




Mining & Oil & Construction TUNGSTEN CARBIDE

 **株洲贝特硬质合金工具有限公司**
ZHUSHOU BETTER TUNGSTEN CARBIDE CO., LTD

国内销售部 Domestic Sales Department

邮箱: sales@zzbetter.com

电话: 0731-28705418

手机: 18173362238

网址: www.zzbetter.com

地址: 湖南省株洲市天元区黄河北路1318号

国际销售部 International Sales Department

Mail: sales8@zzbetter.com

Tel: 0086 731 28705418

Mobile/Whatsapp: 0086 18173392980

Web: www.zzbetter.com

Add: Huanghe North Road, Tianyuan District,

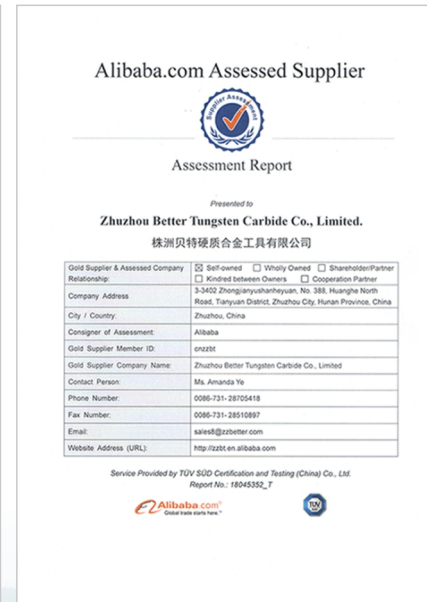
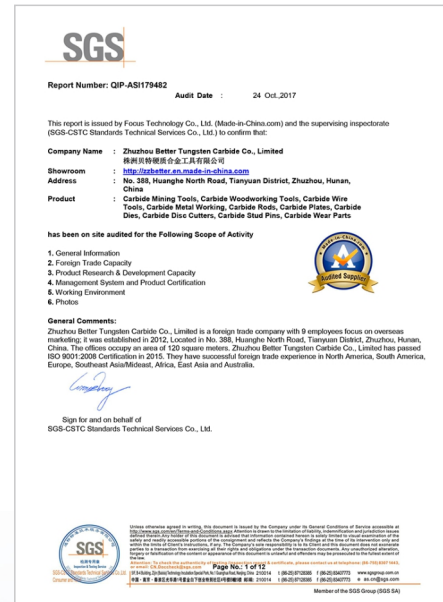
Zhuzhou City, Hunan Province, China 412000



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ZZbetter is an integrated tungsten carbide manufacturer and carbide solution provider. For more than 10 years, with the spirit of "craftsmanship", we are insisting on a user-focused way of serving our customers.

We pride ourselves on providing innovative solutions, technology, and service of tungsten carbide tools for mining and oil drilling, construction tunneling, etc. And we can provide our customers with high-quality, fully guaranteed products to save costs and improve productivity. Every progress we made in our products is the result of our drive for helping customers grow and expand their business operations.



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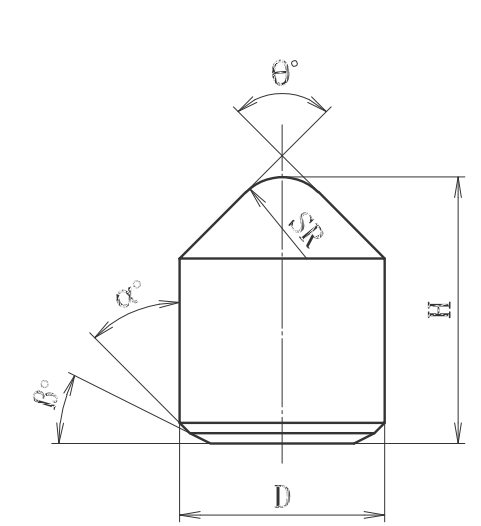


