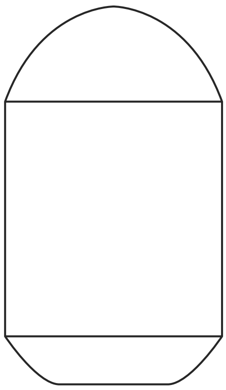
Information & classification
Guides

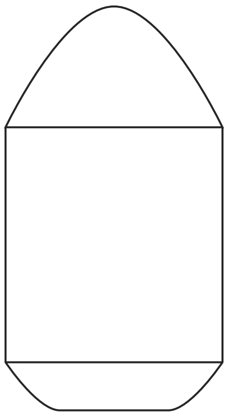
Guide

Carbide profile design



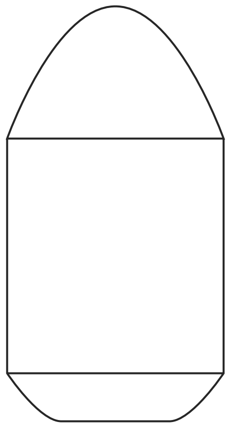
Hemispherical

SEM = Semispherical button
Usually for **very hard rocks**



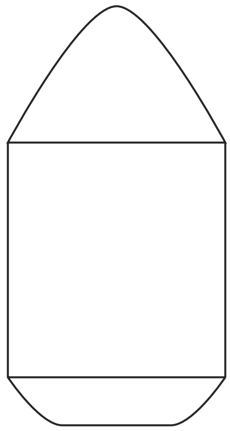
Ballistic

BAL = Ballistic button
Usually for
medium hard rocks



Parabolic/ Semiballistic

BAL = Parabolic button
Usually for
medium hard rocks



Conical/Spike

CON = Conical carbide
on request
Usually for **soft rocks**

Guide of product code

Taper bit (i.e. 30322207-04)

30	32	22	07	04
30: Button bit 31: Chisel bit 32: Cross bit	Head diameter: 32 mm	22: Hex. 22 mm 25: Hex. 25 mm	Buttons	Taper degree: 04: 4° 46′

Thread bit (i.e. 3089T38F14R)

30	89	T38	F	14	D	R	K
30: Button bit 31: Chisel bit 32: Cross bit	Head diameter: 89 mm	Thread: T38	Flushing	Buttons	D: Drop center design	R: Retrac body	KP: Pilot bit KR: Reaming bit KD: Dome bit KC: Cut holes/ Dome bit

Note: Face flushing Face + Side + Flushing Face + Reverse + Flushing

Drop center/Standard skirt

Code: D

Perfect in abrasive formations where there is accelerated button wear or in medium to hard rock when ballistic butons have a tendency to break.

Drop center/Retrac skirt

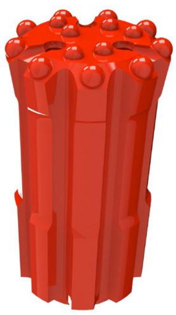
Code: DR

To be used in medium-hard and fissured rock formations, better hole deviation control.

Flat front/Standard skirt

Code: –

Ideal for medium-hard rock when the rock formation causes heavy gauge wear on the bit. Can also be used in very hard and abrasive rock formations.



Flat front/Retrac skirt

Code: R

To be used in the same applications as flat front/spherical buttons/standard skirt when you have also created a hole.

Small hole
Drilling

H22 (7/8")
Taper tools, 6° taper

Button bit

H22

Dimensions D mm	in	Flushing hole (mm) Front No size	Gauge No size	Buttons (mm) Front No size	Gauge No size	Angle	Class	Part no.
32	1 1/4	2×4	1×4	2×7	5×7	40°	–	30322207-06
34	1 11/32	2×4	1×4	2×7	5×7	40°	–	30342207-06
36	1 27/64	2×4.5	1×4.5	2×7	5×8	40°	–	30362207-06
38	1 1/2	2×5	1×4.5	2×7	5×8	40°	–	30382207-06
41	1 5/8	2×5	1×5	2×7	5×9	40°	–	30412207-06

H22

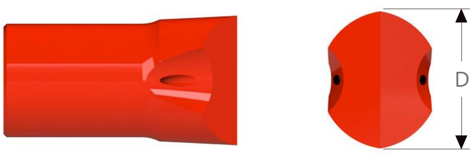
mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
34	1 11/32	2×4	1×4	2×7	6×7	35°	–	30342208-06
36	1 27/64	2×4.5	1×4.5	2×7	6×7	35°	–	30362208-06
38	1 1/2	2×5	1×4.5	2×7	6×8	35°	–	30382208-06
40	1 37/64	2×5	1×5	2×8	6×8	35°	–	30402208-06

