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R1/2



MIYANAGA

PRODUCT CATALOGUE

Poly-Clic series

S-LOCK series

Deltagon Bit series

Drill Bit series

ANZEX series

Diamond series

METAL-BORER series

Holesaw series

Core Bit series

Disk series



ISO 9001



Certification No: YKA 0941883

ISO 14001



Certification No: YKA 0772511

INDEX

○: Recommended ●▲: Acceptable
 ○▲(Wet type): Recommended ●▲(Wet type): Acceptable

Poly-Clic series

Mode	Concrete	Reinforced concrete	Humr pipe	HDPE pipe	Block	Mortar	Extruded cement	ALC	Stone	Artificial marble	Tile	Ceramic tile	Clay pipe	Sheet metal	Stainless steel plate	Metal insulated sandwich panels	PVC pipe	FRP	Brick	Metal siding	Ceramic siding	Wood
P 12	Drimond Core Bit	○	○	○													●					●
P 14	Hyperdia Core Bit				▲	▲		▲	●				▲				●	▲	▲		○	
P 16	Galvawood Core Bit			▲				●	●				▲				●	▲		○	●	○
P 18	Super Metal Core Bit												●	▲	○					●		
P 20	Wooding Core Bit									▲							●	●		○	○	○
P 22	ALC Core Bit							○									▲				▲	
P 24	Percussion Core Bit ('S'Core)				○	○	●														●	
P 26	Hybrid Core Bit									▲			▲				●	●		●	▲	○
P 28	Counter Bore Cutter																					●
P 29	HDPE Core Bit			○						▲							▲	○				○
P 30	Rotary Core Bit ('H'Core)						▲	▲									▲	▲		▲	▲	
P 31	Vinyl Chloride Pipe Core Bit																○				▲	
P 32	Wetmond Core Bit	○	○	○	▲	▲	●		●		○	○	○						●			
P 34	FRP Core Bit									▲							●	○		▲		●
P 36	Holesaw 378												○	○				▲				
P 38	Holesaw 378P												○	○			●	▲		●		
P 40	Deep-Bore Holesaw									▲			○	○			●	●		●		▲
P 42	Carbide STEPDRILL											○	●									
P 43	Dust Extraction shank																					
P 44	Dust Collecting Pad																					

S-LOCK series

P 50	Bi-Metal Holesaw												○	▲			●	●		●		●
P 51	Holesaw 578												○	○				▲				
P 52	Holesaw 578P												○	○			▲	▲		▲		
P 53	Wooding Holesaw									▲							●	●		●	○	○
P 54	Deep-Bore Holesaw									▲			○	○			●	●		●		▲
P 55	DL Core Bit									●			●	▲			●	●	▲		○	
P 56	Hyperdia Holesaw				▲	▲	▲	▲		●		▲					●	▲	▲	▲	○	
P 57	Tile Holesaw								●		○	○										
P 58	Dust Collecting Cover																					

○: Recommended ●▲: Acceptable
 ○▲(Wet type): Recommended ●▲(Wet type): Acceptable
 ○▲(Gel type): Recommended ▲(Gel type): Acceptable

Deltagon Bit series

Mode	Concrete	Reinforced concrete	Humr pipe	Deck plate and concrete	Block	Mortar	Extruded cement	ALC	Stone	Artificial marble	Tile	Ceramic tile	Porcelain tile	Clay pipe	Sheet metal	Stainless steel plate	PVC pipe	FRP	Brick	Metal siding	Ceramic siding	Wood	
P 64	Deltagon SDS-plus Bit	○	▲	○	○	○			●												●		
P 66	Deltagon SDS-max Bit	○	▲	○	○	○			●												●		
P 67	Deltagon Straight Shank Percussion Bit	○			○	○			▲												●	▲	
P 68	Deltagon Vacuum Bit	○		○					▲														

Drill Bit series

P 72	Straight Shank Bit for Ceramic tile							●	○		○	○					●	●		●		●
P 73	Cable Guide Drill Bit							●	●								●			○	○	○

ANZEX series

P 78	ANZEX-D	○	●																			
P 82	ANZEX-K	○	●																			
P 84	ANZEX-LF (made to order)	○	●																			

Diamond series

P 90	Mistdia Drill Bit (Quick-Change Type)	○	▲		●				○	○	○	○										●
P 92	AQUASHOT								○	●	○	○	○	○	○	○						●
P 94	COOLDIA (Diamond Bit)								▲		▲	○	○									

METAL-BORER series

P 100	METAL-BORER 350/500																					○	○	
P 102	METAL-BORER 350A/500A																						○	○
P 104	METAL-BORER M500																						○	○
P 106	METAL-BORER 750/750A																						○	○

Holesaw series

P 110	Holesaw 278																					○	○
P 112	Holesaw 278P (for pipe)																					○	○
P 114	DL Core Bit																						○
P 116	Bi-Metal Holesaw for Cordless impact																						○
P 117	Bi-Metal Stopperless Holesaw for Cordless impact																						○

Core Bit series

P 120	Rotary Hammer Core Bit 600W	○			●	●																●	
P 121	Rotary Hammer Core Bit	○	○		●	●																	●

Disk series

P 124	Hyperdia Disk (Curved surface type)	●	●	●	●	●	▲	●	▲	▲	▲	▲	▲	●	▲	●	▲	●	▲	●	▲	▲	▲
P 125	Hyperdia Disk (Flat surface type)	●	●	●	●	●	▲	●	▲	▲	▲	▲	▲	●	▲	●	▲	●	▲	●	▲	▲	▲

Reference

* Product specification is subject to change without notice.

Poly-Clic Series

S-LOCK Series

Deltagon Bit Series

Drill Bit Series

ANZEX Series

Diamond Series

METAL-BORER Series

Holesaw Series

Core Bit Series

Disk Series

Reference

Introduction

Miyanaga has contributed to various fields in the construction industry by supplying high-quality carbide tipped drills, various types of concrete bits, core bits, holesaws, metal borers, and diamond-tipped core bits.

Miyanaga is a longstanding drill bit manufacturer in Japan, which was established in Miki city in 1916.

Our two factories in Miki city are equipped with computerized up-to-date equipment and stably producing high-quality products.

Our high-quality products have been highly evaluated not only by customers in Japan but also by global drill manufacturers and oversea customers.

Miyanaga continues to produce unique products meeting the needs of the times from the aspects of “Durability”, “Safety”, and “Usability”.



Head office & No.1 Factory



No.2 Factory

Manufacturing

A computerized automation system(Flexible Manufacturing System(FMS)) is the basis of Miyanaga's production equipment.

To satisfy Miyanaga's unique ideas and their requirements, most machines are modified within the company, and originality in them promotes high-quality.



Research and Development

As a pioneer in drill bit development, Miyanaga has accumulated technology and know-how for a long time and develops new products with features meeting the needs of the times to satisfy customers' demands.

Our developed prototypes are evaluated thoroughly from all aspects and then put into production. We always look at things from a user's viewpoint. We believe that this spirit will be fed back into product technology and reliability in future.



Testing site

Quality

Miyanaga continually makes improvements by the use of ISO 9001 Quality Management System as part of Management Tools and promotes to increase customer satisfaction.

In order to improve customer satisfaction, each development responsible will have their own departments understand the policy, identify the risks and opportunities, set goals, and evaluate the achievement status.

We set up and operate the system which is consistently meets customer requirements, as well as legal and regulatory requirements in order to maintain customer satisfaction by using the ISO 9001 Quality Management System.

ISO 9001 and ISO 14001 certification



ISO 9001 : 2015 Certificate



ISO 14001 : 2015 Certificate

We obtained ISO 9001 certification (in November 1995) and ISO 14001 certification (in June 1999), which are the international quality assurance standard developed by ISO (International Organization for Standardization). Miyanaga's basic stance, which aims to create high-quality products that satisfy customers and to create environmentally friendly products, was recognized internationally.

We will continue to make further efforts to improve customer satisfaction, preserve the global environment and contribute to society. Thank you for your continued patronage of our products.

STAFDA



MDBA



PGM



MIYANAGA Material Testing Center

In February 2017, Miyanaga Co., Ltd. Material Testing Center obtained ISO/IEC 17025 testing laboratory certification from Japan Accreditation Board (JAB).

What is ISO/IEC 17025?

ISO/IEC 17025 is an "international standard for the capabilities of laboratories and calibration laboratories" established in 1978. Acquiring laboratory accreditation proves that it is a laboratory that can produce accurate results with test methods that comply with national and international standards.

What can be done by the certification?

With the acquisition of certification, it is now possible to conduct anchor bolt tensile tests at the Miyanaga Material Testing Center. The results are guaranteed to be reliable internationally, and the grades with the following compound symbols will be widely accepted internationally.



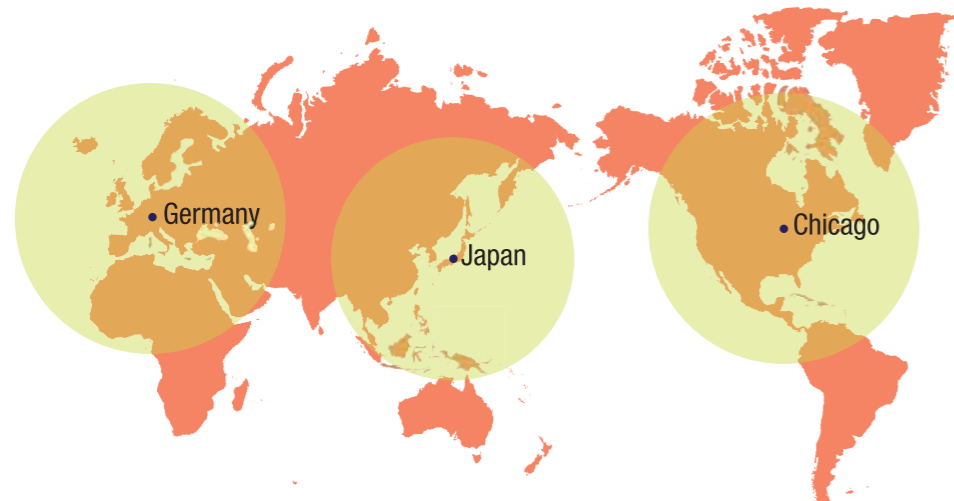
MIYANAGA Material Testing Center will provide internationally effective and reliable test results.

Global network

Miyanaga's technologies and achievements have also received an excellent reputation overseas.

We have opened subsidiary company in Chicago and representative office in Germany so that we can consistently offer highlevel services.

We not only supply products through our global network, but also actively provide technical consultation, participate in exhibitions, and conduct market research and information gathering on local sites.



Welcome to Miki

Miki city is famous as one of the oldest "cities of hardware" in Japan. The city transmits its good old tradition to our time, merges it with modern technologies, and creates new technologies constantly.

Miki city is located in the middle-southern of western Japan, in the north of Kobe Port, where Miki's hardware is exported to countries throughout the world.



Miyanaga America Corp.

Company brief

Miyanaga has earned an excellent reputation from customers through the invention of unique products, which meet the needs of the age for "Drilling efficiency", "Durability", "Safety" and other aspects. What drove the remarkable progress was the flexible idea and technology for "Making a hole".

The technology and the past achievements of Miyanaga has been highly evaluated not only in Japan but also in overseas. The entry into the US and European markets through the opening of the representative offices in Chicago, USA and Germany. Sales contracts with overseas distributors in the US, Europe, and Southeast Asia. Through the global network thus built, Miyanaga not only supplies its products to the local markets, but also aggressively provides technical consultation, participates in exhibitions, and conducts market research and information gathering.

Always take the perspective of the users – we believe this motto is being reflected on the technology and reliability of our products.

Company name: Miyanaga Co., Ltd.

Representatives: President and Representative Director, Kiyoshi Miyanaga

Company activities: Manufacturing of Concrete drills, Carbide tools, Diamond tools, and other ancillary devices, and their applications

History:

- Sep. 1916 Established as Miyanaga Iron Works
- Oct. 1964 Renamed to Miyanaga Co., Ltd.
- Dec. 1972 Kobe sales head office established
- Oct. 1973 Fukuoka sales office opened
- Sep. 1976 Tokyo branch opened
- Nov. 1979 The first phase construction of No.2 factory
- Feb. 1982 Chicago representative office opened
- Mar. 1982 Nagoya and Hiroshima sales offices opened
- Jun. 1982 Sapporo sales office opened
- Sep. 1988 Extension of No.2 factory (Annex)
- Dec. 1990 The first phase construction of Welfare building completed
- May 1991 Atsugi sales office opened
- Oct. 1992 Omiya sales office opened
- Jan. 1995 Kobe sales head office closed
- Feb. 1995 Osaka branch opened
- Nov. 1995 ISO 9001 certified
- Mar. 1997 Tokyo distribution center opened
- Dec. 1997 Stuttgart representative office opened
- Aug. 1998 In-house call center opened
- Nov. 1998 Transition to home based working system
- Jun. 1999 ISO 14001 certified
- Dec. 2001 Miyanaga America Corporation (MAC) established
- Jan. 2002 Extension of No.2 factory (Annex)
- Sep. 2014 50th anniversary of establishment
- Dec. 2015 New factory in head office completed
- Sep. 2016 100th anniversary of foundation
- Feb. 2017 MIYANAGA Material Testing Center opened and acquired "laboratory accreditation" according to ISO/IEC 17025. ISO/IEC 17025 Certified.



Overview of head office



No.1 Factory



No.2 Factory



Miyanaga America Corp.

Okagesamade

Miyanaga always hopes to continuously provide products fulfilling your expectations.



"Okagesamade", a Japanese phrase to express gratitude for others.

12 DRY TYPE Drimond Core Bit



Dia. **25-310mm**

Dry drilling in reinforced concrete.

14 DRY TYPE Hyperdia Core Bit



Dia. **25-310mm**

Easy drilling in ceramic siding.

16 Galvawood Core Bit



Dia. **25-310mm**

Easy drilling to galvanized metal siding board.

32 WET TYPE Wetmond Core Bit



Dia. **25-220mm**

Drilling in reinforced concrete, hume pipe. (wet type)

34 FRP Core Bit



Dia. **17-127mm**

High efficient drilling in work materials including in glass fiber.

36 Holesaw 378



Dia. **14-120mm**

Dramatically improved drilling efficiency and cost effectiveness thanks to the Poly-Clic system.

18 Super Metal Core Bit



Dia. **25-220mm**

Best for metal insulated sandwich panels (up to 130mm thickness).

20 Wooding Core Bit



Dia. **22-220mm**

Safe and fast drilling through nail embedded wood with unique cutting teeth and slit.

22 ALC Core Bit



Dia. **22-310mm**

Smooth cutting ALC with steel frame by special designed tips and chip pokets.

38 Holesaw 378P



Dia. **15-65mm**

Longer body for drilling into curved surfaces such as pipes.

40 Deep-Bore Holesaw



Dia. **14-120mm**

Specially designed cutting teeth for efficient removal of chips.

42 Carbide STEPDRIILL



Dia. **16-25mm**

One cutter can drill five sizes of holes.

