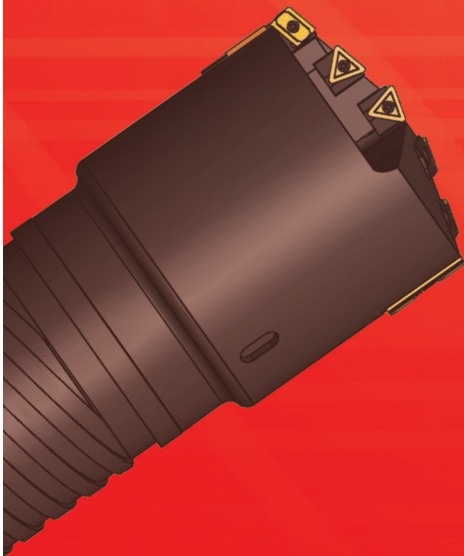




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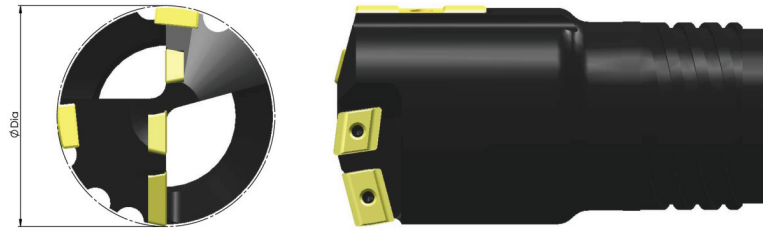
Precision deep hole drilling system Indexable Insert Type BTA(STS sytem)



YONG MUN PRECISION CO.,

Insert Type BTA-HEAD

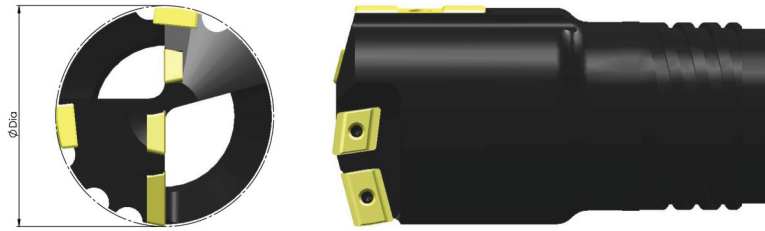
Dia 31.00~65.00mm

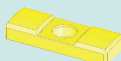


NO	DIA (mm)	INSERT			GUIDE PAD	TUBE DIA	REMARK
		CENTRAL 	INTERMEDIATE 	PERIPHERAL 			
1	31.00	GTBT06T308M-C-G	GTBT06T308M-I-G	GTBT06T308H-P-G	P07X2035	D28.0	
2	32.00	GTBT06T308M-C-G	GTBT06T308M-I-G	GTBT06T308H-P-G	P07X2035	D28.0	
3	33.00	GTBT06T308M-C-G	GTBT06T308M-I-G	GTBT06T308H-P-G	P07X2035	D28.0	
4	33.30	GTBT06T308M-C-G	GTBT06T308M-I-G	GTBT06T308H-P-G	P07X2035	D28.0	
5	34.00	GTBT06T308M-C-G	GTBT06T308M-I-G	GTBT09T308H-P-G	P07X2035	D30.0	
6	35.00	GTBT06T308M-C-G	GTBT06T308M-I-G	GTBT09T308H-P-G	P07X2035	D30.0	
7	36.00	GTBT06T308M-C-G	GTBT06T308M-I-G	GTBT09T308H-P-G	P07X2035	D30.0	
8	36.20	GTBT06T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D30.0	
9	37.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D33.0	
10	38.00	GTBT06T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D33.0	
11	39.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D33.0	
12	39.60	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D33.0	
13	40.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D36.0	
14	41.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D36.0	
15	42.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D36.0	
16	43.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P07X2035	D36.0	
17	44.00	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P10X3045	D39.0	
18	45.00	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P10X3045	D39.0	
19	46.00	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT09T308H-P-G	P10X3045	D39.0	
20	47.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D39.0	
21	48.00	GTBT08T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D43.0	
22	49.00	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D43.0	
23	50.00	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D43.0	
24	50.50	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D43.0	
25	50.80	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D43.0	

