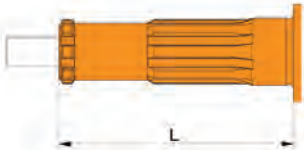
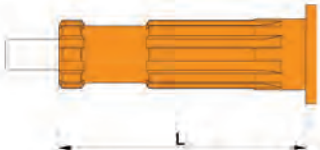
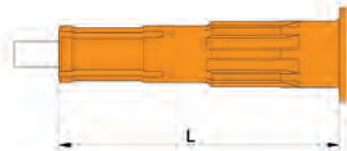
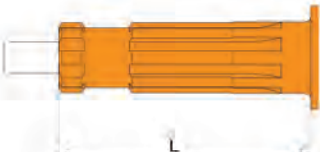
8" DTH Hammer

Part No. DTH800380412REG



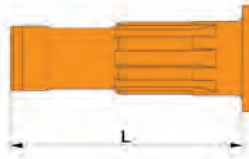
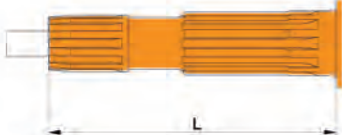
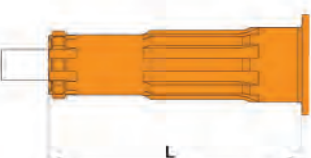
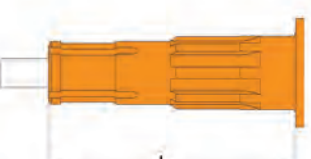
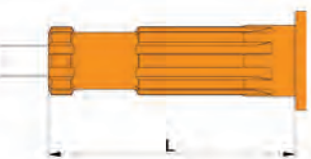
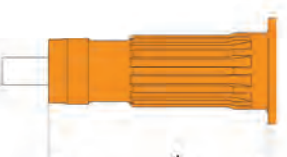
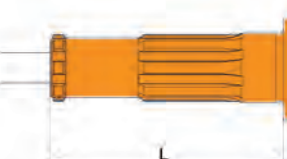
Dimensions	inch	mm
D	7.1	180
L	56.9	1445
S	5.9	150
Hole Size Range	7 7/8 to 10	200 to 254
Technical Data		
Total Weight	412 lbs	188 kg
Piston Weight	78 lbs	35 kg
Drillpipe Connection	4 1/2 Reg API pin	
Bit Shank Required	380	
Minimum Air Volume Required	900 cfm	26 m ³ /min
Maximum Operating Pressure	500 psi	34 bar

Bit Shanks Identification

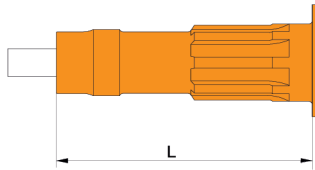
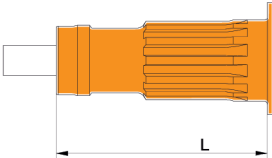
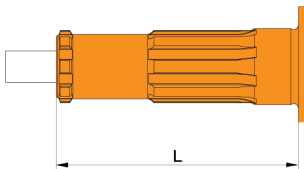
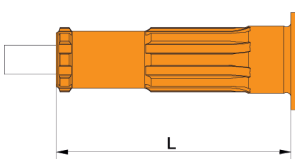
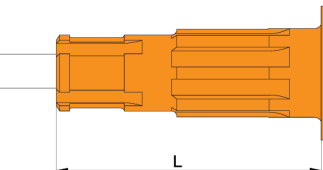
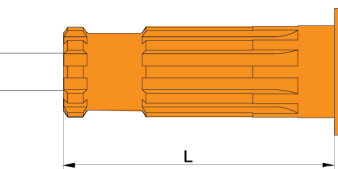
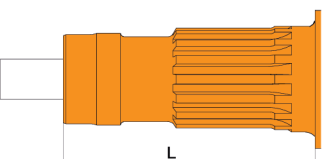
Shank Designation	L		No. of Splines	Hammer Model Number this Shank is used with	
	inch	mm			
BR2					
	6.493	165	6	Bulroc 2 Minroc 2	
C32					
	8.455	215	8	Atlas Copco Cop32	
BR3					
	6.493	165	6	Bulroc 3 Boart BH 75 Minroc 3	Klemm KR-3 Bohler LH-78ZD Demag DH 90
M33					
	6.690	170	8	Halco Mach 303	
305					
	7.118	181	8	GON350 Atlas Copco Sandvik	
341					
	10.242	260	8	Boart BH 40 Drillquip T4 Mission 3415/SD4 Halco Mach 44M	
340					
	8.243	209	8	GON400 and GON450 Atlas Copco DHD-340A; DH4 and Cop 44 Bulroc Hyper 41 Compair-Holman Vol 400 and 401 Secoroc 44 Numa 4	

Bit Shanks Identification

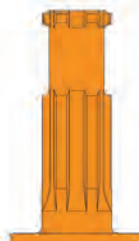
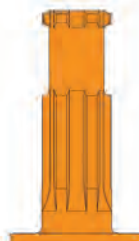
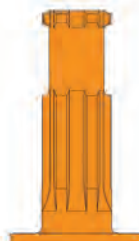
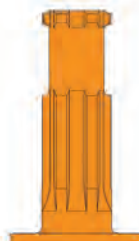


Shank Designation	L		No. of Splines	Hammer Model Number this Shank is used with
	inch	mm		
C42				
	7.420	188	7	Atlas Copco Cop 42
QL4				
	11.000	279	10	Atlas Copco QL40
M44				
	9.789	249	8	Halco Mach 40/44
431				
	11.619	295	8	Mission 4315/SD5 Drillquip T354315 and T50 Digger 5 Halco Mach 50M
350				
	10.243	260	8	Gon500 Atlas Copco DHD-350R; DH5 and Cop 54 Compair-Holman Vol 500 Digger 5 Halco Mach 501R Drillquip T35350 Secoroc 54
QL5				
	9.427	239	12	GON 500QL and GON550 Atlas Copco QL50
M50				
	10.450	265	8	Halco Mach 50

Bit Shanks Identification

Shank Designation	L		No. of Splines	Hammer Model Number this Shank is used with
	inch	mm		
360				
	12.143	308	8	Atlas Copco DHD-360; SF6; DH6 DHD-160; Cop64 Compair-Holman Vol 600 Mincon 6DH-360 Digger 6 Mission XL61 Drillquip T36 Numa 6
QL6				
	9.950	253	12	GON600 and GON650 Atlas Copco QL60; TD; COP 64 GE Mincon 6DH; 6DH-LV; 6BH; XP60
531				
	12.723	323	8	Bohler LH136 Stenvick ADEC-6M Digger 6 Drillquip T3553-15 Halco Mach 60M Mission 5315/SD6 and PD6
M60				
	12.830	326	8	Halco Mach 60
631				
	12.673	322	8	Atlas Copco 84LV Secoroc 84LV Digger 7 Drillquip T38 Halco Mach 80M and 88M Mission 6315/SD8
380				
	13.773	350	10	GON800 Atlas Copco DHD-380; Cop 84 Digger 8 Mincon 8DH Drillquip T38 Numa 8 Halco Mach 80IR and 88IR Secoroc 84
QL8				
	13.053	332	16	GON800QL Atlas Copco QL80 and Cop 84 GE Mincon MP80

If you not see the hammer model you are looking for, ask your GONAR representative about your specific needs.

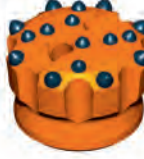
Head design	Diameter		Buttons (mm)		Part No.	Shank							
			Gauge	Front									
	mm	inch	No x Size	No x Size									
BR2													
Concave face / Ballistic button						BR2							
	70	2 3/4	6 x 11	4 x 10			DH070CBR205S						
	73	2 7/8	6 x 11	4 x 10			DH073CBR205S						
	76	3	8 x 11	6 x 10			DH076CBR205S						
	83	3 1/4	8 x 11	6 x 10			DH083CBR205S						
	89	3 1/2	8 x 11	6 x 11			DH089CBR205S						
Concave face / Spherical button								BR2					
	70	2 3/4	6 x 11	4 x 10					DH070CBR205R				
	73	2 7/8	6 x 11	4 x 10					DH073CBR205R				
	76	3	8 x 11	6 x 10					DH076CBR205R				
	83	3 1/4	8 x 11	6 x 10					DH083CBR205R				
	89	3 1/2	8 x 11	6 x 11					DH089CBR205R				
Flat face / Spherical button										BR2			
	70	2 3/4	6 x 11	4 x 10							DH070FBR205R		
	73	2 7/8	6 x 11	4 x 10							DH073FBR205R		
	76	3	8 x 11	6 x 10							DH076FBR205R		
	83	3 1/4	8 x 11	6 x 10							DH083FBR205R		
	89	3 1/2	8 x 11	6 x 11							DH089FBR205R		
Convex face / Ballistic button												BR2	
	70	2 3/4	6 x 11	4 x 10									DH070VBR205S
	73	2 7/8	6 x 11	4 x 10									DH073VBR205S
	76	3	8 x 11	6 x 10									DH076VBR205S
	83	3 1/4	8 x 11	6 x 10									DH083VBR205S
	89	3 1/2	8 x 11	6 x 11	DH089VBR205S								

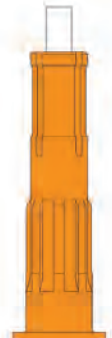
Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		

C32						
Concave face / Ballistic button		89	3 1/2	8 x 11	6 x 11	DH089CC3205S
		92	3 5/8	8 x 11	6 x 11	DH092CC3205S
		95	3 3/4	8 x 11	6 x 11	DH095CC3205S
		98	3 7/8	8 x 11	6 x 11	DH098CC3205S
		102	4	8 x 11	7 x 11	DH102CC3205S
Concave face / Spherical button		89	3 1/2	8 x 11	6 x 11	DH089CC3205R
		92	3 5/8	8 x 11	6 x 11	DH092CC3205R
		95	3 3/4	8 x 11	6 x 11	DH095CC3205R
		98	3 7/8	8 x 11	6 x 11	DH098CC3205R
		102	4	8 x 11	7 x 11	DH102CC3205R
Flat face / Spherical button		89	3 1/2	8 x 11	6 x 11	DH089FC3205R
		92	3 5/8	8 x 11	6 x 11	DH092FC3205R
		95	3 3/4	8 x 11	6 x 11	DH095FC3205R
		98	3 7/8	8 x 11	6 x 11	DH098FC3205R
		102	4	8 x 11	7 x 11	DH102FC3205R
Convex face / Ballistic button		89	3 1/2	8 x 11	6 x 11	DH089VC3205S
		92	3 5/8	8 x 11	6 x 11	DH092VC3205S
		95	3 3/4	8 x 11	6 x 11	DH095VC3205S
		98	3 7/8	8 x 11	6 x 11	DH098VC3205S
		102	4	8 x 11	7 x 11	DH102VC3205S