Properties and Application of Carbide Grades

Category	Grade	Density (g/cm ³)	Hardness (HRA)	TRS (Mpa)	Application Recommended
For Geological and Coal Mining	YG6	14.96	91.1	2200	Suitable for making geological prospecting drill bits and mining inserts for light electrical drills, and soft rock drilling, and coal mining drill bits.
	YG8	14.77	89.4	2350	
	YG8C	14.65	88.2	2560	
	YK15	14.60	88.0	2600	Mainly used for inserts for heavy-duty rock excavating machines for drilling hard and super hard rock formations, and can also be used for making tri-cone button bits.
	YK15.6	14.60	87.6	2700	
	YK20	14.52	87.3	2800	
	YG11C	14.35	87.0	2850	Mainly used for making buttons and tri-cone and percuss drill bits for drilling hard and super hard rock formations, and can also be used for making inserts in other drill bits.
For Oil and Gas Field	YK05	14.80	90.1	2600	Mainly used for making small and medium sizes buttons to be used for tri-cone percussive drill bits for drilling soft and medium-hard rock formations, and can also be used for carbide inserts for other drilling bits.
	YZ05	14.92	90.0	2800	
	YK10	14.60	88.8	2500	
	YK25	14.50	87.6	3000	Mainly used for buttons to be used in tri-cone drill bits and percussive button bits for drilling medium hard and hard rock formations, and can also be used for carbide inserts for other drilling bits.
	YK25.1	14.40	88.2	2800	
	YK50	14.12	85.0	2900	

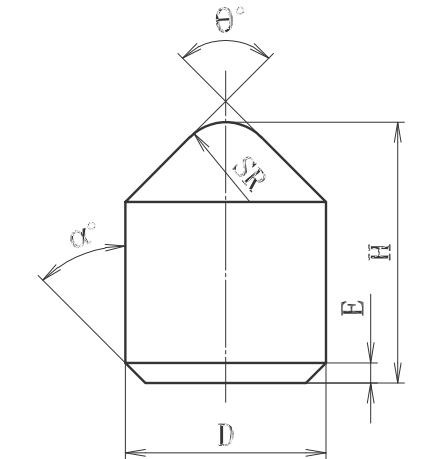
Conical Double Chamfers Buttons

TYPE	D	H	SR	θ°	α°	β°
SZ1015	10.2	15.0	3.8	58	25	25
SZ1216C	12.4	16.0	4.5	55	20	20
SZ1217	12.2	17.0	4.5	55	18	20
SZ1218B	12.4	18.0	4.0	55	20	27
SZ1317C	13.2	17.0	4.5	55	18	20
SZ1318	13.2	18.0	4.5	55	18	20
SZ1319	13.2	19.0	4.5	55	18	20
SZ1419	14.0	19.0	5.0	55	18	20
SZ1419C	14.0	19.0	5.0	55	20	20
SZ1419D	14.2	19.0	5.0	55	18	20
SZ1420	14.0	20.0	5.0	55	18	20



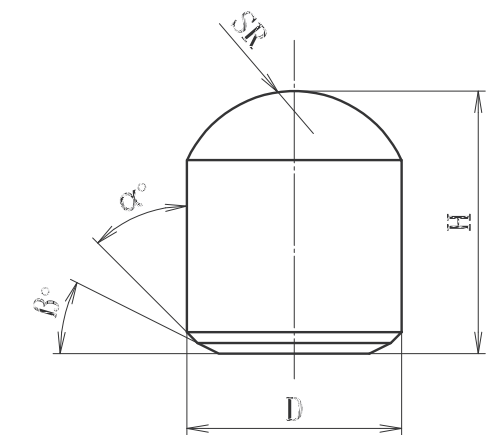
Conical Chamfer Buttons

TYPE	D	H	SR	E	θ°	α°
SZ0812K	7.8	12.0	3.0	1.0	58	20
SZ0810B	8.2	10.0	3.0	1.0	58	20
SZ0812B	8.2	12.0	3.0	1.0	58	20
SZ0812	8.2	12.2	3.0	1.0	70	20
SZ0913K	8.8	13.0	3.5	1.0	56	20
SZ0913C	9.2	13.0	3.5	1.0	56	20
SZ0913	9.2	13.3	3.0	1.0	70	20
SZ1014K	9.8	14.0	3.8	1.0	58	20



