

TUNGSTEN CARBIDE TIPPED METAL BROACH



Wind Speed

MIYANACH IND. CO., LTD.
PROFESSIONAL CUTTING TOOLS

Professional Cutting Tools

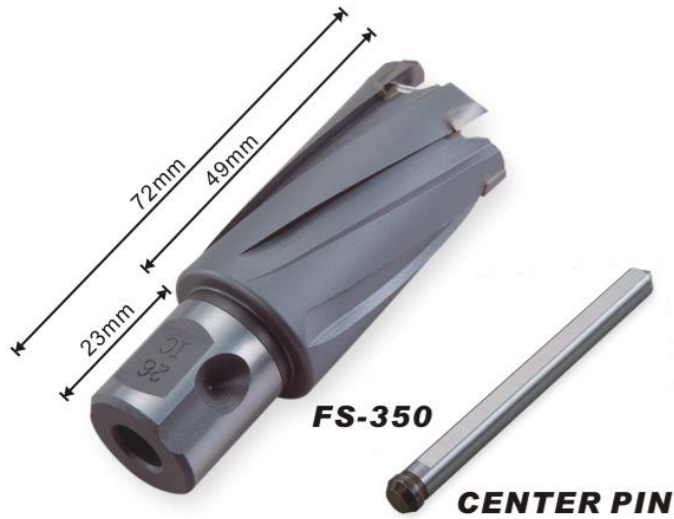


HIGH-TECH

- HOLE SAW
- ANNULAR CUTTER

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T.C.T. HOLE SAW FOR METAL OR WOOD CUTTING
T.C.T. ANNULAR CUTTER FOR STRUCTURAL STEEL CUTTING

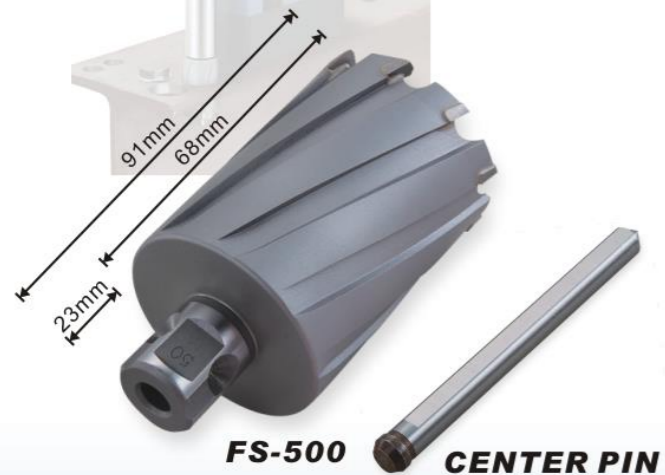


FS-350 ONE TOUCH MODEL

Available Diameter	Ø 13 - 40mm	with variation of 1mm
Cutting Depth (useable Length)	35L (mm)	overall Length 72mm
Cutter Connection (Shank Out. Dia.)	Ø 19.05mm	one touch shank
Suitable Pilot Pin (O. D. & Length)	Ø 7.09 x 91mm for 13-16mm use Ø 7.99 x 91mm for 17-40mm use	

SPECIAL FEATURES:

- ▶ Peripheral cutting.
- ▶ 3 ball channels and fixing holes for easy loading and unloading of cutting blades in one touch.
- ▶ With 1 flat surface for fixation of screw to keep out rotation.
- ▶ With 3-PLY design for lighter and faster cutting
- ▶ Tungsten carbide teeth faster than regular cutter and low wear-off.
- ▶ The special tooth arrangement makes the cutting as smooth and light as silk. Long life time can be assured.