24 Percussion Core Bit ('S'Core)



Dia. **22-220mm**

Original designed cutting teeth for use with percussion drill in percussion and rotary mode.

26 Hybrid Core Bit



Dia. **20-160mm**

Best for drilling into composite panel with stainless steel plate.

28 Counter Bore Cutter



Dia. **60mm and 78mm**

Best for counter boring to wooden floor for installation of pipe adaptor.

44 Dust Collecting Pad



Drill dia. **220mm** or below

Supports Clean and Efficient Work Environments.

29 HDPE Core Bit



Dia. **20-210mm**

Best for drilling into HDPE pipe, wood and composite material.

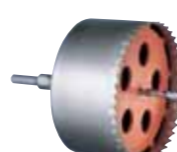
30 Rotary Core Bit ('H'Core)



Dia. **22-170mm**

Sharp and fast drilling even into composite material.

31 Vinyl Chloride Pipe Core Bit



Dia. **120-225mm**

Exclusive use for precisely drilling large hole in PVC pipe.

Three shanks, S, L and X are available. High cost-effective thanks to only three shanks.



S Shank

Cutter dia. below 49mm



L Shank

Cutter dia. 50-225mm



X Shank

Cutter dia. 50-310mm

Poly-Clic series

Poly-Clic series can use cutters in all sizes and various types of cutters for multi-purpose with the S, L and X shanks.

The shank is locked automatically and released manually.

The light-weight shank reduces the power loss of electric drill.

Can use with electric drill equipped with brake function.

The center drill and the center pin can be easily attached and detached without using a tool.

1



Poly-Clic series Features and Benefits

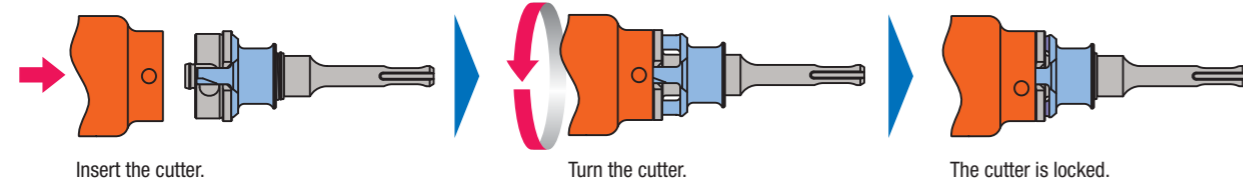
What is "Poly-Clic Shank"?

- "Poly" means "many", "much", etc.
- "Clic" is given a meaning of producing a click. S, L and X shanks fit various types of Poly-Clic core cutters and holesaws.

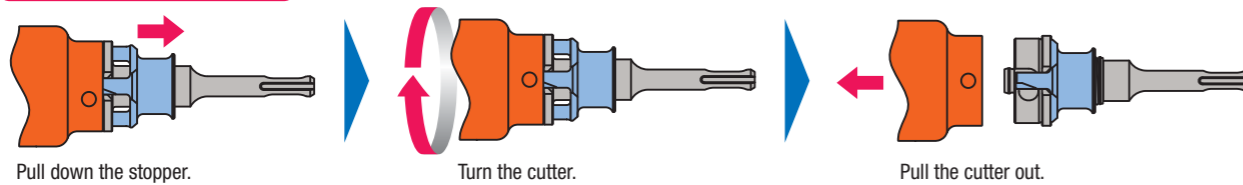
Feature 1 Automatic lock and manual release

Automatic lock and manual release mechanism makes removal of cut core and cutter replacement much easier.

How to attach the cutter



How to detach the cutter

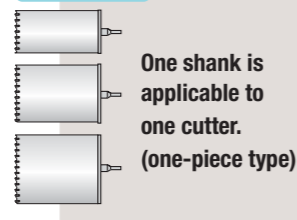


Feature 2 Cost-effective

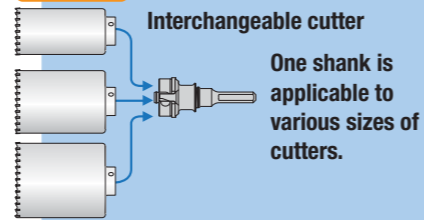
There are three types of shanks, S, L, and X, which can be used for various types of cutters.



Competitors

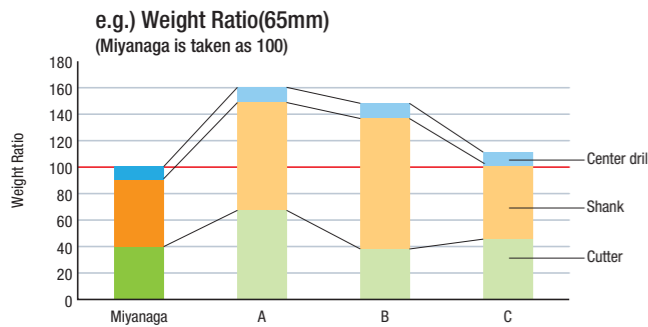


Miyanaga



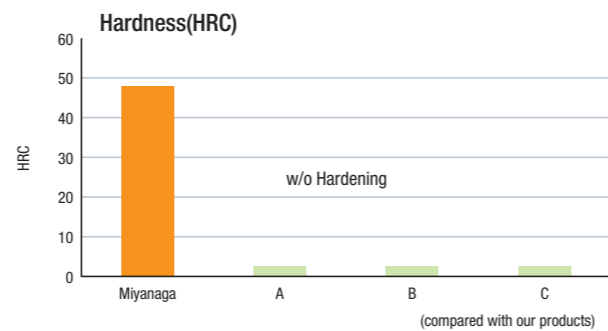
Feature 3 Lightweight shank

The power losses of electric drills are reduced.



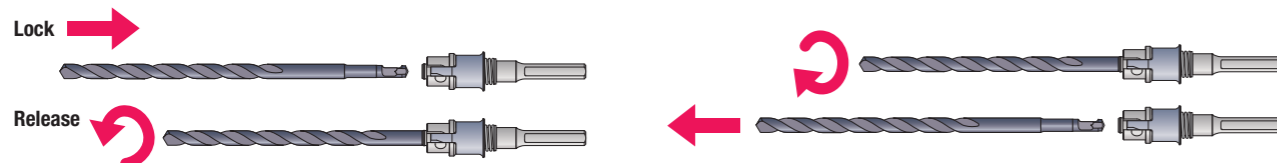
Feature 4 High hardness cutter body

The cutter body is hardened, has high hardness, and withstands percussions delivered by electric drills.



Feature 5 Quick-change center drill

The center drill and the center pin can be easily attached and detached without using a tool.



Feature 6 Improved workability by using Long Shank

Drilling process with Long Shank

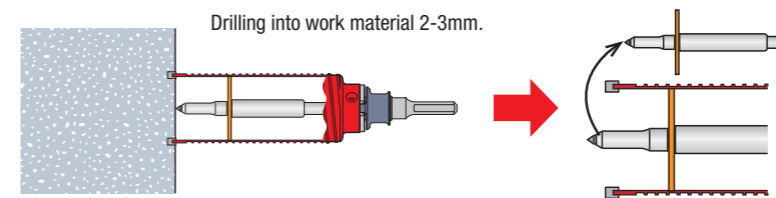
*Poly-Clic Long Shank must be used with cutter dia. 29mm or larger.

1. Positioning



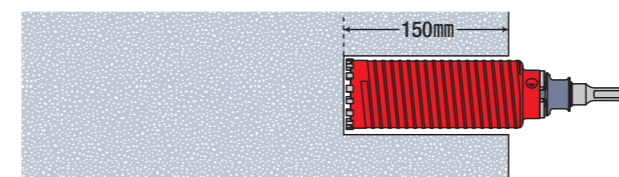
Center pin is used only for positioning.

2. Detaching a center pin



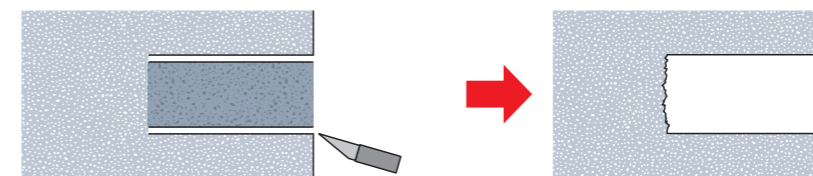
After the cutter has drilled to a depth of about 2-3mm, detach center pin from the cutter body. Note: Surely remove center pin from core body, after positioning. Otherwise the cutter body will be stuck on the way to drill.

3. Drilling



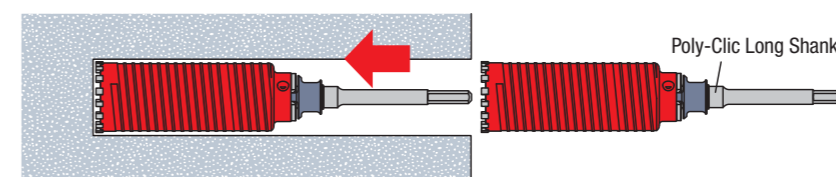
Use a standard Poly-Clic Shank until the depth of hole reaches Max. drilling depth (150mm) of the cutter and then pull out the cutter from the hole.

4. Removal of drilled core



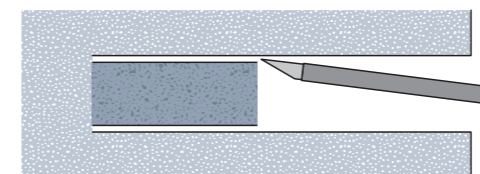
When drilled core cannot be broken off, break the drilled core with applying the principle of leverage. Remove the broken chip.

5. Drilling with Long Shank



Change the standard Poly-Clic Shank to the Long Shank and start drilling.

6. Removal of drilled core


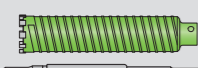


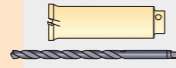
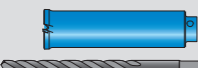

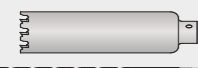

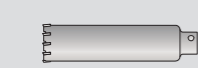

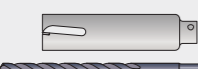

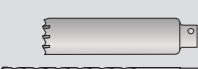

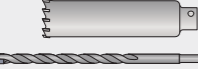

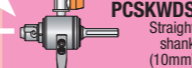


Break the drilled core with applying the principle of leverage. Remove the broken chip.

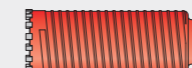
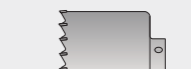



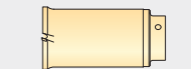

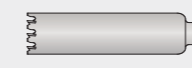

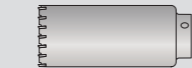



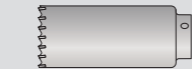



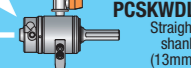


Poly-Clic series Combination list

Poly-Clic series can use cutters in all sizes and various types of cutters for multi-purpose with the S, L and X shanks.

Item	Products applicable to S shank (nominal diameter: 49mm (1-59/64") or less)		S shanks
Drimond Core Bit	 <p>Included in standard set</p> <p>PCDCP3 (center pin)</p>	Vinyl Chloride Pipe Core Bit	*S shank type is not available.
★ Drimond Core Bit for Block	 <p>Included in standard set</p> <p>PCBCP3 (center pin)</p>	Hybrid Core Bit	 <p>Included in standard set</p> <p>PCHCDS φ8×120L PCFCDSH φ8×100L PCBHCD120</p>
Hyperdia Core Bit	 <p>Included in standard set</p> <p>PCHPCP3(center pin) PCHWCD225(TCT) PCHPCPK(center pin)</p>	HDPE Core Bit	 <p>PCCDS φ8×170L</p>
Galvawood Core Bit	 <p>Included in standard set</p> <p>PCGWCD225(HSS) PCGWGB(Guide bar) PCBHCD225(TCT)</p>	Carbide STEPDRILL	 <p>Included in standard set</p> <p>PCSCDS φ6×65L</p>
Super Metal Core Bit	 <p>PCSMCD225 PCGWGB(Guide bar) PCSMGB320 (Guide bar)</p>	Holesaw 378	 <p>PC378CDS6 φ6×70L PC378CDS φ8×70L</p>
ALC Core Bit	 <p>Included in standard set</p> <p>PCHWCD250(TCT)</p>	Holesaw 378P	 <p>PC378PCDS6 φ6×100L PC378PCDS φ8×100L</p>
Wooding Core Bit	 <p>Included in standard set</p> <p>PCWSCD225(HSS) PCHWCD225(TCT) PCBHCD225(TCT)</p>	Deep-Bore Holesaw	 <p>Included in standard set</p> <p>PCFCDS6 φ6×100L PCFCDS φ8×100L PCFCDSH φ8×100L</p>
Percussion Core Bit ('S' Core)	 <p>Included in standard set</p> <p>PCSWCD225(TCT)</p>	FRP Core Bit	 <p>Included in standard set</p> <p>PCFRPCDS φ8.2×120L(TCT) PCBHCD120</p>
Rotary Core Bit ('H' Core)	 <p>PCHWCD225(TCT)</p>		
Wetmond Core Bit	Use shanks and center pin for the Wetmond Core Bit.		S-shank for Wetmond Core Bit
	 <p>Included in standard set</p> <p>PCWDCP (center pin)</p>		 <p>*For Wetmond Core Bit</p> <p>PCSKWDS Straight shank (10mm)</p>
	*Long straight shank, SDS-plus shank and SDS-plus long shank are also available.		

★ Item for detailed information, please contact us.

Item	Products applicable to L shank (nominal diameter: 50mm (2") or larger(up to 225mm))		L shanks
Drimond Core Bit	 <p>Included in standard set</p> <p>PCDCP3 (center pin)</p>	Vinyl Chloride Pipe Core Bit	 <p>Included in standard set</p> <p>PCHWCD175 (TCT)</p>
★ Drimond Core Bit for Block	 <p>Included in standard set</p> <p>PCBCP3 (center pin)</p>	Hybrid Core Bit	 <p>Included in standard set</p> <p>PCHCDL</p>
Hyperdia Core Bit	 <p>Included in standard set</p> <p>PCHPCP3(center pin) PCHWCD225(TCT) PCHPCPK(center pin)</p>	HDPE Core Bit	 <p>PCCDL φ8×190L</p>
Galvawood Core Bit	 <p>Included in standard set</p> <p>PCGWCD225(HSS) PCGWGB(Guide bar) PCBHCD225(TCT)</p>	Carbide STEPDRILL	*L shank type is not available.
Super Metal Core Bit	 <p>PCSMCD225 PCGWGB(Guide bar) PCSMGB320 (Guide bar)</p>	Holesaw 378	 <p>PC378CDL φ8×82L</p>
ALC Core Bit	 <p>Included in standard set</p> <p>PCHWCD250 (TCT)</p>	Holesaw 378P	 <p>PC378PCDL φ8×135L</p>
Wooding Core Bit	 <p>Included in standard set</p> <p>PCWSCD225(HSS) PCHWCD225(TCT) PCBHCD225(TCT)</p>	Deep-Bore Holesaw	 <p>Included in standard set</p> <p>PCFCDL φ8×113L</p>
Percussion Core Bit ('S' Core)	 <p>Included in standard set</p> <p>PCSWCD225 (TCT)</p>	FRP Core Bit	 <p>Included in standard set</p> <p>PCFRPCDL φ8.2×135L(TCT)</p>
Rotary Core Bit ('H' Core)	 <p>PCHWCD225 (TCT)</p>		
Wetmond Core Bit	Use shanks and center pin for the Wetmond Core Bit.		L-shank for Wetmond Core Bit
	 <p>Included in standard set</p> <p>PCWDCP (center pin)</p>		 <p>*For Wetmond Core Bit</p> <p>PCSKWDL Straight shank (13mm)</p>
	*Long straight shank, SDS-plus shank and SDS-plus long shank are also available.		