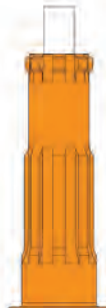
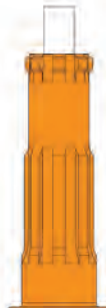
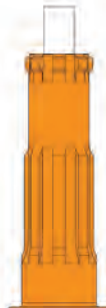
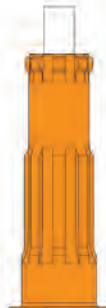
BR3						
Concave face / Ballistic button		89	3 1/2	8 x 11	6 x 11	DH089CBR305S
		92	3 5/8	8 x 11	6 x 11	DH092CBR305S
		95	3 3/4	8 x 11	6 x 11	DH095CBR305S
		98	3 7/8	8 x 11	6 x 11	DH098CBR305S
		102	4	8 x 11	7 x 11	DH102CBR305S
Concave face / Spherical button		89	3 1/2	8 x 11	6 x 11	DH089CBR305R
		92	3 5/8	8 x 11	6 x 11	DH092CBR305R
		95	3 3/4	8 x 11	6 x 11	DH095CBR305R
		98	3 7/8	8 x 11	6 x 11	DH098CBR305R
		102	4	8 x 11	7 x 11	DH102CBR305R
Flat face / Spherical button		89	3 1/2	8 x 11	6 x 11	DH089FBR305R
		92	3 5/8	8 x 11	6 x 11	DH092FBR305R
		95	3 3/4	8 x 11	6 x 11	DH095FBR305R
		98	3 7/8	8 x 11	6 x 11	DH098FBR305R
		102	4	8 x 11	7 x 11	DH102FBR305R
Convex face / Ballistic button		89	3 1/2	8 x 11	6 x 11	DH089VBR305S
		92	3 5/8	8 x 11	6 x 11	DH092VBR305S
		95	3 3/4	8 x 11	6 x 11	DH095VBR305S
		98	3 7/8	8 x 11	6 x 11	DH098VBR305S
		102	4	8 x 11	7 x 11	DH102VBR305S

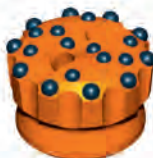
Head design	Diameter		Buttons (mm)		Part No.	Shank
			Gauge	Front		
	mm	inch	No x Size	No x Size		
M33						
Concave face / Ballistic button						M33 
	89	3 1/2	8 x 11	6 x 11	DH089CM3305S	
	92	3 5/8	8 x 11	6 x 11	DH092CM3305S	
	95	3 3/4	8 x 11	6 x 11	DH095CM3305S	
	98	3 7/8	8 x 11	6 x 11	DH098CM3305S	
	102	4	8 x 11	7 x 11	DH102CM3305S	
Concave face / Spherical button						
	89	3 1/2	8 x 11	6 x 11	DH089CM3305R	
	92	3 5/8	8 x 11	6 x 11	DH092CM3305R	
	95	3 3/4	8 x 11	6 x 11	DH095CM3305R	
	98	3 7/8	8 x 11	6 x 11	DH098CM3305R	
	102	4	8 x 11	7 x 11	DH102CM3305R	
Flat face / Spherical button						
	89	3 1/2	8 x 11	6 x 11	DH089FM3305R	
	92	3 5/8	8 x 11	6 x 11	DH092FM3305R	
	95	3 3/4	8 x 11	6 x 11	DH095FM3305R	
	98	3 7/8	8 x 11	6 x 11	DH098FM3305R	
	102	4	8 x 11	7 x 11	DH102FM3305R	
Convex face / Ballistic button						
	89	3 1/2	8 x 11	6 x 11	DH089VM3305S	
	92	3 5/8	8 x 11	6 x 11	DH092VM3305S	
	95	3 3/4	8 x 11	6 x 11	DH095VM3305S	
	98	3 7/8	8 x 11	6 x 11	DH098VM3305S	
	102	4	8 x 11	7 x 11	DH102VM3305S	

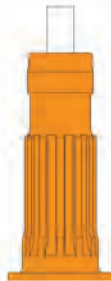
Head design	Diameter		Buttons (mm)		Part No.	Shank
			Gauge	Front		
	mm	inch	No x Size	No x Size		
305						
Concave face / Ballistic button						305 
	89	3 1/2	8 x 11	6 x 11	DH089C30505S	
	95	3 3/4	8 x 11	6 x 11	DH095C30505S	
	98	3 7/8	8 x 11	6 x 11	DH098C30505S	
	102	4	8 x 14	6 x 13	DH102C30505S	
	105	4 1/8	8 x 14	6 x 13	DH105C30505S	
	108	4 1/4	8 x 14	6 x 13	DH108C30505S	
Concave face / Spherical button						
	89	3 1/2	8 x 11	6 x 11	DH089C30505R	
	95	3 3/4	8 x 11	6 x 11	DH095C30505R	
	98	3 7/8	8 x 11	6 x 11	DH098C30505R	
	102	4	8 x 14	6 x 13	DH102C30505R	
	105	4 1/8	8 x 14	6 x 13	DH105C30505R	
	108	4 1/4	8 x 14	6 x 13	DH108C30505R	
Flat face / Spherical button						
	89	3 1/2	8 x 11	6 x 11	DH089F30505R	
	95	3 3/4	8 x 11	6 x 11	DH095F30505R	
	98	3 7/8	8 x 11	6 x 11	DH098F30505R	
	102	4	8 x 14	6 x 13	DH102F30505R	
	105	4 1/8	8 x 14	6 x 13	DH105F30505R	
	108	4 1/4	8 x 14	6 x 13	DH108F30505R	
Convex face / Ballistic button						
	89	3 1/2	8 x 11	6 x 11	DH089V30505S	
	95	3 3/4	8 x 11	6 x 11	DH095V30505S	
	98	3 7/8	8 x 11	6 x 11	DH098V30505S	
	102	4	8 x 14	6 x 13	DH102V30505S	
	105	4 1/8	8 x 14	6 x 13	DH105V30505S	
	108	4 1/4	8 x 14	6 x 13	DH108V30505S	

Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		
340						
Concave face / Ballistic button 	102	4	8 x 14	6 x 13	DH102C34005S	
	105	4 1/8	8 x 14	6 x 13	DH105C34005S	
	108	4 1/4	8 x 14	6 x 13	DH108C34005S	
	115	4 1/2	8 x 14	6 x 13	DH115C34005S	
	121	4 3/4	8 x 14	7 x 13	DH121C34005S	
	127	5	8 x 16	7 x 14	DH127C34005S	
	130	5 1/8	8 x 16	7 x 14	DH130C34005S	
Concave face / Spherical button 	102	4	8 x 14	6 x 13	DH102C34005R	
	105	4 1/8	8 x 14	6 x 13	DH105C34005R	
	108	4 1/4	8 x 14	6 x 13	DH108C34005R	
	115	4 1/2	8 x 14	6 x 13	DH115C34005R	
	121	4 3/4	8 x 14	7 x 13	DH121C34005R	
	127	5	8 x 16	7 x 14	DH127C34005R	
	130	5 1/8	8 x 16	7 x 14	DH130C34005R	
Flat face / Spherical button 	102	4	8 x 14	6 x 13	DH102F34005R	
	105	4 1/8	8 x 14	6 x 13	DH105F34005R	
	108	4 1/4	8 x 14	6 x 13	DH108F34005R	
	115	4 1/2	8 x 14	6 x 13	DH115F34005R	
	121	4 3/4	8 x 14	7 x 13	DH121F34005R	
	127	5	8 x 16	7 x 14	DH127F34005R	
	130	5 1/8	8 x 16	7 x 14	DH130F34005R	
Convex face / Ballistic button 	102	4	8 x 14	6 x 13	DH102V34005S	
	105	4 1/8	8 x 14	6 x 13	DH105V34005S	
	108	4 1/4	8 x 14	6 x 13	DH108V34005S	
	115	4 1/2	8 x 14	6 x 13	DH115V34005S	
	121	4 3/4	8 x 14	7 x 13	DH121V34005S	
	127	5	8 x 16	7 x 14	DH127V34005S	
	130	5 1/8	8 x 16	7 x 14	DH130V34005S	
341						
Concave face / Ballistic button 	102	4	8 x 14	6 x 13	DH102C34105S	
	105	4 1/8	8 x 14	6 x 13	DH105C34105S	
	108	4 1/4	8 x 14	6 x 13	DH108C34105S	
	115	4 1/2	8 x 14	6 x 13	DH115C34105S	
	121	4 3/4	8 x 14	7 x 13	DH121C34105S	
	127	5	8 x 16	7 x 14	DH127C34105S	
	130	5 1/8	8 x 16	7 x 14	DH130C34105S	
Concave face / Spherical button 	102	4	8 x 14	6 x 13	DH102C34105R	
	105	4 1/8	8 x 14	6 x 13	DH105C34105R	
	108	4 1/4	8 x 14	6 x 13	DH108C34105R	
	115	4 1/2	8 x 14	6 x 13	DH115C34105R	
	121	4 3/4	8 x 14	7 x 13	DH121C34105R	
	127	5	8 x 16	7 x 14	DH127C34105R	
	130	5 1/8	8 x 16	7 x 14	DH130C34105R	
Flat face / Spherical button 	102	4	8 x 14	6 x 13	DH102F34105R	
	105	4 1/8	8 x 14	6 x 13	DH105F34105R	
	108	4 1/4	8 x 14	6 x 13	DH108F34105R	
	115	4 1/2	8 x 14	6 x 13	DH115F34105R	
	121	4 3/4	8 x 14	7 x 13	DH121F34105R	
	127	5	8 x 16	7 x 14	DH127F34105R	
	130	5 1/8	8 x 16	7 x 14	DH130F34105R	
Convex face / Ballistic button 	102	4	8 x 14	6 x 13	DH102V34105S	
	105	4 1/8	8 x 14	6 x 13	DH105V34105S	
	108	4 1/4	8 x 14	6 x 13	DH108V34105S	
	115	4 1/2	8 x 14	6 x 13	DH115V34105S	
	121	4 3/4	8 x 14	7 x 13	DH121V34105S	
	127	5	8 x 16	7 x 14	DH127V34105S	
	130	5 1/8	8 x 16	7 x 14	DH130V34105S	

Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		
C42						
Concave face / Ballistic button 	102	4	8 x 14	6 x 13	DH102CC4205S	C42 
	105	4 1/8	8 x 14	6 x 13	DH105CC4205S	
	108	4 1/4	8 x 14	6 x 13	DH108CC4205S	
	115	4 1/2	8 x 14	6 x 13	DH115CC4205S	
	121	4 3/4	8 x 14	7 x 13	DH121CC4205S	
	127	5	8 x 16	7 x 14	DH127CC4205S	
	130	5 1/8	8 x 16	7 x 14	DH130CC4205S	
Concave face / Spherical button 	102	4	8 x 14	6 x 13	DH102CC4205R	
	105	4 1/8	8 x 14	6 x 13	DH105CC4205R	
	108	4 1/4	8 x 14	6 x 13	DH108CC4205R	
	115	4 1/2	8 x 14	6 x 13	DH115CC4205R	
	121	4 3/4	8 x 14	7 x 13	DH121CC4205R	
	127	5	8 x 16	7 x 14	DH127CC4205R	
	130	5 1/8	8 x 16	7 x 14	DH130CC4205R	
Flat face / Spherical button 	102	4	8 x 14	6 x 13	DH102FC4205R	
	105	4 1/8	8 x 14	6 x 13	DH105FC4205R	
	108	4 1/4	8 x 14	6 x 13	DH108FC4205R	
	115	4 1/2	8 x 14	6 x 13	DH115FC4205R	
	121	4 3/4	8 x 14	7 x 13	DH121FC4205R	
	127	5	8 x 16	7 x 14	DH127FC4205R	
	130	5 1/8	8 x 16	7 x 14	DH130FC4205R	
Convex face / Ballistic button 	102	4	8 x 14	6 x 13	DH102VC4205S	
	105	4 1/8	8 x 14	6 x 13	DH105VC4205S	
	108	4 1/4	8 x 14	6 x 13	DH108VC4205S	
	115	4 1/2	8 x 14	6 x 13	DH115VC4205S	
	121	4 3/4	8 x 14	7 x 13	DH121VC4205S	
	127	5	8 x 16	7 x 14	DH127VC4205S	
	130	5 1/8	8 x 16	7 x 14	DH130VC4205S	
QL4						
Concave face / Ballistic button 	102	4	8 x 14	6 x 13	DH102CQL405S	QL4 
	105	4 1/8	8 x 14	6 x 13	DH105CQL405S	
	108	4 1/4	8 x 14	6 x 13	DH108CQL405S	
	115	4 1/2	8 x 14	6 x 13	DH115CQL405S	
	121	4 3/4	8 x 14	7 x 13	DH121CQL405S	
	127	5	8 x 16	7 x 14	DH127CQL405S	
	130	5 1/8	8 x 16	7 x 14	DH130CQL405S	
Concave face / Spherical button 	102	4	8 x 14	6 x 13	DH102CQL405R	
	105	4 1/8	8 x 14	6 x 13	DH105CQL405R	
	108	4 1/4	8 x 14	6 x 13	DH108CQL405R	
	115	4 1/2	8 x 14	6 x 13	DH115CQL405R	
	121	4 3/4	8 x 14	7 x 13	DH121CQL405R	
	127	5	8 x 16	7 x 14	DH127CQL405R	
	130	5 1/8	8 x 16	7 x 14	DH130CQL405R	
Flat face / Spherical button 	102	4	8 x 14	6 x 13	DH102FQL405R	
	105	4 1/8	8 x 14	6 x 13	DH105FQL405R	
	108	4 1/4	8 x 14	6 x 13	DH108FQL405R	
	115	4 1/2	8 x 14	6 x 13	DH115FQL405R	
	121	4 3/4	8 x 14	7 x 13	DH121FQL405R	
	127	5	8 x 16	7 x 14	DH127FQL405R	
	130	5 1/8	8 x 16	7 x 14	DH130FQL405R	
Convex face / Ballistic button 	102	4	8 x 14	6 x 13	DH102VQL405S	
	105	4 1/8	8 x 14	6 x 13	DH105VQL405S	
	108	4 1/4	8 x 14	6 x 13	DH108VQL405S	
	115	4 1/2	8 x 14	6 x 13	DH115VQL405S	
	121	4 3/4	8 x 14	7 x 13	DH121VQL405S	
	127	5	8 x 16	7 x 14	DH127VQL405S	
	130	5 1/8	8 x 16	7 x 14	DH130VQL405S	

Head design	Diameter		Buttons (mm)		Part No.	Shank							
	mm	inch	Gauge	Front									
			No x Size	No x Size									
M44													
Concave face / Ballistic button						M44							
	102	4	8 x 14	6 x 13			DH102CM4405S						
	105	4 1/8	8 x 14	6 x 13			DH105CM4405S						
	108	4 1/4	8 x 14	6 x 13			DH108CM4405S						
	115	4 1/2	8 x 14	6 x 13			DH115CM4405S						
	121	4 3/4	8 x 14	7 x 13			DH121CM4405S						
	127	5	8 x 16	7 x 14			DH127CM4405S						
	130	5 1/8	8 x 16	7 x 14			DH130CM4405S						
Concave face / Spherical button								M44					
	102	4	8 x 14	6 x 13					DH102CM4405R				
	105	4 1/8	8 x 14	6 x 13					DH105CM4405R				
	108	4 1/4	8 x 14	6 x 13					DH108CM4405R				
	115	4 1/2	8 x 14	6 x 13					DH115CM4405R				
	121	4 3/4	8 x 14	7 x 13					DH121CM4405R				
	127	5	8 x 16	7 x 14					DH127CM4405R				
	130	5 1/8	8 x 16	7 x 14					DH130CM4405R				
Flat face / Spherical button										M44			
	102	4	8 x 14	6 x 13							DH102FM4405R		
	105	4 1/8	8 x 14	6 x 13							DH105FM4405R		
	108	4 1/4	8 x 14	6 x 13							DH108FM4405R		
	115	4 1/2	8 x 14	6 x 13							DH115FM4405R		
	121	4 3/4	8 x 14	7 x 13							DH121FM4405R		
	127	5	8 x 16	7 x 14							DH127FM4405R		
	130	5 1/8	8 x 16	7 x 14							DH130FM4405R		
Convex face / Ballistic button												M44	
	102	4	8 x 14	6 x 13									DH102VM4405S
	105	4 1/8	8 x 14	6 x 13									DH105VM4405S
	108	4 1/4	8 x 14	6 x 13									DH108VM4405S
	115	4 1/2	8 x 14	6 x 13									DH115VM4405S
	121	4 3/4	8 x 14	7 x 13									DH121VM4405S
	127	5	8 x 16	7 x 14									DH127VM4405S
	130	5 1/8	8 x 16	7 x 14	DH130VM4405S								

Head design	Diameter		Buttons (mm)		Part No.	Shank			
	mm	inch	Gauge	Front					
			No x Size	No x Size					
350									
Concave face / Ballistic button						350			
	127	5	8 x 16	7 x 14			DH127C35005S		
	130	5 1/8	8 x 16	7 x 14			DH130C35005S		
	133	5 1/4	8 x 16	8 x 14			DH133C35005S		
	140	5 1/2	8 x 16	8 x 14			DH140C35005S		
	146	5 3/4	8 x 16	8 x 14			DH146C35005S		
	149	5 7/8	8 x 16	8 x 14			DH149C35005S		
	152	6	8 x 16	8 x 16			DH152C35005S		
Concave face / Spherical button									
	127	5	8 x 16	7 x 14				DH127C35005R	
	130	5 1/8	8 x 16	7 x 14				DH130C35005R	
	133	5 1/4	8 x 16	8 x 14				DH133C35005R	
	140	5 1/2	8 x 16	8 x 14				DH140C35005R	
	146	5 3/4	8 x 16	8 x 14				DH146C35005R	
	149	5 7/8	8 x 16	8 x 14				DH149C35005R	
	152	6	8 x 16	8 x 16				DH152C35005R	
Flat face / Spherical button									
	127	5	8 x 16	7 x 14					DH127F35005R
	130	5 1/8	8 x 16	7 x 14					DH130F35005R
	133	5 1/4	8 x 16	8 x 14					DH133F35005R
	140	5 1/2	8 x 16	8 x 14					DH140F35005R
	146	5 3/4	8 x 16	8 x 14					DH146F35005R
	149	5 7/8	8 x 16	8 x 14					DH149F35005R
	152	6	8 x 16	8 x 16					DH152F35005R
Convex face / Ballistic button									
	127	5	8 x 16	7 x 14	DH127V35005S				
	130	5 1/8	8 x 16	7 x 14	DH130V35005S				
	133	5 1/4	8 x 16	8 x 14	DH133V35005S				
	140	5 1/2	8 x 16	8 x 14	DH140V35005S				
	146	5 3/4	8 x 16	8 x 14	DH146V35005S				
	149	5 7/8	8 x 16	8 x 14	DH149V35005S				
	152	6	8 x 16	8 x 16	DH152V35005S				
Kavex face / Spherical button									
	146	5 3/4	10 x 16	10 x 14		DH146K35005R			
	149	5 7/8	10 x 16	10 x 14		DH149K35005R			
	152	6	10 x 16	10 x 14		DH152K35005R			

Head design	Diameter		Buttons (mm)		Part No.	Shank																																			
	mm	inch	Gauge	Front																																					
			No x Size	No x Size																																					
QL5																																									
Concave face / Ballistic button	<table><tr><td>127</td><td>5</td><td>8 x 16</td><td>7 x 14</td><td>DH127CQL505S</td></tr><tr><td>130</td><td>5 1/8</td><td>8 x 16</td><td>7 x 14</td><td>DH130CQL505S</td></tr><tr><td>133</td><td>5 1/4</td><td>8 x 16</td><td>8 x 14</td><td>DH133CQL505S</td></tr><tr><td>140</td><td>5 1/2</td><td>8 x 16</td><td>8 x 14</td><td>DH140CQL505S</td></tr><tr><td>146</td><td>5 3/4</td><td>8 x 16</td><td>8 x 14</td><td>DH146CQL505S</td></tr><tr><td>149</td><td>5 7/8</td><td>8 x 16</td><td>8 x 14</td><td>DH149CQL505S</td></tr><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152CQL505S</td></tr></table>					127	5	8 x 16	7 x 14	DH127CQL505S	130	5 1/8	8 x 16	7 x 14	DH130CQL505S	133	5 1/4	8 x 16	8 x 14	DH133CQL505S	140	5 1/2	8 x 16	8 x 14	DH140CQL505S	146	5 3/4	8 x 16	8 x 14	DH146CQL505S	149	5 7/8	8 x 16	8 x 14	DH149CQL505S	152	6	8 x 16	8 x 16	DH152CQL505S	QL5 
127	5	8 x 16	7 x 14	DH127CQL505S																																					
130	5 1/8	8 x 16	7 x 14	DH130CQL505S																																					
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152	6	8 x 16	8 x 16	DH152CQL505S																																					
																																									
	<table><tr><td>127</td><td>5</td><td>8 x 16</td><td>7 x 14</td><td>DH127CQL505R</td></tr><tr><td>130</td><td>5 1/8</td><td>8 x 16</td><td>7 x 14</td><td>DH130CQL505R</td></tr><tr><td>133</td><td>5 1/4</td><td>8 x 16</td><td>8 x 14</td><td>DH133CQL505R</td></tr><tr><td>140</td><td>5 1/2</td><td>8 x 16</td><td>8 x 14</td><td>DH140CQL505R</td></tr><tr><td>146</td><td>5 3/4</td><td>8 x 16</td><td>8 x 14</td><td>DH146CQL505R</td></tr><tr><td>149</td><td>5 7/8</td><td>8 x 16</td><td>8 x 14</td><td>DH149CQL505R</td></tr><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152CQL505R</td></tr></table>					127	5	8 x 16	7 x 14	DH127CQL505R	130	5 1/8	8 x 16	7 x 14	DH130CQL505R	133	5 1/4	8 x 16	8 x 14	DH133CQL505R	140	5 1/2	8 x 16	8 x 14	DH140CQL505R	146	5 3/4	8 x 16	8 x 14	DH146CQL505R	149	5 7/8	8 x 16	8 x 14	DH149CQL505R	152	6	8 x 16	8 x 16	DH152CQL505R	
	127	5	8 x 16	7 x 14	DH127CQL505R																																				
	130	5 1/8	8 x 16	7 x 14	DH130CQL505R																																				
	133	5 1/4	8 x 16	8 x 14	DH133CQL505R																																				
	140	5 1/2	8 x 16	8 x 14	DH140CQL505R																																				
	146	5 3/4	8 x 16	8 x 14	DH146CQL505R																																				
149	5 7/8	8 x 16	8 x 14	DH149CQL505R																																					
152	6	8 x 16	8 x 16	DH152CQL505R																																					
Concave face / Spherical button																																									
																																									