FS-500 ONE TOUCH MODEL

Available Diameter	Ø 14 - 80mm	with variation of 1mm
Cutting Depth (useable Length)	50L (mm)	overall Length 91mm
Cutter Connection (Shank Out. Dia.)	Ø 19.05mm	one touch shank
Suitable Pilot Pin (O. D. & Length)	Ø 7.09 x 112mm for 13-16mm use Ø 7.99 x 112mm for 17-80mm use	

MAIN APPLICATIONS

This metal borer is designed particularly for the drilling on various steel materials used on the construction of high building. On-Site hole cutting in steel plates, H-Beams shapes, shaped bars, shaped steel, cast iron, steel pipe used in bridges, frame shipbuilding, framework, machinery, steel-frame shipbuilding, elevated bridges, tall building, structures, etc. steel reinforcements, and many other metal working and construction jobs.

SUITBALE MACHINE

All kind of brand magnetic drilling machine. Like American, European, Japanese type or any other brand of drilling machine; as well as general conversion machines, milling machine.



FS-750 ONE TOUCH MODEL

Available Diameter	Ø 18 - 60mm	with variation of 1mm
Cutting Depth (useable Length)	75L (mm)	overall Length 118mm
Cutter Connection (Shank Out. Dia.)	Ø 19.05mm	one touch shank
Suitable Pilot Pin (O. D. & Length)	Ø 7.99 x 140mm for 18-60mm use	

SPECIAL FEATURES:

- ▶ Peripheral cutting.
- ▶ 3 ball channels and fixing holes for easy loading and unloading of cutting blades in one touch.
- ▶ With 1 flat surface for fixation of screw to keep out rotation.
- ▶ With 3-PLY design for lighter and faster cutting
- ▶ Tungsten carbide teeth faster than regular cutter and low wear-off.
- ▶ The special tooth arrangement makes the cutting as smooth and light as silk. Long life time can be assured.



FS-1000 ONE TOUCH MODEL

Available Diameter	Ø 18 - 60mm	with variation of 1mm
Cutting Depth (useable Length)	100L (mm)	overall Length 143mm
Cutter Connection (Shank Out. Dia.)	Ø 19.05mm	one touch shank
Suitable Pilot Pin (O. D. & Length)	Ø 7.99 x 160mm for 18-60mm use	

FS-1000 MAIN APPLICATIONS

This metal borer is designed particularly for the drilling on various steel materials used on the construction of high building. On-Site hole cutting in steel plates, H-Beams shapes, shaped bars, shaped steel, cast iron, steel pipe used in bridges, frame shipbuilding, framework, machinery, steel-frame shipbuilding, elevated bridges, tall building, structures, etc. steel reinforcements, and many other metal working and construction jobs.

SUITBALE MACHINE

All kind of brand machine. Like American, European, Japanese type or any other brand of machine; as well as radial drilling machine, boring machine, milling machine.

T.C.T. ANNULAR CUTTER



CT-350 WELDON SHANK MODEL

Available Diameter	Ø 13 - 40mm	with variation of 1mm
Cutting Depth (useable Length)	35L (mm)	overall Length 72mm
Cutter Connection (Shank Out. Dia.)	Ø 19.05mm	one touch shank
Suitable Pilot Pin (O. D. & Length)	Ø 7.09 x 91mm Ø 7.99 x 91mm	for 13-16mm use for 17-40mm use

SPECIAL FEATURES:

- ▶ Peripheral cutting.
- ▶ With weldon shank 2 flat surface for fixation of screw to keep out rotation.
- ▶ With 3-PLY design for lighter and faster cutting
- ▶ Tungsten carbide teeth faster than regular cutter and low wear-off.
- ▶ The special tooth arrangement makes the cutting as smooth and light as silk. Long life time can be assured.



CT-500 WELDON SHANK MODEL

Available Diameter	Ø 14 - 80mm	with variation of 1mm
Cutting Depth (useable Length)	50L (mm)	overall Length 91mm
Cutter Connection (Shank Out. Dia.)	Ø 19.05mm	one touch shank
Suitable Pilot Pin (O. D. & Length)	Ø 7.09 x 112mm Ø 7.99 x 112mm	for 13-16mm use for 17-80mm use

MAIN APPLICATIONS

This metal borer is designed particularly for the drilling on various steel materials used on the construction of high building. On-Site hole cutting in steel plates, H-Beams shapes, shaped bars, shaped steel, cast iron, steel pipe used in bridges, frame shipbuilding, framework, machinery, steel-frame shipbuilding, elevated bridges, tall building, structures, etc. steel reinforcements, and many other metal working and construction jobs.