★ Item for detailed information, please contact us.



Drimond Core Bit



Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

Drimond Core Bit

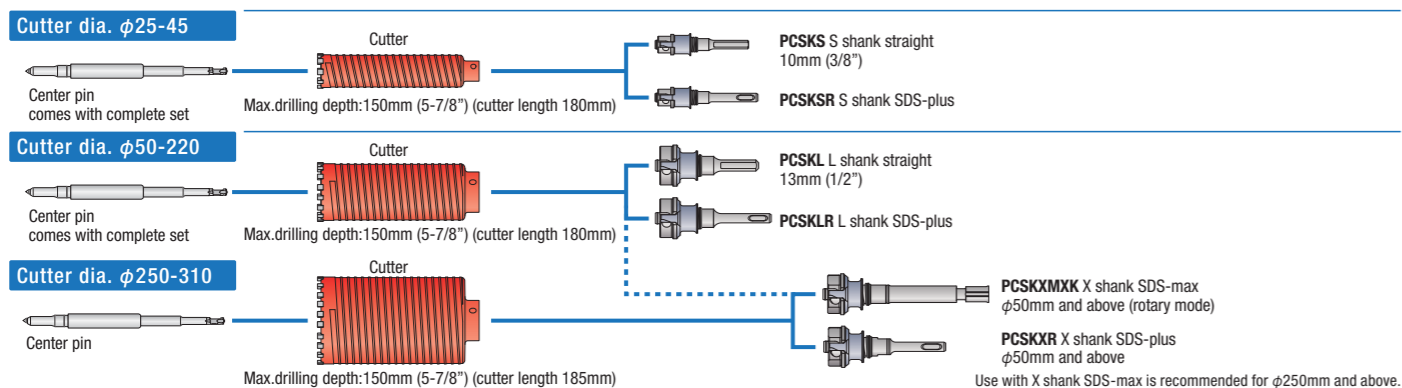
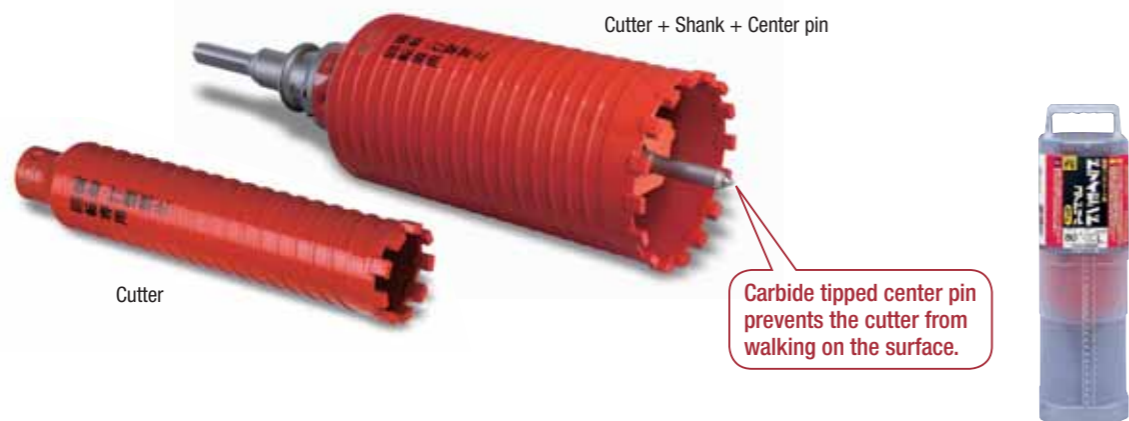
Best for

- Reinforced concrete
- Concrete
- PC concrete
- Extruded cement
- Mortar
- Hume pipe
- Clay pipe
- Artificial marble

Also can be used in

- Ceramic siding
- PVC pipe

Dry drilling in reinforced concrete !



Features

- Dry drilling in reinforced concrete or Hume pipe.
- Carbide tipped center pin for accurate centering.
- Peripheral threading on the cutter body for efficient dust removal.

For use in

- All kinds of piping work, water, gas, electricity, air-conditioning, and drainage jobs
- Precast concrete and concrete
- Dry drilling in reinforced concrete (up to 13mm re-bar)

For use with

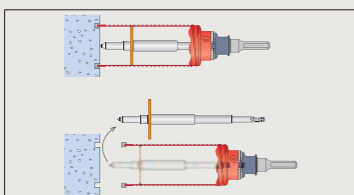
- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



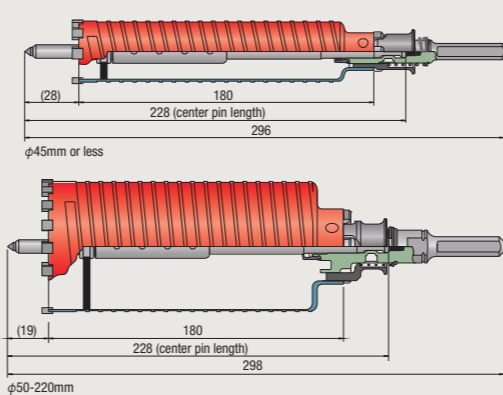
▲ Use with SDS-max shank in rotary mode

How to use a center pin

Make sure to detach a center pin after positioning.



Center pin is used only for positioning. Detach a center pin after drilling into work material 2 to 3mm.



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 150mm (5-7/8")

Cutter dia.	Straight shank Set				SDS-plus shank Set				Cutter				Guide plate			
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
25	1"	PCD25	PCD25R	PCD25C	PCSGP25											
29	1-1/8"	PCD29	PCD29R	PCD29C	PCSGP29											
32	1-1/4"	PCD32	PCD32R	PCD32C	PCSGP32											
35	1-3/8"	PCD35	PCD35R	PCD35C	PCSGP35											
38	1-1/2"	PCD38	PCD38R	PCD38C	PCSGP38											
45	1-3/4"	PCD45	PCD45R	PCD45C	PCSGP45											
50	2"	PCD50	PCD50R	PCD50C	PCSGP50											
55	2-1/8"	PCD55	PCD55R	PCD55C	PCSGP55											
60	2-3/8"	PCD60	PCD60R	PCD60C	PCSGP60											
65	2-9/16"	PCD65	PCD65R	PCD65C	PCSGP65											
70	2-3/4"	PCD70	PCD70R	PCD70C	PCSGP70											
75	2-7/8"	PCD75	PCD75R	PCD75C	PCSGP75											
80	3-1/8"	PCD80	PCD80R	PCD80C	PCSGP80											
85	3-3/8"	PCD85	PCD85R	PCD85C	PCSGP85											
90	3-1/2"	PCD90	PCD90R	PCD90C	PCSGP90											
95	3-3/4"	PCD95	PCD95R	PCD95C	PCSGP95											
100	3-7/8"	PCD100	PCD100R	PCD100C	PCSGP100											
105	4-1/8"	PCD105	PCD105R	PCD105C	PCSGP105											
110	4-1/4"	PCD110	PCD110R	PCD110C	PCSGP110											
115	4-1/2"	PCD115	PCD115R	PCD115C	PCSGP115											
120	4-3/4"	PCD120	PCD120R	PCD120C	PCSGP120											
125	4-15/16"	PCD125	PCD125R	PCD125C	PCSGP125											
130	5-1/8"	PCD130	PCD130R	PCD130C	PCSGP130											
150	5-7/8"	PCD150	PCD150R	PCD150C	PCSGP150											
155	6"	PCD155	PCD155R	PCD155C	PCSGP155											
160	6-5/16"	PCD160	PCD160R	PCD160C	PCSGP160											
165	6-1/2"	PCD165	PCD165R	PCD165C	PCSGP165											
170	6-11/16"	PCD170	PCD170R	PCD170C	PCSGP170											
180	7"	PCD180	PCD180R	PCD180C	PCSGP180											
200	7-7/8"	PCD200	PCD200R	PCD200C	PCSGP200											
210	8-1/4"	PCD210	PCD210R	PCD210C	PCSGP210											
220	8-5/8"	PCD220	PCD220R	PCD220C	PCSGP220											
250	9-7/8"	—	—	PCD250C	PCSGP250											
260	10-1/4"	—	—	PCD260C	PCSGP260											
300	11-7/8"	—	—	PCD300C	PCSGP300											
310	12-1/4"	—	—	PCD310C	PCSGP310											

*Complete set contains center pin (PCDCP3)
*Use 250mm and above cutters with PCSKXR or PCSKXMXK (not use with L shank)
Complete set is not available. Purchase cutter, shank and center pin.

Long type 220L (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 220mm (8-5/8")

Cutter dia.	Straight shank Set				SDS-plus shank Set				Cutter				Guide plate			
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
50	2"	PCD5022	PCD5022R	PCD5022C	PCSGP50											
65	2-9/16"	PCD6522	PCD6522R	PCD6522C	PCSGP65											
75	2-7/8"	PCD7522	PCD7522R	PCD7522C	PCSGP75											
80	3-1/8"	PCD8022	PCD8022R	PCD8022C	PCSGP80											

Poly-Clc Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ25 – 45mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	φ29 – 45mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	φ50 – 220mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	φ50 – 80mm
L shank 200L straight	PCSKL200	φ50 – 220mm
L shank SDS-plus 200L	PCSKLR200	
L shank 200L (10mm)	PCSKLT200	φ50 – 80mm
X shank SDS-max	PCSKXMXK	φ50mm and above (Over φ120mm is recommended)
X shank SDS-plus	PCSKXR	φ50mm and above

Center pin

Item	Part No.	For use with
Center pin	PCDCP3	φ25 – 310mm
Center pin (light load)	PCDCPK*	φ25 – 310mm
Center pin 250	PCDCP250	φ50 - 80mm for long type 220L

*Spring force is reduced for overhead drilling.

Recommended Rotation Speed / Wattage

Poly-Clc Drimond Core Bit

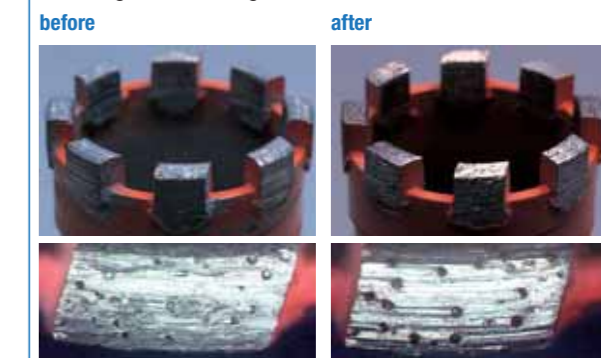
Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ25 – 45	1500 – 800	450W and above
φ50 – 80	1100 – 700	550W and above
φ85 – 125	1100 – 700	650W and above
φ130 – 220	1100 – 500	750W and above
φ250 – 310	850 – 250	1100W and above

Diamond dressing plate

Item	Part No.	Size (W×L×H)
Diamond dressing plate	DDP	150×75×40mm

Dressing

Dressing when drilling slow down.





Hyperdia Core Bit



Portable electric drill in rotary mode



Light-weight hammer drill in rotary mode

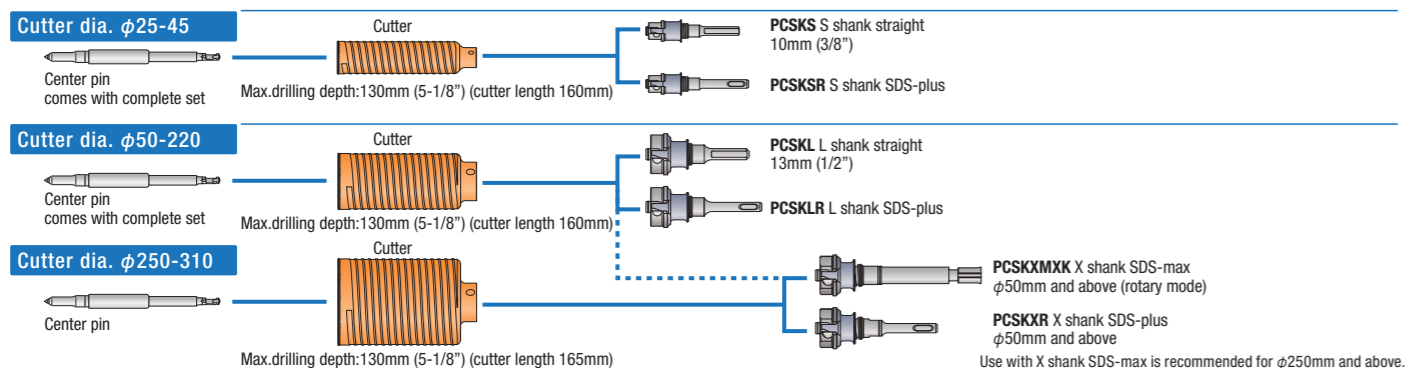
Best for

- Ceramic siding (including heat insulating material)
- Rib pipe

Also can be used in

- Composite material
- Artificial marble
- Plaster board
- Slate
- Synthetic resin
- PVC pipe
- Enamel

Easy drilling in ceramic siding !



Features

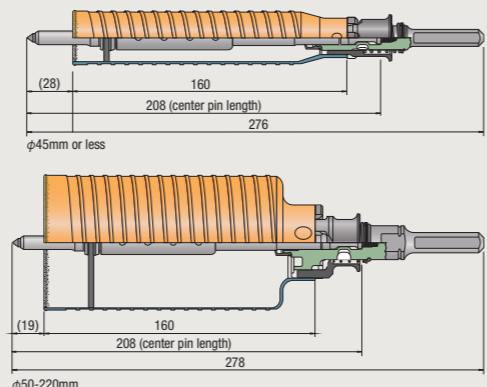
- Best for drilling in hard ceramic siding.
- Cut through composite material with heat insulating material in single action.
- Safe drilling without getting stuck in heat insulating material.