H25

mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
36	1 27/64	2×4.5	1×4.5	2×7	5×8	35°	–	30362507-06
38	1 1/2	2×5	1×4.5	2×8	5×8	35°	–	30382507-06
41	1 5/8	2×5	1×5	2×7	5×9	35°	–	30412507-06
43	1 11/16	2×5	1×5	2×8	5×9	35°	–	30432507-06

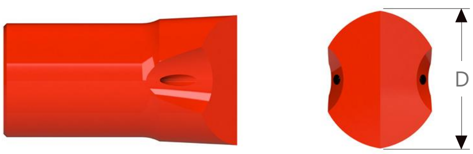
Chisel bit

H22



mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
30	1 3/16	–	2×5	–	–	–	–	313022-06
32	1 1/4	–	2×5	–	–	–	–	313222-06
34	1 11/32	–	2×5	–	–	–	–	313422-06
36	1 27/64	–	2×5	–	–	–	–	313622-06
38	1 1/2	–	2×5.5	–	–	–	–	313822-06
40	1 37/64	–	2×5.5	–	–	–	–	314022-06

H25



mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
30	1 3/16	–	2×5	–	–	–	–	313025-06
32	1 1/4	–	2×5	–	–	–	–	313225-06
34	1 11/32	–	2×5	–	–	–	–	313425-06
36	1 27/64	–	2×5	–	–	–	–	313625-06
38	1 1/2	–	2×5.5	–	–	–	–	313825-06
40	1 37/64	–	2×5.5	–	–	–	–	314025-06

Small hole **Drilling**

H22 (7/8")
Taper tools, 7° taper

Button bit

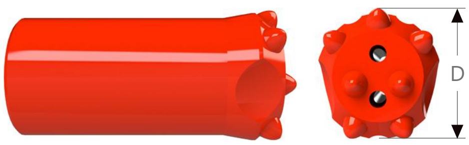
H22

Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
32	1 1/4	2×4	1×4	2×7	5×7	40°	–	30322207-07
34	1 11/32	2×4	1×4	2×7	5×7	40°	–	30342207-07
36	1 13/32	2×4.5	1×4.5	2×7	5×8	40°	–	30362207-07
38	1 1/2	2×5	1×4.5	2×7	5×8	40°	–	30382207-07
41	1 5/8	2×5	1×5	2×7	5×9	40°	–	30412207-07

H22

Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
34	1 11/32	2×4	1×4	2×7	6×7	35°	–	30342208-07
36	1 13/32	2×4.5	1×4.5	2×7	6×7	35°	–	30362208-07
38	1 1/2	2×5	1×4.5	2×7	6×8	35°	–	30382208-07
41	1 5/8	2×5	1×5	2×8	6×8	35°	–	30412208-07

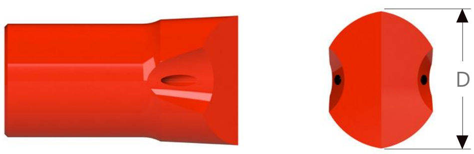
H25



Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
36	1 13/32	2×4.5	1×4.5	2×7	5×8	35°	–	30362507-07
38	1 1/2	2×5	1×4.5	2×8	5×8	35°	–	30382507-07
41	1 5/8	2×5	1×5	2×7	5×9	35°	–	30412507-07
43	1 11/16	2×5	1×5	2×8	5×9	35°	–	30432507-07

Chisel bit

H22



Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
30	1 3/16	–	2×5	–	–	–	–	313022-07
32	1 1/4	–	2×5	–	–	–	–	313222-07
34	1 11/32	–	2×5	–	–	–	–	313422-07
36	1 27/64	–	2×5	–	–	–	–	313622-07
38	1 1/2	–	2×5.5	–	–	–	–	313822-07
40	1 37/64	–	2×5.5	–	–	–	–	314022-07

H25

Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
36	1 13/32	–	2×5	–	–	–	–	313625-07
38	1 1/2	–	2×5.5	–	–	–	–	313825-07
41	1 5/8	–	2×5.5	–	–	–	–	314125-07
43	1 11/16	–	2×5.5	–	–	–	–	314325-07

Small hole
Drilling

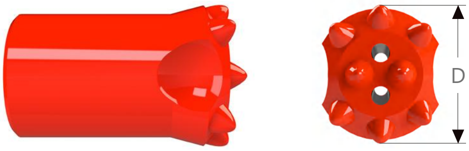
H22 (7/8″)
Taper tools, 11° taper

Button bit

H22

Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
34	1 11/32	1×4.5	2×4.5	2×7	5×7	35°	–	30342207-11
36	1 27/64	1×5	2×5	2×7	5×8	35°	–	30362207-11
38	1 1/2	1×5.5	2×5	2×8	5×8	35°	–	30382207-11
41	1 5/8	1×5.5	2×5.5	2×7	5×9	35°	–	30412207-11