SUITBALE MACHINE

All kind of brand machine. Like American, European type or any other brand of machine; as well as ardial drilling machine, boring machine, milling machine.

T.C.T. ANNULAR CUTTER



SCT-350 SCREW TYPE

Available Diameter	Ø 18 - 35mm	with variation of 1mm
Cutting Depth (useable Length)	35L (mm)	overall Length 67mm
Cutter Connection (Shank Out. Dia.)	M18 / P 1.5 (4-threaded screw)	

SPECIAL FEATURES:

- ▶ Peripheral cutting.
- ▶ The stem comprises inner 4-thread bolting type screw for quicker assembly without deviation to prolong the service life of the cutter.
- ▶ With 3-PLY design for lighter and faster cutting.
- ▶ Tungsten carbide teeth faster than regular cutter and low wear-off.
- ▶ The special tooth arrangement makes the cutting as smooth and light as silk. Long life time can be assured.



SCT-500 SCREW TYPE

Available Diameter	Ø 18 - 50mm	with variation of 1mm
Cutting Depth (useable Length)	35L (mm)	overall Length 82mm
Cutter Connection (Shank Out. Dia.)	M18 / P 1.5 (4-threaded screw)	

MAIN APPLICATIONS

This metal borer is designed particularly for the drilling on various steel materials used on the construction of high building. On-Site hole cutting in steel plates, H-Beams shapes, shaped bars, shaped steel, cast iron, steel pipe used in bridges, frame shipbuilding, framework, machinery, steel-frame shipbuilding, elevated bridges, tall building, structures, etc. steel reinforcements, and

SUITBALE MACHINE

Suitable for HITACHI magnetic drilling machine; as well as erected and radial drilling machine.



MT-2

MT-2 TOOL HOLDER

Length	165mm
Capacity	14mm~50mm
Adaptor connection	I.D.19.05mm

SPECIAL FEATURES

- 1.To increase the working performance with a water-cooling device.
- 2.It's good offer processing a big diameter, and can change the cutter easily and quickly.

ACCESSORIES

- Pilot Pin 7.99x91mm:1pc
- Pilot Pin 7.99x112.4mm:1pc
- Hex.Spanner:1psc
- Fixed screw:1pc



MT-3

MT-3 TOOL HOLDER

Length	185mm
Capacity	14mm~60mm
Adaptor connection	I.D.19.05mm

MAIN APPLICATIONS

It's applicable to an electric drill, a milling machine and a magnetic drilling table.

STANDARD MODEL



FS-22
1-PLY

CAPACITY

Model	FS-22
Available Diameter	Ø15~100mm
Cutting Depth	5mm thickness

SPECIAL FEATURES

- 1.Designed for tough drilling on 5mm thick stainless steel sheet.
- 2.Flange stop prevents over drilling.
- 3.Low wear-off.

APPLICABLE MACHINERY

- 1.Electrical drills.
- 2.Drilling presses.
- 3.Magnetic drill presses.



PL-22
1-PLY

ONE PIECE

CAPACITY

Model	PC-22
Available Diameter	Ø15~100mm
Cutting Depth	5mm thickness

MAIN APPLICATIONS

Stainless steel, alloy steel, copper, aluminum, brass, square wares, cast irons, channel iron, iron plates. F,R,P, formed products, electrical controller box and any kind of metal working jobs.

- ▶ Stainless steel conversions, doors & windows, stair rails, railings, screen doors, locks.
- ▶ Manufacture of aluminum doors & windows.
- ▶ Plumbing works, building A/C works.
- ▶ Opening in machines, electrical control boxes.
- ▶ Yachiht building, ship-building industry, F.R.P. industry.