	<table><tr><td>127</td><td>5</td><td>8 x 16</td><td>7 x 14</td><td>DH127FQL505R</td></tr><tr><td>130</td><td>5 1/8</td><td>8 x 16</td><td>7 x 14</td><td>DH130FQL505R</td></tr><tr><td>133</td><td>5 1/4</td><td>8 x 16</td><td>8 x 14</td><td>DH133FQL505R</td></tr><tr><td>140</td><td>5 1/2</td><td>8 x 16</td><td>8 x 14</td><td>DH140FQL505R</td></tr><tr><td>146</td><td>5 3/4</td><td>8 x 16</td><td>8 x 14</td><td>DH146FQL505R</td></tr><tr><td>149</td><td>5 7/8</td><td>8 x 16</td><td>8 x 14</td><td>DH149FQL505R</td></tr><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152FQL505R</td></tr></table>					127	5	8 x 16	7 x 14	DH127FQL505R	130	5 1/8	8 x 16	7 x 14	DH130FQL505R	133	5 1/4	8 x 16	8 x 14	DH133FQL505R	140	5 1/2	8 x 16	8 x 14	DH140FQL505R	146	5 3/4	8 x 16	8 x 14	DH146FQL505R	149	5 7/8	8 x 16	8 x 14	DH149FQL505R	152	6	8 x 16	8 x 16	DH152FQL505R	
	127	5	8 x 16	7 x 14	DH127FQL505R																																				
	130	5 1/8	8 x 16	7 x 14	DH130FQL505R																																				
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152	6	8 x 16	8 x 16	DH152FQL505R																																					
Flat face / Spherical button																																									
																																									
	<table><tr><td>127</td><td>5</td><td>8 x 16</td><td>7 x 14</td><td>DH127VQL505S</td></tr><tr><td>130</td><td>5 1/8</td><td>8 x 16</td><td>7 x 14</td><td>DH130VQL505S</td></tr><tr><td>133</td><td>5 1/4</td><td>8 x 16</td><td>8 x 14</td><td>DH133VQL505S</td></tr><tr><td>140</td><td>5 1/2</td><td>8 x 16</td><td>8 x 14</td><td>DH140VQL505S</td></tr><tr><td>146</td><td>5 3/4</td><td>8 x 16</td><td>8 x 14</td><td>DH146VQL505S</td></tr><tr><td>149</td><td>5 7/8</td><td>8 x 16</td><td>8 x 14</td><td>DH149VQL505S</td></tr><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152VQL505S</td></tr></table>					127	5	8 x 16	7 x 14	DH127VQL505S	130	5 1/8	8 x 16	7 x 14	DH130VQL505S	133	5 1/4	8 x 16	8 x 14	DH133VQL505S	140	5 1/2	8 x 16	8 x 14	DH140VQL505S	146	5 3/4	8 x 16	8 x 14	DH146VQL505S	149	5 7/8	8 x 16	8 x 14	DH149VQL505S	152	6	8 x 16	8 x 16	DH152VQL505S	
	127	5	8 x 16	7 x 14	DH127VQL505S																																				
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	133	5 1/4	8 x 16	8 x 14	DH133VQL505S																																				
	140	5 1/2	8 x 16	8 x 14	DH140VQL505S																																				
	146	5 3/4	8 x 16	8 x 14	DH146VQL505S																																				
149	5 7/8	8 x 16	8 x 14	DH149VQL505S																																					
152	6	8 x 16	8 x 16	DH152VQL505S																																					
Convex face / Ballistic button																																									
																																									
	<table><tr><td>127</td><td>5</td><td>8 x 16</td><td>7 x 14</td><td>DH127VQL505S</td></tr><tr><td>130</td><td>5 1/8</td><td>8 x 16</td><td>7 x 14</td><td>DH130VQL505S</td></tr><tr><td>133</td><td>5 1/4</td><td>8 x 16</td><td>8 x 14</td><td>DH133VQL505S</td></tr><tr><td>140</td><td>5 1/2</td><td>8 x 16</td><td>8 x 14</td><td>DH140VQL505S</td></tr><tr><td>146</td><td>5 3/4</td><td>8 x 16</td><td>8 x 14</td><td>DH146VQL505S</td></tr><tr><td>149</td><td>5 7/8</td><td>8 x 16</td><td>8 x 14</td><td>DH149VQL505S</td></tr><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152VQL505S</td></tr></table>					127	5	8 x 16	7 x 14	DH127VQL505S	130	5 1/8	8 x 16	7 x 14	DH130VQL505S	133	5 1/4	8 x 16	8 x 14	DH133VQL505S	140	5 1/2	8 x 16	8 x 14	DH140VQL505S	146	5 3/4	8 x 16	8 x 14	DH146VQL505S	149	5 7/8	8 x 16	8 x 14	DH149VQL505S	152	6	8 x 16	8 x 16	DH152VQL505S	
	127	5	8 x 16	7 x 14	DH127VQL505S																																				
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	133	5 1/4	8 x 16	8 x 14	DH133VQL505S																																				
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	146	5 3/4	8 x 16	8 x 14	DH146VQL505S																																				
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152	6	8 x 16	8 x 16	DH152VQL505S																																					
Kavex face / Spherical button																																									
	<table><tr><td>146</td><td>5 3/4</td><td>10 x 16</td><td>10 x 14</td><td>DH146KQL505R</td></tr><tr><td>149</td><td>5 7/8</td><td>10 x 16</td><td>10 x 14</td><td>DH149KQL505R</td></tr><tr><td>152</td><td>6</td><td>10 x 16</td><td>10 x 14</td><td>DH152KQL505R</td></tr></table>					146	5 3/4	10 x 16	10 x 14	DH146KQL505R	149	5 7/8	10 x 16	10 x 14	DH149KQL505R	152	6	10 x 16	10 x 14	DH152KQL505R																					
	146	5 3/4	10 x 16	10 x 14	DH146KQL505R																																				
	149	5 7/8	10 x 16	10 x 14	DH149KQL505R																																				
152	6	10 x 16	10 x 14	DH152KQL505R																																					

Head design	Diameter		Buttons (mm)		Part No.	Shank					
	mm	inch	Gauge	Front							
			No x Size	No x Size							
M50											
Concave face / Ballistic button						M50					
	127	5	8 x 16	7 x 14			DH127CM5005S				
	130	5 1/8	8 x 16	7 x 14			DH130CM5005S				
	133	5 1/4	8 x 16	8 x 14			DH133CM5005S				
	140	5 1/2	8 x 16	8 x 14			DH140CM5005S				
	146	5 3/4	8 x 16	8 x 14			DH146CM5005S				
	149	5 7/8	8 x 16	8 x 14			DH149CM5005S				
	152	6	8 x 16	8 x 16			DH152CM5005S				
Concave face / Spherical button								M50			
	127	5	8 x 16	7 x 14					DH127CM5005R		
	130	5 1/8	8 x 16	7 x 14					DH130CM5005R		
	133	5 1/4	8 x 16	8 x 14					DH133CM5005R		
	140	5 1/2	8 x 16	8 x 14					DH140CM5005R		
	146	5 3/4	8 x 16	8 x 14					DH146CM5005R		
	149	5 7/8	8 x 16	8 x 14					DH149CM5005R		
	152	6	8 x 16	8 x 16					DH152CM5005R		
Flat face / Spherical button										M50	
	127	5	8 x 16	7 x 14							DH127FM5005R
	130	5 1/8	8 x 16	7 x 14							DH130FM5005R
	133	5 1/4	8 x 16	8 x 14							DH133FM5005R
	140	5 1/2	8 x 16	8 x 14							DH140FM5005R
	146	5 3/4	8 x 16	8 x 14							DH146FM5005R
	149	5 7/8	8 x 16	8 x 14							DH149FM5005R
	152	6	8 x 16	8 x 16							DH152FM5005R
Convex face / Ballistic button											
	127	5	8 x 16	7 x 14	DH127VM5005S						
	130	5 1/8	8 x 16	7 x 14	DH130VM5005S						
	133	5 1/4	8 x 16	8 x 14	DH133VM5005S						
	140	5 1/2	8 x 16	8 x 14	DH140VM5005S						
	146	5 3/4	8 x 16	8 x 14	DH146VM5005S						
	149	5 7/8	8 x 16	8 x 14	DH149VM5005S						
	152	6	8 x 16	8 x 16	DH152VM5005S						
Kavex face / Spherical button						M50					
	146	5 3/4	10 x 16	10 x 14			DH146KM5005R				
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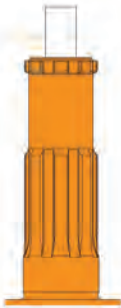
Head design	Diameter		Buttons (mm)		Part No.	Shank					
	mm	inch	Gauge	Front							
			No x Size	No x Size							
431											
Concave face / Ballistic button						431					
	127	5	8 x 16	7 x 14			DH127C43105S				
	130	5 1/8	8 x 16	7 x 14			DH130C43105S				
	133	5 1/4	8 x 16	8 x 14			DH133C43105S				
	140	5 1/2	8 x 16	8 x 14			DH140C43105S				
	146	5 3/4	8 x 16	8 x 14			DH146C43105S				
	149	5 7/8	8 x 16	8 x 14			DH149C43105S				
	152	6	8 x 16	8 x 16			DH152C43105S				
Concave face / Spherical button								431			
	127	5	8 x 16	7 x 14					DH127C43105R		
	130	5 1/8	8 x 16	7 x 14					DH130C43105R		
	133	5 1/4	8 x 16	8 x 14					DH133C43105R		
	140	5 1/2	8 x 16	8 x 14					DH140C43105R		
	146	5 3/4	8 x 16	8 x 14					DH146C43105R		
	149	5 7/8	8 x 16	8 x 14					DH149C43105R		
	152	6	8 x 16	8 x 16					DH152C43105R		
Flat face / Spherical button										431	
	127	5	8 x 16	7 x 14							DH127F43105R
	130	5 1/8	8 x 16	7 x 14							DH130F43105R
	133	5 1/4	8 x 16	8 x 14							DH133F43105R
	140	5 1/2	8 x 16	8 x 14							DH140F43105R
	146	5 3/4	8 x 16	8 x 14							DH146F43105R
	149	5 7/8	8 x 16	8 x 14							DH149F43105R
	152	6	8 x 16	8 x 16							DH152F43105R
Convex face / Ballistic button											
	127	5	8 x 16	7 x 14	DH127V43105S						
	130	5 1/8	8 x 16	7 x 14	DH130V43105S						
	133	5 1/4	8 x 16	8 x 14	DH133V43105S						
	140	5 1/2	8 x 16	8 x 14	DH140V43105S						
	146	5 3/4	8 x 16	8 x 14	DH146V43105S						
	149	5 7/8	8 x 16	8 x 14	DH149V43105S						
	152	6	8 x 16	8 x 16	DH152V43105S						
Kavex face / Spherical button						431					
	146	5 3/4	10 x 16	10 x 14			DH146K43105R				
	149	5 7/8	10 x 16	10 x 14			DH149K43105R				
	152	6	10 x 16	10 x 14			DH152K43105R				

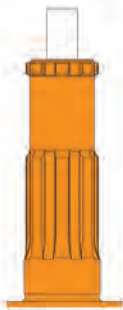
Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		