Insert Type BTA-HEAD

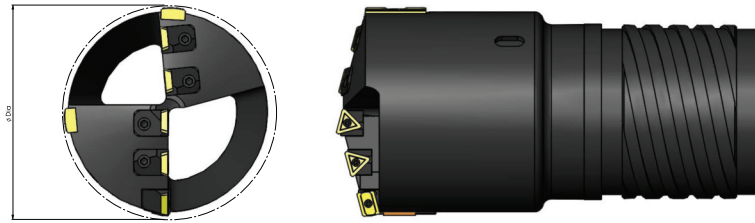
Dia 31.00~65.00mm



NO	DIA (mm)	INSERT			GUIDE PAD	TUBE DIA	REMARK
		CENTRAL	INTERMEDIATE	PERIPHERAL			
							
26	51.00	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D43.0	
27	51.70	GTBT10T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D43.0	
28	52.00	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D47.0	
29	53.00	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D47.0	
30	53.50	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D47.0	
31	54.00	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D47.0	
32	55.00	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P10X3045	D47.0	
33	56.00	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P12X3555	D47.0	
34	56.20	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P12X3555	D47.0	
35	57.00	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
36	57.15	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
37	58.00	GTBT12T308M-C-G	GTBT08T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
38	59.00	GTBT10T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
39	59.60	GTBT10T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
40	60.00	GTBT10T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
41	61.00	GTBT10T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
42	62.00	GTBT12T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
43	62.50	GTBT12T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
44	63.00	GTBT12T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
45	63.50	GTBT12T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
46	64.00	GTBT12T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	
47	65.00	GTBT12T308M-C-G	GTBT12T308M-I-G	GTBT11T308H-P-G	P12X3555	D51.0	

Cartridge Type BTA-HEAD

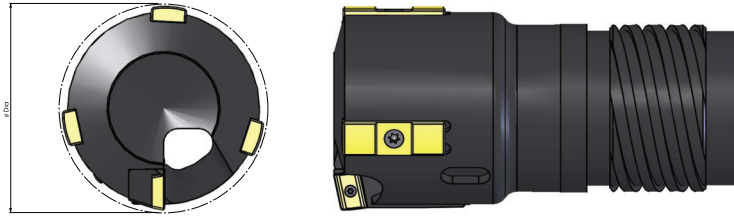
Dia 65.00~120.00mm

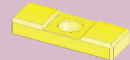


NO	DIA (mm)	CARTRIDGE			GUIDE PAD	INSERT			TUBE	R- adjustment
		CENTRAL 	INTERMEDIATE 	PERIPHERAL 		CENTRAL 	INTERMEDIATE 	PERIPHERAL 		
1	65.00	Y1216-16C	Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	51	1.5
2	65.50	Y1216-16C	Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	56	1
3	68.00	Y1216-16C	Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	56	1
4	69.85	Y1216-16C	Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	62	1
5	70.00	Y1216-16C	Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	62	1
6	71.45	Y1216-16C	Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	62	0.7
7	72.50	Y1216-16C	Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	68	1
8	74.00	Y1216-16C	Y1216-16IN	Y1822-22PE	14X3570	Y16T312R-22	Y16T312-L22	Y18T608-22R	68	1
9	75.00	Y1216-16C	Y1216-16IN	Y1822-22PE	14X3570	Y16T312R-22	Y16T312-L22	Y18T608-22R	68	1
10	76.20	Y1216-16C	Y1216-16IN	Y1822-22PE	14X3570	Y16T312R-22	Y16T312-L22	Y18T608-22R	68	1
11	80.00	Y1216-16C	Y1216-16IN	Y1822-22PE	14X3570	Y16T312R-22	Y16T312-L22	Y18T608-22R	75	1
12	82.00	Y1216-16C	Y1216-16IN	Y1822-22PE	14X3570	Y16T312R-22	Y16T312-L22	Y18T608-22R	75	1
13	82.50	Y1216-16C	Y1216-16IN	Y1822-22PE	14X3570	Y16T312R-22	Y16T312-L22	Y18T608-22R	75	0.7
14	85.00	Y1522-22C	Y1216-16IN	Y1822-22PE	14X3570	Y22T612R-22	Y16T312-L22	Y18T608-22R	75	1
15	86.00	Y1522-22C	Y1216-16IN	Y1822-22PE	14X3570	Y22T612R-22	Y16T312-L22	Y18T608-22R	75	1
16	88.90	Y1522-22C	Y1216-16IN	Y1822-22PE	14X3570	Y22T612R-22	Y16T312-L22	Y18T608-22R	82	1
17	90.00	Y1522-22C	Y1216-16IN	Y1822-22PE	14X3570	Y22T612R-22	Y16T312-L22	Y18T608-22R	82	1
18	95.00	Y1522-22C	Y1522-21IN	Y1822-22PE	14X3570	Y22T612R-22	Y22T612-L-22	Y18T608-22R	82	1
19	95.25	Y1522-22C	Y1522-21IN	Y1822-22PE	14X3570	Y22T612R-22	Y22T612-L-22	Y18T608-22R	82	1
20	100.00	Y1522-22C	Y1522-21IN	Y1822-22PE	14X3570	Y22T612R-22	Y22T612-L-22	Y18T608-22R	94	1
21	101.60	Y1522-22C	Y1522-21IN	Y1822-22PE	14X3570	Y22T612R-22	Y22T612-L-22	Y18T608-22R	94	0.5
22	105.00	Y1522-22C	Y1522-21IN	Y1822-22PE	14X3570	Y22T612R-22	Y22T612-L-22	Y18T608-22R	94	1
23	107.90	2Y1216-16C	2Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	94	1.25
24	110.00	2Y1216-16C	2Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	94	1
25	114.30	2Y1216-16C	2Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	106	1
26	115.00	2Y1216-16C	2Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	106	1
27	120.00	2Y1216-16C	2Y1216-16IN	Y1516-16PE	14X3570	Y16T312R-22	Y16T312-L22	Y13T308-22R	106	1