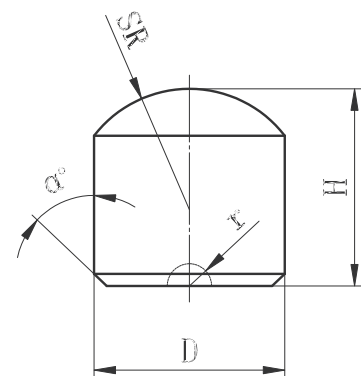
Ball Double Chamfers Buttons

TYPE	D	H	SR	α°	β°
SQ0913	9.2	13.0	4.6	20	25
SQ1014	10.2	14.0	5.2	25	25
SQ1217A	12.2	17.0	6.6	18	20
SQ1318	13.2	18.0	7.0	18	20
SQ1319A	13.2	19.0	7.0	18	20
SQ1420	14.0	20.0	7.7	18	20
SQ1624	16.3	24.0	8.2	25	25
SQ1827	18.3	27.0	9.2	25	25



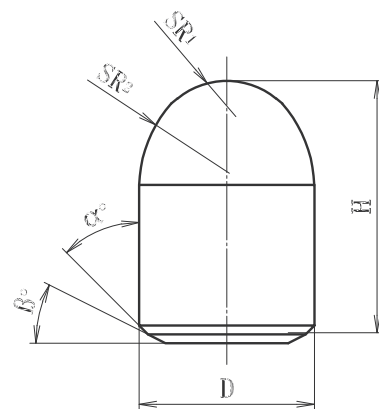
Ball Chamfer Buttons With Pin Hole

TYPE	D	H	SR	α°	r
SQ1015E12Q-2	10.0	15.0	5.2	20	2.0
SQ1116	11.2	16.0	6.0	18	3.0
SQ1217E12Q	12.2	17.0	6.6	18	2.0
SQ1218E12Q	12.2	18.0	6.6	18	2.0
SQ1314	13.3	13.5	6.7	15	3.0
SQ1318E12Q	13.0	18.0	7.0	18	2.8
SQ1415	14.3	14.5	7.2	15	3.0
SQ1415E12Q	14.2	18.0	7.2	18	3.0
SQ1419E12Q	14.2	19.0	7.7	18	3.0
SQ1420E12Q	14.2	20.0	7.7	18	3.0



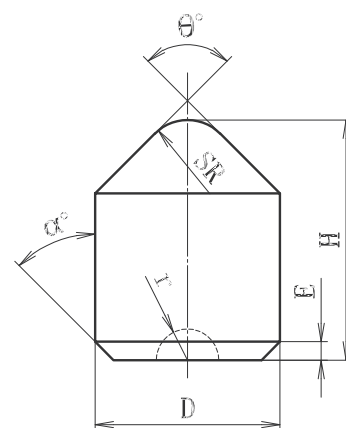
Parabolic Double Chamfers Buttons

TYPE	D	H	SR1	SR2	α°	β°
SD0812	8.2	12.0	2.0	8.0	25	22
SD0913	9.2	13.0	2.2	9.0	25	25
SD1016	10.2	16.0	2.7	12.2	20	27
SD1116	11.2	16.0	2.9	13.4	20	27
SD1217	12.3	17.0	3.0	12.0	20	27
SD1218	12.3	18.0	3.0	12.0	20	27
SD1319	13.2	19.0	4.0	11.2	18	27