360					
Concave face / Ballistic button					
	152	6	8 x 16	8 x 16	DH152C36005S
	155	6 1/8	8 x 16	8 x 16	DH155C36005S
	159	6 1/4	8 x 16	8 x 16	DH159C36005S
	165	6 1/2	8 x 16	8 x 16	DH165C36005S
	172	6 3/4	8 x 16	9 x 15	DH172C36005S
	178	7	8 x 16	9 x 16	DH178C36005S
	190	7 1/2	10 x 16	14 x 16	DH190C36005S
	203	8	10 x 16	16 x 16	DH203C36005S
Concave face / Spherical button					
	152	6	8 x 16	8 x 16	DH152C36005R
	155	6 1/8	8 x 16	8 x 16	DH155C36005R
	159	6 1/4	8 x 16	8 x 16	DH159C36005R
	165	6 1/2	8 x 16	8 x 16	DH165C36005R
	172	6 3/4	8 x 16	9 x 15	DH172C36005R
	178	7	8 x 16	9 x 16	DH178C36005R
	190	7 1/2	10 x 16	14 x 16	DH190C36005R
	203	8	10 x 16	16 x 16	DH203C36005R
Flat face / Spherical button					
	152	6	8 x 16	8 x 16	DH152F36005R
	155	6 1/8	8 x 16	8 x 16	DH155F36005R
	159	6 1/4	8 x 16	8 x 16	DH159F36005R
	165	6 1/2	8 x 16	8 x 16	DH165F36005R
	172	6 3/4	8 x 16	9 x 15	DH172F36005R
	178	7	8 x 16	9 x 16	DH178F36005R
	190	7 1/2	10 x 16	14 x 16	DH190F36005R
	203	8	10 x 16	16 x 16	DH203F36005R
Convex face / Ballistic button					
	152	6	8 x 16	8 x 16	DH152V36005S
	155	6 1/8	8 x 16	8 x 16	DH155V36005S
	159	6 1/4	8 x 16	8 x 16	DH159V36005S
	165	6 1/2	8 x 16	8 x 16	DH165V36005S
	172	6 3/4	8 x 16	9 x 15	DH172V36005S
	178	7	8 x 16	9 x 16	DH178V36005S
	190	7 1/2	10 x 16	14 x 16	DH190V36005S
	203	8	10 x 16	16 x 16	DH203V36005S
Kavex face / Spherical button					
	152	6	10 x 16	10 x 16	DH152K36005R
	155	6 1/8	10 x 16	10 x 16	DH155K36005R
	159	6 1/4	10 x 16	10 x 16	DH159K36005R
	165	6 1/2	10 x 16	10 x 16	DH165K36005R
	172	6 3/4	10 x 16	12 x 16	DH172K36005R
	178	7	10 x 16	12 x 16	DH178K36005R
	190	7 1/2	12 x 16	14 x 16	DH190K36005R
	203	8	12 x 16	16 x 16	DH203K36005R

360



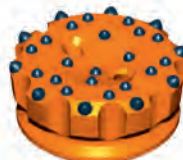
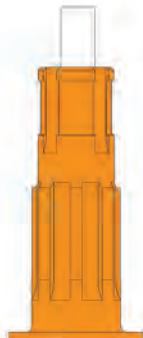
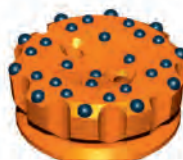
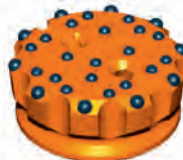
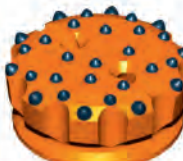
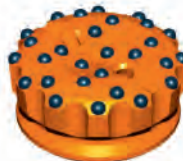
Head design	Diameter		Buttons (mm)		Part No.	Shank																																								
			Gauge	Front																																										
	mm	inch	No x Size	No x Size																																										
QL6																																														
Concave face / Ballistic button	<table><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152CQL605S</td></tr><tr><td>155</td><td>6 1/8</td><td>8 x 16</td><td>8 x 16</td><td>DH155CQL605S</td></tr><tr><td>159</td><td>6 1/4</td><td>8 x 16</td><td>8 x 16</td><td>DH159CQL605S</td></tr><tr><td>165</td><td>6 1/2</td><td>8 x 16</td><td>8 x 16</td><td>DH165CQL605S</td></tr><tr><td>172</td><td>6 3/4</td><td>8 x 16</td><td>9 x 15</td><td>DH172CQL605S</td></tr><tr><td>178</td><td>7</td><td>8 x 16</td><td>9 x 16</td><td>DH178CQL605S</td></tr><tr><td>190</td><td>7 1/2</td><td>10 x 16</td><td>14 x 16</td><td>DH190CQL605S</td></tr><tr><td>203</td><td>8</td><td>10 x 16</td><td>16 x 16</td><td>DH203CQL605S</td></tr></table>					152	6	8 x 16	8 x 16	DH152CQL605S	155	6 1/8	8 x 16	8 x 16	DH155CQL605S	159	6 1/4	8 x 16	8 x 16	DH159CQL605S	165	6 1/2	8 x 16	8 x 16	DH165CQL605S	172	6 3/4	8 x 16	9 x 15	DH172CQL605S	178	7	8 x 16	9 x 16	DH178CQL605S	190	7 1/2	10 x 16	14 x 16	DH190CQL605S	203	8	10 x 16	16 x 16	DH203CQL605S	QL6 
152	6	8 x 16	8 x 16	DH152CQL605S																																										
155	6 1/8	8 x 16	8 x 16	DH155CQL605S																																										
159	6 1/4	8 x 16	8 x 16	DH159CQL605S																																										
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	<table><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152CQL605R</td></tr><tr><td>155</td><td>6 1/8</td><td>8 x 16</td><td>8 x 16</td><td>DH155CQL605R</td></tr><tr><td>159</td><td>6 1/4</td><td>8 x 16</td><td>8 x 16</td><td>DH159CQL605R</td></tr><tr><td>165</td><td>6 1/2</td><td>8 x 16</td><td>8 x 16</td><td>DH165CQL605R</td></tr><tr><td>172</td><td>6 3/4</td><td>8 x 16</td><td>9 x 15</td><td>DH172CQL605R</td></tr><tr><td>178</td><td>7</td><td>8 x 16</td><td>9 x 16</td><td>DH178CQL605R</td></tr><tr><td>190</td><td>7 1/2</td><td>10 x 16</td><td>14 x 16</td><td>DH190CQL605R</td></tr><tr><td>203</td><td>8</td><td>10 x 16</td><td>16 x 16</td><td>DH203CQL605R</td></tr></table>					152	6	8 x 16	8 x 16	DH152CQL605R	155	6 1/8	8 x 16	8 x 16	DH155CQL605R	159	6 1/4	8 x 16	8 x 16	DH159CQL605R	165	6 1/2	8 x 16	8 x 16	DH165CQL605R	172	6 3/4	8 x 16	9 x 15	DH172CQL605R	178	7	8 x 16	9 x 16	DH178CQL605R	190	7 1/2	10 x 16	14 x 16	DH190CQL605R	203	8	10 x 16	16 x 16	DH203CQL605R	
	152	6	8 x 16	8 x 16	DH152CQL605R																																									
	155	6 1/8	8 x 16	8 x 16	DH155CQL605R																																									
	159	6 1/4	8 x 16	8 x 16	DH159CQL605R																																									
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	172	6 3/4	8 x 16	9 x 15	DH172CQL605R																																									
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203	8	10 x 16	16 x 16	DH203CQL605R																																										
	<table><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152FQL605R</td></tr><tr><td>155</td><td>6 1/8</td><td>8 x 16</td><td>8 x 16</td><td>DH155FQL605R</td></tr><tr><td>159</td><td>6 1/4</td><td>8 x 16</td><td>8 x 16</td><td>DH159FQL605R</td></tr><tr><td>165</td><td>6 1/2</td><td>8 x 16</td><td>8 x 16</td><td>DH165FQL605R</td></tr><tr><td>172</td><td>6 3/4</td><td>8 x 16</td><td>9 x 15</td><td>DH172FQL605R</td></tr><tr><td>178</td><td>7</td><td>8 x 16</td><td>9 x 16</td><td>DH178FQL605R</td></tr><tr><td>190</td><td>7 1/2</td><td>10 x 16</td><td>14 x 16</td><td>DH190FQL605R</td></tr><tr><td>203</td><td>8</td><td>10 x 16</td><td>16 x 16</td><td>DH203FQL605R</td></tr></table>					152	6	8 x 16	8 x 16	DH152FQL605R	155	6 1/8	8 x 16	8 x 16	DH155FQL605R	159	6 1/4	8 x 16	8 x 16	DH159FQL605R	165	6 1/2	8 x 16	8 x 16	DH165FQL605R	172	6 3/4	8 x 16	9 x 15	DH172FQL605R	178	7	8 x 16	9 x 16	DH178FQL605R	190	7 1/2	10 x 16	14 x 16	DH190FQL605R	203	8	10 x 16	16 x 16	DH203FQL605R	
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	152	6	8 x 16	8 x 16	DH152FQL605R																																									
	155	6 1/8	8 x 16	8 x 16	DH155FQL605R																																									
	159	6 1/4	8 x 16	8 x 16	DH159FQL605R																																									
	165	6 1/2	8 x 16	8 x 16	DH165FQL605R																																									
	172	6 3/4	8 x 16	9 x 15	DH172FQL605R																																									
	178	7	8 x 16	9 x 16	DH178FQL605R																																									
	190	7 1/2	10 x 16	14 x 16	DH190FQL605R																																									
203	8	10 x 16	16 x 16	DH203FQL605R																																										
	<table><tr><td>152</td><td>6</td><td>8 x 16</td><td>8 x 16</td><td>DH152VQL605S</td></tr><tr><td>155</td><td>6 1/8</td><td>8 x 16</td><td>8 x 16</td><td>DH155VQL605S</td></tr><tr><td>159</td><td>6 1/4</td><td>8 x 16</td><td>8 x 16</td><td>DH159VQL605S</td></tr><tr><td>165</td><td>6 1/2</td><td>8 x 16</td><td>8 x 16</td><td>DH165VQL605S</td></tr><tr><td>172</td><td>6 3/4</td><td>8 x 16</td><td>9 x 15</td><td>DH172VQL605S</td></tr><tr><td>178</td><td>7</td><td>8 x 16</td><td>9 x 16</td><td>DH178VQL605S</td></tr><tr><td>190</td><td>7 1/2</td><td>10 x 16</td><td>14 x 16</td><td>DH190VQL605S</td></tr><tr><td>203</td><td>8</td><td>10 x 16</td><td>16 x 16</td><td>DH203VQL605S</td></tr></table>					152	6	8 x 16	8 x 16	DH152VQL605S	155	6 1/8	8 x 16	8 x 16	DH155VQL605S	159	6 1/4	8 x 16	8 x 16	DH159VQL605S	165	6 1/2	8 x 16	8 x 16	DH165VQL605S	172	6 3/4	8 x 16	9 x 15	DH172VQL605S	178	7	8 x 16	9 x 16	DH178VQL605S	190	7 1/2	10 x 16	14 x 16	DH190VQL605S	203	8	10 x 16	16 x 16	DH203VQL605S	
	152	6	8 x 16	8 x 16	DH152VQL605S																																									
	155	6 1/8	8 x 16	8 x 16	DH155VQL605S																																									
	159	6 1/4	8 x 16	8 x 16	DH159VQL605S																																									
	165	6 1/2	8 x 16	8 x 16	DH165VQL605S																																									
	172	6 3/4	8 x 16	9 x 15	DH172VQL605S																																									
	178	7	8 x 16	9 x 16	DH178VQL605S																																									
	190	7 1/2	10 x 16	14 x 16	DH190VQL605S																																									
203	8	10 x 16	16 x 16	DH203VQL605S																																										
	<table><tr><td>152</td><td>6</td><td>10 x 16</td><td>10 x 16</td><td>DH152KQL605R</td></tr><tr><td>155</td><td>6 1/8</td><td>10 x 16</td><td>10 x 16</td><td>DH155KQL605R</td></tr><tr><td>159</td><td>6 1/4</td><td>10 x 16</td><td>10 x 16</td><td>DH159KQL605R</td></tr><tr><td>165</td><td>6 1/2</td><td>10 x 16</td><td>10 x 16</td><td>DH165KQL605R</td></tr><tr><td>172</td><td>6 3/4</td><td>10 x 16</td><td>12 x 16</td><td>DH172KQL605R</td></tr><tr><td>178</td><td>7</td><td>10 x 16</td><td>12 x 16</td><td>DH178KQL605R</td></tr><tr><td>190</td><td>7 1/2</td><td>12 x 16</td><td>14 x 16</td><td>DH190KQL605R</td></tr><tr><td>203</td><td>8</td><td>12 x 16</td><td>16 x 16</td><td>DH203KQL605R</td></tr></table>					152	6	10 x 16	10 x 16	DH152KQL605R	155	6 1/8	10 x 16	10 x 16	DH155KQL605R	159	6 1/4	10 x 16	10 x 16	DH159KQL605R	165	6 1/2	10 x 16	10 x 16	DH165KQL605R	172	6 3/4	10 x 16	12 x 16	DH172KQL605R	178	7	10 x 16	12 x 16	DH178KQL605R	190	7 1/2	12 x 16	14 x 16	DH190KQL605R	203	8	12 x 16	16 x 16	DH203KQL605R	
	152	6	10 x 16	10 x 16	DH152KQL605R																																									
	155	6 1/8	10 x 16	10 x 16	DH155KQL605R																																									
	159	6 1/4	10 x 16	10 x 16	DH159KQL605R																																									
	165	6 1/2	10 x 16	10 x 16	DH165KQL605R																																									
	172	6 3/4	10 x 16	12 x 16	DH172KQL605R																																									
	178	7	10 x 16	12 x 16	DH178KQL605R																																									
	190	7 1/2	12 x 16	14 x 16	DH190KQL605R																																									
203	8	12 x 16	16 x 16	DH203KQL605R																																										

