

SERIES CATALOGUE

unika



HOLE SAW

Safety Precautions



WARNINGS

- ❑ Wear working clothes suitable for the operation. In particular, eye protection equipment must be worn to prevent shavings from getting into your eyes.
- ❑ Prepare the working environment before starting the job. Be careful to consider safety when working in high places, being close to inflammable materials, in dark places, in rain, in wet place, on scaffolding. Consider falling, fires, electric shock, etc.
- ❑ Be sure to check if there are any defects in the product before use. Never use the product if it has any defect.
- ❑ Be sure to turn off the main switch of the drill and disconnect the power supply plug from the socket before attaching and detaching the product.
- ❑ Do not touch the product, the shavings, or the drilled surface by hand because they may be hot by drilling friction.
- ❑ Never remodel or modify the product.
- ❑ Do not touch moving parts, especially the drill tip or blades.
- ❑ When you feel anything unusual in use, stop using the product and inspect it as well as the electrical drill.
- ❑ When using the product for any other application than is specified, be sure to contact UNIKA.
- ❑ Carefully read the instruction manual of the electrical drill used before using the product.



CAUTION

- ❑ Do not allow any person other than the working staff to enter the working place.
- ❑ Do not touch the blades by hand because they are very sharp.
- ❑ Please read handling description well when changing and assembling.
- ❑ Use spare parts that comply with the product specification.
- ❑ The product and its size must be appropriate for the specification of the electrical drill used.

The products carried by this catalog, specifications, etc. may be changed without preliminary announcement .
The products carried in this catalog may be different in color than the actual item.

HOLE SAWS

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HOLE SAWS USAGE CHART

	SHEET METAL				STAINLESS STEEL PLATE	ALUMINUM PLATE	METAL EXTERIOR PANELS	WOOD	FRP	PVC	PIPE MATERIAL	PLASTIC	DECK PLATE
	Thin steel plate (up to 3.2 mm)	Thin steel plate (up to 4.5 mm)	Thick steel plate (up to 25 mm)	Thick steel plate (up to 50 mm)									
T.C.T. Hole Saw TRIPLE COMBO	○	⊗	○(23 mm)		⊗	⊗	○	△	○	○	⊗	○	○
T.C.T. Hole Saw META-CORE	⊗	⊗			⊗	⊗			○	○		○	○
T.C.T. Hole Saw META-CORE TRIPLE	○	⊗	○		⊗	⊗	○	△	○	○	⊗	○	○
T.C.T. Hole Saw META-CORE TRIPLE [Without collar]	○	○	○		⊗	⊗	⊗	△	○	○	⊗	○	○
T.C.T. Hole Saw CORDLESS META-CORE	⊗				⊗	⊗			○	○		○	○
T.C.T. Hole Saw META-CORE MAX			⊗	⊗	△	△					○		○
Bi-Metal HSS HOLE SAW	⊗	○				⊗	⊗	○	○	⊗		○	○
Bi-Metal HSS HOLE SAW [Without collar]	⊗	○				⊗	⊗	○	○	⊗		○	○
Bi-Metal CORDLESS HSS HOLE SAW	⊗(2 mm)					⊗	⊗	○	○	⊗		○	○
Deck Bit	○(2 mm)				○(1 mm)	○(2 mm)			○	○		○	⊗

T.C.T Hole Saw **TRIPLE** COMBO SERIES

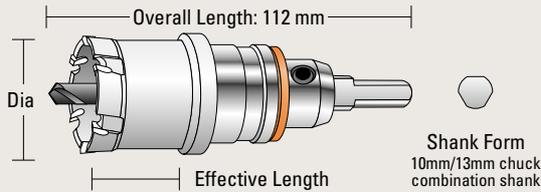


- Quick Body Replacement.
- 3-blade cutters durable even for hard materials.
- The 23mm effective length enables drilling materials such as thick steel plates, curved surfaces of metal pipe having heavy large wall thickness and etc.
- No need to select drill chucking diameter due to "The Compatible Chuck Type Shank for 10mm and 13mm".



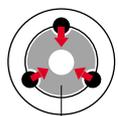
Effective Length 23 mm (Cutter Body Depth: 23 mm)

Applicable Electric Tool Electric Drill / Percussion Drill (rotating mode)



STEEL (up to 23 mm)	STAINLESS STEEL (up to 10 mm)
ALUMINUM (up to 5 mm)	PIPE MATERIAL
FRP	PVC
	PLASTIC

Quick Replacement Body / For Pipe and Stainless Steel



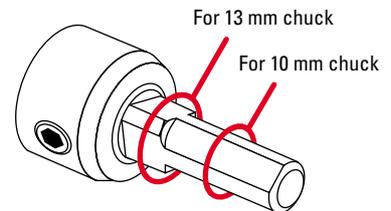
Ball Groove

Three balls on shank side secure body lock.

Body Shank Cross Section



The shank shape allows for most chuck diameter



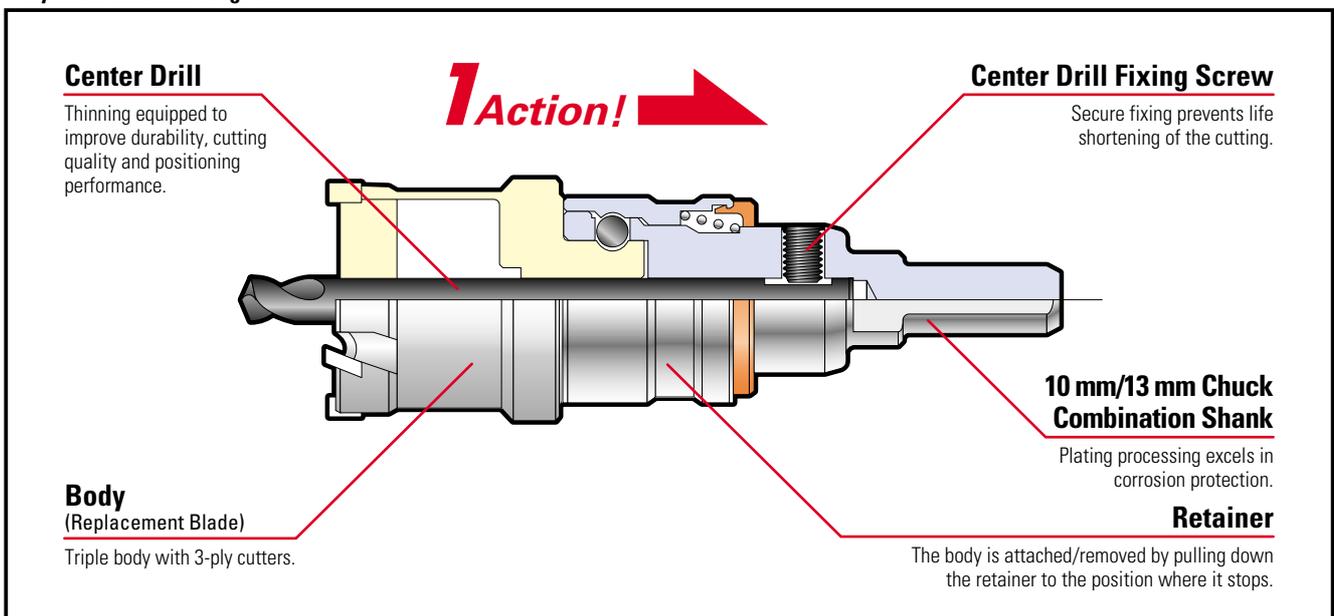
For 13 mm chuck

For 10 mm chuck

Body with 3-ply Cutters



System schematic diagram



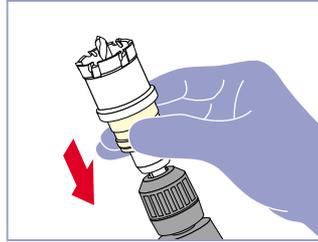
1-Touch Body Replacement.