H22



mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
34	1 11/32	1×4.5	2×4.5	2×7	6×7	35°	–	30342208-11
36	1 27/64	1×5	2×5	2×7	6×7	35°	–	30362208-11
38	1 1/2	1×5.5	2×5	2×7	6×8	35°	–	30382208-11
41	1 5/8	1×5.5	2×5.5	2×8	6×8	35°	–	30412208-11

H25

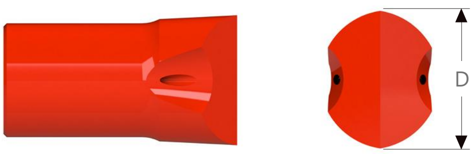
mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
36	1 27/64	2×4	1×4	2×7	5×8	35°	–	30362507-11
38	1 1/2	2×5	1×5	2×8	5×8	35°	–	30382507-11
41	1 5/8	2×5	1×5	2×7	5×9	35°	–	30412507-11
43	1 11/16	2×5	1×5	2×8	5×9	35°	–	30432507-11

Chisel bit

H22

mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
30	1 3/16	–	2×5	–	–	–	–	313022-11
32	1 1/4	–	2×5	–	–	–	–	313222-11
34	1 11/32	–	2×5	–	–	–	–	313422-11
36	1 27/64	–	2×5	–	–	–	–	313622-11
38	1 1/2	–	2×5.5	–	–	–	–	313822-11
40	1 37/64	–	2×5.5	–	–	–	–	314022-11

H25



mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
30	1 3/16	–	2×5	–	–	–	–	313025-11
32	1 1/4	–	2×5	–	–	–	–	313225-11
34	1 11/32	–	2×5	–	–	–	–	313425-11
36	1 27/64	–	2×5	–	–	–	–	313625-11
38	1 1/2	–	2×5.5	–	–	–	–	313825-11
40	1 37/64	–	2×5.5	–	–	–	–	314025-11

Button bit

Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
32	1 1/4	2×4	1×4	2×7	5×7	40°	–	30322207-12
33	1 5/16	2×4	1×4	2×7	5×7	40°	–	30332207-12
35	1 3/8	2×4	1×5	2×7	5×7	40°	–	30352207-12
36	1 13/32	2×4.5	1×5	2×7	5×8	40°	–	30362207-12
38	1 1/2	2×4.5	1×5	2×8	5×8	40°	–	30382207-12
40	1 9/16	2×5	1×5	2×8	5×8	40°	–	30402207-12
32	1 1/4	2×4.5	1×4.5	2×7	6×7	15°, 35°	–	30322208-12
34	1 11/32	2×4.5	1×4.5	2×7	6×7	15°, 35°	–	30342208-12
38	1 1/2	2×5	1×5	2×8	6×8	15°, 35°	–	30382208-12
45	1 3/4	2×5.5	2×4	2×8	6×9	15°, 35°	–	30452208-12
36	1 13/32	2×4.5	1×5	2×7	5×8	35°	–	30362507-12
38	1 1/2	2×4.5	1×5	2×8	5×8	35°	–	30382507-12
41	1 9/16	2×5	1×5	2×7	5×9	35°	–	30412507-12
43	1 11/16	2×5	1×5	2×8	5×9	35°	–	30432507-12

H22

H22

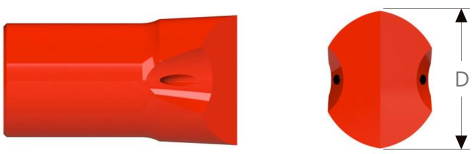
H25

Chisel bit

30	1 3/16	–	2×5	–	–	–	–	313022-12
32	1 1/4	–	2×5	–	–	–	–	313222-12
34	1 11/32	–	2×5	–	–	–	–	313422-12
36	1 27/64	–	2×5	–	–	–	–	313622-12
38	1 1/2	–	2×5.5	–	–	–	–	313822-12
40	1 37/64	–	2×5.5	–	–	–	–	314022-12
30	1 3/16	–	2×5	–	–	–	–	313025-12
32	1 1/4	–	2×5	–	–	–	–	313225-12
34	1 11/32	–	2×5	–	–	–	–	313425-12
36	1 27/64	–	2×5	–	–	–	–	313625-12
38	1 1/2	–	2×5.5	–	–	–	–	313825-12
40	1 37/64	–	2×5.5	–	–	–	–	314025-12