For use in

- Ceramic siding board with heat insulating material, Artificial marble, and PVC pipe

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 130mm (5-1/8")

Cutter dia. mm inch	Straight shank Set	SDS-plus shank Set	Cutter	Guide plate
25 1"	PCHP025	PCHP025R	PCHPD025C	PCSGP25
29 1-1/8"	PCHP029	PCHP029R	PCHPD029C	PCSGP29
32 1-1/4"	PCHP032	PCHP032R	PCHPD032C	PCSGP32
35 1-3/8"	PCHP035	PCHP035R	PCHPD035C	PCSGP35
38 1-1/2"	PCHP038	PCHP038R	PCHPD038C	PCSGP38
45 1-3/4"	PCHP045	PCHP045R	PCHPD045C	PCSGP45
50 2"	PCHP050	PCHP050R	PCHPD050C	PCSGP50
55 2-1/8"	PCHP055	PCHP055R	PCHPD055C	PCSGP55
60 2-3/8"	PCHP060	PCHP060R	PCHPD060C	PCSGP60
65 2-9/16"	PCHP065	PCHP065R	PCHPD065C	PCSGP65
70 2-3/4"	PCHP070	PCHP070R	PCHPD070C	PCSGP70
75 2-7/8"	PCHP075	PCHP075R	PCHPD075C	PCSGP75
80 3-1/8"	PCHP080	PCHP080R	PCHPD080C	PCSGP80
85 3-3/8"	PCHP085	PCHP085R	PCHPD085C	PCSGP85
90 3-1/2"	PCHP090	PCHP090R	PCHPD090C	PCSGP90
95 3-3/4"	PCHP095	PCHP095R	PCHPD095C	PCSGP95
100 3-7/8"	PCHP100	PCHP100R	PCHPD100C	PCSGP100
105 4-1/8"	PCHP105	PCHP105R	PCHPD105C	PCSGP105
110 4-1/4"	PCHP110	PCHP110R	PCHPD110C	PCSGP110
115 4-1/2"	PCHP115	PCHP115R	PCHPD115C	PCSGP115
120 4-3/4"	PCHP120	PCHP120R	PCHPD120C	PCSGP120
125 4-15/16"	PCHP125	PCHP125R	PCHPD125C	PCSGP125
130 5-1/8"	PCHP130	PCHP130R	PCHPD130C	PCSGP130
140 5-1/2"	PCHP140	PCHP140R	PCHPD140C	PCSGP140
150 5-7/8"	PCHP150	PCHP150R	PCHPD150C	PCSGP150
155 6"	PCHP155	PCHP155R	PCHPD155C	PCSGP155
160 6-5/16"	PCHP160	PCHP160R	PCHPD160C	PCSGP160
165 6-1/2"	PCHP165	PCHP165R	PCHPD165C	PCSGP165
170 6-11/16"	PCHP170	PCHP170R	PCHPD170C	PCSGP170
200 7-7/8"	PCHP200	PCHP200R	PCHPD200C	PCSGP200
210 8-1/4"	PCHP210	PCHP210R	PCHPD210C	PCSGP210
220 8-5/8"	PCHP220	PCHP220R	PCHPD220C	PCSGP220

*Complete set contains center pin (PCHPCP3)

Cutter dia. mm inch	Cutter	Shank (SDS-max)	Shank (SDS-plus)	Guide plate
250 9-7/8"	PCHPD250C	PCSKXMXK	PCSKXR	PCSGP250
260 10-1/4"	PCHPD260C			PCSGP260
300 11-7/8"	PCHPD300C			PCSGP300
310 12-1/4"	PCHPD310C			PCSGP310

*Complete set is not available. Purchase cutter, shank and center pin.
*Use 250mm and above cutters with PCSKXR or PCSKXMXK (not use with L shank)

Short type 80L (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 80mm (3-1/8")

Cutter dia. mm inch	Cutter	Cutter dia. mm inch	Cutter
60 2-3/8"	PCHPD06080C	100 3-7/8"	PCHPD10080C
75 2-7/8"	PCHPD07580C	125 4-15/16"	PCHPD12580C
80 3-1/8"	PCHPD08080C	150 5-7/8"	PCHPD15080C

Poly-Clc Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ25 – 45mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	φ29 – 45mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	φ50 – 220mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	φ50 – 80mm
L shank 200L straight	PCSKL200	φ50 – 220mm
L shank SDS-plus 200L	PCSKLR200	
L shank 200L (10mm)	PCSKLT200	φ50 – 80mm
X shank SDS-max	PCSKXMXK	φ50mm and above (Over φ120mm is recommended)
X shank SDS-plus	PCSKXR	φ50mm and above

Center pin / Center drill / Guide bar

Item	Part No.	For use with
Center pin	PCHPCP3	φ25 – 310mm
Carbide tipped center drill	PCHWCD225	Rib pipe, PVC pipe
	PCHWCD175	for short type 80L
Center pin (lightweight steel beams for ceiling)	PCHPCPK	Lightweight steel beams for ceiling
Center pin	PCKTCP2	for short type 80L
Guide bar 250	PCGWGB	
Guide bar 175	PCGB175	for short type 80L

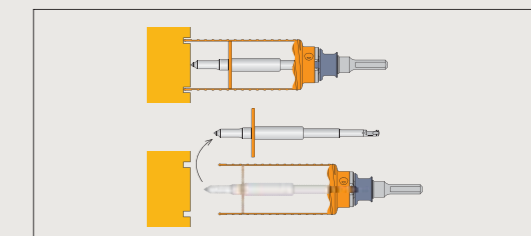
Recommended Rotation Speed / Wattage

Poly-Clc Hyperdia Core Bit

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ25 – 45	1500 – 800	450W and above
φ50 – 80	1100 – 700	550W and above
φ85 – 125	1100 – 700	650W and above
φ130 – 220	1100 – 500	750W and above
φ250 – 310	850 – 250	1100W and above

How to use a center pin

Make sure to detach a center pin after positioning.



Center pin is used only for positioning.

Detach a center pin after drilling into work material 2 to 3mm.



Galvawood Core Bit



Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

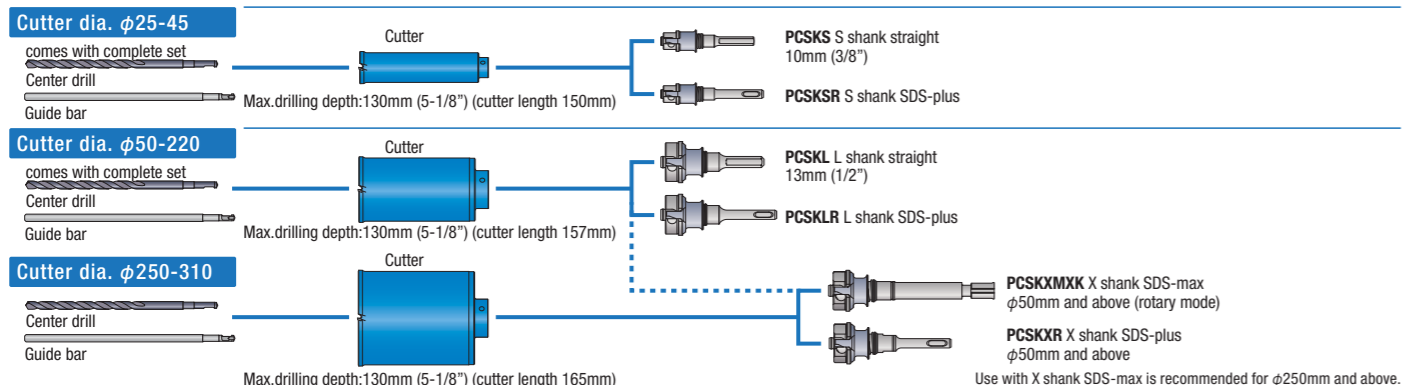
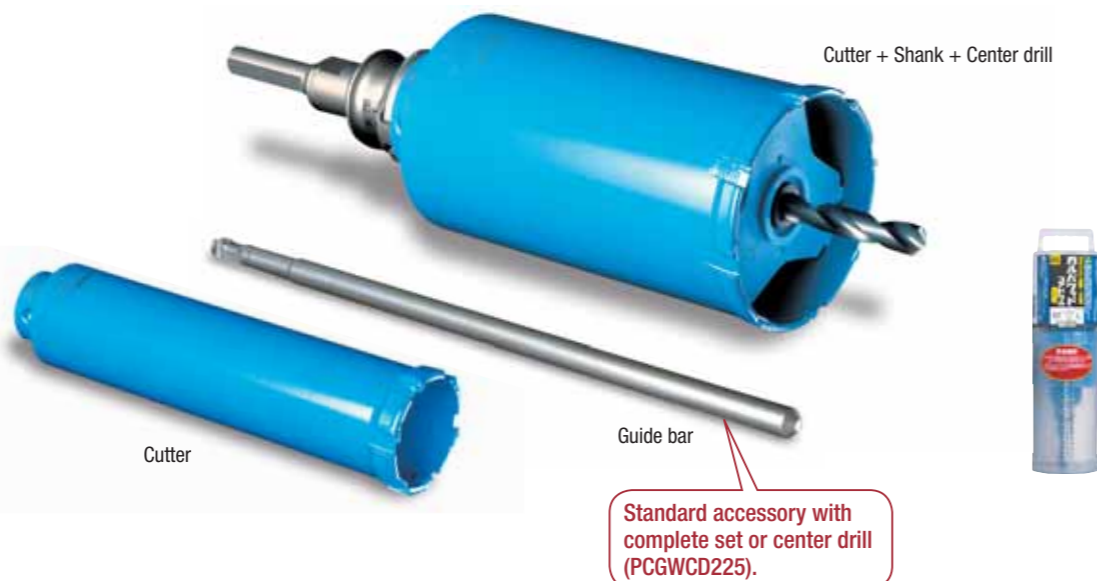
Best for

- Galvanized metal siding
- Wood
- Plywood
- Metal siding

Also can be used in

- ALC
- Japanese wall
- Lath wall
- FRP
- Catch basin
- PVC pipe
- Spiral duct
- Raised floor
- Artificial marble
- Ceramic siding
- Plastic
- Composite material
- Sheet metal (up to 1mm in thickness)

Easy drilling to galvanized metal siding board !



Features

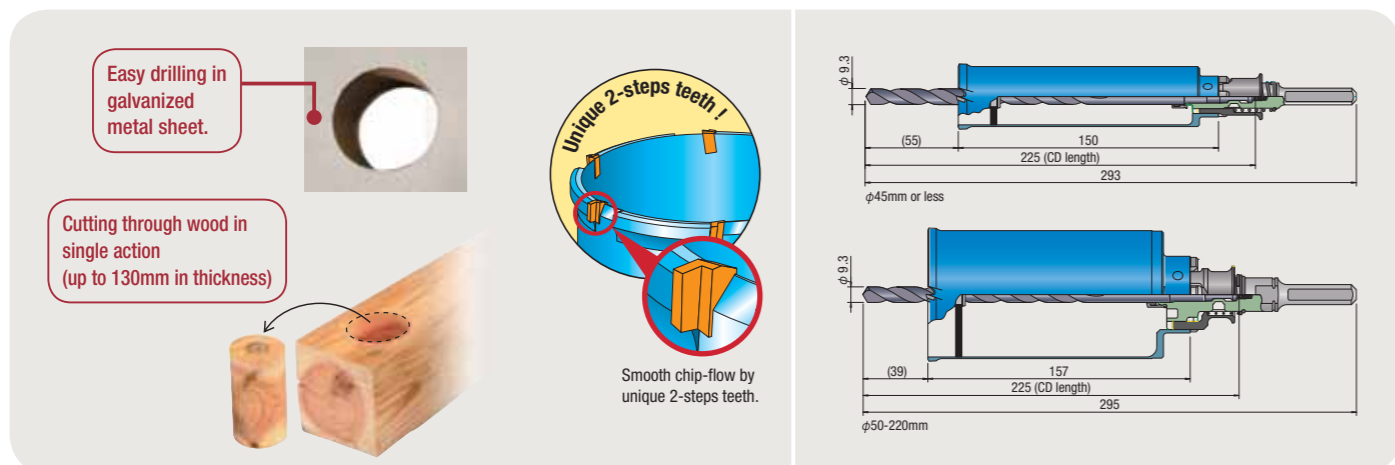
- Easy drilling to galvanized metal siding board !
- Cutting through wood in thickness up to 130mm in single action.
- Unique 2-steps teeth for efficient chip-flow.
- By using a guide bar, the center hole is not enlarged and it can be drilled into metal siding safely.

For use in

- Galvanized metal siding board, Wood, Plywood, Metal siding, Ceramic siding, Plastic guttering, Vinyl chloride pipe, and FRP

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 130mm (5-1/8")

Cutter dia. mm inch	Straight shank Set	SDS-plus shank Set	Cutter	Guide plate	
					mm
25	1"	PCGW25	PCGW25R	PCGW25C	PCGWGP25
29	1-1/8"	PCGW29	PCGW29R	PCGW29C	PCGWGP29
32	1-1/4"	PCGW32	PCGW32R	PCGW32C	PCGWGP32
35	1-3/8"	PCGW35	PCGW35R	PCGW35C	PCGWGP35
38	1-1/2"	PCGW38	PCGW38R	PCGW38C	PCGWGP38
45	1-3/4"	PCGW45	PCGW45R	PCGW45C	PCGWGP45
50	2"	PCGW50	PCGW50R	PCGW50C	PCGWGP50
55	2-1/8"	PCGW55	PCGW55R	PCGW55C	PCGWGP55
60	2-3/8"	PCGW60	PCGW60R	PCGW60C	PCGWGP60
65	2-9/16"	PCGW65	PCGW65R	PCGW65C	PCGWGP65
70	2-3/4"	PCGW70	PCGW70R	PCGW70C	PCGWGP70
75	2-7/8"	PCGW75	PCGW75R	PCGW75C	PCGWGP75
80	3-1/8"	PCGW80	PCGW80R	PCGW80C	PCGWGP80
85	3-3/8"	PCGW85	PCGW85R	PCGW85C	PCGWGP85
90	3-1/2"	PCGW90	PCGW90R	PCGW90C	PCGWGP90
95	3-3/4"	PCGW95	PCGW95R	PCGW95C	PCGWGP95
100	3-7/8"	PCGW100	PCGW100R	PCGW100C	PCGWGP100
105	4-1/8"	PCGW105	PCGW105R	PCGW105C	PCGWGP105
110	4-1/4"	PCGW110	PCGW110R	PCGW110C	PCGWGP110
115	4-1/2"	PCGW115	PCGW115R	PCGW115C	PCGWGP115
120	4-3/4"	PCGW120	PCGW120R	PCGW120C	PCGWGP120
125	4-15/16"	PCGW125	PCGW125R	PCGW125C	PCGWGP125
130	5-1/8"	PCGW130	PCGW130R	PCGW130C	PCGWGP130
140	5-1/2"	PCGW140	PCGW140R	PCGW140C	PCGWGP140
150	5-7/8"	PCGW150	PCGW150R	PCGW150C	PCGWGP150
155	6"	PCGW155	PCGW155R	PCGW155C	PCGWGP155
160	6-5/16"	PCGW160	PCGW160R	PCGW160C	PCGWGP160
165	6-1/2"	PCGW165	PCGW165R	PCGW165C	PCGWGP165
170	6-11/16"	PCGW170	PCGW170R	PCGW170C	PCGWGP170
180	7"	PCGW180	PCGW180R	PCGW180C	PCGWGP180
200	7-7/8"	PCGW200	PCGW200R	PCGW200C	PCGWGP200
210	8-1/4"	PCGW210	PCGW210R	PCGW210C	PCGWGP210
220	8-5/8"	PCGW220	PCGW220R	PCGW220C	PCGWGP220

*Complete set contains HSS Center Drill (PCGWCD225), Guide Bar (PCGWGB) and Guide Plate.
*Make sure to buy Center Drill with Guide Bar when purchasing the cutter only.