The TRIPLE COMBO SERIES has a shank system that enables body replacement by one-touch operation. Before attachment/removal operation, attach the shank to the motor and make sure to place the body facing upward to perform operation.

Body Removal

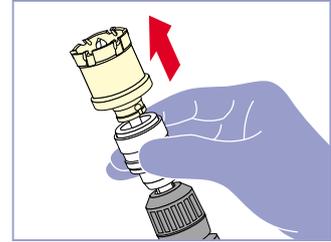
STEP 1

Attach the body to the electrical drill.
Position the body upward.
Draw the retainer down until it stops.



STEP 2

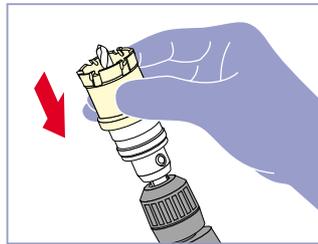
Retainer jumps up. Remove the body.
*Be careful when handling the body because it has been heated after drilling.
*Be sure to disconnect the drill's electrical plug from its power supply socket before attaching and detaching the body.



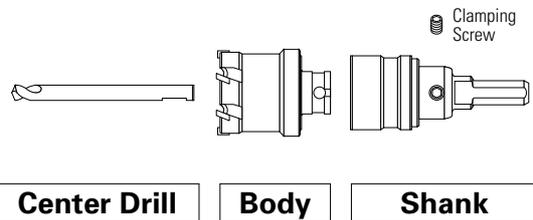
Body Attachment

STEP 1

Insert the body into shank socket.
Rotate the body by one step down.
(Until the ball socket holes cannot be seen.)
Press the body until it clicks.
(The retainer will immediately click into place and lock the body.)



Parts Drawing



TRIPLE COMBO (Set)

	Code	Diameter (mm)	Shank Diameter (mm)	Pcs./Box	
△	COM-T19ST	19	10/13	5	
⊙	COM-T21ST	21			
△	COM-T22ST	22			
△	COM-T25ST	25			
⊙	COM-T27ST	27			
○	COM-T28ST	28			
	COM-T30ST	30			
	COM-T32ST	32		3	
⊙	COM-T33ST	33			
○	COM-T35ST	35			
	COM-T38ST	38			
○	COM-T42ST	42			
△	COM-T50ST	50			
	COM-T53ST	53			

TRIPLE COMBO (Body)

Code	Diameter (mm)	Pcs./Box	
COM-T19B	19	5	
COM-T21B	21		
COM-T22B	22		
COM-T25B	25		
COM-T27B	27		
COM-T28B	28		
COM-T30B	30		
COM-T32B	32	3	
COM-T33B	33		
COM-T36B	35		
COM-T38B	38		
COM-T42B	42		
COM-T50B	50		
COM-T53B	53		



TOOL BOX SET

There is also the tool box set which is convenient for carrying and receiving.

[For Electrical Repair]
21/27/33/42/53mm×each 1 [TB-40]
21/27/33mm×each 2 [TB-41]

[For Equipment Installation]
25/28/30/32/38/50mm×each 1 [TB-42]

*The shank 1 and 2 center drills belongs to tool box set.

TRIPLE COMBO (Shank)

Code	Shank Type		
COM-SST	Straight		
COM-SSD	SDS		

TRIPLE COMBO [Tool Box Set]

Code	Set Diameter (mm)					Shank Type	
TB-40	21	27	33	42	53	Straight	
TB-41	21	21	27	27	33	33	
TB-42	25	28	30	32	38	50	
TB-40SD	21	27	33	42	53	SDS	
TB-41SD	21	21	27	27	33	33	
TB-42SD	25	28	30	32	38	50	

TRIPLE COMBO (Center Drill)

Code	Size (mm)		
COM-CD6M	6×87		
COM-CD6L	6×100		

*When drilling a metal plate with a thickness of 10 mm or more, use the center drill (COM-CD6L) [option].

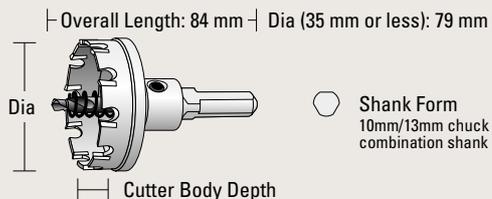
T.C.T Hole Saw **META-CORE**



- T.C.T. hole saw standard type.
- Adopting the step center drill dampens impacts that occur when the center drill passes through.
- Adopting the "10 mm/13 mm chuck combination shank," allows for most drill chuck diameters.

⚠ Cannot be used with drilling machines.

Effective Length 4.5 mm (Cutter Body Depth: 12 mm)
Applicable Electric Tool Electric Drill / Percussion Drill (rotating mode)



SHEET METAL	STAINLESS STEEL (up to 3 mm)
ENAMELED STEEL	ALUMINUM (up to 2 mm)
FRP	PVC
	PLASTIC

Ejector spring (up to 53mm fitted as standard) / compatible with stainless steel

Performance is achieved in the following cases:

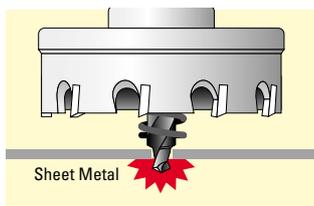


Function of step center drill

The step center drill protects the tungsten carbide/ultra-hard tip of the cutting edge from impacts that occur when the center drill passes through, preventing cracking of the tip.

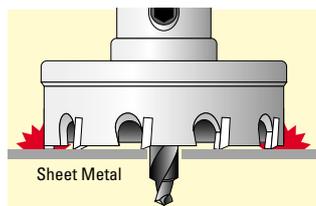
STEP 1

When the center drill passes through the work material, the stepped portion dampens impacts.



STEP 2

The tungsten carbide/ultra-hard tip of the hole saw starts drilling the work material.





TOOL BOX SET

[For Electrical Repair]
 21/27/33mm × each 2 [TB-05]
 21/27/33/ 42/53mm × each 1 [TB-07]

[For Water / Gas duct]
 22/28/30/32/38/50 mm × each 1 [TB-04]
 20/22/28/ 32/35mm × each 1 [TB-06]



There is also the tool box set which is convenient to carrying and receiving.

META-CORE [Tool Box Set]

Code	Set Diameter (mm)					
TB-04	22	28	30	32	38	50
TB-05	21	21	27	27	33	33
TB-06	20	22	28	32	35	
TB-07	21	27	33	42	53	

Drilling swarf discharge groove

Drilling swarf is efficiently discharged through these drilling swarf discharge grooves to the peripheral side. Clogging of drilling swarf between the work material and cutting edge makes drilling impossible, which leads to tips cracking and chipping.



Specially ground cutting edge

Cutting resistance is significantly reduced by specifically grinding the tungsten carbide/ultra-hard tip of the cutting edge.



Newly developed step center drill

Two-step structure of the center drill tip end dampens impacts that occur when the center drill passes through, preventing cracking of the tungsten carbide/ultra-hard tip.



10 mm/13 mm chuck combination shank

Allows for most drill chuck diameters.