H22

H25



Drifting & tunneling

R25 (1″)
Thread

Button bit

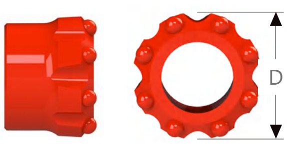
	Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
	mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
	33	1 5/16	1×5	1×5	2×7	5×7	30°	H	3033R2507
	35	1 3/8	1×5	1×5	2×7	5×8	30°	H	3035R2507
	38	1 1/2	1×5	2×5	2×7	5×9	30°	H	3038R2507
	41	1 5/8	1×5	2×5	2×8	5×9	30°	H	3041R2507
	43	1 11/16	1×5	2×5	2×8	5×10	30°	H	3043R2507
	45	1 3/4	1×5.5	2×5.5	2×9	5×11	30°	H	3045R2507
	33	1 5/16	2×4.5	2×4.5	2×7	6×7	30°	S	3033R2508
	41	1 5/8	2×5.5	2×5	2×8	6×9	30°	S	3041R2508
	38	1 1/2	2×5	2×5	2×8	6×8	30°	S	3038R25F08
	43	1 11/16	3×5	–	3×8	6×9	30°	M	3043R2509
	45	1 3/4	3×5	1×5	3×8	6×10	30°	M	3045R2509

Reaming tools

Pilot bit 6° taper

	40	1 37/64	2×5	2×5.5	2×8	4×9	30°	–	3040R2506KP

Reaming bit 6° taper

	76	3	–	–	–	8×11	35°	–	3076R2508KR

Drifting & tunneling

R28 (1 1/8″)
Thread

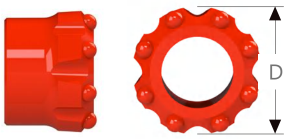
Button bit

Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
38	1 1/2	1×5	2×5	2×7	5×9	30°	H	3038R2807
41	1 5/8	1×5	2×5	2×8	5×9	30°	H	3041R2807
43	1 11/16	1×5	2×5	2×8	5×10	30°	H	3043R2807
45	1 3/4	1×5	2×5	2×9	5×11	30°	H	3045R2807
41	1 5/8	2×5.5	2×5	2×8	6×9	30°	S	3041R2808
43	1 11/16	3×5	–	3×8	6×9	30°	M	3043R2809
45	1 3/4	3×5	1×5	3×8	6×10	30°	M	3045R2809

Reaming tools

Pilot bit 6° taper

Reaming bit 6° taper



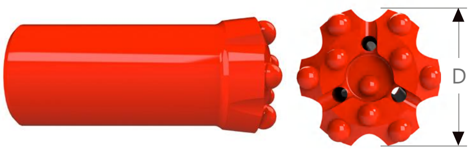
Dome bit

Tool	mm	in	Flushing hole Front No size	Flushing hole Gauge No size	Buttons Front No size	Buttons Gauge No size	Angle	Class	Part no.
Pilot bit 6° taper	40	1 37/64	2×5	2×5.5	2×8	4×9	30°	–	3040R2806KP
Reaming bit 6° taper	76	3	–	–	–	8×11	35°	–	3076R2808KR
Dome bit	76	3	2×9	2×7	1×11	14×11	35°	–	3076R2815KD

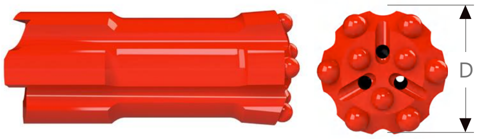
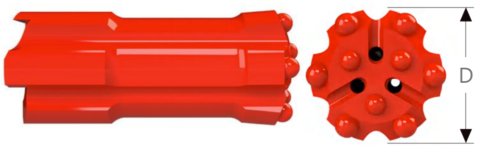
Drifting & tunneling

R32 (1 1/4”)
Thread

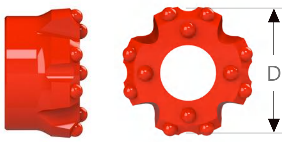
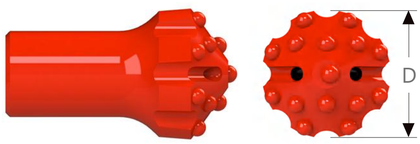
Button bit

	Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
	mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
	45	1 3/4	1×5.5	2×5.5	2×9	5×11	30°	H	3045R3207
	48	1 7/8	2×6	1×5	2×9	5×11	30°	H	3048R3207
	51	2	2×6	1×5.5	2×10	5×11	30°	H	3051R3207
	43	1 11/16	2×5	2×5	2×8	6×9	30°	S	3043R3208
	45	1 3/4	2×5	2×5	2×9	6×10	30°	S	3045R3208
	48	1 7/8	2×5.5	2×5	2×9	6×10	30°	S	3048R3208
	43	1 11/16	3×4	2×5	3×8	6×10	30°	M	3043R3209
	45	1 3/4	3×5	1×5	3×8	6×10	30°	M	3045R3209
	48	1 7/8	3×5	1×5	3×9	6×10	30°	M	3048R3209
	54	2 1/8	3×6	1×5.5	3×10	6×11	35°	M	3054R3209
	45	1 3/4	3×5	1×5	3×8	6×10	30°	M	3045R32F09
	48	1 7/8	3×5	1×5	3×9	6×10	30°	M	3048R32F09
	51	2	3×5.5	1×5.5	3×9	6×10	35°	M	3051R32F09
	54	2 1/8	3×6	1×5.5	3×10	6×11	35°	M	3054R32F09
	57	2 1/4	3×6	1×6	3×10	6×11	35°	M	3057R32F09
	64	2 1/2	3×7	1×6	4×10	6×11	35°	M	3064R3210D
	64	2 1/2	3×7	1×6	3×11	6×12	35°	H	3064R32F09
	76	3	2×9	2×7	6×10	8×11	35°	H	3076R32F14