Cutter dia. mm inch	Cutter	Shank (SDS-max)	Shank (SDS-plus)	Guide plate	
					mm
250	9-7/8"	PCGW250C	PCSKXMXK	PCSKXR	PCGWGP250
260	10-1/4"	PCGW260C	PCSKXMXK	PCSKXR	PCGWGP260
300	11-7/8"	PCGW300C	PCSKXMXK	PCSKXR	PCGWGP300
310	12-1/4"	PCGW310C	PCSKXMXK	PCSKXR	PCGWGP310

*Complete set is not available. Purchase cutter, shank and center drill.
*Use 250mm and above cutters with PCSKXR or PCSKXMXK (not use with L shank)

Poly-Clc Shank

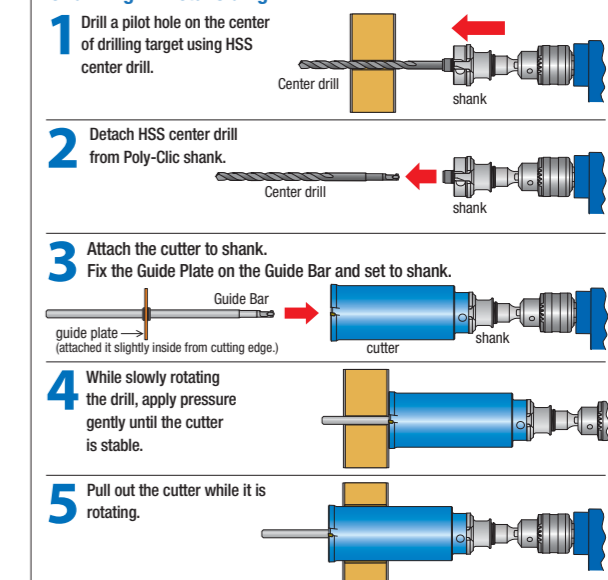
Item	Part No.	For use with
S shank straight	PCSKS	ϕ 25 - 45mm
S shank SDS-plus	PCSKSR	ϕ 25 - 45mm
S shank 200L straight	PCSKS200	ϕ 29 - 45mm
S shank SDS-plus 200L	PCSKSR200	ϕ 29 - 45mm
L shank straight	PCSKL	ϕ 50 - 220mm
L shank SDS-plus	PCSKLR	ϕ 50 - 220mm
L shank (10mm)	PCSKLT	ϕ 50 - 80mm
L shank 200L straight	PCSKL200	ϕ 50 - 220mm
L shank SDS-plus 200L	PCSKLR200	ϕ 50 - 220mm
L shank 200L (10mm)	PCSKLT200	ϕ 50 - 80mm
X shank SDS-max	PCSKXMXK	ϕ 50mm and above (Over ϕ 120mm is recommended)
X shank SDS-plus	PCSKXR	ϕ 50mm and above

Center drill / Guide bar

Item	Part No.	For use with
HSS center drill (containing the Guide Bar also)	PCGWCD225	Metal siding, wood material (Complete set contains HSS center drill and Guide Bar)
Carbide tipped center drill	PCHWCD225	Ceramic siding / ALC
Carbide tipped acute center drill	PCBHCD225	Wood, metal siding, ceramic siding
Guide bar	PCGWGB	Drilling guide after making a pilot hole by HSS center drill (Complete set always contains HSS center drill and Guide Bar)



Pre-drill using HSS center drill and use the guide bar as a guide for drilling in metal siding.





Super Metal Core Bit



Portable electric drill in rotary mode



Light-weight hammer drill in rotary mode

Super Metal Core Bit

Best for

Metal insulated sandwich panels (up to 130mm in thickness)

Also can be used in

Galvanized metal siding

Metal siding

Stainless steel plate (up to 4mm in thickness)

Sheet metal (up to 4mm in thickness)

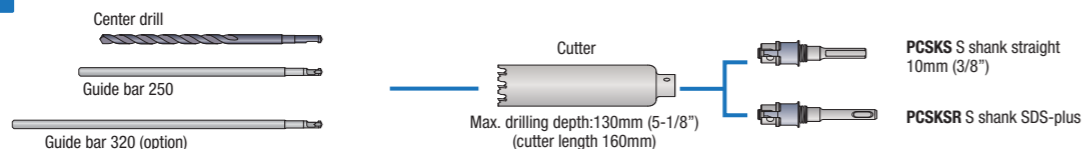
*Steel deck plate

*Intermittently drilling into steel deck plate may reduce durability.

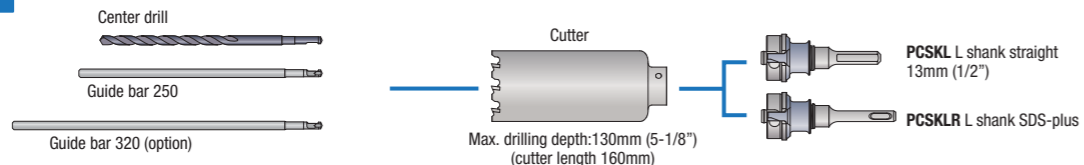
Best for metal insulated sandwich panels ! (up to 130mm in thickness)



Cutter dia. φ25-38



Cutter dia. φ50-220



Features

- Capable of drilling into metal insulated sandwich panels.
- Guide bar provides safe and smooth drilling into metal insulated sandwich panels.

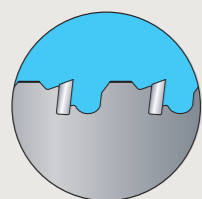
For use in

- Metal insulated sandwich panels
- Galvanized metal siding

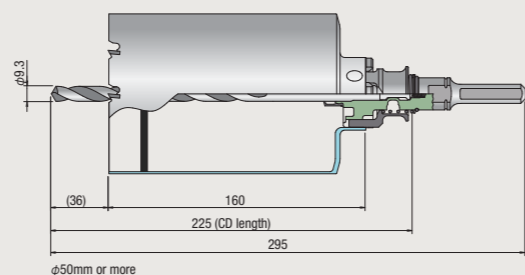
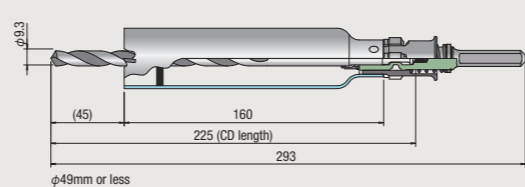
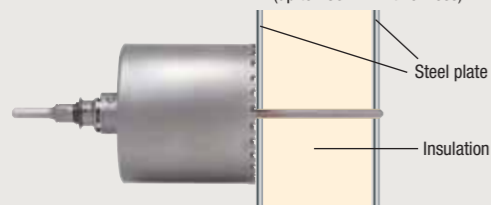
For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

Tip Design



Metal insulated sandwich panels (up to 130mm in thickness)



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 130mm (5-1/8")

Cutter dia.	Cutter		Guide plate
	mm	inch	
25	1"	PCSM25C	PCSGP25
29	1-1/8"	PCSM29C	PCSGP29
32	1-1/4"	PCSM32C	PCSGP32
35	1-3/8"	PCSM35C	PCSGP35
38	1-1/2"	PCSM38C	PCSGP38
45	1-3/4"	PCSM45C	PCSGP45
50	2"	PCSM50C	PCSGP50
55	2-1/8"	PCSM55C	PCSGP55
60	2-3/8"	PCSM60C	PCSGP60
65	2-9/16"	PCSM65C	PCSGP65
70	2-3/4"	PCSM70C	PCSGP70
75	2-7/8"	PCSM75C	PCSGP75
80	3-1/8"	PCSM80C	PCSGP80
85	3-3/8"	PCSM85C	PCSGP85
90	3-1/2"	PCSM90C	PCSGP90
95	3-3/4"	PCSM95C	PCSGP95
100	3-7/8"	PCSM100C	PCSGP100
105	4-1/8"	PCSM105C	PCSGP105
110	4-1/4"	PCSM110C	PCSGP110
115	4-1/2"	PCSM115C	PCSGP115
120	4-3/4"	PCSM120C	PCSGP120
125	4-15/16"	PCSM125C	PCSGP125
130	5-1/8"	PCSM130C	PCSGP130
140	5-1/2"	PCSM140C	PCSGP140
150	5-7/8"	PCSM150C	PCSGP150
155	6"	PCSM155C	PCSGP155
160	6-5/16"	PCSM160C	PCSGP160
165	6-1/2"	PCSM165C	PCSGP165
170	6-11/16"	PCSM170C	PCSGP170
180	7"	PCSM180C	PCSGP180
200	7-7/8"	PCSM200C	PCSGP200
210	8-1/4"	PCSM210C	PCSGP210
220	8-5/8"	PCSM220C	PCSGP220

*Complete set is not available. Purchase cutter, shank, center drill.
Purchase a guide bar 320 if needed.

Center drill / Guide bar

Item	Part No.	For use with
HSS center drill	PCSMCD225	Including Guide bar 250 (PCGWGB)
Guide bar 250	PCGWGB	Up to 60mm in thickness. Provided with HSS center drill (PCSMCD225)
Guide bar 320	PCSMGB320	Up to 130mm in thickness. Use after making a pilot hole with HSS center drill.

Poly-Clic Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ25 - 45mm
S shank SDS-plus	PCSКСR	
S shank 200L straight	PCSКС200	φ29 - 45mm
S shank SDS-plus 200L	PCSКСR200	
L shank straight	PCSKL	φ50 - 220mm
L shank SDS-plus	PCSКLR	
L shank (10mm)	PCSКLT	φ50 - 80mm
L shank 200L straight	PCSКL200	φ50 - 220mm
L shank SDS-plus 200L	PCSКLR200	
L shank 200L (10mm)	PCSКLT200	φ50 - 80mm
X shank SDS-max	PCSКXMKX	φ50mm and above (Over φ120mm is recommended)
X shank SDS-plus	PCSКXR	φ50mm and above

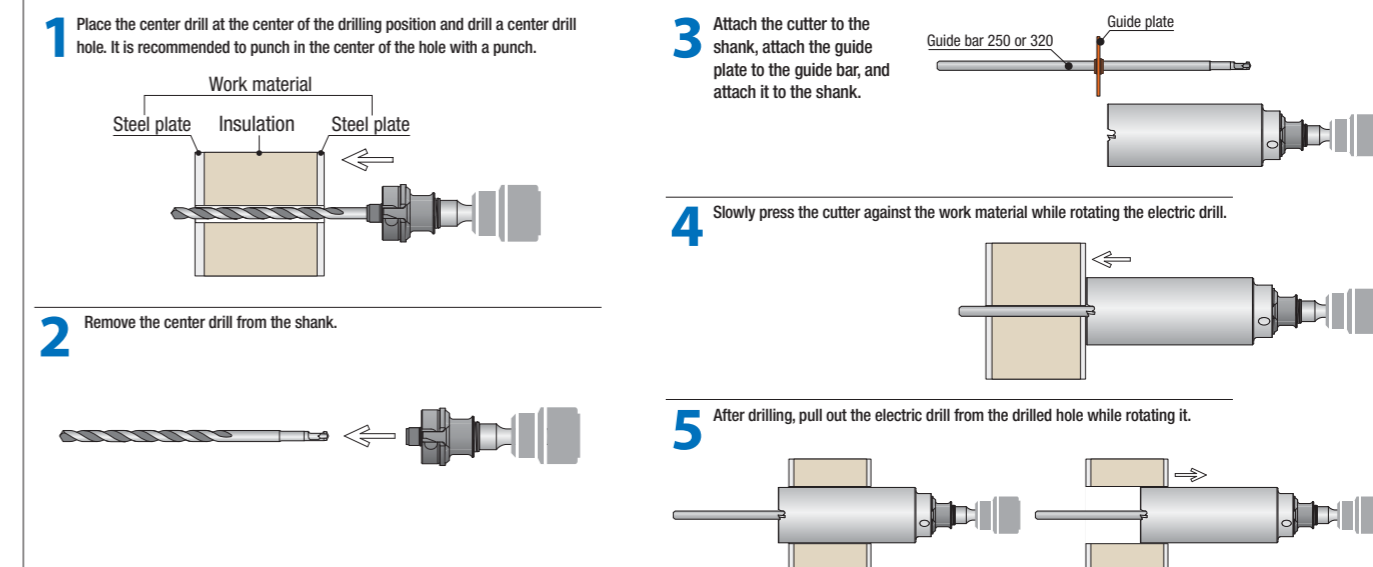
CAUTION

Be sure to use a guide plate to reduce cutter runout. (Guide plate comes with cutter)
When the guide plate is worn, replace it with a new one. Drilled with the guide plate worn, the cutting edge may runout.



How to use a Guide bar

When drilling in metal sandwich panels or metal siding, first drill a hole with a center drill, and then replace it to a guide bar.





Wooding Core Bit



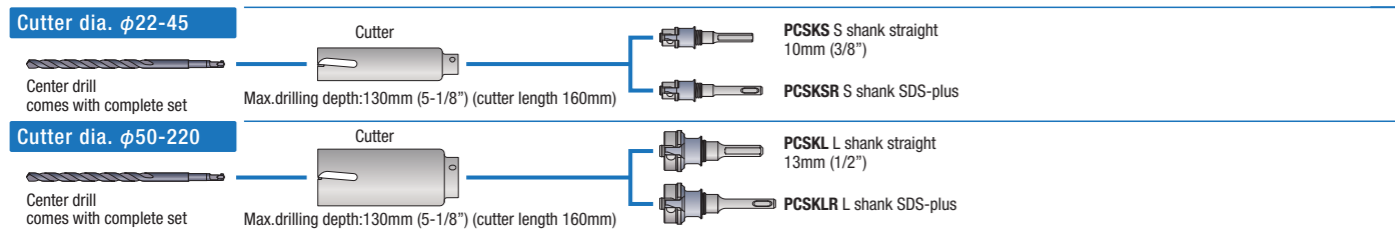
Best for

- Wood
- Metal siding
- Ceramic siding
- Laminated wood
- Plaster board
- Floor panel

Also can be used in

- PVC pipe
- FRP
- Slate
- Catch basin
- Plastic
- Resin material

Safe and fast drilling through nail embedded wood with unique cutting teeth and slit.



Features

- Our original design of the cutting teeth permits safe and fast drilling through nail embedded wood.
- Drills into various wall materials such as ceramic siding, metal siding board and wood.