HOLE SAWS

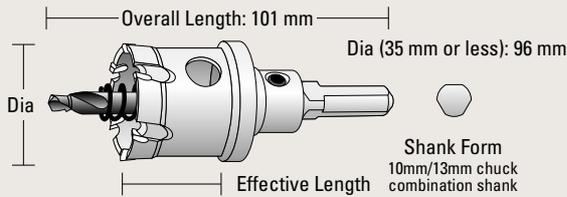
T.C.T Hole Saw **META-CORE TR** TRIPLE



- 3-ply cutters reducing tip crack even with hard use. Realizes light and speedy drilling and long lifetime.
 - The 25mm effective depth enables drilling ranging from thick steel plate to curved face drilling in thick metal pipes.
 - Adopts the step center drill that dampens impacts that occur when the center drill passes through.
- ⚠ When drilling a metal plate with a thickness of 10 mm or more, use the center drill (STR-6) [option].

Effective Length 25 mm (Cutter Body Depth: 25 mm)

Applicable Electric Tool Electric Drill / Drilling Machine

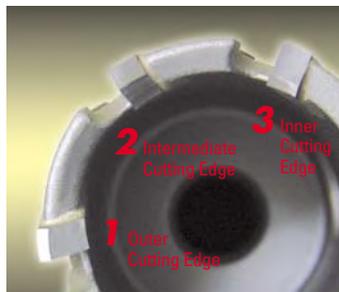


STEEL PLATE (HB200 or less)	STAINLESS STEEL (up to 10 mm)
PIPE MATERIAL	ALUMINUM (up to 5 mm)
FRP	PVC
	PLASTIC

Ejector spring (Dia: 20 mm or more) / compatible with pipes and stainless steel

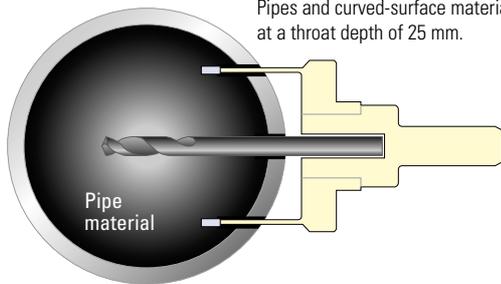
3-Ply Cutters

Cutting the shavings to one-third with respect to the cutting width using 3-ply cutters (outer, inner and intermediate cutting blades) has dramatically decreased cracks on the tip corner. This also includes inside cutting edges so debris can be discharged smoothly.



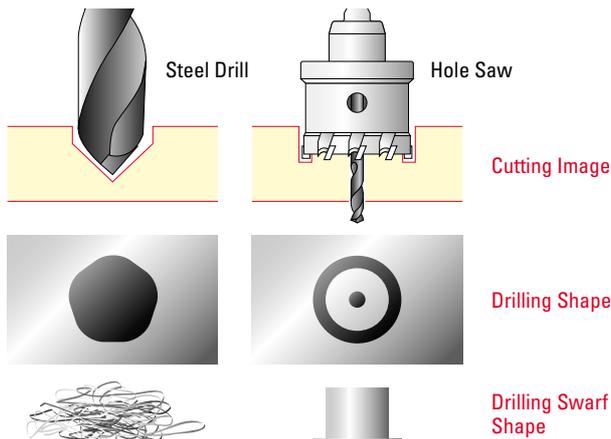
Compatible with Pipe-Drilling

Pipes and curved-surface materials can be drilled at a throat depth of 25 mm.



Hole Saw Drilling Efficiency

Hole saw drilling has a smaller cutting area compared to steel drills, enabling short-time drilling.



Drilling swarf discharge groove

Drilling swarf is efficiently discharged through these drilling swarf discharge grooves to the peripheral side. Clogging of drilling swarf between the work material and cutting edge makes drilling impossible, which leads to tips cracking and chipping.



Shavings escape hole

An escape hole, which is convenient for shavings removal, is equipped with hole saws of all diameters.

⚠ After removing the main unit from the motor, insert the driver, etc., into the shavings escape hole and push out debris.



Newly developed step center drill

Two-step structure of the center drill tip end dampens impacts that occur when the center drill passes through, preventing cracking of the tungsten carbide/ultra-hard tip.



10 mm/13 mm chuck combination shank

Allows for most drill chuck diameters.



HOLE SAWS

T.C.T Hole Saw

META-CORE TRIPLE **TR**

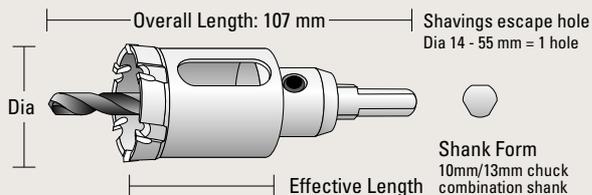
Without collar



- Without a stopper (collar), added depth of cut is possible.
- 3-ply cutters reduce tip cracks even with hard use.
- The 35mm effective depth enables drilling materials such as thick steel plates, curved surfaces of metal pipes having heavy large wall thickness etc.



Effective Length 35 mm (Cutter Body Depth: 37 mm)
Applicable Electric Tool Electric Drill / Drilling Machine

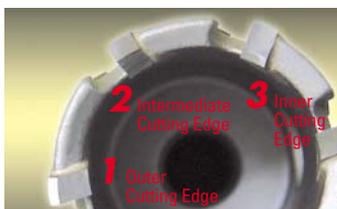


METAL SIDING PANEL	STAINLESS STEEL (up to 10 mm)
PIPE MATERIAL	ALUMINUM (up to 5 mm)
FRP	PLYWOOD
	PLASTIC

Compatible with pipes and stainless steel

3-Ply Cutters

Cutting the shavings to one-third with respect to the cutting width using 3-ply cutters (outer, inner and intermediate cutting blades) has dramatically decreased cracks on the tip corner. This also includes inside cutting edges so debris can be discharged smoothly.



Shavings escape hole

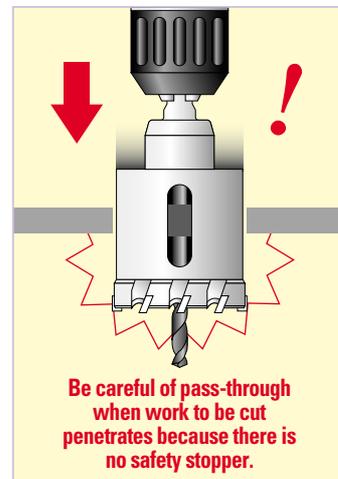
An escape hole, which is convenient for shavings removal, is equipped with hole saws of all diameters.



- After removing the main unit from the motor, insert the driver, etc., into the shavings escape hole and push out debris.

Precautions on use

- Securely chuck the three-surface section of the shank to prevent swinging or falling.
- Do not hit the cutting edges of the tungsten carbide/ultra-hard tip against any hard object or allow strong contact with the work material that may occur when the center drill passes through. The tip will crack.
- Do not reduce the rotation speed excessively during drilling. Jamming or tip cracking may result.
- In the case of continuous drilling using a drilling machine, watch out for overheating of the cutting edge and use cutting fluid or stop drilling to cool the cutting edge.