Counter Boring HEAD

Dia 31.01~125.0mm

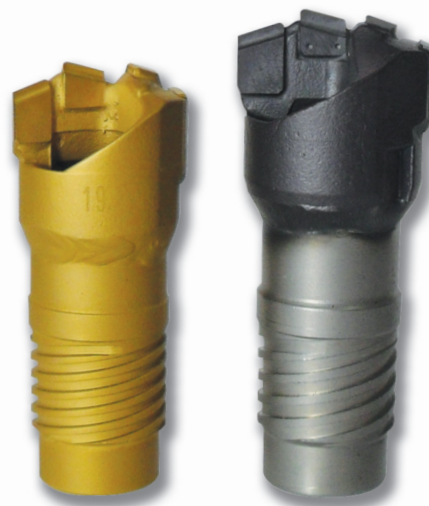


NO	DIA (mm)	CARTRIDGE	INSERT	GUIDE PAD	TUBE DIA	REMARK
						
1	31.01~33.99	GTBT-11PE	GTBT11T308H-P-G	P07X2035	D28	
2	34.00~37.99	GTBT-11PE	GTBT11T308H-P-G	P07X2035	D30	
3	38.00~43.00	GTBT-11PE	GTBT11T308H-P-G	P07X2035	D33	
4	43.01~46.99	GTBT-11PE	GTBT11T308H-P-G	P07X2035	D36	
5	47.00~51.99	GTBT-11PE	GTBT11T308H-P-G	P07X2035	D39	
6	52.00~57.99	GTBT-11PE	GTBT11T308H-P-G	P07X2035	D43	
7	58.00~65.00	GTBT-11PE	GTBT11T308H-P-G	P07X2035	D47	
8	65.01~69.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D51	
9	70.00~74.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D56	
10	75.00~79.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D62	
11	80.00~84.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D68	
12	85.00~89.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D75	
13	90.00~94.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D82	
14	95.00~99.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D82	
15	100.00~104.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D94	
16	105.00~109.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D94	
17	110.00~114.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D94	
18	115.00~119.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D106	
19	120.00~124.99	GTBT-11PE	GTBT11T308H-P-G	P10X3045	D106	

Brazed type BTA-HEAD

Dia 18.91-65.00mm

Coating Available!
TiN, TiCN, TiALN



Drill Diameter	Order No.	Drill Tube Dia
18.91-19.20	10-0110-...	17
19.21-20.00	10-0120-...	17
20.01-20.90	10-0210-...	18
20.91-21.80	10-0220-...	18
21.81-22.90	10-0310-...	20
22.91-24.10	10-320-...	20
24.11-25.20	10-0410-...	22
25.21-26.40	10-0420-...	22
26.41-27.50	10-0510-...	24
27.51-28.70	10-0520-...	24
28.71-29.80	10-0610-...	26
29.81-31.00	10-0620-...	26
31.01-32.10	10-0710-...	28
32.11-33.30	10-0720-...	28
33.31-34.80	10-0810-...	30
34.81-36.20	10-0820-...	30