EXTENSIONAL MODEL PASS THROUGH MAX. DEPTH 50mm



ML-26
1-PLY

CAPACITY

Model	ML-26
Available Diameter	Ø15~100mm
Cutting Depth	5mm thickness

SPECIAL FEATURES

1. Designed for tough drilling on 5mm thick stainless steel sheet.
2. To make a deeper hole in one performance. Max. Depth to finish 50mm
3. Low wear-off.



ONE PIECE

PL-28
1-PLY

CAPACITY

Model	PL-28
Available Diameter	Ø15~150mm
Cutting Depth	5mm thickness

MAIN APPLICATIONS

Stainless steel, alloy steel, copper, aluminum, brass, square wares, cast irons, channel iron, plates, F.R.P. formed products, electrical controller box and any kind of metal working jobs.

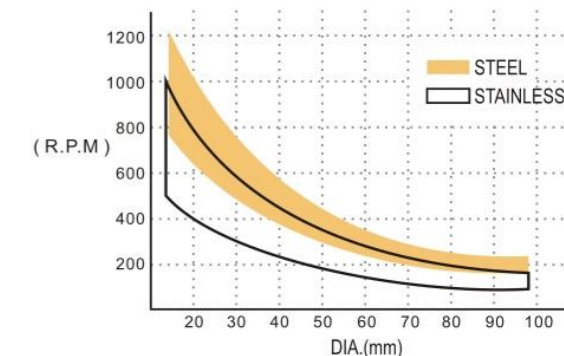
DYNAMITE MODEL



DP-50
2-PLY

CAPACITY

Model	DP-50
Available Diameter	Ø16~100mm
Cutting Depth	5mm thickness



SPECIAL FEATURES

1. Designed for tough drilling on 5mm thick stainless steel sheet.
2. With flute design for getting rid of the chips easily.
3. Adapting big carbide tips to enforce the brazing firmly.
4. Tips ground to have sharp cutting edge to make a solid structure for tough cutting.
5. Strong body plus special treatment to make a solid structure for tough cutting.
6. Pass through all the way for Max. Depth 50mm.



ONE PIECE

PL-52
2-PLY

CAPACITY

Model	PL-52
Available Diameter	Ø16~100mm
Cutting Depth	5mm thickness

MAIN APPLICATIONS

Especially designed for drilling on stainless steel pipe & tube and other wares or sheet with rough surface.

2-PLY HEAVY DUTY MODEL



CAPACITY	
Model	PLD-52
Available Diameter	Ø16~76mm
Cutting Depth	8mm thickness

SPECIAL FEATURES

1. For tough drilling on 8mm (5/16") thick stainless steel sheet or Iron plate.
2. To make a deeper hole in one performance. Max. Depth to finish 50mm.
3. With flute design for getting rid of the chips easily.
4. Adapting big carbide tips to enforce the brazing firmly.
5. Tips ground to have sharp cutting edge to get powerful cutting.
6. Strong body plus special treatment to make a solid structure for tough cutting.

MAIN APPLICATIONS

Stainless steel, alloy steel, copper, aluminum, brass, square wares, cast irons, channel iron, iron plates, F.R.P. formed products, electrical controller box and any kind of metal working jobs.

EXTRA LONG TYPE



CAPACITY	
Model	FS-22L
Available Diameter	Ø16~100mm
Cutting Depth	5mm thickness

SPECIAL FEATURES

1. Designed for tough drilling on 5mm thick stainless steel sheets.
 2. To make a deeper hole in one performance. Max. Depth to finish 28mm.
 3. Flange stop prevents over drilling for safety while working.
 4. With 2-PLY design to get powerful cutting. It's best for rough surface stainless steel or any kind of sheet metal.
- This product also can be used in stainless steel pipe.
5. Low wear-off

MAIN APPLICATIONS

Especially designed for drilling on stainless steel pipe, tube and other wares or sheet with rough surface.