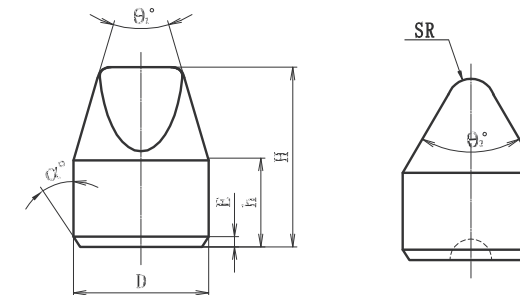


Conical Chamfer Buttons With Pin Hole

TYPE	D	H	SR	E	α°	θ°	r
SZ1015E12Q-2	10.0	15.0	5.0	1.0	20	60	2.0
SZ1116E12Q	11.2	16.0	4.0	1.0	18	55	3.0
SZ1217E12Q	12.2	17.0	4.5	1.0	18	55	2.0
SZ1217E12Q-3	12.0	17.0	4.5	1.0	20	55	3.0
YZ1218E12Q	12.2	18.0	4.3	1.0	18	50	2.0
SZ1318E12Q	13.2	18.0	4.5	1.0	18	55	2.8
SZ1318E12Q-3	13.0	18.0	4.5	1.0	18	55	2.8
SZ1419E12Q	14.0	19.0	5.0	1.2	18	55	3.0
SZ1419E12Q-2	14.0	19.0	5.0	1.2	18	55	4.5
YZ1420E12Q	14.2	20.0	5.1	1.2	18	45	3.0

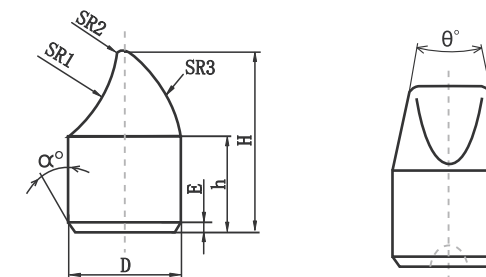


Wedge Buttons



TYPE	D	H	h	SR	α°	θ_1°	θ_2°	E
SX1013E12	10.2	13.0	9.0	2.5	20	90	45	1.5
SX1114E12	11.2	14.0	8.1	3.5	20	75	43	1.5
SX1214E12	12.2	14.0	7.5	3.0	20	90	40	1.5
SX1418E12	14.3	18.0	10.8	3.0	20	70	40	1.5
SX1621E12	16.2	21.0	11.0	2.6	20	70	45	1.5
SX1827E12	18.2	27.0	14.0	2.2	20	65	30	1.5

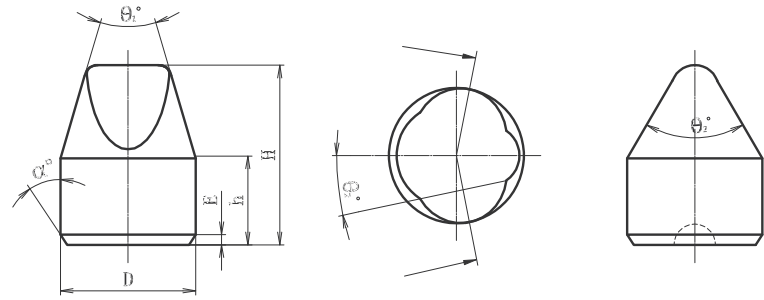
Spoon Buttons



TYPE	D	H	h	SR1	SR2	SR3	E	α°	θ°
SS1420.5E12	14.3	20.5	10.5	9.7	1.5	16	1.4	18	36
SS1421E12	14.3	21.0	12.2	9.0	1.5	15	1.4	18	30
SS1623E12	16.3	23.0	11.6	12.0	2.0	20	1.5	18	30
SS1624E12	16.3	24.0	12.2	12.0	2.0	20	1.5	18	30
SS1828E12	18.3	28.0	15.6	16.0	3.0	25	1.5	18	30
SS1929E12	19.3	29.0	15.5	14.0	2.0	18	2.0	18	30

Buttons

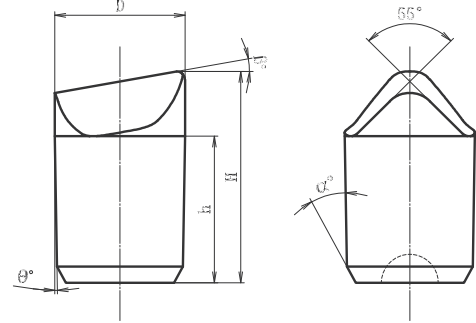
Eccentric Wedge Buttons



mm

TYPE	D	H	h	α°	θ_1°	θ_2°
BX1520E12	15.2	20.0	11.8	18	40	66
BX1621E12	16.2	21.0	13.0	18	40	70
BX1924E12	19.3	24.0	15.0	18	40	70