META-CORE TRIPLE [Without collar] (MCTR-TN)

Code	Diameter (mm)	Shank Diameter (mm)	Pcs./Box
△ MCTR-20TN	20	10	5
⊙ MCTR-21TN	21		
△ MCTR-22TN	22		
□ MCTR-23TN	23		
○ MCTR-25TN	25		
○ MCTR-27TN	27		
○ MCTR-28TN	28		
⊙ MCTR-30TN	30		
○ MCTR-32TN	32	10	3
○ MCTR-33TN	33		
□ MCTR-34TN	34	10/13	
⊙ MCTR-35TN	35		
⊙ MCTR-38TN	38		
△ MCTR-40TN	40		
△ MCTR-42TN	42		
□ MCTR-45TN	45		
⊙ MCTR-50TN	50		
□ MCTR-51TN	51		
□ MCTR-52TN	52		
□ MCTR-53TN	53		
□ MCTR-54TN	54		
□ MCTR-55TN	55		
□ MCTR-60TN	60		1
△ MCTR-65TN	65		
□ MCTR-70TN	70		
□ MCTR-75TN	75		
□ MCTR-80TN	80	13	
□ MCTR-110TN	110		

META-CORE TRIPLE [Without collar] (Center Drill)

Code	Diameter (mm)	Overall Length (mm)	Hole Saw Size (mm)
STR-6	6	75	20~80
SL-8	8	70	110



TOOL BOX SET

There is also the tool box set which is convenient to carrying and receiving.

- [For Electrical Repair]**
 21/27/33/42/53mm×each 1 [TB-25TN]
 21/27/33mm×each 2 [TB-27TN]
 22/28/35mm×each 2 [TB-28TN]
- [For Equipment Installation]**
 25/28/30/32/38/50mm×each 1 [TB-32TN]

META-CORE TRIPLE [Without collar] [TOOL BOX SET]

Code	Set Diameter (mm)					
TB-25TN	21	27	33	42	53	
TB-27TN	21	21	27	27	33	33
TB-28TN	22	22	28	28	35	35
TB-32TN	25	28	30	32	38	50

T.C.T Hole Saw

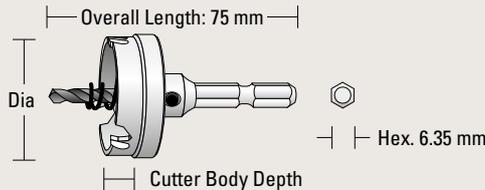
CORDLESS META-CORE



- A first in Japan! T.C.T. hole saw for use with rechargeable and small electric drills (under 400W). Enables drilling of stainless steel with low power.
- Cutting resistance cutting edges and center drills comprehensively reduced. Allow 3 times the number of hole drilling with a full charge (compared with standard Meta-core).

No Impact

Effective Length	3.2 mm (Cutter Body Depth: 5 mm)
Applicable Electric Tool	Cordless Drill / Electric Drill (under 400W)



SHEET METAL	STAINLESS STEEL (up to 2 mm)
ALUMINUM (up to 2 mm)	FRP
PVC	PLASTIC

Ejector spring / compatible with stainless steel



TOOL BOX SET

There is also the tool box set which is convenient for carrying and receiving.

- [For Electrical Repair]**
 21/27mm X each 2 33mm X each 1 [TB-22]
 22/28mm X each 2 35mm X each 1 [TB-23]
- [For Equipment Installation]**
 25/28/30/32/35mm X each 1 [TB-24]

CORDLESS META-CORE [TOOL BOX SET]

Code	Set Diameter (mm)				
	TB-22	21	21	27	27
TB-23	22	22	28	28	35
TB-24	25	28	30	32	35

CORDLESS META-CORE (MCJ)

	Code	Diameter (mm)	Shank Diameter (mm)	Pcs./Box
△	MCJ-15	15	6.35	5
△	MCJ-16	16		
	MCJ-17	17		
	MCJ-18	18		
	MCJ-19	19		
	MCJ-20	20		
○	MCJ-21	21		
○	MCJ-22	22		
	MCJ-23	23		
	MCJ-24	24		
○	MCJ-25	25	6.35	5
	MCJ-26	26		
○	MCJ-27	27		
	MCJ-28	28		
	MCJ-29	29		
△	MCJ-30	30		
	MCJ-31	31	6.35	3
△	MCJ-32	32		
△	MCJ-33	33		
	MCJ-34	34		
○	MCJ-35	35		

CORDLESS META-CORE (Center Drill)

Code	Diameter (mm)	Overall Length (mm)	Hole Saw Size (mm)
S-4	4	41	15~35

CORDLESS META-CORE (Ejector Spring)

Code	Hole Saw Size (mm)
MCJ KS-No.1	15~35

Stainless steel drilling data

Size used / 21 mm dia.
 Material drilled / SUS304 stainless steel plate (JIS Metal Rating)
 Material thickness / t = 1.0 mm
 Cordless tool used / 12 V cordless drill driver (high-speed mode)

No. of drillings / Approx. 25 times (Full charge)
 Average time per drilling / Approx. 5 secs
 Possible No. of drillings / Approx. 120 times

Compatible Motors

- Rechargeable drills of a rotation speed of approximately 1,000 rpm and rotary torque of 50 N·m specifications (for rotation use only).
- Compact electric drills with electric power consumption of 400 W or less.

*Cannot be used with impact wrenches, impact drivers, drilling machines, percussion drills, or hammer drills.

*Use with a rechargeable drill at 9.6 V or more.

Materials that can be drilled

- Stainless steel plate (SUS304 equivalent)
- Milled steel plate (SS400, SPCC, SPHC, etc.)
- FRP plate

HOLE SAWS

T.C.T Hole Saw

META-CORE MAX



- High-precision speed drilling through thick steel plate. Overlap drilling also possible.
- Include unique Unika technology such as 3-angle cutting edges (2-angles for 17mm diameter cutters or less). Low chance of premature tip damage for stable cutter life.
- Quick release cutter mounting and removal.

Effective Length 25 mm (MAX25) / 35 mm (MAX35)
50 mm (MAX50)

Applicable Electric Tool Magnetic Drilling Machine



STEEL PLATE (HB300 or less) **CAST IRON**
STAINLESS STEEL **PIPE MATERIAL**

HOLE SAWS

META-CORE MAX 25 [1-touch Type] (MX25)

Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)
MX25-11.5	11.5	62	19.04
MX25-12.0	12.0		
MX25-13.0	13.0		
MX25-13.5	13.5		

META-CORE MAX 35 [1-touch Type] (MX35)

Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)
MX35-14.0	14.0	72	19.04
MX35-14.5	14.5		
MX35-15.0	15.0		
MX35-16.0	16.0		
MX35-17.0	17.0		
MX35-17.5	17.5		
MX35-18.0	18.0		
MX35-19.0	19.0		
MX35-20.0	20.0		
MX35-21.0	21.0		
MX35-21.5	21.5	72	19.04
MX35-22.0	22.0		
MX35-22.5	22.5		
MX35-23.0	23.0		
MX35-23.5	23.5		
MX35-24.0	24.0		
MX35-24.5	24.5		
MX35-25.0	25.0		
MX35-25.5	25.5		
MX35-26.0	26.0		
MX35-26.5	26.5		
MX35-27.0	27.0		
MX35-28.0	28.0		
MX35-29.0	29.0		
MX35-30.0	30.0		
MX35-31.0	31.0	72	19.04
MX35-32.0	32.0		
MX35-33.0	33.0		
MX35-34.0	34.0		
MX35-35.0	35.0		
MX35-36.0	36.0		
MX35-37.0	37.0		
MX35-38.0	38.0		
MX35-39.0	39.0		
MX35-40.0	40.0		