Head design	Diameter		Buttons (mm)		Part No.	Shank
			Gauge	Front		
	mm	inch	No x Size	No x Size		
531						
Concave face / Ballistic button						
	152	6	8 x 16	8 x 16	DH152C53105S	
	155	6 1/8	8 x 16	8 x 16	DH155C53105S	
	159	6 1/4	8 x 16	8 x 16	DH159C53105S	
	165	6 1/2	8 x 16	8 x 16	DH165C53105S	
	172	6 3/4	8 x 16	9 x 15	DH172C53105S	
	178	7	8 x 16	9 x 16	DH178C53105S	
	190	7 1/2	10 x 16	14 x 16	DH190C53105S	
	203	8	10 x 16	16 x 16	DH203C53105S	
Concave face / Spherical button						
	152	6	8 x 16	8 x 16	DH152C53105R	
	155	6 1/8	8 x 16	8 x 16	DH155C53105R	
	159	6 1/4	8 x 16	8 x 16	DH159C53105R	
	165	6 1/2	8 x 16	8 x 16	DH165C53105R	
	172	6 3/4	8 x 16	9 x 15	DH172C53105R	
	178	7	8 x 16	9 x 16	DH178C53105R	
	190	7 1/2	10 x 16	14 x 16	DH190C53105R	
	203	8	10 x 16	16 x 16	DH203C53105R	
Flat face / Spherical button						
	152	6	8 x 16	8 x 16	DH152F53105R	
	155	6 1/8	8 x 16	8 x 16	DH155F53105R	
	159	6 1/4	8 x 16	8 x 16	DH159F53105R	
	165	6 1/2	8 x 16	8 x 16	DH165F53105R	
	172	6 3/4	8 x 16	9 x 15	DH172F53105R	
	178	7	8 x 16	9 x 16	DH178F53105R	
	190	7 1/2	10 x 16	14 x 16	DH190F53105R	
	203	8	10 x 16	16 x 16	DH203F53105R	
Convex face / Ballistic button						
	152	6	8 x 16	8 x 16	DH152V53105S	
	155	6 1/8	8 x 16	8 x 16	DH155V53105S	
	159	6 1/4	8 x 16	8 x 16	DH159V53105S	
	165	6 1/2	8 x 16	8 x 16	DH165V53105S	
	172	6 3/4	8 x 16	9 x 15	DH172V53105S	
	178	7	8 x 16	9 x 16	DH178V53105S	
	190	7 1/2	10 x 16	14 x 16	DH190V53105S	
	203	8	10 x 16	16 x 16	DH203V53105S	
Kavex face / Spherical button						
	152	6	10 x 16	10 x 16	DH152K53105R	
	155	6 1/8	10 x 16	10 x 16	DH155K53105R	
	159	6 1/4	10 x 16	10 x 16	DH159K53105R	
	165	6 1/2	10 x 16	10 x 16	DH165K53105R	
	172	6 3/4	10 x 16	12 x 16	DH172K53105R	
	178	7	10 x 16	12 x 16	DH178K53105R	
	190	7 1/2	12 x 16	14 x 16	DH190K53105R	
	203	8	12 x 16	16 x 16	DH203K53105R	

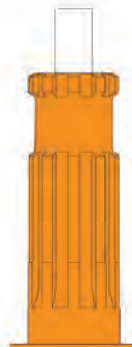
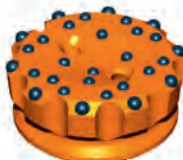
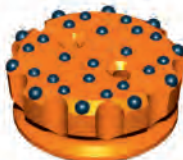
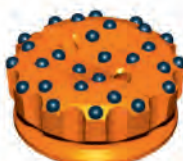
Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		
M60						
Concave face / Ballistic button		152	6	8 x 16	8 x 16	DH152CM6005S
		155	6 1/8	8 x 16	8 x 16	DH155CM6005S
		159	6 1/4	8 x 16	8 x 16	DH159CM6005S
		165	6 1/2	8 x 16	8 x 16	DH165CM6005S
		172	6 3/4	8 x 16	9 x 15	DH172CM6005S
		178	7	8 x 16	9 x 16	DH178CM6005S
		190	7 1/2	10 x 16	14 x 16	DH190CM6005S
		203	8	10 x 16	16 x 16	DH203CM6005S
Concave face / Spherical button		152	6	8 x 16	8 x 16	DH152CM6005R
		155	6 1/8	8 x 16	8 x 16	DH155CM6005R
		159	6 1/4	8 x 16	8 x 16	DH159CM6005R
		165	6 1/2	8 x 16	8 x 16	DH165CM6005R
		172	6 3/4	8 x 16	9 x 15	DH172CM6005R
		178	7	8 x 16	9 x 16	DH178CM6005R
		190	7 1/2	10 x 16	14 x 16	DH190CM6005R
		203	8	10 x 16	16 x 16	DH203CM6005R
Flat face / Spherical button		152	6	8 x 16	8 x 16	DH152FM6005R
		155	6 1/8	8 x 16	8 x 16	DH155FM6005R
		159	6 1/4	8 x 16	8 x 16	DH159FM6005R
		165	6 1/2	8 x 16	8 x 16	DH165FM6005R
		172	6 3/4	8 x 16	9 x 15	DH172FM6005R
		178	7	8 x 16	9 x 16	DH178FM6005R
		190	7 1/2	10 x 16	14 x 16	DH190FM6005R
		203	8	10 x 16	16 x 16	DH203FM6005R
Convex face / Ballistic button		152	6	8 x 16	8 x 16	DH152VM6005S
		155	6 1/8	8 x 16	8 x 16	DH155VM6005S
		159	6 1/4	8 x 16	8 x 16	DH159VM6005S
		165	6 1/2	8 x 16	8 x 16	DH165VM6005S
		172	6 3/4	8 x 16	9 x 15	DH172VM6005S
		178	7	8 x 16	9 x 16	DH178VM6005S
		190	7 1/2	10 x 16	14 x 16	DH190VM6005S
		203	8	10 x 16	16 x 16	DH203VM6005S
Kavex face / Spherical button		152	6	10 x 16	10 x 16	DH152KM6005R
		155	6 1/8	10 x 16	10 x 16	DH155KM6005R
		159	6 1/4	10 x 16	10 x 16	DH159KM6005R
		165	6 1/2	10 x 16	10 x 16	DH165KM6005R
		172	6 3/4	10 x 16	12 x 16	DH172KM6005R
		178	7	10 x 16	12 x 16	DH178KM6005R
		190	7 1/2	12 x 16	14 x 16	DH190KM6005R
		203	8	12 x 16	16 x 16	DH203KM6005R

M60

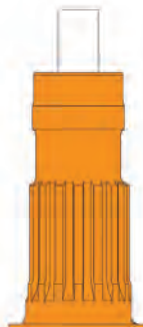
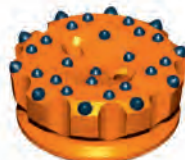
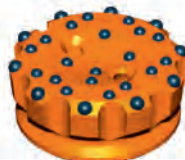
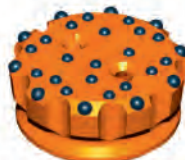
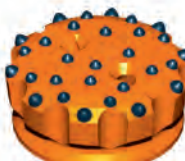
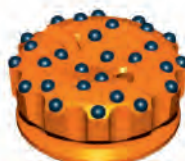
Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		