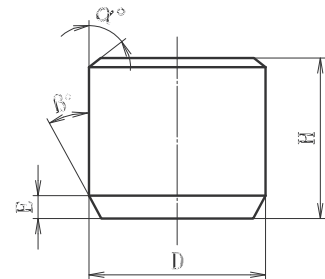
Straight Wedge Buttons



mm

TYPE	D	H	h	α°	θ°	β°
SB9.115-B	9.1	15.0	9.1	18	1°54'	15
SB1217	12.0	17.0	10.0	18	2°40'	16
SB1419	14.0	19.0	12.3	18	2°40'	16

Flat Head Buttons

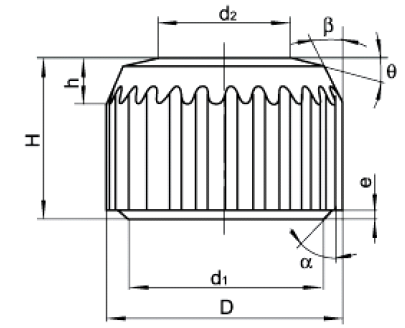


mm

TYPE	D	H	E	α°	β°
SP0807	8.2	7.0	1.3	45	18
SP1010	10.2	10.0	2.0	45	15
SP1515	14.8	15.0	1.5	45	45
SP1818	17.8	18.0	1.5	45	45

Buttons

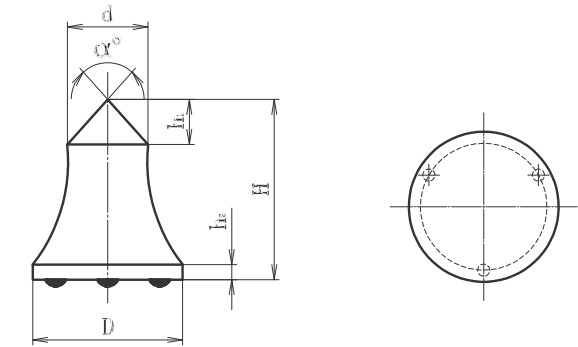
Serrated Wear Buttons



mm

TYPE	D	H	h	α°	β°	θ°
SW0807	8.2	7.5	1.9	45	25	15
SW0908	9.8	8.0	1.9	45	25	15

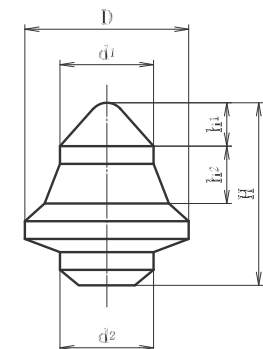
Roads Tips



mm

TYPE	D	d	H	h_1	h_2	α°
WB1615	16.1	8.0	15.1	3.0	1.8	92
WB1817	17.8	9.6	17.1	3.8	1.6	82
WB1918	19.0	10.5	17.5	4.2	2.0	90

Roads Tips

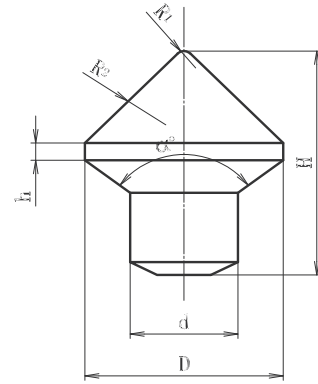


mm

TYPE	D	d_1	d_2	h_1	h_2
WA1820	18.0	10.0	9.5	20.2	4.5

Buttons

Coal Cutter Buttons



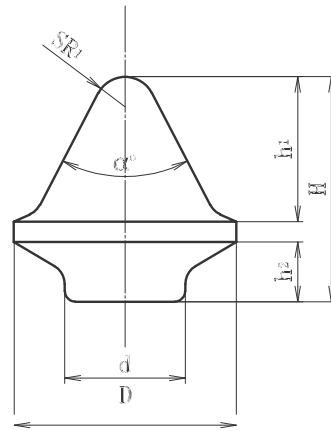
mm

TYPE	D	d	H	h	R ₁	R ₂	α°
MG1931	18.9	12.0	31.0	2.2	1.5	80	60
MG2230	22.0	14.0	30.0	4.0	1.5	100	90