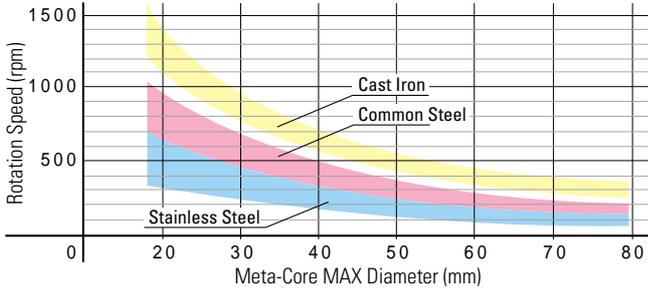
META-CORE MAX 50 [1-touch Type] (MX50)

Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)
MX50-17.5	17.5	90	19.04
MX50-18.0	18.0		
MX50-19.0	19.0		
MX50-20.0	20.0		
MX50-21.0	21.0		
MX50-21.5	21.5		
MX50-22.0	22.0		
MX50-22.5	22.5		
MX50-23.0	23.0		
MX50-23.5	23.5		
MX50-24.0	24.0		
MX50-24.5	24.5		
MX50-25.0	25.0	90	19.04
MX50-25.5	25.5		
MX50-26.0	26.0		
MX50-26.5	26.5		
MX50-27.0	27.0		
MX50-28.0	28.0		
MX50-28.5	28.5		
MX50-29.0	29.0		
MX50-30.0	30.0		
MX50-31.0	31.0		
MX50-32.0	32.0		
MX50-33.0	33.0		
MX50-34.0	34.0		
MX50-35.0	35.0		
MX50-36.0	36.0	90	19.04
MX50-37.0	37.0		
MX50-38.0	38.0		
MX50-39.0	39.0		
MX50-40.0	40.0		
MX50-41.0	41.0		
MX50-42.0	42.0		
MX50-43.0	43.0		
MX50-44.0	44.0		
MX50-45.0	45.0		
MX50-46.0	46.0	90	19.04
MX50-47.0	47.0		
MX50-48.0	48.0		
MX50-49.0	49.0		
MX50-50.0	50.0		
MX50-51.0	51.0		
MX50-52.0	52.0		
MX50-53.0	53.0		
MX50-54.0	54.0		
MX50-55.0	55.0		



● Appropriate rotation speed (Peripheral speed)

Common steel = 40 - 60 m/min. Stainless steel = 20 - 40 m/min. Cast iron = 70 - 90 m/min.



● Feed speed



Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)
MX50-56.0	56.0	90	19.04
MX50-57.0	57.0		
MX50-58.0	58.0		
MX50-59.0	59.0		
MX50-60.0	60.0		
MX50-61.0	61.0		
MX50-62.0	62.0		
MX50-63.0	63.0		
MX50-64.0	64.0		
MX50-65.0	65.0		

META-CORE MAX (Shank Assembly) [Side Lock]

Code	Shank Diameter	Hole Saw Size (mm)
MCN-MT2	MT-2	11.5~50
MCN-MT3	MT-3	17.5~65



*To be used on upright magnetic drill presses, stationary drill presses or milling machines.

*Use the side-lock flat when using this assembly.

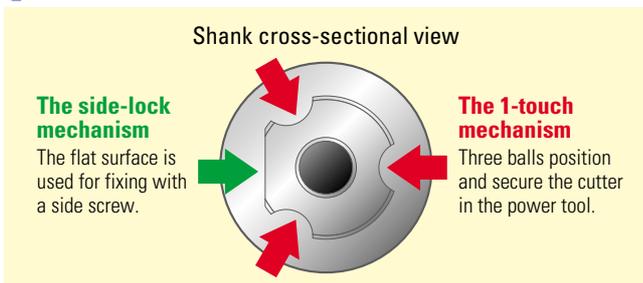
META-CORE MAX (Center Pin)

Code	Dia (mm)	Overall Length (mm)	Hole Saw Size (mm)
MXCP25-6	6.35	81	MX25 11.5~13.5
MXCP35-6	6.35	91	MX35 14.0~17.0
MXCP35-8	8.0	91	MX35 17.5以上
MXCP50-8	8.0	112	MX50 17.5以上
IKURA MXCP25-6S	6.35	81	MX25 11.5~13.5
IKURA MXCP35-6S	6.35	86	MX35 14.0~17.0



*When using a Ikura Seiki magnetic drill press make sure you use their specific pilot pin.

● 1-touch & side-lock combination



● 3-Ply Cutters

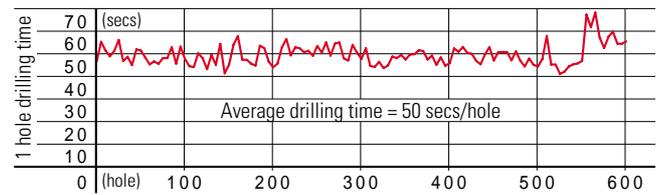
Cutting the shavings to one-third with respect to the cutting width using 3-ply cutters (outer, inner and intermediate cutting blades) has dramatically decreased cracks on the tip corner. This also includes inside cutting edges so debris can be discharged smoothly.



● Endurance test

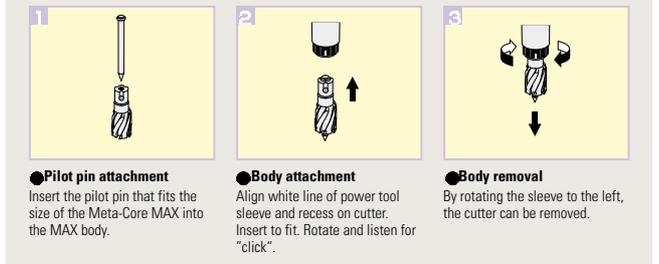
Standard size used: MX50-24.0mm Worked on material: JIS SM490 with 25mm thickness
Power tool: LO-3550A-950RPM (Nitto Koki Magnetic Drill Press)

Other: Manual drilling, water-soluble cutting oil used.



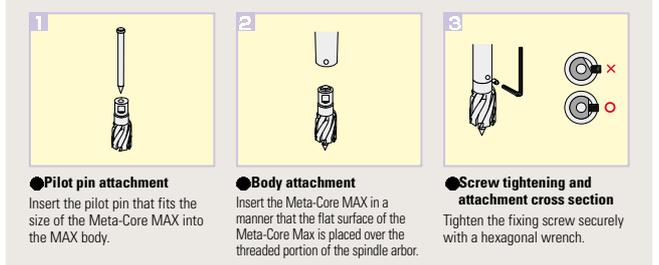
● Compatible Magnetic Drilling Machine (1-touch Type)

Small size	Manufacturer	Model No.	MX25	MX35	MX50
	NITTO	LO-3000A	~Φ 13.5	~Φ 30.0	—
LO-3550A		~Φ 13.5	~Φ 35.0	~Φ 35.0	
HITACHI	BM40M2	~Φ 13.5	~Φ 40.0	~Φ 40.0	
Standard size	Manufacturer	Model No.	MX25	MX35	MX50
	NITTO	QA-4000	—	~Φ 40.0	—
		QA-6500	—	~Φ 40.0	~Φ 65.0
	A-3000	—	~Φ 30.0	—	—
A-5000		—	~Φ 40.0	~Φ 50.0	



● Compatible Magnetic Drilling Machine (Side Lock Type)

Small size	Manufacturer	Model No.	MX25	MX35	MX50
	IKURA	IS-LB30SX	~Φ 13.5	~Φ 30.0	—
SEIKI IS-LB40SW		~Φ 13.5	~Φ 40.0	~Φ 40.0	
SEIKI IS-LB50SW		—	~Φ 40.0	~Φ 50.0	
OMI	MGF30AH	~Φ 13.5	~Φ 30.0	—	
	MGF40AH	~Φ 13.5	~Φ 40.0	~Φ 40.0	
	MGF50AH	~Φ 13.5	~Φ 40.0	~Φ 50.0	
Standard size	Manufacturer	Model No.	MX25	MX35	MX50
	NITTO	FA-35	—	~Φ 35.0	—
FA-50		—	~Φ 40.0	~Φ 50.0	



T.C.T Hole Saw

META-CORE MAX



- High-precision speed drilling through thick steel plate. Overlap drilling also possible.
- Include unique Unika technology such as 3-angle cutting edges. Low chance of premature tip damage for stable cutter life.
- A M18, screw-in type shank.