DEVELOPED FOR DRILLING IN STAINLESS PIPES

CAPACITY	
Model	DP-50L
Available Diameter	Ø16~100mm
Cutting Depth	5mm thickness

SPECIAL FEATURES

- This product is designed more functional, besides same as features with FS-22L.
1. Designed for tough drilling on 8mm thick stainless steel sheets.
 2. With flute design for getting rid of the chips easily.
 3. Developed for drilling in stainless pipes.

APPLICABLE MACHINERY

1. Electrical drills.
2. Drilling presses.
3. Magnetic drill presses.

MAIN APPLICATIONS

This product is for drill operation on stainless steel sheet or square wares, cast irons, iron plates and F.R.P. formed products.

3-PLY HEAVY DUTY MODEL

MORE POWERFUL!
LONGER PRODUCT LIFE!



PLD-250
3-PLY

ONE PIECE

CAPACITY

Model	DLP-250
Available Diameter	Ø16~100mm
Cutting Depth	25mm thickness

3-PLY DESIGN

With 3-PLY design for apportion cutting. It can cut in bard steel smoothly and reduce tips crack.

LONGER EFFECTIVE CUTTING

This product is for drilling on thick steel plate and any kind of rough stainless steel or pipes. It can pass through all the way for Max. Depth 25mm.

LIGHTER AND FASTER DRILLING

The abrasion reducing design makes possible increases in durability with lighter and faster drilling compared with previous products.

H.S.S. HOLE SAW STANDARD MOREL



HS-16

CAPACITY

Model	HS-16
Available Diameter	Ø13~76mm
Cutting Depth	1.6mm thickness

SPECIAL FEATURES

1. For tough drilling on 1.6mm thick iron plates.
2. Sharper teeth tip for easier cutting.
3. Longer product life, teeth stay sharp longer.
4. Better chip clearance.
5. For precision hole drilling.

MAIN APPLICATIONS

- A) Electric work:
1. Electric control box's push-button hole.
 2. Refrigeration machines.
- B) Iron work:
1. Sheet metal work.
 2. Drill hole installation.



HSK-7A
HSK-7B
HSK-7C

SPECIAL FEATURES

1. Use the same arbor for different-size saw heads.
2. Chang saw heads with a simple push and turn the screw to be fixed.
3. H.S.S. center drill is replaceable.
4. Arbor's shank drill is replaceable.
5. Spring can help slug removal.

THE KIT CONTAINS

Saw heads:

- A (19~35mm): 19, 22, 25, 28, 30, 32, 35mm each size one piece.
B (30~51mm): 30, 32, 35, 38, 40, 45, 51mm each size one piece.
C (19~51mm): 19, 22, 25, 28, 35, 45, 51mm each size one piece.

Arbor and spring x 1pc

H.S.S. center pilot drill x 2pcs

Hex spanner: 2.5mm x 1pc and 4.0mm x 1pc

Case x unit.

OPTIONAL SAW HEADS

- A. 19mm~35mm identical or different size saw heads.
B. 30mm~51mm identical or different size saw heads.
C. 19mm~51mm identical or different size saw heads.

SPECIAL APPLICATIONS

1. Can combine a depper hole cutter with electrical drills and drilling presses.
2. Ideal designed . jaw chucks for thicker metal plate hole cutting.

MAIN APPLICATIONS

The operation of a hole on—

- ▶ Stainless steel sheet, square wares and pipes.
As doors & windows, stair rails—
- ▶ Aluminum doors & windows.
- ▶ Electrical boxes, or opening in machines.
- ▶ Iron plate or cast iron.
As yacht building, ship-buiding
- ▶ Wooden doors or household appliances.