Coal Cutter Buttons

mm

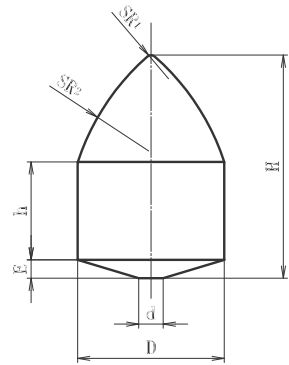
TYPE	D	d	H	h ₁	h ₂	SR	α°
MA97111-2	16.4	8.8	16.6	11.3	4	4.0	40



Coal Cutter Buttons

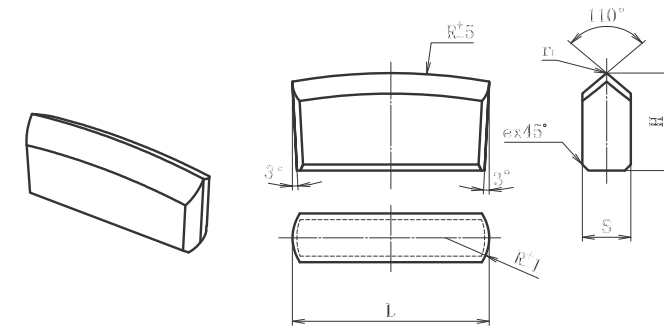
mm

TYPE	D	d	H	h	E	SR1	SR2
MJ1827	18.0	3.0	27.0	15.5	3.5	1.0	30.0
MJ2428	24.0	4.0	28.0	12.5	3.5	1.5	30.0



Chisel Bits

Chisel Bits



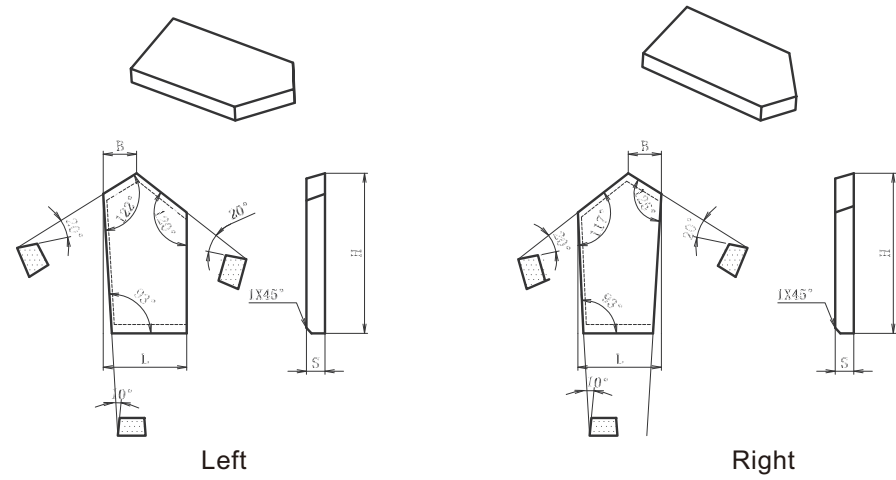
TYPE	DIMENSION (mm)				
	L	H	S	R	r1
K1013	13	10	4	40	0.5-1.0
K1016	16	12	6	30	
K1020	20	12	6	40	
K1026	26	12	6	50	
K030	30	15	8	80	
K1032	32	15	8	80	
K1034	34	15	8	80	
K1036	36	15	8	80	
K1038	38	15	8	120	
K1040	40	15	8	120	
K1043	43	15	10	120	
K1046	46	15	10	160	
K1049	49	18	10	160	
K1054	54	18	10	160	

Other types such as K0 K1 K20 and K21 are available from us.