Button bit

	Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
	mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
	51	2	3×5	1×6	3×9	6×10	30°	M	3051R32F09R
	54	2 1/8	3×6	1×5.5	3×10	6×11	35°	M	3054R32F09R
	57	2 1/4	3×6	1×6	3×10	6×11	35°	M	3057R32F09R
	64	2 1/2	3×7	1×6	4×10	6×11	35°	M	3064R3210DR
	64	2 1/2	3×7	1×6	3×11	6×12	35°	H	3064R32F09R

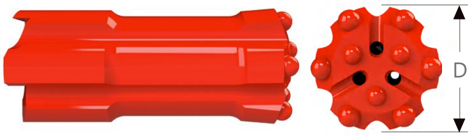
Reaming tools

	mm	in	Front No size	Gauge No size	Front No size	Gauge No size	Angle	Class	Part no.
Pilot bit 12° taper 	41	1 5/8	2×5	2×5.5	2×8	4×9	30°	–	3041R3206KP
Reaming bit 12° taper 	89	3 1/2	–	–	4×10	8×11	35°	–	3089R3212KR
	102	4	–	–	4×12	8×12	35°	–	30102R3212KR
Dome bit 	76	3	2×9	2×7	1×11	14×11	35°		3076R3215KD
	89	3 1/2	2×9	2×8	1×12	14×12	35°	–	3089R3215KD
	102	4	2×9	2×9	1×12	14×12	35°		30102R3215KD

R35 (1 3/8”)
Thread

Button bit

Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
48	1 7/8	1×5.5	2×5.5	2×9	5×11	30°	H	3048R3507
51	2	2×6	1×5	2×9	5×11	30°	H	3051R3507
48	1 7/8	3×5	1×5	3×9	6×10	30°	M	3048R35F09
51	2	3×5.5	1×5.5	3×9	6×10	35°	M	3051R35F09
54	2 1/8	3×6	1×6	3×10	6×11	35°	M	3054R35F09
57	2 1/4	3×7	1×6	3×10	6×11	35°	M	3057R35F09
54	2 1/8	3×6	1×5.5	3×10	6×11	35°	M	3054R35F09R
57	2 1/4	3×6	1×6	3×10	6×11	35°	M	3057R35F09R

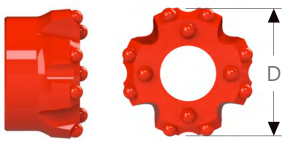


Reaming tools

Pilot bit 12° taper

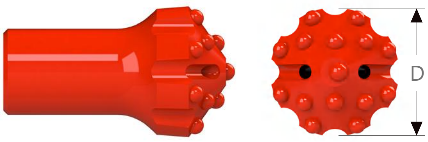
Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
41	1 5/8	2×5	2×5.5	2×8	4×9	30°	–	3041R3506KP

Reaming bit 12° taper



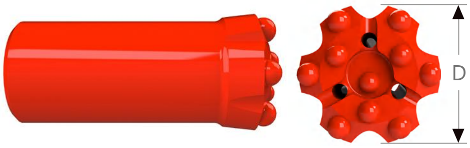
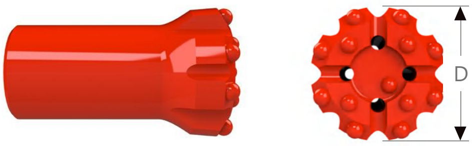
Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
89	3 1/2	–	–	4×10	8×11	35°	–	3089R3512KR
102	4	–	–	4×10	8×11	35°	–	30102R3512KR

Dome bit

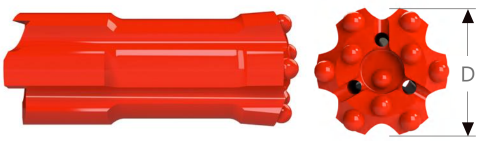
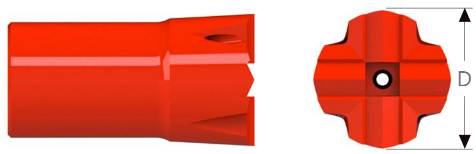


Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
76	3	2×9	2×7	1×11	14×11	35°	–	3076R3515KD
89	3 1/2	2×9	2×8	1×12	14×12	35°	–	3089R3515KD
102	4	2×9	2×9	1×12	14×12	35°	–	30102R3515KD