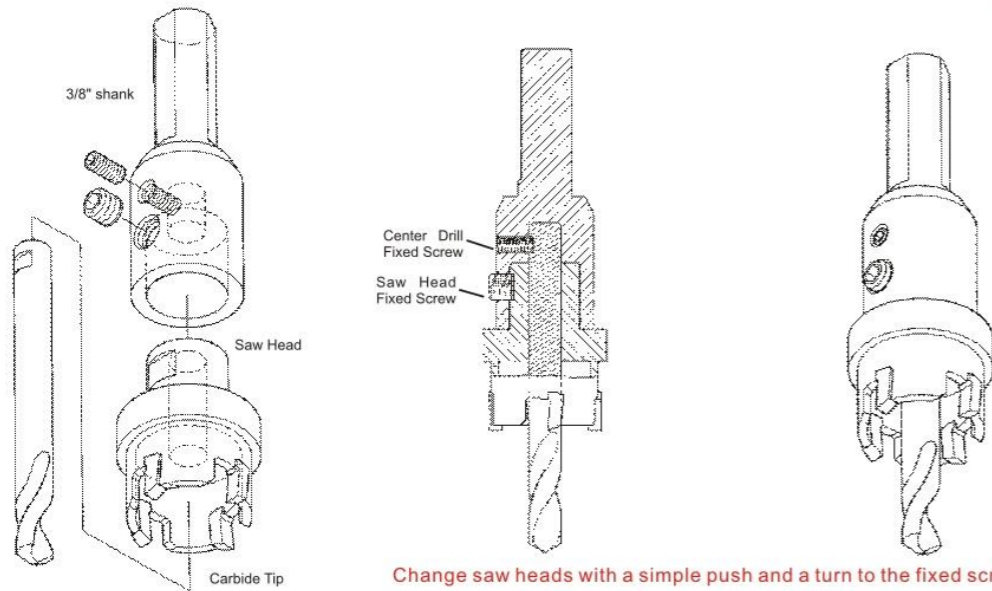
TUNGSTEN CARBIDE HOLE SAW KITS

TUNGSTEN CARBIDE TIPPED HOLE SAW

Changing saw heads lot faster and easier when every second counts, your replace different-size saw heads.



HOLE SAW SETUP INTRODUCTION



Change saw heads with a simple push and a turn to the fixed screw.

1. The best system for drilling sheet metal.
2. The perfect portable tool for the professional electrician, plumber, mechanic and general contractor. A productive and cost effective alternative to bi-metal hole saws specifically engineered for cordless power tools.
3. Up to 150 holes per cutter in stainless steel.
4. Engineered for cutting thin materials up to 3mm.
5. Designed with 3 carbide teeth and thinner walls to reduce friction.
6. Ideal for cordless tools/ require less torque.
7. Cut stainless steel, sheet metal and tubing.



APPLICATIONS

- Junction/ Switch Boxes
- Metal studs
- Electrical Appliances
- Lighting Fixtures
- Auto Body Repair

Size Available: 15mm - 40mm

Speed Recommendation		
Size	Steel (rpm)	Stainless Steel(rpm)
15mm - 21mm	700-1000	300-700
22mm - 30mm	500-800	200-450
31mm - 40mm	300-600	175-315



Item	Description
PL-13 (one piece type)	Complete with shank 10 mm, HSS-pilot drill, spring and allen key each 1pc.
PL-13B (one piece type)	Complete with hex shank 6.30 mm, HSS-pilot drill, spring and allen key each 1pc.
PL-13C (combination type)	Complete with hex shank 6.30 mm, HSS-pilot drill, spring and allen key each 1pc.
PL-13SA6 (6pcs in a set)	16mm,19mm,22mm,25mm,30mm,35mm Extra accessories : HSS-pilot x 1pc Allen key x 1pc
PL-13SB6 (6pcs in a set)	22mm,25mm,30mm,35mm,38mm,40mm Extra accessories : HSS-pilot x 1pc Allen key x 1pc





AW-360

AW

MODEL	AW-360
Cutting Depth	36mm
Available Diameter	Ø 20-100mm

USE ON FOLLOWING MACHINES

- ▶ Pillar drilling machines up to 60mm in wood.
- ▶ Portable drilling machines up to 60mm in wood.