Inserts

Mining Inserts

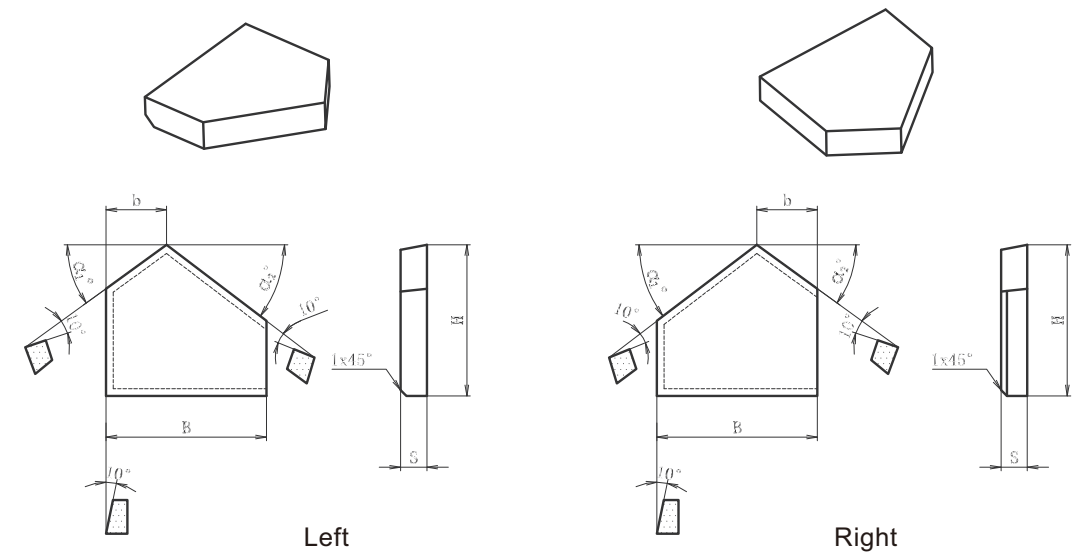


TYPE	DIMENSION (mm)			
	L	H	S	B
M1011R	11	12	2.5	4
M1011L	11	12	2.5	4
M1013R	12.5	12	3	4
M1030L	12.5	12	3	4
M1014R	14	19	3.8	4
M1014L	14	19	3.8	4
M1015AR	15	19	3	5
M1015AL	15	19	3	5
M1015R	15	22	3	5
M1015L	15	22	3	5
M1018R	18	22	6	5
M1018	18	22	6	5



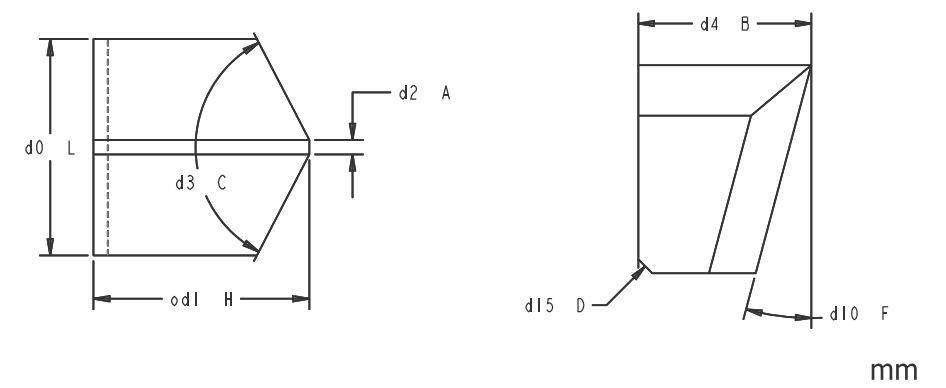
Inserts

Mining Inserts



TYPE	DIMENSION (mm)					
	B	H	S	b	$\alpha 1^\circ$	$\alpha 2^\circ$
M1427R	27.5	22	4.5	10	30	30
M1427L	27.5	22	4.5	10	35	35
M1445R	45	21	9	15	31	17
M1445L	45	21	9	15	17	31