Effective Length 50 mm

Applicable Electric Tool Magnetic Drilling Machine



STEEL PLATE (HB300 or less)

CAST IRON

STAINLESS STEEL

PIPE MATERIAL

META-CORE MAX 50 [M18 Type] (MX50H)

	Code	Diameter (mm)	Overall Length (mm)	Screw diameter
○	MX50H-18.0	18.0	80	M18 (6P 1.5)
◎	MX50H-19.0	19.0		
○	MX50H-20.0	20.0		
	MX50H-21.0	21.0		
	MX50H-21.5	21.5		
○	MX50H-22.0	22.0		
○	MX50H-23.0	23.0		
△	MX50H-23.5	23.5		
◎	MX50H-24.0	24.0		
○	MX50H-24.5	24.5		
○	MX50H-25.0	25.0		
	MX50H-25.5	25.5	80	M18
△	MX50H-26.0	26.0		
	MX50H-26.5	26.5		
○	MX50H-27.0	27.0		
△	MX50H-28.0	28.0		
△	MX50H-29.0	29.0		
	MX50H-30.0	30.0		
	MX50H-31.0	31.0		
	MX50H-32.0	32.0		
△	MX50H-33.0	33.0		
	MX50H-34.0	34.0		
△	MX50H-35.0	35.0		
	MX50H-36.0	36.0	80	M18
	MX50H-37.0	37.0		
◎	MX50H-38.0	38.0		
	MX50H-39.0	39.0		
	MX50H-40.0	40.0		
	MX50H-41.0	41.0		
	MX50H-42.0	42.0		
	MX50H-43.0	43.0		
	MX50H-44.0	44.0		
	MX50H-45.0	45.0		
	MX50H-46.0	46.0		
	MX50H-47.0	47.0		
	MX50H-48.0	48.0		
	MX50H-49.0	49.0		
◎	MX50H-50.0	50.0		

Side lock conversion adapter With an exclusive center pin

Code	Hole Saw Size (mm)
MQH-ADP	MX25 11.5~13.5
	MX35 14.0~40.0



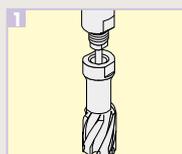
*Cutters with this four thread shank design are usually magnet drill presses like Hitachi machines. But, with this adaptor, the Unika Metacore MAX (one touch type), could also be used on these type of magnetic drill presses.

*Please be sure to use the correct pilot center pin (MX25/35 are the same).

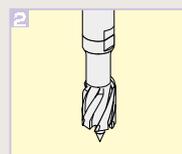
Compatible Magnetic Drilling Machine (M18 Type)

Standard size	Manufacturer	Model No.	Thickness	MX50H	備考
	HITACHI	BM 35Y	up to 50mm	~φ35.0	M18 (M18x6P 1.5)
		BM 60Y · M	up to 50mm	~φ50.0	

Attachment Method (M18 Type)



1 Insert the Meta-Core MAX-H into the center pin.



2 Align it with the screw and tighten it.

*Make sure that the startup switch of the drill is turned off and disconnect the power supply plug from the socket before attaching and detaching the hole saw.

META-CORE MAX 25 RAIL

- The flute design which took scrap discharge into consideration on only rail drilling.
- A set of three original edges which enable drilling stability and long life.

Effective Length 25 mm (MAX25 RAIL)

Applicable Electric Tool Rail Drilling Machine



Since it is a special production article, please ask for conditions etc.

Bi-Metal **HSS** HOLE SAW

Without collar

Rotation + Impact

- Without a stopper (collar), added depth of cut is possible.
- Compatible with a wide range of materials from sheet metal to PVC and board.
- It can be used on an impact power drill or a standard electric power drill.
- Cutting edge has a bimetallic structure employing cobalt HSS.

⚠ Cannot be used with drill presses.

Effective Length 40 mm

Applicable Electric Tool Cordless Drill / Electric Drill



SHEET METAL (up to 3.2 mm)	ALUMINUM (up to 3.2 mm)
PVC	METAL SIDING PANEL
WOOD	FRP
	PLASTIC
Ejector spring (up to 53mm fitted as standard)	

HSS Hole Saw [Without collar] (HSS-TN)

Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)	Pcs./Box
HSS-15TN	15	112	6.35	5
HSS-16TN	16			
HSS-17TN	17			
HSS-18TN	18			
HSS-19TN	19			
HSS-20TN	20			
HSS-21TN	21			
HSS-22TN	22			
HSS-23TN	23			
HSS-24TN	24			
HSS-25TN	25			
HSS-26TN	26			
HSS-27TN	27			
HSS-28TN	28			
HSS-29TN	29			
HSS-30TN	30			
HSS-31TN	31	112	6.35	3
HSS-32TN	32			
HSS-33TN	33			
HSS-34TN	34			
HSS-35TN	35			
HSS-36TN	36			
HSS-37TN	37			
HSS-38TN	38			

HSS Hole Saw [Without collar] (Center Drill)

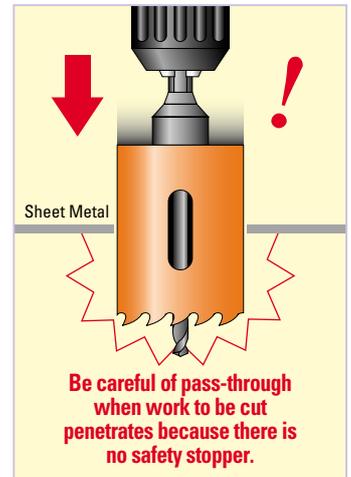
Code	Diameter (mm)	Overall Length (mm)	Hole Saw Size (mm)
STR-6	6	75	15~38

HSS Hole Saw [Without collar] (Ejector Spring)

Code	Hole Saw Size (mm)
HSS KS-No3	15~38

⚠ Precautions on use

- Securely chuck the three-surface section of the shank to prevent swinging or falling.
- Do not reduce the rotation speed excessively during drilling. Jamming or tip cracking may result.
- Do not hit the cutting edges against any hard object or allow strong contact with the work material that may occur when the center drill passes through. The tip will crack.



TOOL BOX SET

- [For Electrical Repair]
21/27/33mm×each 2 [TB-11]
22/28/35mm×each 2 [TB-12]
- [For Water / Gas duct]
25/28/30/32/35/38mm×each 1 [TB-13]



There is also the tool box set which is convenient to carrying and receiving.

HSS Hole Saw [Without collar] [TOOL BOX SET]

Code	Set Diameter (mm)					
TB-11	21	21	27	27	33	33
TB-12	22	22	28	28	35	35
TB-13	25	28	30	32	35	38

HOLE SAWS

Bi-Metal **HSS** HOLE SAW

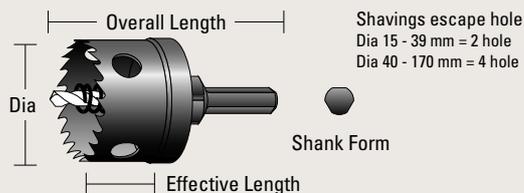


- Compatible with a wide range of materials from sheet metal to PVC and board. Demonstrate outstanding ease-of-use.
- A wide range of cutting edge sizes is available from 12mm to 170mm dia. To cope with a variety of uses.
- Cutting edge has a bimetallic structure employing cobalt HSS (SKH-59).