AVAILABLE WORKING SHEET

AL CU ZN			
	non ferrous metals(aluminum) up to 36mm/60mm	wood up to 36mm/60mm	plastics up to 36mm/60mm

APPLICATIONS

- ▶ Ø20mm~100mm(AW-360)com;lete with shank 13mm, HSS (or S45C)-pilot drill, spring and allen key.
- ▶ Developed for fast drilling in wood, chip board, plywood, compressed paper, PVC, glass fiber reinforced plastic, gs concrete(Ytong), plasterboard, clay tiles and hollow gauged brick/ ston, tiles up to scratch hardness 6.
- ▶ Because of large tooth pitch fast cutting without burning marks on the material.



CUP

MODEL	AW-360
Effective Length	36mm
Overall Length	46mm



S45C PILOT DRILL

5.95 x 78L for AW-360
5.95 x 100L for AW-600
For Wood



HSS PILOT DRILL

5.95 x 78L for AW-360
For Aluminum & Wood



SPRING Best choice for variable thickness in working sheet

Normal	2 springs
Medium	1 spring
Deepest	no spring

For Rid Off the Chips



ARBOUR / SHAFT

Thread	½"x20UNF (or M14 x P1.5)
Tool Holder Wrench Size	13mm

For Adapt Base Body

TUNGSTEN CARBIDE TIPPED ANNULAR CUTTER MANUAL

OPERATING INSTRUCTIONS

- ▶ Before using, insert pilot pin into TCT annular cutter than insert cutter into machine arbor and last tighten set screw on cutter flat.
- ▶ Before cutting, make sure all part to be ocked surely.

Fig.1
Insert

Fig.2
Insert cutter into arbor

Fig.3
Tighten set screw on cutter flat

NO YES

CAUTION

Hex.socket screw must come directly on the flat surface without dimple (see arrow on the fig.2 sketch), for "side lock" type cutter holders.

SPEED RECOMMENDATION

Diameter Ø mm	R.P.M. TABLE		
	Steel Plate	Stainless Steel	Cast Iron
Ø13 mm~Ø 18mm	1190 - 800	1000 - 500	1790 - 1390
Ø19 mm~Ø 25mm	1160 - 710	890 - 440	1590 - 1240
Ø26 mm~Ø 30mm	960 - 640	800 - 400	1430 - 1110
Ø31 mm~Ø 35mm	870 - 570	720 - 360	1300 - 1010
Ø36 mm~Ø 40mm	760 - 510	640 - 320	1140 - 890
Ø41 mm~Ø 50mm	640 - 430	530 - 270	950 - 740
Ø51 mm~Ø 55mm	550 - 360	460 - 230	810 - 630
Ø56 mm~Ø 60mm	480 - 320	400 - 200	710 - 550
Ø61 mm~Ø 65mm	430 - 280	350 - 170	630 - 490
Ø66 mm~Ø 70mm	380 - 260	320 - 160	570 - 440
Ø71 mm~Ø 80mm	320 - 220	260 - 120	490 - 360
Ø81 mm~Ø 90mm	260 - 180	200 - 100	420 - 290
Ø91mm~Ø100mm	220 - 150	160 - 90	350 - 190

TUNGSTEN CARBIDE TIPPED HOLE SAW MANUAL

R.P.M. TABLE

DIA (MM)	STEEL PLATE	STAINLESS	CAST IRON
14-19	1190~800	1000~500	1790~1390
20-30	1160~710	890~440	1590~1240
31-40	960~640	800~400	1430~1110
41-50	870~570	720~360	1300~1010
51-60	760~510	640~320	1140~890
61-70	640~430	530~270	950~740
71-80	550~360	460~230	810~630
81-90	480~320	400~200	710~550
91-100	430~280	350~170	630~490
101-120	380~260	320~160	570~440
121-150	200~100	120~60	390~280

⚠ Do not press the blades strongly onto the materials to be cut after the pilot drill penetration is completed.

⚠ Attach the shank securely at the three chucking points.