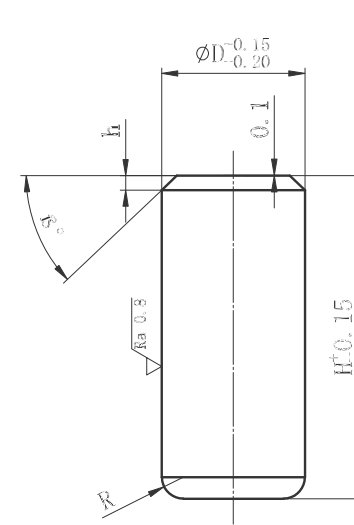
Inserts For TBM



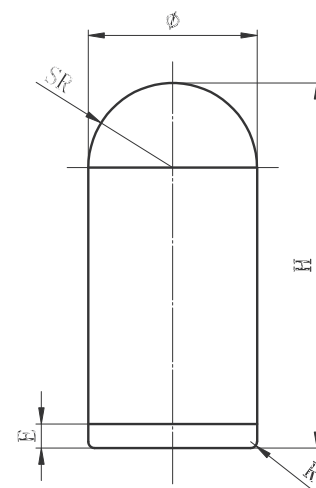
TYPE	L	B	H
DGD3830	38	20	30
DGD3130	31	20	30
DGD2630	26	20	30

The roller press is one of the most efficient crushing equipment at present, and the roller press's core accessory is the tungsten carbide studs. With high quality raw material and advanced equipment, ZZBetter provides excellent wear and shock resistance to meet the application demands in different tough working situations.

TYPE	ØD	H	h	R
SPF1045	10	45	1.0	2.5
SPF1625	16	25	1.0	2.5
SPF1630	16	30	1.0	2.5
SPF1635	16	35	1.0	2.5
SPF1640	16	40	1.0	2.5
SPF1645	16	45	1.0	2.5
SPF2035	20	35	1.5	2.5
SPF2040	20	40	1.5	2.5
SPF2045	20	45	1.5	2.5
SPF2050	20	50	1.5	2.5

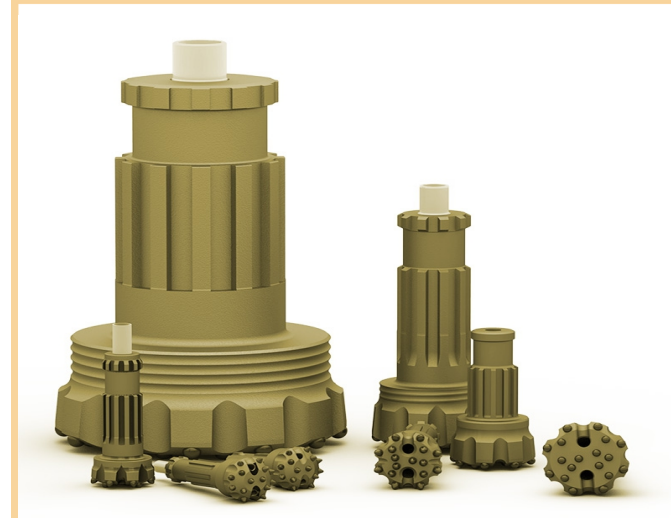


Type	ØD	H	SR	R
SPR1630	16	30	8	R1.5
SPR1635	16	35	8	R1.5
SPR1640	16	40	8	R1.5
SPR1645	16	45	8	R1.5
SPR2035	20	35	10	R2.0
SPR2040	20	40	10	R2.0
SPR2045	20	45	10	R2.0
SPR2050	20	50	10	R2.0



We are able to produce according to your drawing and technical specification.

DTH Drill Bits



Taper Button Bits



Chisel Drill Bits



Threaded Cross Bits



Cutting Picks



Coal Mining Cutters