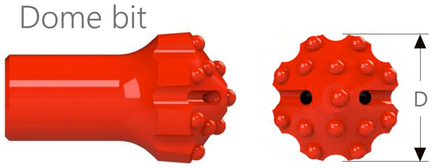
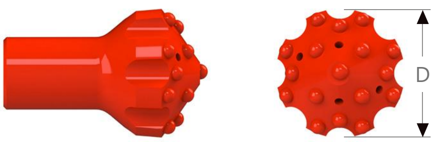
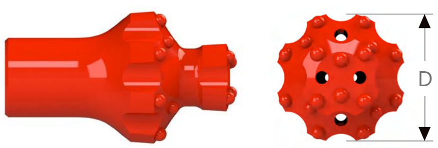
Button bit

Button bit	Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
	64	2 1/2	3×7	1×6	4×10	6×11	35°	M	3064T3810D
	64	2 1/2	3×7	1×6	3×11	6×12	35°	H	3064T38F09
	64	2 1/2	2×9	–	4×10	8×10	35°	H	3064T3812
	70	2 3/4	2×8	2×6	4×11	8×11	35°	H	3070T3812
	76	3	2×9	2×7	4×11	8×12	35°	H	3076T3812
	89	3 1/2	2×13	2×8	5×12	8×13	35°	H	3089T3813
	76	3	2×10	2×7	4×11	8×12	35°	M	3076T38F12
	70	2 3/4	4×8	–	5×10	8×11	30°	M	3070T3813D
	76	3	4×8	–	5×11	8×12	35°	M	3076T3813D
	89	3 1/2	4×9	–	6×12	8×13	35°	M	3089T3814D
	64	2 1/2	3×7	1×6	3×11	6×12	35°	M	3064T38F09R

Bit

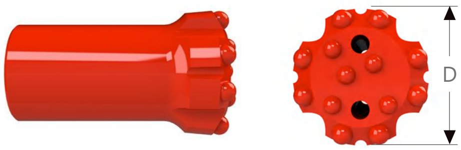
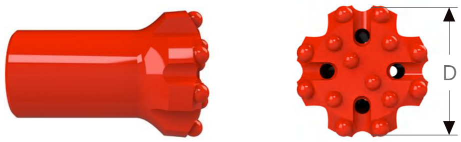
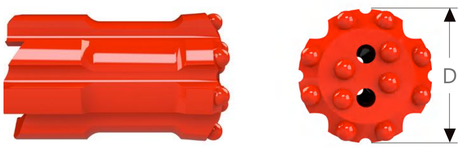
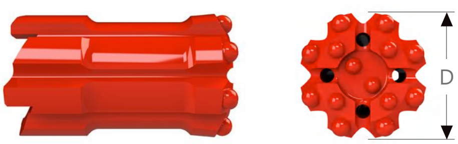
	Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
	64	2 1/2	2×9	2×6	4×10	8×10	30°	M	3064T3812R
	70	2 3/4	2×8	2×6	4×11	8×11	35°	H	3070T3812R
	76	3	2×9	2×7	4×12	8×12	35°	H	3076T3812R
	89	3 1/2	2×11	2×8	6×12	8×13	35°	H	3089T38F14R
	64	2 1/2	3×7	1×6	4×10	6×11	35°	M	3064T3810DR
	70	2 3/4	4×8	–	5×10	8×11	30°	M	3070T3813DR
	76	3	4×8	–	5×11	8×12	35°	M	3076T3813DR
	89	3 1/2	4×10	–	6×12	8×13	35°	M	3089T3814DR
	64	2 1/2	2×7	1×7	–	–	–	–	3264T38
	76	3	2×8	1×8	–	–	–	–	3276T38

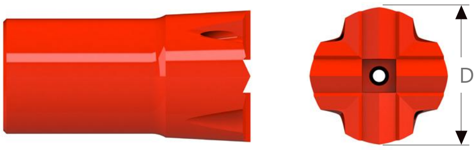
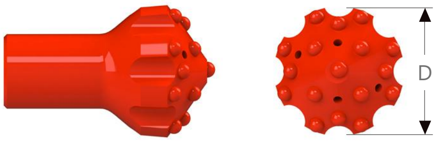
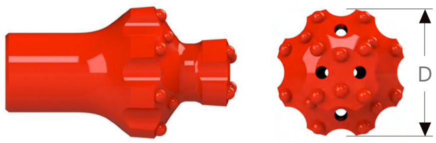
Reaming tools

	Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
Dome bit 	89	3 1/2	2×9	2×8	1×12	14×12	35°	–	3089T3815KD
	102	5	2×9	2×9	1×12	14×12	35°	–	30102T3815KD
Dome bit 	127	5	4×8	2×9	1×14	16×14	35°	–	30127T3817KD
Cut holes/Dome bit 	127	5	2×13	2×11	10×13	8×14	35°	–	30127T3818KC