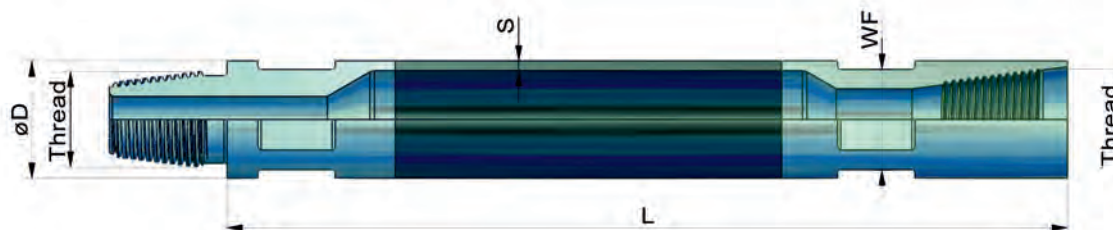
631						
Concave face / Ballistic button						
	200	7 7/8	8 x 19	12 x 16	DH200C63105S	631 
	203	8	8 x 19	12 x 16	DH203C63105S	
	216	8 1/2	8 x 19	14 x 16	DH216C63105S	
	219	8 5/8	8 x 19	14 x 16	DH219C63105S	
	222	8 3/4	8 x 19	14 x 16	DH222C63105S	
	226	8 7/8	8 x 19	14 x 16	DH226C63105S	
	229	9	10 x 19	16 x 16	DH229C63105S	
	241	9 1/2	10 x 19	20 x 16	DH241C63105S	
	251	9 7/8	10 x 19	20 x 16	DH251C63105S	
	254	10	10 x 19	20 x 16	DH254C63105S	
	267	10 1/2	12 x 19	24 x 16	DH267C63105S	
	279	11	12 x 19	24 x 16	DH279C63105S	
Concave face / Spherical button						
	200	7 7/8	8 x 19	12 x 16	DH200C63105R	
	203	8	8 x 19	12 x 16	DH203C63105R	
	216	8 1/2	8 x 19	14 x 16	DH216C63105R	
	219	8 5/8	8 x 19	14 x 16	DH219C63105R	
	222	8 3/4	8 x 19	14 x 16	DH222C63105R	
	226	8 7/8	8 x 19	14 x 16	DH226C63105R	
	229	9	10 x 19	16 x 16	DH229C63105R	
	241	9 1/2	10 x 19	20 x 16	DH241C63105R	
	251	9 7/8	10 x 19	20 x 16	DH251C63105R	
	254	10	10 x 19	20 x 16	DH254C63105R	
	267	10 1/2	12 x 19	24 x 16	DH267C63105R	
	279	11	12 x 19	24 x 16	DH279C63105R	
Flat face / Spherical button						
	203	8	8 x 19	12 x 16	DH203F63105R	
	216	8 1/2	8 x 19	14 x 16	DH216F63105R	
	222	8 3/4	8 x 19	14 x 16	DH222F63105R	
	229	9	8 x 19	16 x 16	DH229F63105R	
Convex face / Ballistic button						
	203	8	8 x 19	12 x 16	DH203V63105S	
	216	8 1/2	8 x 19	14 x 16	DH216V63105S	
	222	8 3/4	8 x 19	14 x 16	DH222V63105S	
	229	9	8 x 19	16 x 16	DH229V63105S	
Kavex face / Spherical button						
	203	8	10 x 19	13 x 19	DH203K63105R	
	216	8 1/2	10 x 19	13 x 19	DH216K63105R	
	222	8 3/4	10 x 19	14 x 19	DH222K63105R	
	229	9	12 x 19	16 x 19	DH229K63105R	

Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		

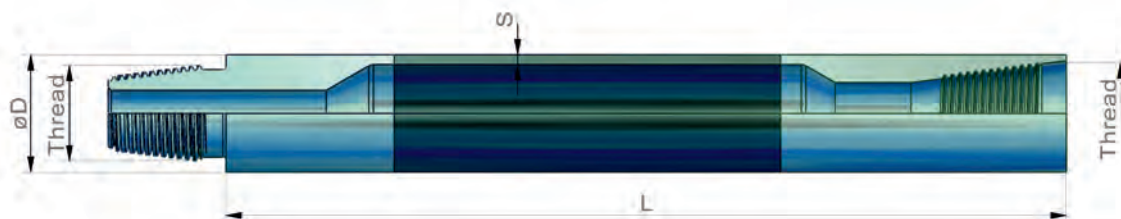
380						
Concave face / Ballistic button					380 	
	200	7 7/8	8 x 19	12 x 16		DH200C38005S
	203	8	8 x 19	12 x 16		DH203C38005S
	216	8 1/2	8 x 19	14 x 16		DH216C38005S
	219	8 5/8	8 x 19	14 x 16		DH219C38005S
	222	8 3/4	8 x 19	14 x 16		DH222C38005S
	226	8 7/8	8 x 19	14 x 16		DH226C38005S
	229	9	10 x 19	16 x 16		DH229C38005S
	241	9 1/2	10 x 19	20 x 16		DH241C38005S
	251	9 7/8	10 x 19	20 x 16		DH251C38005S
	254	10	10 x 19	20 x 16		DH254C38005S
	267	10 1/2	12 x 19	24 x 16		DH267C38005S
	279	11	12 x 19	24 x 16		DH279C38005S
Concave face / Spherical button						
	200	7 7/8	8 x 19	12 x 16	DH200C38005R	
	203	8	8 x 19	12 x 16	DH203C38005R	
	216	8 1/2	8 x 19	14 x 16	DH216C38005R	
	219	8 5/8	8 x 19	14 x 16	DH219C38005R	
	222	8 3/4	8 x 19	14 x 16	DH222C38005R	
	226	8 7/8	8 x 19	14 x 16	DH226C38005R	
	229	9	10 x 19	16 x 16	DH229C38005R	
	241	9 1/2	10 x 19	20 x 16	DH241C38005R	
	251	9 7/8	10 x 19	20 x 16	DH251C38005R	
	254	10	10 x 19	20 x 16	DH254C38005R	
	267	10 1/2	12 x 19	24 x 16	DH267C38005R	
	279	11	12 x 19	24 x 16	DH279C38005R	
Flat face / Spherical button						
	203	8	8 x 19	12 x 16	DH203F38005R	
	216	8 1/2	8 x 19	14 x 16	DH216F38005R	
	222	8 3/4	8 x 19	14 x 16	DH222F38005R	
	229	9	8 x 19	16 x 16	DH229F38005R	
Convex face / Ballistic button						
	203	8	8 x 19	12 x 16	DH203V38005S	
	216	8 1/2	8 x 19	14 x 16	DH216V38005S	
	222	8 3/4	8 x 19	14 x 16	DH222V38005S	
	229	9	8 x 19	16 x 16	DH229V38005S	
Kavex face / Spherical button						
	203	8	10 x 19	13 x 19	DH203K38005R	
	216	8 1/2	10 x 19	13 x 19	DH216K38005R	
	222	8 3/4	10 x 19	14 x 19	DH222K38005R	
	229	9	12 x 19	16 x 19	DH229K38005R	

Head design	Diameter		Buttons (mm)		Part No.	Shank
	mm	inch	Gauge	Front		
			No x Size	No x Size		

QL8							
Concave face / Ballistic button						QL8	
	200	7 7/8	8 x 19	12 x 16			DH200CQL805S
	203	8	8 x 19	12 x 16			DH203CQL805S
	216	8 1/2	8 x 19	14 x 16			DH216CQL805S
	219	8 5/8	8 x 19	14 x 16			DH219CQL805S
	222	8 3/4	8 x 19	14 x 16			DH222CQL805S
	226	8 7/8	8 x 19	14 x 16			DH226CQL805S
	229	9	10 x 19	16 x 16			DH229CQL805S
	241	9 1/2	10 x 19	20 x 16			DH241CQL805S
	251	9 7/8	10 x 19	20 x 16			DH251CQL805S
	254	10	10 x 19	20 x 16			DH254CQL805S
	267	10 1/2	12 x 19	24 x 16			DH267CQL805S
	279	11	12 x 19	24 x 16			DH279CQL805S
Concave face / Spherical button							
	200	7 7/8	8 x 19	12 x 16	DH200CQL805R		
	203	8	8 x 19	12 x 16	DH203CQL805R		
	216	8 1/2	8 x 19	14 x 16	DH216CQL805R		
	219	8 5/8	8 x 19	14 x 16	DH219CQL805R		
	222	8 3/4	8 x 19	14 x 16	DH222CQL805R		
	226	8 7/8	8 x 19	14 x 16	DH226CQL805R		
	229	9	10 x 19	16 x 16	DH229CQL805R		
	241	9 1/2	10 x 19	20 x 16	DH241CQL805R		
	251	9 7/8	10 x 19	20 x 16	DH251CQL805R		
	254	10	10 x 19	20 x 16	DH254CQL805R		
	267	10 1/2	12 x 19	24 x 16	DH267CQL805R		
	279	11	12 x 19	24 x 16	DH279CQL805R		
Flat face / Spherical button							
	203	8	8 x 19	12 x 16	DH203FQL805R		
	216	8 1/2	8 x 19	14 x 16	DH216FQL805R		
	222	8 3/4	8 x 19	14 x 16	DH222FQL805R		
	229	9	8 x 19	16 x 16	DH229FQL805R		
Convex face / Ballistic button							
	203	8	8 x 19	12 x 16	DH203VQL805S		
	216	8 1/2	8 x 19	14 x 16	DH216VQL805S		
	222	8 3/4	8 x 19	14 x 16	DH222VQL805S		
	229	9	8 x 19	16 x 16	DH229VQL805S		
Kavex face / Spherical button							
	203	8	10 x 19	13 x 19	DH203KQL805R		
	216	8 1/2	10 x 19	13 x 19	DH216KQL805R		
	222	8 3/4	10 x 19	14 x 19	DH222KQL805R		
	229	9	12 x 19	16 x 19	DH229KQL805R		



D		Thread	L			S		WF		Part No.
mm	inch		mm	ft	inch	mm	inch	mm	inch	
2 3/8” API REG										
76	3	2 3/8” API REG	2000	6	6 3/4	4	1/6	65	2 5/9	DHP076040238RE02000
76	3	2 3/8” API REG	3000	9	10	4	1/6	65	2 5/9	DHP076040238RE03000
76	3	2 3/8” API REG	4000	13	1 1/2	4	1/6	65	2 5/9	DHP076040238RE04000
76	3	2 3/8” API REG	3000	9	10	6.3	1/4	65	2 5/9	DHP076063238RE03000
76	3	2 3/8” API REG	4000	13	1 1/2	6.3	1/4	65	2 5/9	DHP076063238RE04000
76	3	2 3/8” API REG	5000	16	4 7/8	6.3	1/4	65	2 5/9	DHP076063238RE05000
76	3	2 3/8” API REG	6000	19	8 1/4	6.3	1/4	65	2 5/9	DHP076063238RE06000
76	3	2 3/8” API REG	4000	13	1 1/2	8.8	11/32	65	2 5/9	DHP076088238RE04000
76	3	2 3/8” API REG	5000	16	4 7/8	8.8	11/32	65	2 5/9	DHP076088238RE05000
76	3	2 3/8” API REG	6000	19	8 1/4	8.8	11/32	65	2 5/9	DHP076088238RE06000
89	3 1/2	2 3/8” API REG	3000	9	10	4.0	1/6	65	2 5/9	DHP089040238RE03000
89	3 1/2	2 3/8” API REG	4000	13	1 1/2	4.0	1/6	65	2 5/9	DHP089040238RE04000
89	3 1/2	2 3/8” API REG	5000	16	4 7/8	4.0	1/6	65	2 5/9	DHP089040238RE05000
89	3 1/2	2 3/8” API REG	3000	9	10	6.3	1/4	65	2 5/9	DHP089063238RE03000
89	3 1/2	2 3/8” API REG	4000	13	1 1/2	6.3	1/4	65	2 5/9	DHP089063238RE04000
89	3 1/2	2 3/8” API REG	5000	16	4 7/8	6.3	1/4	65	2 5/9	DHP089063238RE05000
89	3 1/2	2 3/8” API REG	6000	19	8 1/4	6.3	1/4	65	2 5/9	DHP089063238RE06000
2 3/8” API IF										
89	3 1/2	2 3/8” API IF	3000	9	10	6.3	1/4	65	2 5/9	DHP089063238IF03000
89	3 1/2	2 3/8” API IF	4000	13	1 1/2	6.3	1/4	65	2 5/9	DHP089063238IF04000
89	3 1/2	2 3/8” API IF	5000	16	4 7/8	6.3	1/4	65	2 5/9	DHP089063238IF05000
89	3 1/2	2 3/8” API IF	6000	19	8 1/4	6.3	1/4	65	2 5/9	DHP089063238IF06000
2 7/8” API IF										
114	4 1/2	2 7/8” API IF	4000	13	1 1/2	8.8	11/32	89	3 1/2	DHP114088278IF04000
114	4 1/2	2 7/8” API IF	5000	16	4 7/8	8.8	11/32	89	3 1/2	DHP114088278IF05000
114	4 1/2	2 7/8” API IF	6000	19	4 1/4	8.8	11/32	89	3 1/2	DHP114088278IF06000
3 1/2” API REG										
114	4 1/2	3 1/2” API REG	4000	13	1 1/2	6.3	1/4	89	3 1/2	DHP114063312RE04000
114	4 1/2	3 1/2” API REG	5000	16	4 7/8	6.3	1/4	89	3 1/2	DHP114063312RE05000
114	4 1/2	3 1/2” API REG	6000	19	8 1/4	6.3	1/4	89	3 1/2	DHP114063312RE06000
114	4 1/2	3 1/2” API REG	4000	13	1 1/2	12.5	1/2	89	3 1/2	DHP114125312RE04000
114	4 1/2	3 1/2” API REG	5000	16	4 7/8	12.5	1/2	89	3 1/2	DHP114125312RE05000
114	4 1/2	3 1/2” API REG	6000	19	8 1/4	12.5	1/2	89	3 1/2	DHP114125312RE06000
127	5	3 1/2” API REG	4000	13	1 1/2	8.8	11/32	89	3 1/2	DHP127088312RE04000
127	5	3 1/2” API REG	5000	16	4 7/8	8.8	11/32	89	3 1/2	DHP127088312RE05000
127	5	3 1/2” API REG	6000	19	8 1/4	8.8	11/32	89	3 1/2	DHP127088312RE06000
127	5	3 1/2” API REG	4000	13	1 1/2	12.5	1/2	89	3 1/2	DHP127125312RE04000
127	5	3 1/2” API REG	5000	16	4 7/8	12.5	1/2	89	3 1/2	DHP127125312RE05000
127	5	3 1/2” API REG	6000	19	8 1/4	12.5	1/2	89	3 1/2	DHP127125312RE06000