⚠ Cannot be used with drill presses.

Effective Length 24 mm (Dia:12-100mm) / 50 mm (Dia:120-170mm)

Applicable Electric Tool Electric Drill / Percussion Drill (rotating mode)



SHEET METAL (up to 3.2 mm) **ALUMINUM** (up to 3.2 mm)

PVC

METAL SIDING PANEL

WOOD

FRP

PLASTIC

Ejector spring (up to 53 mm fitted as standard)

Performance is achieved in the following cases



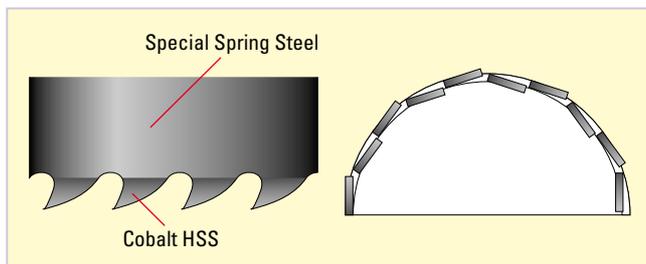
Cobalt HSS Cutting Edge

High cutting performance is realized by welding cobalt HSS of the cutting edges to the strong spring steel body. The non-uniform arrangement of cutting edges eliminates vibration during drilling.



What is an HSS hole saw?

It is a hole saw that has a bimetallic structure employing cobalt HSS welded to cutting edges. Cutting edges with a narrow pitch are available for a wide range of work materials from wood to PVC and iron plates.



Shavings escape hole

An escape hole, which is convenient for shavings removal, is equipped with hole saws of all diameters.

⚠ After removing the main unit from the motor, insert the driver, etc., into the shavings escape hole and push out debris.



Safety Stopper

A safety stopper is provided to prevent removal during drill penetration.

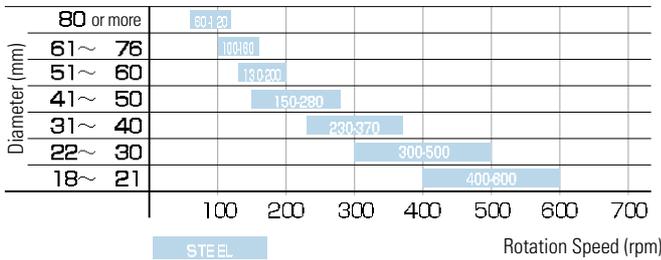


There is also the tool box set which is convenient to carrying and receiving.

HSS Hole Saw [TOOL BOX SET]						
Code	Set Diameter (mm)					
TB-08	21	27	33	42	53	
TB-09	19	23	28	34	40	50
TB-10	21	21	27	27	33	33

● Appropriate rotation speed

- Use the drill at a rotation speed appropriate for the drilling work material and diameter.
- When drilling a thick plate with a thickness of 5 mm or more or for continuous cutting, select a lower rotation speed.



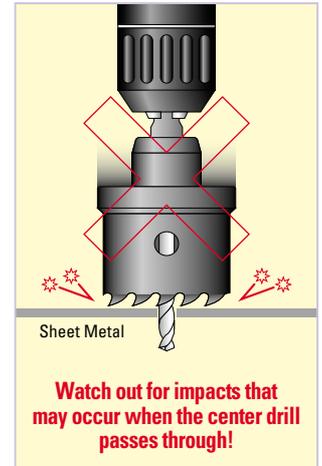
● Peripheral Speed

	Common steel	Aluminum
	25 ~ 35	30 ~ 50

[m/min]

⚠ Precautions on use

- Securely chuck the three-surface section of the shank to prevent swinging or falling.
- Do not reduce the rotation speed excessively during drilling. Jamming or tip cracking may result.
- Do not hit the cutting edges against any hard object or allow strong contact with the work material that may occur when the center drill passes through. The tip will crack.



HSS Hole Saw (HSS)

	Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)	Pcs./Box
	HSS-12	12	62	6	5
	HSS-13	13			
	HSS-14	14			
○	HSS-15	15			
○	HSS-16	16			
	HSS-17	17			
△	HSS-18	18			
△	HSS-19	19			
△	HSS-20	20			
◎	HSS-21	21	89	10	5
○	HSS-22	22			
	HSS-23	23			
	HSS-24	24			
△	HSS-25	25			
	HSS-26	26			
◎	HSS-27	27			
○	HSS-28	28			
	HSS-29	29			
○	HSS-30	30	89	10	3
	HSS-31	31			
△	HSS-32	32			
◎	HSS-33	33			
○	HSS-34	34			
○	HSS-35	35			
	HSS-36	36			
	HSS-37	37			
△	HSS-38	38			
	HSS-39	39			
△	HSS-40	40			
	HSS-41	41			
◎	HSS-42	42			
	HSS-43	43			
	HSS-44	44			
	HSS-45	45			
	HSS-46	46			
	HSS-47	47			
	HSS-48	48			
	HSS-49	49			
○	HSS-50	50			
	HSS-51	51			
	HSS-52	52			
○	HSS-53	53			

	Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)	Pcs./Box
	HSS-54	54	94	13	1
	HSS-55	55			
	HSS-56	56			
	HSS-57	57			
	HSS-58	58			
	HSS-59	59			
△	HSS-60	60			
	HSS-63	63			
○	HSS-65	65			
	HSS-70	70			
	HSS-75	75			
	HSS-77	77			
	HSS-80	80			
	HSS-81	81			
	HSS-85	85			
	HSS-90	90			
	HSS-95	95			
	HSS-100	100			
	HSS-120	120	127	13	1
	HSS-130	130			
	HSS-150	150			
	HSS-170	170			

HSS Hole Saw (Center Drill)

Code	Diameter (mm)	Overall Length (mm)	Hole Saw Size (mm)
CD-No.1	6	62	12~20
CD-No.2	6	62	21~100
CD-No.3	6	95	120~170

HSS Hole Saw (Ejector Spring)

Code	Hole Saw Size (mm)
HSS KS-No.1	12~20
HSS KS-No.2	21~53

*When work material has a plate thickness of 4 mm or more or is pipe material, remove the spring before use.

**Bi-Metal
For Catch Basins**

HSS HOLE SAW

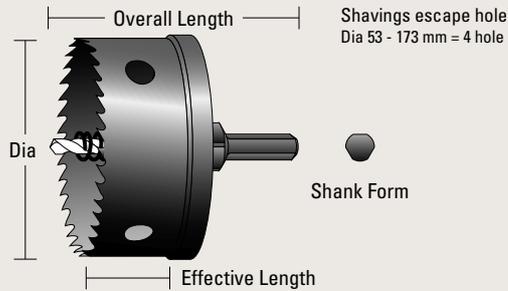


- HSS hole saw exclusively for PVC catch basins and PVC tube (VU) pipes.
- Hole drilling available with a diameter that allows installation of seal packing. Easy connection of PVC (VU) pipes.

⚠ Cannot be used with drill presses.