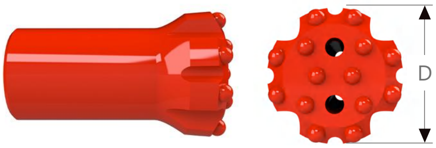
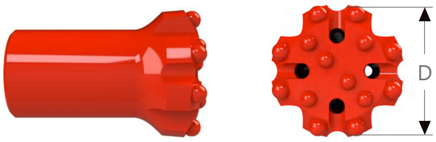
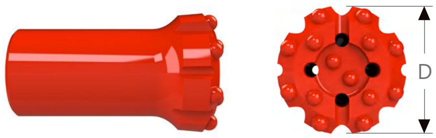
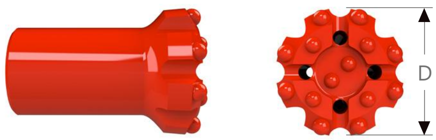
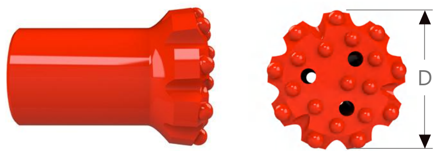
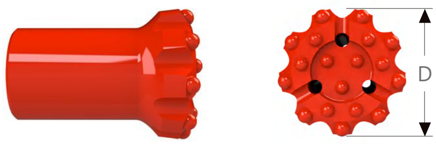
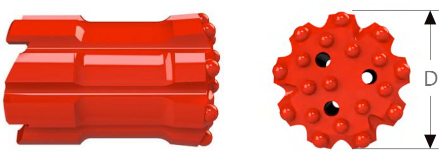
Bench & long hole drilling

Button bit

Button bit	Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
	mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
	70	2 3/4	2×8	2×6	4×11	8×11	35°	H	3070T4512
	76	3	2×9	2×7	4×11	8×12	35°	H	3076T4512
	89	3 1/2	2×13	2×8	5×12	8×14	35°	H	3089T4513
	102	4	2×13	–	6×13	8×14	35°	H	30102T4514
	115	4 1/2	4×13	–	6×14	8×16	35°	H	30115T45F14
	70	2 3/4	4×8	–	5×10	8×11	35°	M	3070T4513D
	76	3	4×8	–	5×11	8×12	35°	M	3076T4513D
	89	3 1/2	4×9	–	6×12	8×14	35°	M	3089T4514D
	102	4	4×11	–	6×13	8×14	35°	M	30102T4514D
	115	4 1/2	4×13	–	6×14	8×16	35°	M	30115T4514D
	70	2 3/4	2×8	2×6	4×11	8×11	35°	H	3070T4512R
	76	3	2×9	2×7	4×12	8×12	35°	H	3076T4512R
	89	3 1/2	2×11	2×8	6×12	8×14	35°	H	3089T45F14R
	102	4	4×11	–	6×13	8×14	35°	H	30102T45F14R
	115	4 1/2	4×13	–	6×14	8×16	35°	H	30115T45F14R
	76	3	4×8	–	5×11	8×12	35°	M	3076T4513DR
	89	3 1/2	4×10	–	6×12	8×14	35°	M	3089T4514DR
	102	4	4×11	–	6×13	8×14	35°	M	30102T4514DR
	115	4 1/2	4×13	–	6×14	8×16	35°	M	30115T4514DR

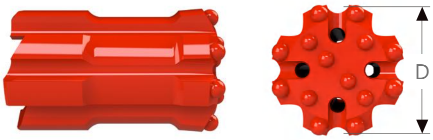
Cross bit	Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
	76	3	1×8	2×8	–	–	–	–	3276T45
	89	3 1/2	1×9	2×9	–	–	–	–	3289T45
Reaming tools									
Dome bit 	127	5	4×8	2×9	1×14	16×14	35°	–	30127T4517KD
Cut holes/Dome bit 	127	5	2×13	2×11	10×13	8×14	35°	–	30127T4518KC

Button bit

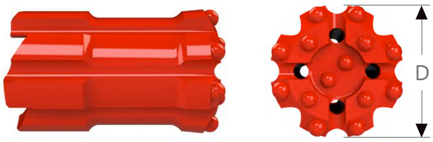
	Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
	mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
	89 102	3 1/2 4	2×12 2×14	2×7 –	6×12 6×13	8×14 8×14	35° 35°	H H	3089T5114 30102T5114
	115	4 1/2	4×13	–	6×14	8×16	35°	H	30115T51F14
	89 102	3 1/2 4	4×10 4×11	– –	6×12 6×13	8×14 8×14	35° 35°	M M	3089T5114D 30102T5114D
	115	4 1/2	4×13	–	6×14	8×16	35°	M	30115T5114D
	127	5	3×13	–	10×14	9×16	35°	H	30127T5119
	127	5	3×13	–	9×14	9×14	35°	M	30127T5118D
	127	5	3×13	–	9×14	9×16	35°	H	30127T5118R