Drill Diameter	Order No.	Drill Tube Dia
36.21-37.30	10-0910-...	33
37.31-38.40	10-0920-...	33
38.41-39.60	10-0930-...	33
39.61-40.60	10-1010-...	36
40.61-41.80	10-1020-...	36
41.81-43.00	10-1030-...	36
43.01-44.30	10-1110-...	39
44.31-45.60	10-1120-...	39
45.61-47.00	10-1130-...	39
47.01-48.50	10-1210-...	43
48.51-50.10	10-1220-...	43
50.11-51.70	10-1230-...	43
51.71-53.20	10-1310-...	47
53.21-54.70	10-1320-...	47
54.21-56.20	10-1330-...	47
56.21-58.40	10-1410-...	51
58.41-65.10	10-1420-...	51

Carbide grade	Workpieces material
*011	steel, alloy steel, stainless steel
012	steel, alloy steel
013	cast iron, aluminium
014	alloy steel, stainless steel

*Standard Carbide Grade

Cutting data for brazed type BTA-head

Material HB				Cutting speed Vc m/min	Drill diameter,mm			
					18.91-20.00	20.01-31.00	31.01-43.00	43.01-65.00
					Feed, f _n (mm/rev)			
Unalloyed steel	Non-hardened	0.05-0.25% C	90-200	60-130	0.14-0.20	0.15-0.20	0.15-0.25	0.18-0.28
	Non-hardened	0.25-0.55% C	125-225					
	Non-hardened	0.55-0.80% C	150-225	60-120	0.14-0.20	0.17-0.25	0.20-0.30	0.24-0.32
	High carbon & carbon tool steel		180-225					
Low alloy steel	Non-hardened		150-260	70-100	0.14-0.20	0.17-0.25	0.20-0.30	0.24-0.32
	hardened		220-400					
High alloy steel	Annealed		150-250	60-90	0.14-0.20	0.17-0.25	0.20-0.30	0.24-0.32
	Annealed HSS		150-250					
	hardened tool steel		250-350	60-90	0.14-0.20	0.17-0.25	0.20-0.30	0.24-0.32
	hardened steel		250-400					
Steel castings	Unalloyed		90-225	50-90	0.12-0.18	0.15-0.22	0.20-0.28	0.24-0.32
	Low alloyed(alloying elements<5%)		150-250					
Stainless steel	Ferritic, Martensitic	13-25% Cr	150-270	35-85	0.16-0.20	0.18-0.25	0.22-0.30	0.24-0.36
	Austenitic	Ni > 8%, 18-25% Cr	150-270					
Steel castings	Stainless austenitic		150-180	40-80	0.16-0.20	0.18-0.25	0.22-0.30	0.24-0.36
	Manganese 12-14% MN		250					
Heat resistant alloys	Fe-based		180-300	10-40	0.10-0.18	0.14-0.20	0.18-0.26	0.20-0.30
	Ni-based		220-300					
	Co-based		220-300					
Titanium	(Wrought or cast) Alpha and Alpha-beta alloys		300-450	30-50	0.14-0.16	0.16-0.22	0.18-0.26	0.20-0.30
Malle-able castiron	Ferritic(short chipping)		110-145	70-110	0.14-0.20	0.18-0.25	0.20-0.30	0.24-0.32
	pearlitic(long chipping)		150-270					
Grey cast iron	Low tensile strength		150-220	70-110	0.12-0.18	0.15-0.25	0.20-0.28	0.24-0.32
	High tensile strength		200-330					
Nodular castiron	Ferritic		125-230	50-100	0.12-0.18	0.15-0.25	0.20-0.28	0.24-0.32
	Pearlitic		200-300					
Aluminium	Wrought and cold drawn		30-80	65-130	0.10-0.20	0.16-0.25	0.18-0.30	0.20-0.45
	Wrought solution treated and aged		75-150					
	Cast		40-100					
	Cast, solution treated and aged		70-125					
Copper and copper alloys	Free cutting alloys (Pb ≥ 1%)		50-160	65-130	0.10-0.20	0.16-0.25	0.18-0.30	0.20-0.45
	Brass and leaded bronzes (Pb ≥ 1%)		50-160					

As above cutting data may need adjusting depending on the machine conditions