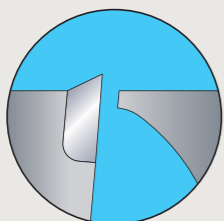
For use in

- Ceramic siding, Metal siding
- Nail embedded wood
- Wood, Slate material, Plaster board, Vinyl chloride paneling and FRP

For use with

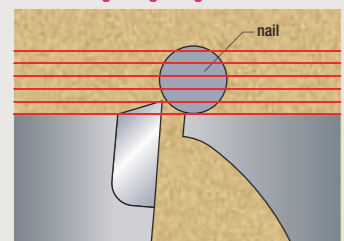
- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

Tip Design

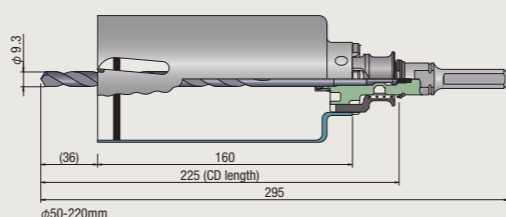
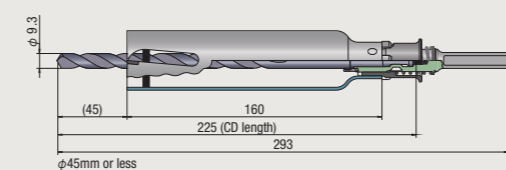
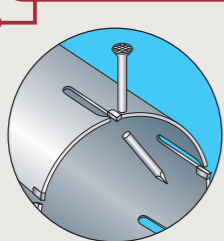


Uniquely designed cutting teeth

Uniquely designed cutting teeth prevent nails from getting caught in!



Usable for various types of wall materials!



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 130mm (5-1/8")

Cutter dia.	Straight shank Set		SDS-plus shank Set		Cutter	Guide plate
	mm	inch	mm	inch		
22	7/8"	PCWS22	PCWS22R	PCWS22C	PCSGP22	
25	1"	PCWS25	PCWS25R	PCWS25C	PCSGP25	
29	1-1/8"	PCWS29	PCWS29R	PCWS29C	PCSGP29	
32	1-1/4"	PCWS32	PCWS32R	PCWS32C	PCSGP32	
35	1-3/8"	PCWS35	PCWS35R	PCWS35C	PCSGP35	
38	1-1/2"	PCWS38	PCWS38R	PCWS38C	PCSGP38	
45	1-3/4"	PCWS45	PCWS45R	PCWS45C	PCSGP45	
50	2"	PCWS50	PCWS50R	PCWS50C	PCSGP50	
55	2-1/8"	PCWS55	PCWS55R	PCWS55C	PCSGP55	
60	2-3/8"	PCWS60	PCWS60R	PCWS60C	PCSGP60	
65	2-9/16"	PCWS65	PCWS65R	PCWS65C	PCSGP65	
70	2-3/4"	PCWS70	PCWS70R	PCWS70C	PCSGP70	
75	2-7/8"	PCWS75	PCWS75R	PCWS75C	PCSGP75	
80	3-1/8"	PCWS80	PCWS80R	PCWS80C	PCSGP80	
85	3-3/8"	PCWS85	PCWS85R	PCWS85C	PCSGP85	
90	3-1/2"	PCWS90	PCWS90R	PCWS90C	PCSGP90	
95	3-3/4"	PCWS95	PCWS95R	PCWS95C	PCSGP95	
100	3-7/8"	PCWS100	PCWS100R	PCWS100C	PCSGP100	
105	4-1/8"	PCWS105	PCWS105R	PCWS105C	PCSGP105	
110	4-1/4"	PCWS110	PCWS110R	PCWS110C	PCSGP110	
115	4-1/2"	PCWS115	PCWS115R	PCWS115C	PCSGP115	
120	4-3/4"	PCWS120	PCWS120R	PCWS120C	PCSGP120	
125	4-15/16"	PCWS125	PCWS125R	PCWS125C	PCSGP125	
130	5-1/8"	PCWS130	PCWS130R	PCWS130C	PCSGP130	
140	5-1/2"	PCWS140	PCWS140R	PCWS140C	PCSGP140	
150	5-7/8"	PCWS150	PCWS150R	PCWS150C	PCSGP150	
155	6"	PCWS155	PCWS155R	PCWS155C	PCSGP155	
160	6-5/16"	PCWS160	PCWS160R	PCWS160C	PCSGP160	
165	6-1/2"	PCWS165	PCWS165R	PCWS165C	PCSGP165	
170	6-11/16"	PCWS170	PCWS170R	PCWS170C	PCSGP170	
180	7"	PCWS180	PCWS180R	PCWS180C	PCSGP180	
200	7-7/8"	PCWS200	PCWS200R	PCWS200C	PCSGP200	
210	8-1/4"	PCWS210	PCWS210R	PCWS210C	PCSGP210	
220	8-5/8"	PCWS220	PCWS220R	PCWS220C	PCSGP220	

Short type 80L (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 80mm (3-1/8")

Cutter dia.	Cutter	Cutter dia.	Cutter
mm	inch	mm	inch
32	1-1/4"	70	2-3/4"
35	1-3/8"	75	2-7/8"
38	1-1/2"	80	3-1/8"
45	1-3/4"	95	3-3/4"
50	2"	100	3-7/8"
53	2-1/16"	110	4-1/4"
60	2-3/8"	120	4-3/4"
65	2-9/16"	125	4-15/16"
		150	5-7/8"
		160	6-5/16"

*Complete set is not available. Please purchase cutter, center drill and shank. Short type cutter does not contain guide plate.

Poly-Clc Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ22 – 45mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	φ29 – 45mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	φ50 – 220mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	φ50 – 80mm
L shank 200L straight	PCSKL200	
L shank SDS-plus 200L	PCSKLR200	φ50 – 220mm
L shank 200L (10mm)	PCSKLT200	
X shank SDS-max	PCSKXMXK	φ50mm and above (Over φ120mm is recommended)
X shank SDS-plus	PCSKXR	φ50mm and above

Center drill / Guide bar

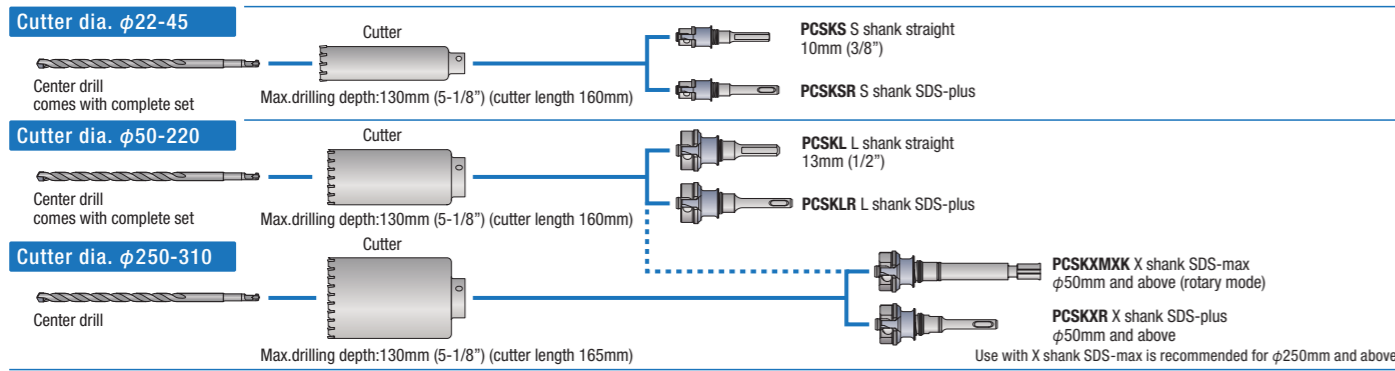
Item	Part No.	For use with
Center drill	PCWSCD225	φ22 – 220mm
Center drill 80L	PCWSCD175	φ32 – 160mm for short type 80L
Carbide tipped acute center drill *for wood, metal siding, ceramic siding	PCBHCD225	φ22 – 220mm
	PCBHCD175	φ32 – 160mm for short type 80L
Carbide tipped center drill *for ceramic siding	PCHWCD225	φ22 – 220mm
	PCHWCD175	φ32 – 160mm for short type 80L
Guide bar 250	PCGWGB	
Guide bar 175	PCGB175	for short type 80L



Tip of Carbide tipped acute center drill

- Best for ALC
- Also can be used in PVC pipe, Ceramic siding

Smooth cutting ALC with steel frame by special designed tips and chip pockets !



Features

- Cutting teeth and chip pockets are designed with proper balance for safe cutting of ALC (Autoclaved light-weight aerated concrete) and its reinforcing bars.

For use in

- ALC (Autoclaved light-weight aerated concrete)
- * Use Poly-Clic Galvawood Core Bit for wet ALC

For use with

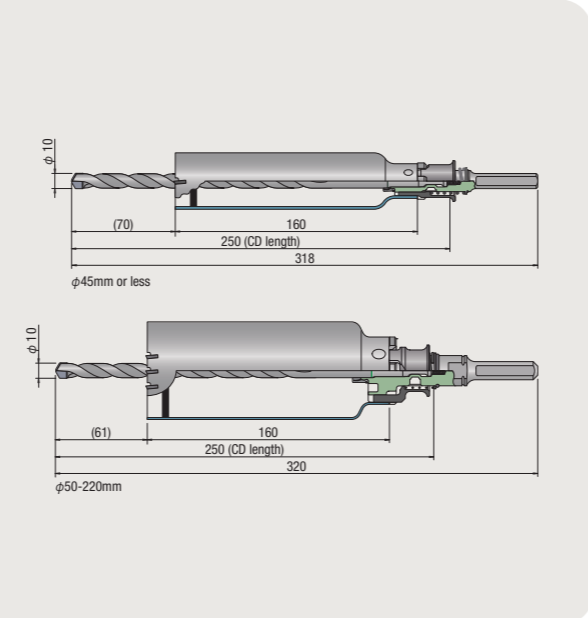
- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

ALC Use Galvawood Core Bit (P-16) for wet ALC

Cutting teeth and chip pockets are designed well balanced.

Tip Design
 The chip pockets are designed for smooth and safe cutting for steel frame.

Safe cutting ALC with steel frame !



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
 Max. drilling depth : 130mm (5-1/8")

Cutter dia.	Straight shank Set		SDS-plus shank Set		Cutter	Guide plate
	mm	inch	mm	inch		
22	7/8"	PCALC22	PCALC22R	PCALC22C	PCSGP22	
25	1"	PCALC25	PCALC25R	PCALC25C	PCSGP25	
29	1-1/8"	PCALC29	PCALC29R	PCALC29C	PCSGP29	
32	1-1/4"	PCALC32	PCALC32R	PCALC32C	PCSGP32	
35	1-3/8"	PCALC35	PCALC35R	PCALC35C	PCSGP35	
38	1-1/2"	PCALC38	PCALC38R	PCALC38C	PCSGP38	
45	1-3/4"	PCALC45	PCALC45R	PCALC45C	PCSGP45	
50	2"	PCALC50	PCALC50R	PCALC50C	PCSGP50	
55	2-1/8"	PCALC55	PCALC55R	PCALC55C	PCSGP55	
60	2-3/8"	PCALC60	PCALC60R	PCALC60C	PCSGP60	
65	2-9/16"	PCALC65	PCALC65R	PCALC65C	PCSGP65	
70	2-3/4"	PCALC70	PCALC70R	PCALC70C	PCSGP70	
75	2-7/8"	PCALC75	PCALC75R	PCALC75C	PCSGP75	
80	3-1/8"	PCALC80	PCALC80R	PCALC80C	PCSGP80	
85	3-3/8"	PCALC85	PCALC85R	PCALC85C	PCSGP85	
90	3-1/2"	PCALC90	PCALC90R	PCALC90C	PCSGP90	
95	3-3/4"	PCALC95	PCALC95R	PCALC95C	PCSGP95	
100	3-7/8"	PCALC100	PCALC100R	PCALC100C	PCSGP100	
105	4-1/8"	PCALC105	PCALC105R	PCALC105C	PCSGP105	
110	4-1/4"	PCALC110	PCALC110R	PCALC110C	PCSGP110	
115	4-1/2"	PCALC115	PCALC115R	PCALC115C	PCSGP115	
120	4-3/4"	PCALC120	PCALC120R	PCALC120C	PCSGP120	
125	4-15/16"	PCALC125	PCALC125R	PCALC125C	PCSGP125	
130	5-1/8"	PCALC130	PCALC130R	PCALC130C	PCSGP130	
140	5-1/2"	PCALC140	PCALC140R	PCALC140C	PCSGP140	
150	5-7/8"	PCALC150	PCALC150R	PCALC150C	PCSGP150	
155	6"	PCALC155	PCALC155R	PCALC155C	PCSGP155	
160	6-5/16"	PCALC160	PCALC160R	PCALC160C	PCSGP160	
165	6-1/2"	PCALC165	PCALC165R	PCALC165C	PCSGP165	
170	6-11/16"	PCALC170	PCALC170R	PCALC170C	PCSGP170	
180	7"	PCALC180	PCALC180R	PCALC180C	PCSGP180	
200	7-7/8"	PCALC200	PCALC200R	PCALC200C	PCSGP200	
210	8-1/4"	PCALC210	PCALC210R	PCALC210C	PCSGP210	
220	8-5/8"	PCALC220	PCALC220R	PCALC220C	PCSGP220	

Cutter dia.	Shank (SDS-max)		Shank (SDS-plus)		Guide plate
	mm	inch	mm	inch	
250	9-7/8"	PCALC250C	PCSKXMXK	PCSKXR	PCSGP250
260	10-1/4"	PCALC260C			PCSGP260
300	11-7/8"	PCALC300C			PCSGP300
310	12-1/4"	PCALC310C			PCSGP310

*Complete set is not available. Purchase cutter, shank and center drill.
 *Use 250mm and above cutters with PCSKXR or PCSKXMXK (not use with L shank)
 *Cutter (250mm and above) contains a guide bar.

Poly-Clic Shank

Item	Part No.	For use with
S shank straight	PCSKS	ϕ 22 – 45mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	ϕ 29 – 45mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	ϕ 50 – 220mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	ϕ 50 – 80mm
L shank 200L straight	PCSKL200	ϕ 50 – 220mm
L shank SDS-plus 200L	PCSKLR200	
L shank 200L (10mm)	PCSKLT200	ϕ 50 – 80mm
X shank SDS-max	PCSKXMXK	ϕ 50mm and above (Over ϕ 120mm is recommended)
X shank SDS-plus	PCSKXR	ϕ 50mm and above

Center drill

Item	Part No.	For use with
Center drill	PCHWCD250	ϕ 22 – 310mm 250L
Center drill	PCHWCD300	ϕ 22 – 310mm 300L

Long type 150L

(The actual sizes are in metric, and imperial sizes are approximate.)
 Max. drilling depth : 150mm (5-7/8")

Cutter dia.	Cutter	
	mm	inch
32	1-1/4"	PCALC32150C
35	1-3/8"	PCALC35150C
38	1-1/2"	PCALC38150C
50	2"	PCALC50150C
60	2-3/8"	PCALC60150C
65	2-9/16"	PCALC65150C
70	2-3/4"	PCALC70150C
75	2-7/8"	PCALC75150C
80	3-1/8"	PCALC80150C
90	3-1/2"	PCALC90150C
100	3-7/8"	PCALC100150C
110	4-1/4"	PCALC110150C
120	4-3/4"	PCALC120150C
130	5-1/8"	PCALC130150C
160	6-5/16"	PCALC160150C
180	7"	PCALC180150C
210	8-1/4"	PCALC210150C
*230	9-1/16"	PCALC230150C
*260	10-1/4"	PCALC260150C
*310	12-1/4"	PCALC310150C

*Complete set is not available. Purchase cutter, shank and center drill.
 *Use 230mm and above with X shank.