Effective Length 38 mm (Dia:53-120mm) / 50 mm (Dia:147-173mm)

Applicable Electric Tool Electric Drill / Percussion Drill (rotating mode)



Exclusive to PVC tube (VU) pipes

Ejector spring (up to 120 mm fitted as standard)

HSS Hole Saw [For Catch Basins] (HSS-VU)

Code	Diameter (mm)	Overall Length (mm)	Effective Length (mm)	Shank Diameter (mm)
HSS-VJ40	53	112	38	10
HSS-VJ50	65			
HSS-VJ65	81			
HSS-VJ75	95			
HSS-VJ100	120			
HSS-VJ125	147	127	50	13
HSS-VJ150	173			

HSS Hole Saw [For Catch Basins] (Center Drill)

Code	Diameter (mm)	Overall Length (mm)	Hole Saw Size (mm)
CD-Na3	6	95	147~173
CD-Na4	6	85	53~120

HSS Hole Saw [For Catch Basins] (Ejector Spring)

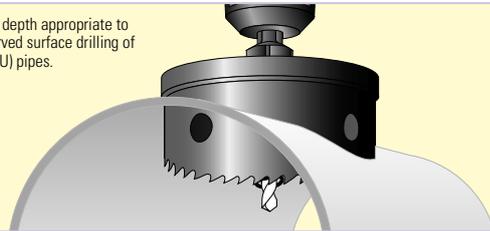
Code	Hole Saw Size (mm)
HSS-KS-Nb4	53~120

*Compatible hole saw diameters apply to a case where seal packing is used.

*The ejector spring is included as a standard only for hole saws with diameters of 53 mm to 120 mm.

*These hole saws are exclusively for PVC (VU) pipes. Do not use them for other work materials.

Throat depth appropriate to the curved surface drilling of PVC (VU) pipes.

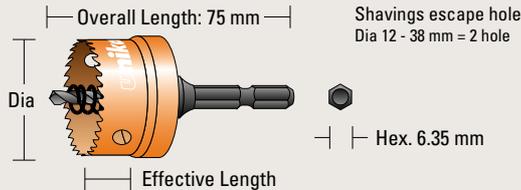


Bi-Metal **CORDLESS HSS**



- Blade part utilizing high grade steel (SKH-51), providing a sharp cutting edge.
- Blade thickness only 0.5mm. Thoroughly reducing cutting resistance to a minimum, reducing waste of electrical consumption, improving the number of holes drilled on one full charge.

Effective Length 12 mm **Impact Driver Drill Best**
Applicable Electric Tool Cordless Drill / Driver Drill / Electric Drill (under 400W)



STEEL (up to 2 mm)	ALUMINUM (up to 2 mm)
PVC	PLYWOOD
STAINLESS STEEL (up to 0.5 mm)	FRP / PLASTIC
Ejector spring fitted as standard	

HOLE SAWS



TOOL BOX SET

There is also the tool box set which is convenient to carrying and receiving.

[For Electrical Repair]

21/27mm X each 2 33mm X each 1 [TB-29]
 22/28mm X each 2 35mm X each 1 [TB-30]

[For Equipment Installation]

25/28/30/32/35mm X each 1 [TB-31]

CORDLESS HSS Hole Saw [TOOL BOX SET]

Code	Set Diameter (mm)				
TB-29	21	21	27	27	33
TB-30	22	22	28	28	35
TB-31	25	28	30	32	35

CORDLESS HSS Hole Saw (HSSJ)

	Code	Diameter (mm)	Shank Diameter (mm)	Pcs./Box
△	HSSJ-12	12	6.35	5
	HSSJ-13	13		
	HSSJ-14	14		
△	HSSJ-15	15		
△	HSSJ-16	16		
	HSSJ-17	17		
△	HSSJ-18	18		
	HSSJ-19	19		
△	HSSJ-20	20	6.35	5
◎	HSSJ-21	21		
◎	HSSJ-22	22		
	HSSJ-23	23		
	HSSJ-24	24		
○	HSSJ-25	25	6.35	5
	HSSJ-26	26		
◎	HSSJ-27	27		
○	HSSJ-28	28		
	HSSJ-29	29		
○	HSSJ-30	30		
	HSSJ-31	31	6.35	3
○	HSSJ-32	32		
◎	HSSJ-33	33		
	HSSJ-34	34		
◎	HSSJ-35	35		
	HSSJ-36	36		
	HSSJ-37	37		
○	HSSJ-38	38		

CORDLESS HSS Hole Saw (Center Drill)

Code	Diameter (mm)	Overall Length (mm)	Hole Saw Size (mm)
S-4L	4	41	12~38

CORDLESS HSS Hole Saw (Ejector Spring)

Code	Hole Saw Size (mm)
HSSJKS-No.3	12~14
HSSJKS-No.4	15~38

*When work material has a plate thickness of 2 mm or more or is pipe material, remove the spring before use.

Compatible Motors

Rechargeable drills of a rotation speed of approximately 1,000 rpm and rotary torque of 50 N·m (approx. 50 kgf·cm) specifications (for rotation use only).

Compact electric drills with electric power consumption of 400 W or less.

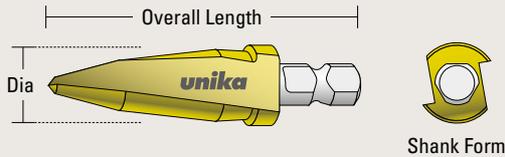
*Cannot be used with impact wrenches, drilling machines, percussion drills, or hammer drills.

Deck Bit **DKB** Type



- Most suitable for drilling prepared hole in deck plate for inserting anchors.
- Long life and excellent sharpness have been achieved by titanium coating and a sharp point.
- Equipped with a safety stopper to prevent pass-through at the time of penetration.
- Use of extension shank also improves workability.

Effective Length 2 mm
Applicable Electric Tool Electric Drill / Percussion Drill (rotating mode)



DECK PLATE	SHEET METAL (up to 2 mm)
STAINLESS STEEL (up to 1 mm)	ALUMINUM (up to 2 mm)
PLASTIC	PVC
	RESIN PLATE

All the cutting edge is coated with titanium

● Matching insert anchor

Diameter (mm)	Matching insert
15.0	DP-3020 / DM-3040 / PH-3030
16.0	BS (W3/8) / BSL (W3/8) / BSD (W3/8) SHZ-3040 / SH-3040 / KM-3030 SHD-3025 / KP-3020
22.0	BS (W1/2) / BSL (W1/2) / BSD (W1/2) SHZ-4055 / SH-4055 / SHD-4025

● Extension shank

An extension shank capable of attaching and detaching the deck bit with a single touch. Most suitable for drilling during standing work.



● Titanium coated cutting edge

Stable center positioning capability and long life have been achieved by a unique cutting edge shape, titanium coating on all the cutting edge, and small diameter point.



● Safety stopper

Pass-through at time of penetration is prevented because it is equipped with a safety stopper.



● Three-sided shank

A three-sided shank capable of reliably transmitting rotation force, and being attached to and detached from the optional extension shank.



Deck Bit (DKB)

Code	Diameter (mm)	Overall Length (mm)	Shank Diameter (mm)	Pcs./Box
DKB-15N	15	68	10	5
DKB-16N	16	69		
DKB-18N	18	74		
DKB-20N	20	80		
DKB-22N	22	84		

Deck Bit (Extension Shank)

Code	Overall Length (mm)	Deck Bit Size (mm)
DKBSK-390	390	15~22
DKBSK-550	550	

Deck Bit [TOOL BOX SET]

Code	Set Diameter (mm)		
TB-50	15	16	22
TB-51	16	16	22

TOOL BOX SET

There is also the tool box set which is convenient for carrying and receiving.

15/16/22mm×each 1 [TB-50]
 16/16/22mm×each 1 [TB-51]



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