D		Thread	L			S		Part No.
mm	inch		mm	ft	inch	mm	inch	
2 3/8" API REG								
76	3	2 3/8" API REG	2000	6	6 3/4	4	1/6	DHP076040238RE02001
76	3	2 3/8" API REG	3000	9	10	4	1/6	DHP076040238RE03001
76	3	2 3/8" API REG	4000	13	1 1/2	4	1/6	DHP076040238RE04001
76	3	2 3/8" API REG	3000	9	10	6.3	1/4	DHP076063238RE03001
76	3	2 3/8" API REG	4000	13	1 1/2	6.3	1/4	DHP076063238RE04001
76	3	2 3/8" API REG	5000	16	4 7/8	6.3	1/4	DHP076063238RE05001
76	3	2 3/8" API REG	6000	19	8 1/4	6.3	1/4	DHP076063238RE06001
76	3	2 3/8" API REG	4000	13	1 1/2	8.8	11/32	DHP076088238RE04001
76	3	2 3/8" API REG	5000	16	4 7/8	8.8	11/32	DHP076088238RE05001
76	3	2 3/8" API REG	6000	19	8 1/4	8.8	11/32	DHP076088238RE06001
89	3 1/2	2 3/8" API REG	3000	9	10	4.0	1/6	DHP089040238RE03001
89	3 1/2	2 3/8" API REG	4000	13	1 1/2	4.0	1/6	DHP089040238RE04001
89	3 1/2	2 3/8" API REG	5000	16	4 7/8	4.0	1/6	DHP089040238RE05001
89	3 1/2	2 3/8" API REG	3000	9	10	6.3	1/4	DHP089063238RE03001
89	3 1/2	2 3/8" API REG	4000	13	1 1/2	6.3	1/4	DHP089063238RE04001
89	3 1/2	2 3/8" API REG	5000	16	4 7/8	6.3	1/4	DHP089063238RE05001
89	3 1/2	2 3/8" API REG	6000	19	8 1/4	6.3	1/4	DHP089063238RE06001
2 3/8" API IF								
89	3 1/2	2 3/8" API IF	3000	9	10	6.3	1/4	DHP089063238IF03001
89	3 1/2	2 3/8" API IF	4000	13	1 1/2	6.3	1/4	DHP089063238IF04001
89	3 1/2	2 3/8" API IF	5000	16	4 7/8	6.3	1/4	DHP089063238IF05001
89	3 1/2	2 3/8" API IF	6000	19	8 1/4	6.3	1/4	DHP089063238IF06001
2 7/8" API IF								
114	4 1/2	2 7/8" API IF	4000	13	1 1/2	8.8	11/32	DHP114088278IF04001
114	4 1/2	2 7/8" API IF	5000	16	4 7/8	8.8	11/32	DHP114088278IF05001
114	4 1/2	2 7/8" API IF	6000	19	4 1/4	8.8	11/32	DHP114088278IF06001
3 1/2" API REG								
114	4 1/2	3 1/2" API REG	4000	13	1 1/2	6.3	1/4	DHP114063312RE04001
114	4 1/2	3 1/2" API REG	5000	16	4 7/8	6.3	1/4	DHP114063312RE05001
114	4 1/2	3 1/2" API REG	6000	19	8 1/4	6.3	1/4	DHP114063312RE06001
114	4 1/2	3 1/2" API REG	4000	13	1 1/2	12.5	1/2	DHP114125312RE04001
114	4 1/2	3 1/2" API REG	5000	16	4 7/8	12.5	1/2	DHP114125312RE05001
114	4 1/2	3 1/2" API REG	6000	19	8 1/4	12.5	1/2	DHP114125312RE06001
127	5	3 1/2" API REG	4000	13	1 1/2	8.8	11/32	DHP127088312RE04001
127	5	3 1/2" API REG	5000	16	4 7/8	8.8	11/32	DHP127088312RE05001
127	5	3 1/2" API REG	6000	19	8 1/4	8.8	11/32	DHP127088312RE06001
127	5	3 1/2" API REG	4000	13	1 1/2	12.5	1/2	DHP127125312RE04001
127	5	3 1/2" API REG	5000	16	4 7/8	12.5	1/2	DHP127125312RE05001
127	5	3 1/2" API REG	6000	19	8 1/4	12.5	1/2	DHP127125312RE06001

Thread		D		L		Part No.
A	B	mm	inch	mm	inch	

Pin / Pin

2 3/8" API REG	2 3/8" API REG	76.0	3	210	8 17/64	DHE076238REP238REP2100
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Box / Pin

2 3/8" API REG	2 3/8" API REG	76.0	3	225	8 55/64	DHE076238REB238REP2250
2" API IF	2 3/8" API REG	76.0	3	235	9 1/4	DHE076200IFB238REP2350
2 3/8" API REG	2" API IF	76.0	3	237	9 7/32	DHE076238REB200IFP2370
2 3/8" API REG	2 3/8" API IF	88.0	3 15/32	216	8 1/2	DHE088238REB238IFP2160
3 1/2" API REG	2 3/8" API REG	115.0	4 1/2	236	9 19/64	DHE115312REB238REP2360



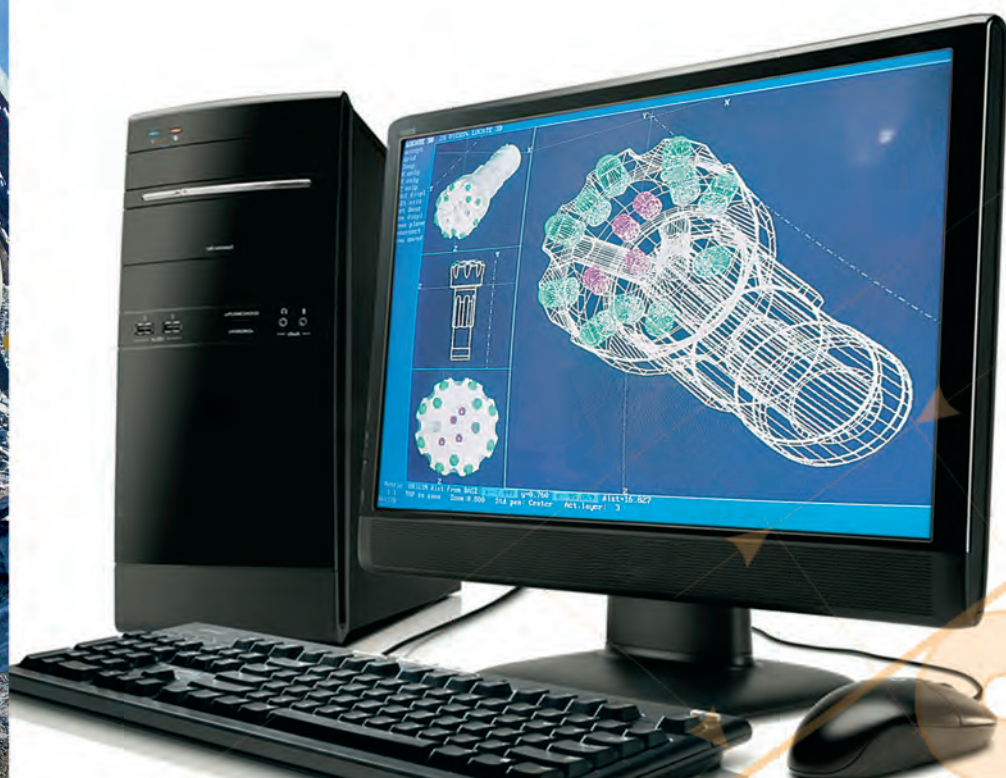
Box / Box

2 3/8" API REG	2" API IF	76.0	3	238	9 3/8	DHE076238REB200IFB2380
2 3/8" API REG	2 3/8" API REG	76.0	3	240	9 29/64	DHE076238REB238REB2400
3 1/2" API REG	2 3/8" API REG	115.0	4 1/2	210	8 17/64	DHE115312REB238REB2100



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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DRILLING TOOLS





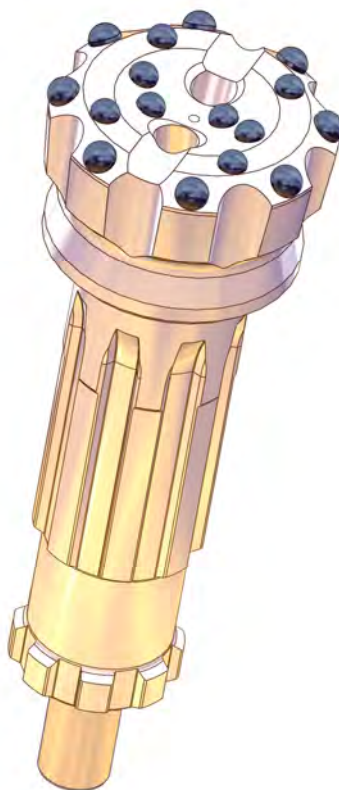
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