Percussion Core Bit ('S'Core)



Portable electric drill in rotary and percussion mode

Percussion Core Bit ('S'Core)

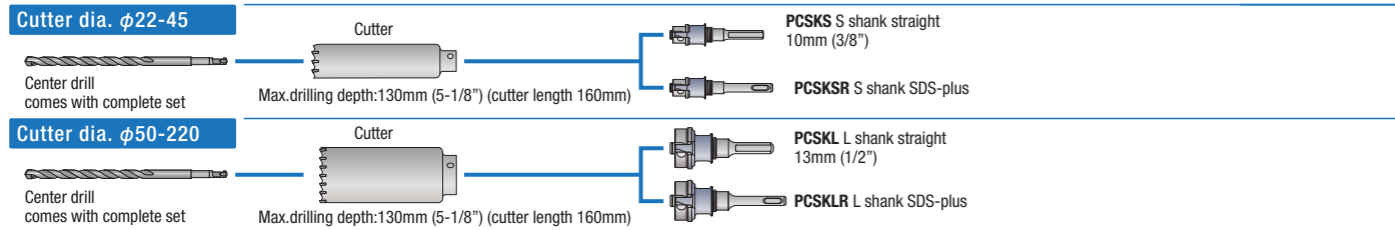
Best for

Mortar
Block

Also can be used in

Ceramic siding
Extruded cement

Original designed cutting teeth for use with percussion drill in percussion and rotary mode.



Features

- The cutting teeth are well designed for effective use by percussion drills in percussion and rotary mode.
- No cracks on work surface.

For use in

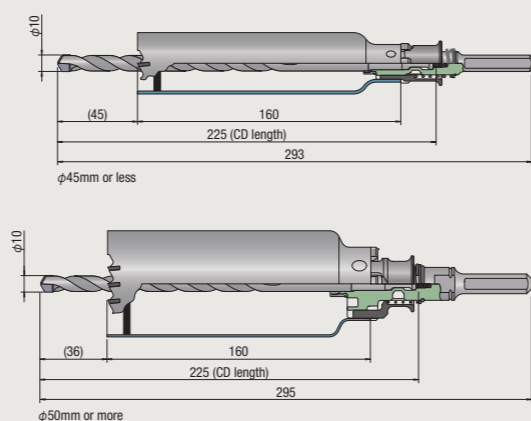
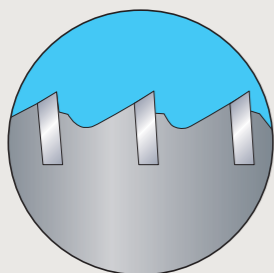
- Mortar and Block

For use with

- Portable electric drills in both rotary and percussion mode

Tip Design

Cutting teeth are designed to effectively use percussive and rotative forces delivered by percussion drills.



Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 130mm (5-1/8")

Cutter dia.	Straight shank Set				SDS-plus shank Set			
	mm	inch	mm	inch	mm	inch	mm	inch
22	7/8"	PCSW22	PCSW22R	PCSW22C	PCSGP22			
25	1"	PCSW25	PCSW25R	PCSW25C	PCSGP25			
29	1-1/8"	PCSW29	PCSW29R	PCSW29C	PCSGP29			
32	1-1/4"	PCSW32	PCSW32R	PCSW32C	PCSGP32			
35	1-3/8"	PCSW35	PCSW35R	PCSW35C	PCSGP35			
38	1-1/2"	PCSW38	PCSW38R	PCSW38C	PCSGP38			
45	1-3/4"	PCSW45	PCSW45R	PCSW45C	PCSGP45			
50	2"	PCSW50	PCSW50R	PCSW50C	PCSGP50			
55	2-1/8"	PCSW55	PCSW55R	PCSW55C	PCSGP55			
60	2-3/8"	PCSW60	PCSW60R	PCSW60C	PCSGP60			
65	2-9/16"	PCSW65	PCSW65R	PCSW65C	PCSGP65			
70	2-3/4"	PCSW70	PCSW70R	PCSW70C	PCSGP70			
75	2-7/8"	PCSW75	PCSW75R	PCSW75C	PCSGP75			
80	3-1/8"	PCSW80	PCSW80R	PCSW80C	PCSGP80			
85	3-3/8"	PCSW85	PCSW85R	PCSW85C	PCSGP85			
90	3-1/2"	PCSW90	PCSW90R	PCSW90C	PCSGP90			
95	3-3/4"	PCSW95	PCSW95R	PCSW95C	PCSGP95			
100	3-7/8"	PCSW100	PCSW100R	PCSW100C	PCSGP100			
105	4-1/8"	PCSW105	PCSW105R	PCSW105C	PCSGP105			
110	4-1/4"	PCSW110	PCSW110R	PCSW110C	PCSGP110			
115	4-1/2"	PCSW115	PCSW115R	PCSW115C	PCSGP115			
120	4-3/4"	PCSW120	PCSW120R	PCSW120C	PCSGP120			
125	4-15/16"	PCSW125	PCSW125R	PCSW125C	PCSGP125			
130	5-1/8"	PCSW130	PCSW130R	PCSW130C	PCSGP130			
140	5-1/2"	PCSW140	PCSW140R	PCSW140C	PCSGP140			
150	5-7/8"	PCSW150	PCSW150R	PCSW150C	PCSGP150			
155	6"	PCSW155	PCSW155R	PCSW155C	PCSGP155			
160	6-5/16"	PCSW160	PCSW160R	PCSW160C	PCSGP160			
165	6-1/2"	PCSW165	PCSW165R	PCSW165C	PCSGP165			
170	6-11/16"	PCSW170	PCSW170R	PCSW170C	PCSGP170			
180	7"	PCSW180	PCSW180R	PCSW180C	PCSGP180			
200	7-7/8"	PCSW200	PCSW200R	PCSW200C	PCSGP200			
210	8-1/4"	PCSW210	PCSW210R	PCSW210C	PCSGP210			
220	8-5/8"	PCSW220	PCSW220R	PCSW220C	PCSGP220			

Long type 170L (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 170mm (6-11/16")

Cutter dia.	Straight shank Set				SDS-plus shank Set			
	mm	inch	mm	inch	mm	inch	mm	inch
25	1"	PCSW25170	PCSW25170R	PCSW25170C	PCSGP25			
29	1-1/8"	PCSW29170	PCSW29170R	PCSW29170C	PCSGP29			
32	1-1/4"	PCSW32170	PCSW32170R	PCSW32170C	PCSGP32			
35	1-3/8"	PCSW35170	PCSW35170R	PCSW35170C	PCSGP35			
38	1-1/2"	PCSW38170	PCSW38170R	PCSW38170C	PCSGP38			

Poly-Clie Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ22 – 45mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	φ29 – 45mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	φ50 – 220mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	φ50 – 80mm
L shank 200L straight	PCSKL200	
L shank SDS-plus 200L	PCSKLR200	φ50 – 80mm
L shank 200L (10mm)	PCSKLT200	
X shank SDS-plus	PCSKXR	φ50mm and above

Center drill

Item	Part No.	For use with
Center drill	PCSWCD225	φ22 – 220mm
Center drill for long type 170L	PCSWCD250	φ25 – 38mm for long type

Poly-Clie Series

S-LOCK Series

Delapan Bit Series

Drill Bit Series

ANVEX Series

Diamond Series

METAL-BORER Series

Holesaw Series

Core Bit Series

Disk Series

Reference

Poly-Clc Hybrid Core Bit



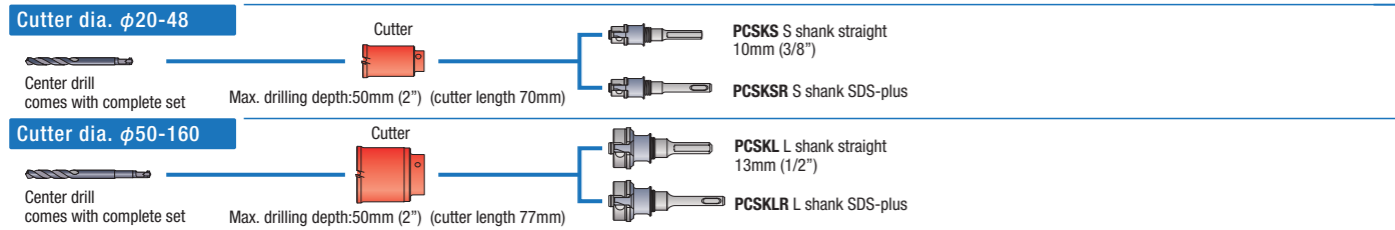
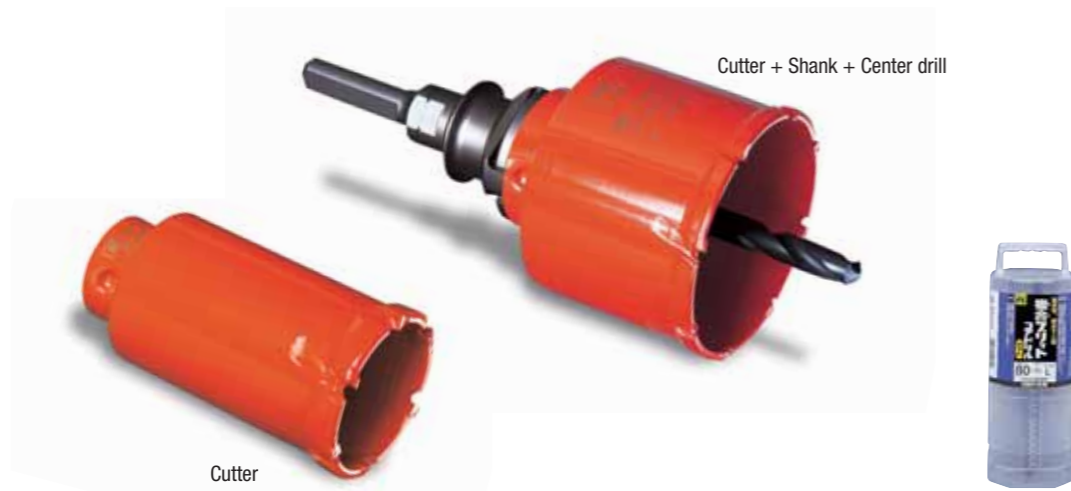
Best for

- Composite material
- Wood
- Catch basin

Also can be used in

- Sheet metal (up to 1mm in thickness)
- Artificial marble
- Metal siding
- PVC pipe
- FRP

Best for drilling into composite panel with stainless steel plate.



Features

- Uniquely designed cutting teeth are best for drilling into composite material such as kitchen counter, bath surrounds, etc.
- Best for drilling into wooden floor material.

For use in

- Metal siding board
- Composite material, Wood, Plastic catch basin, FRP

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

Hybrid Core Bit	Normal type
<p>Uniquely designed cutting teeth for drilling into overlapped material.</p> <p>Drill through in single action</p>	<p>Not for drilling into overlapped materials</p>

φ48mm or less

φ50mm or more

Catch basin

Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 50mm (2")

Cutter dia.		Straight shank Set		Cutter
mm	inch			
20	25/32"	PCH20		PCH20C
21	13/16"	PCH21		PCH21C
22	7/8"	PCH22		PCH22C
25	1"	PCH25		PCH25C
27	1-1/16"	PCH27		PCH27C
28	1-3/32"	PCH28		PCH28C
30	1-3/16"	PCH30		PCH30C
31	1-7/32"	PCH31		PCH31C
32	1-1/4"	PCH32		PCH32C
33	1-9/32"	PCH33		PCH33C
34	1-5/16"	PCH34		PCH34C
35	1-3/8"	PCH35		PCH35C
38	1-1/2"	PCH38		PCH38C
40	1-9/16"	PCH40		PCH40C
42	1-5/8"	PCH42		PCH42C
43	1-11/16"	PCH43		PCH43C
45	1-3/4"	PCH45		PCH45C
48	1-7/8"	PCH48		PCH48C
50	2"	PCH50		PCH50C
53	2-1/16"	PCH53		PCH53C
55	2-1/8"	PCH55		PCH55C
60	2-3/8"	PCH60		PCH60C
65	2-9/16"	PCH65		PCH65C
70	2-3/4"	PCH70		PCH70C
75	2-7/8"	PCH75		PCH75C
80	3-1/8"	PCH80		PCH80C
85	3-3/8"	PCH85		PCH85C
90	3-1/2"	PCH90		PCH90C
95	3-3/4"	PCH95		PCH95C
100	3-7/8"	PCH100		PCH100C
105	4-1/8"	PCH105		PCH105C
110	4-1/4"	PCH110		PCH110C
115	4-1/2"	PCH115		PCH115C
120	4-3/4"	PCH120		PCH120C
125	4-15/16"	PCH125		PCH125C
130	5-1/8"	PCH130		PCH130C
150	5-7/8"	PCH150		PCH150C
160	6-5/16"	PCH160		PCH160C

*SDS-plus shank set is not available. Purchase cutter, SDS-plus shank, and center drill separately.

Poly-Clc Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ20 – 48mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	φ30 – 48mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	φ50 – 160mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	φ50 – 80mm
L shank 200L straight	PCSKL200	
L shank SDS-plus 200L	PCSKLR200	φ50 – 160mm
L shank 200L (10mm)	PCSKLT200	
X shank SDS-max	PCSKXMXK	φ50mm and above (Over φ120mm is recommended)
X shank SDS-plus	PCSKXR	φ50mm and above

Center drill

Item	Part No.	For use with
Center drill S	PCHCDS	φ20 – 48mm
Center drill L	PCHCDL	φ50 – 160mm
Center drill SH*	PCFCDSH	φ20 – 48mm
Carbide tipped acute center drill (length 120mm)	PCBHCD120	Use with Poly-Clc S shank
Carbide tipped acute center drill (length 140mm)	PCBHCD140	Use with Poly-Clc L shank

*Short type center drill for φ20-48mm



Tip of Carbide tipped acute center drill



Counter Bore Cutter



Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

Best for
Wooden floor material

Best for counter boring to wooden floor for installation of pipe adaptor.

Features

- Proper counter boring to the floor material for flush surface.
- Can be used with Poly-Clc S shank.