T51 (2”)
Thread

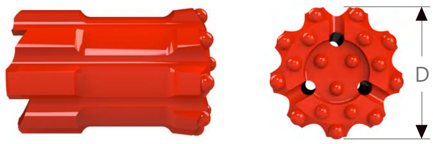
Button bit



Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
89	3 1/2	2×11	2×8	6×12	8×14	35°	H	3089T51F14R
102	4	4×11	–	6×13	8×14	35°	H	30102T51F14R
115	4 1/2	4×13	–	6×14	8×16	35°	H	30115T51F14R



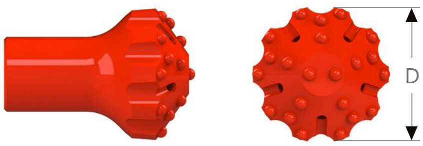
Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
89	3 1/2	4×10	–	6×12	8×14	35°	M	3089T5114DR
102	4	4×11	–	6×13	8×14	35°	M	30102T5114DR
115	4 1/2	4×13	–	6×14	8×16	35°	M	30115T5114DR



Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
127	5	3×13	–	9×14	9×14	35°	M	30127T5118DR

Reaming tools

Dome bit

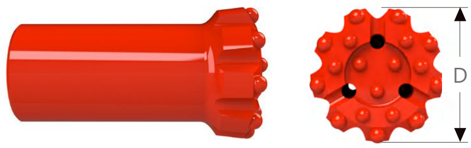


Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
152	6	5×10	2×10	2×14	20×14	35°	–	30152T5122KD

Button bit

Button bit	Dimensions D mm	Dimensions D in	Flushing hole (mm) Front No size	Flushing hole (mm) Gauge No size	Buttons (mm) Front No size	Buttons (mm) Gauge No size	Angle	Class	Part no.
	89	3 1/2	4×10	–	6×12	8×14	35°	M	3089ST5814D
	102	4	4×11	–	6×12	8×14	35°	M	30102ST5814D
	89	3 1/2	2×14	–	6×12	8×14	35°	H	3089ST5814
	102	4	2×15	–	6×13	8×14	35°	H	30102ST5814
	89	3 1/2	2×11	2×9	6×12	8×14	35°	H	3089ST58F14R
	102	4	2×12	2×9	6×12	8×14	35°	H	30102ST58F14R
	89	3 1/2	4×10	–	6×12	8×14	35°	M	3089ST5814DR
	102	4	4×11	–	6×12	8×14	35°	M	30102ST5814DR

Button bit

Button bit	Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
	mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
	102	4	4×11	–	6×13	8×14	35°	H	30102T6014D
	115	4 1/2	3×13	–	7×14	9×16	35°	H	30115T6016D
	92	3 5/8	3×11	–	6×12	9×12	35°	H	3092T60F15
	115	4 1/2	3×13	–	6×14	9×16	35°	H	30115T60F15
	127	5	3×14	–	9×14	9×16	35°	H	30127T6018D
	127	5	3×14	–	10×14	9×16	35°	H	30127T6019
	102	4	4×11	–	6×13	8×14	35°	H	30102T6014DR
	115	4 1/2	3×13	–	7×14	9×16	35°	H	30115T6016DR

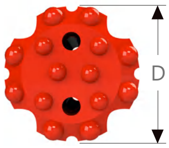
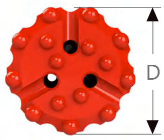
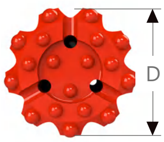
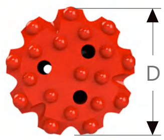
GT60 (2 3/5”)
Thread

Button bit

Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
92	3 5/8	3×11	–	6×12	9×12	35°	H	3092T60F15R
115	4 1/2	3×13	–	6×14	9×16	35°	H	30115T60F15R
127	5	3×14	–	9×14	9×16	35°	H	30127T6018DR
127	5	3×14	–	10×14	9×16	35°	H	30127T6019R

ST68 (2 3/4")
Thread

Button bit

		Dimensions D		Flushing hole (mm)		Buttons (mm)		Angle	Class	Part no.
		mm	in	Front No size	Gauge No size	Front No size	Gauge No size			
	 D	102	4	2×14	2×10	6×12	8×14	35°	H	30102ST6814
	 D	115	4 1/2	3×13	–	7×14	9×16	35°	H	30115ST68F16
		127	5	3×14	–	10×14	9×16	35°	H	30127ST68F19
	 D	115	4 1/2	3×13	2×9	6×14	9×16	35°	H	30115ST6815DR
		127	5	3×14	2×9	9×14	9×16	35°	H	30127ST6818DR
	 D	115	4 1/2	3×13	–	6×14	9×16	35°	H	30115ST6815R
		127	5	3×14	–	10×14	9×16	35°	H	30127ST6819R