For use in

- Counter boring for wooden floor

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

Size table

Max. drilling depth : 5mm

Cutter dia.	Part No.	Max. Drilling Depth
60	PCZAG60	5mm
78	PCZAG78	



HDPE Core Bit



Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

Best for
HDPE pipe
Wood
FRP
Composite material

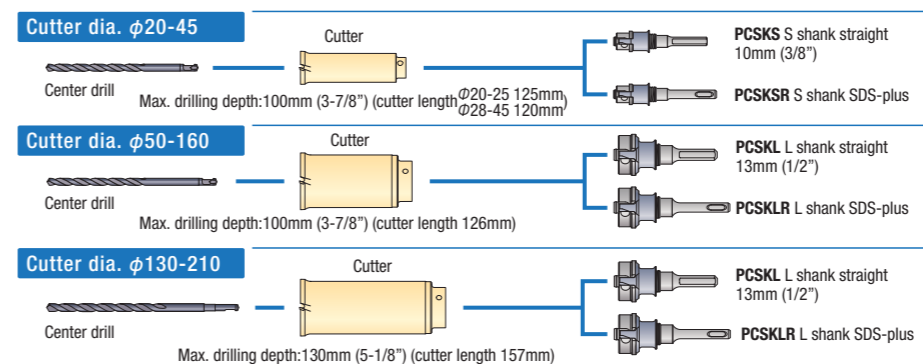
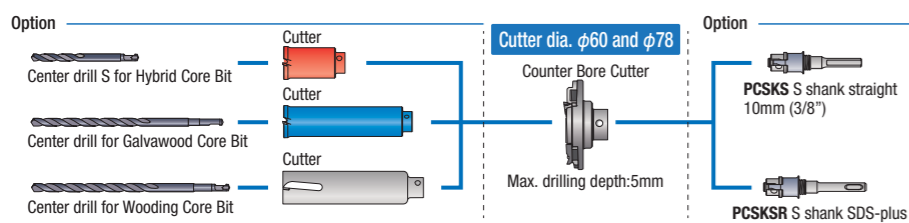
Best for drilling into HDPE pipe, wood and composite material.

Also can be used in
PVC pipe
Plaster board



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 100mm (3-7/8")

Cutter dia.	mm	inch	Cutter	Guide plate
20	25/32"		PCC20C	PCCGP20
25	1"		PCC25C	PCCGP25
28	1-3/32"		PCC28C	PCCGP28
30	1-3/16"		PCC30C	PCCGP30
32	1-1/4"		PCC32C	PCCGP32
35	1-3/8"		PCC35C	PCCGP35
38	1-1/2"		PCC38C	PCCGP38
40	1-9/16"		PCC40C	PCCGP40
45	1-3/4"		PCC45C	PCCGP45
50	2"		PCC50C	PCCGP50
55	2-1/8"		PCC55C	PCCGP55
60	2-3/8"		PCC60C	PCCGP60
65	2-9/16"		PCC65C	PCCGP65
70	2-3/4"		PCC70C	PCCGP70
75	2-7/8"		PCC75C	PCCGP75
80	3-1/8"		PCC80C	PCCGP80
85	3-3/8"		PCC85C	PCCGP85
90	3-1/2"		PCC90C	PCCGP90
95	3-3/4"		PCC95C	PCCGP95
100	3-7/8"		PCC100C	PCCGP100
110	4-1/4"		PCC110C	PCCGP110
115	4-1/2"		PCC115C	PCCGP115
120	4-3/4"		PCC120C	PCCGP120
160	6-5/16"		PCC160C	PCCGP160



Poly-Clc Core Bits / Usable with Counter Bore Cutter

Item	For use in	Cutter dia. mm	Max. Drilling Depth mm	Part No.
Hybrid Core Bit (Set)	Composite material, Metal siding board, Wood, FRP, Plastic catch basin, Polyvinyl chloride pipe.	32	50	PCH32
		35		PCH35
Galvawood Core Bit (Set)	Galvanized metal siding, Wood, Plywood, FRP.	32	130	PCGW32
		35		PCGW35
Wooding Core Bit (Set)	Wood, Metal siding board, Ceramic siding board, FRP.	32	130	PCWS32
		35		PCWS35

Features

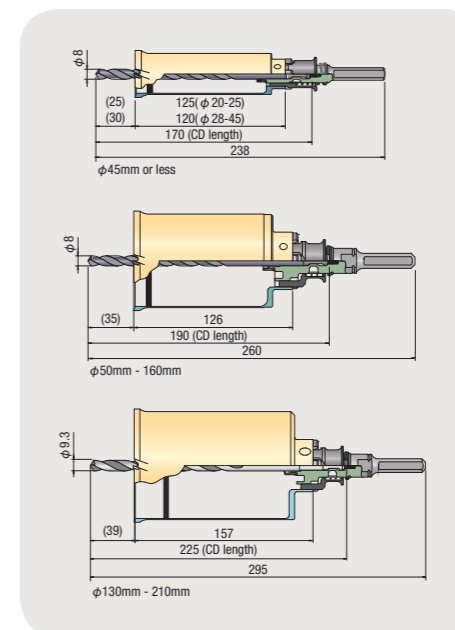
- Unique cutting teeth for clean drilling into HDPE (High Density Polyethylene) pipe, wood, and fiber material.

For use in

- HDPE pipe
- Wood, FRP, Composite material, and Plaster board

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



*Complete set is not available. Purchase cutter, shank, and center drill separately.

Long type 130L (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 130mm (5-1/8")

Cutter dia.	mm	inch	Cutter	Guide plate
130	5-1/8"		PCC13013C	PCGWGP130
150	5-7/8"		PCC15013C	PCGWGP150
160	6-5/16"		PCC16013C	PCGWGP160
170	6-5/8"		PCC17013C	PCGWGP170
210	8-1/4"		PCC21013C	PCGWGP210

Center drill

Item	Part No.	For use with
Center drill S	PCCDSDS	φ20 - 45mm
Center drill L	PCCDLDL	φ50 - 160mm
Center drill for long type 130L	PCGWCD225	φ130 - 210mm

Poly-Clc Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ20 - 45mm
S shank SDS-plus	PCSKSR	φ20 - 45mm
S shank 200L straight	PCSKS200	φ30 - 45mm
S shank SDS-plus 200L	PCSKSR200	φ30 - 45mm
L shank straight	PCSKL	φ50 - 210mm
L shank SDS-plus	PCSKLR	φ50 - 210mm
L shank (10mm)	PCSKLT	φ50 - 80mm

Item	Part No.	For use with
L shank 200L straight	PCSKL200	φ50 - 210mm
L shank SDS-plus 200L	PCSKLR200	φ50 - 210mm
L shank 200L (10mm)	PCSKLT200	φ50 - 80mm
X shank SDS-max	PCSKXMXK	φ50mm and above (Over φ120mm is recommended)
X shank SDS-plus	PCSKXR	φ50mm and above

How to use (with Hybrid Core Bit) *The same procedures when using Wooding Core Bit and Galvawood Core Bit.





Rotary Core Bit ('H'Core)



Best for

- Lath wall
- Slate
- Plaster board
- Japanese wall

Also can be used in

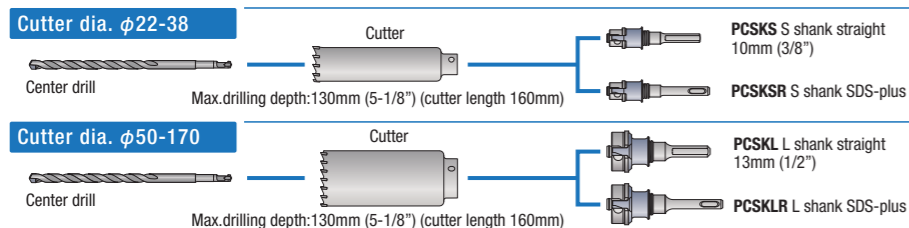
- PVC pipe
- Ceramic siding
- FRP
- Extruded cement
- Mortar

Sharp and fast drilling even into composite material.



Cutter + Shank + Center drill

Cutter



Features

- Sharp cutting teeth make sharp cutting of holes with electric drill in rotary mode.
- Drills holes even into brittle work materials without cracks on the surface.

For use in

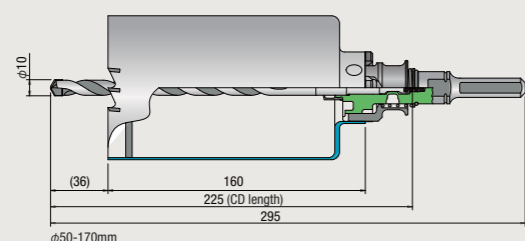
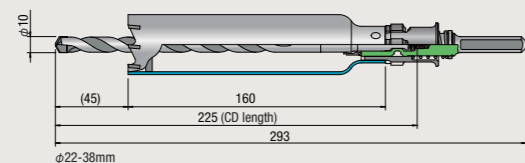
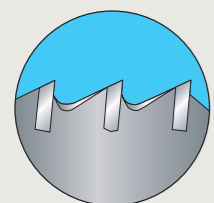
- Lath wall, Slate, and Plaster board

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

Tip Design

The sharp angle of the teeth are designed to produce most efficient cutting performance in rotation mode only.



Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 130mm (5-1/8")

Cutter dia.		Cutter	Guide plate
mm	inch		
22	7/8"	PCHW22C	PCSGP22
25	1"	PCHW25C	PCSGP25
29	1-1/8"	PCHW29C	PCSGP29
32	1-1/4"	PCHW32C	PCSGP32
35	1-3/8"	PCHW35C	PCSGP35
38	1-1/2"	PCHW38C	PCSGP38
50	2"	PCHW50C	PCSGP50
60	2-3/8"	PCHW60C	PCSGP60
65	2-9/16"	PCHW65C	PCSGP65
70	2-3/4"	PCHW70C	PCSGP70
75	2-7/8"	PCHW75C	PCSGP75
80	3-1/8"	PCHW80C	PCSGP80
100	3-7/8"	PCHW100C	PCSGP100
110	4-1/4"	PCHW110C	PCSGP110
120	4-3/4"	PCHW120C	PCSGP120
150	5-7/8"	PCHW150C	PCSGP150
160	6-5/16"	PCHW160C	PCSGP160
170	6-11/16"	PCHW170C	PCSGP170

*Complete set is not available. Purchase cutter, shank, and center drill separately.

Poly-Clic Shank

Item	Part No.	For use with
S shank straight	PCSKS	ϕ 22 - 38mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	ϕ 29 - 38mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	ϕ 50 - 170mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	ϕ 50 - 80mm
L shank 200L straight	PCSKL200	ϕ 50 - 170mm
L shank SDS-plus 200L	PCSKLR200	
L shank 200L (10mm)	PCSKLT200	ϕ 50 - 80mm
X shank SDS-max	PCSKXMXK	ϕ 50mm and above (Over ϕ 120mm is recommended)
X shank SDS-plus	PCSKXR	ϕ 50mm and above

Center drill

Item	Part No.	For use with
Center drill	PCHWCD225	ϕ 22 - 170mm



Vinyl Chloride Pipe Core Bit



Best for

- PVC pipe

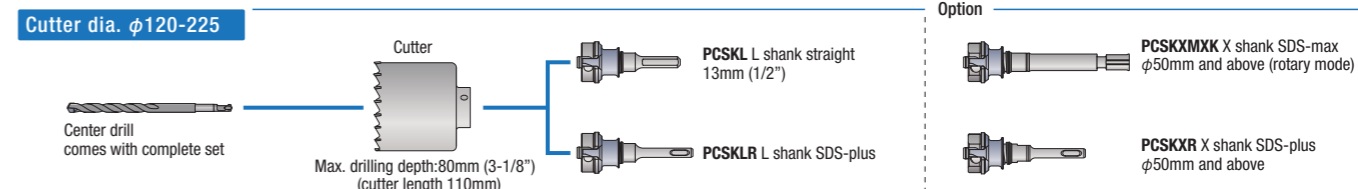
Also can be used in

- Ceramic siding

Exclusive use for precisely drilling large hole in PVC pipe.



Cutter + Shank + Center drill



Features

- For precisely drilling a large-diameter hole in PVC pipe.
- The cutting teeth are designed for high-speed drilling with electric drills in rotary mode.

For use in

- Vinyl chloride pipe used in drainage systems

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

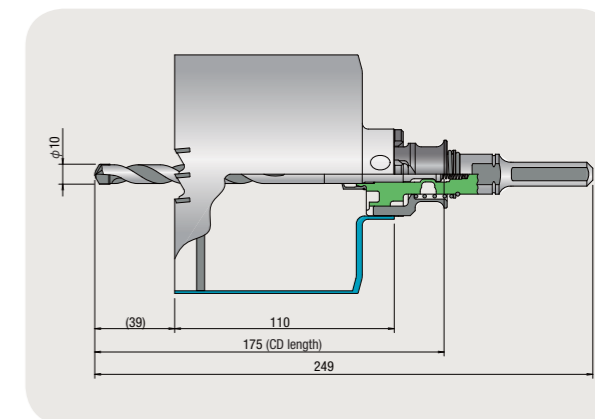
Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 80mm (3-1/8")

Cutter dia.		Straight shank Set	SDS-plus shank Set	Cutter	Guide plate
mm	inch				
120	4-3/4"	PCEW120	PCEW120R	PCEW120C	PCSGP120
130	5-1/8"	PCEW130	PCEW130R	PCEW130C	PCSGP130
140	5-1/2"	PCEW140	*Note1	PCEW140C	PCSGP140
147	5-25/32"	PCEW147	*Note1	PCEW147C	PCSGP147
150	5-7/8"	PCEW150	*Note1	PCEW150C	PCSGP150
168	6-39/64"	PCEW168	*Note1	PCEW168C	PCSGP168
170	6-11/16"	PCEW170	PCEW170R	PCEW170C	PCSGP170
173	6-13/16"	PCEW173	*Note1	PCEW173C	PCSGP173
180	7"	PCEW180	*Note1	PCEW180C	PCSGP180
185	7-9/32"	PCEW185	*Note1	PCEW185C	PCSGP185
200	7-7/8"	PCEW200	*Note1	PCEW200C	PCSGP200
220	8-5/8"	PCEW220	*Note1	PCEW220C	PCSGP220
225	8-7/8"	-	*Note2	PCEW225C	PCSGP225

*Note 1: SDS-plus shank set is not available. Purchase cutter, SDS-plus shank, and center drill separately.

*Note 2: Complete set is not available. Purchase cutter, shank, and center drill separately.

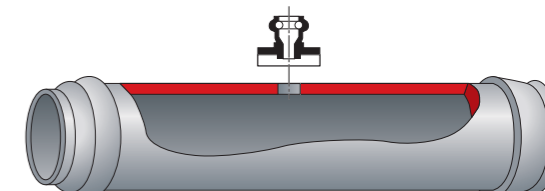


Poly-Clic Shank

Item	Part No.	For use with
L shank straight	PCSKL	ϕ 120 - 225mm
L shank SDS-plus	PCSKLR	
L shank 200L straight	PCSKL200	
L shank SDS-plus 200L	PCSKLR200	
X shank SDS-max	PCSKXMXK	
X shank SDS-plus	PCSKXR	

Center drill

Item	Part No.	For use with
Center drill	PCHWCD175	ϕ 120 - 225mm





Wetmond Core Bit



Electric drill
Double
insulation,
in rotary mode



Light-weight
hammer drill
in rotary mode



Double
insulation

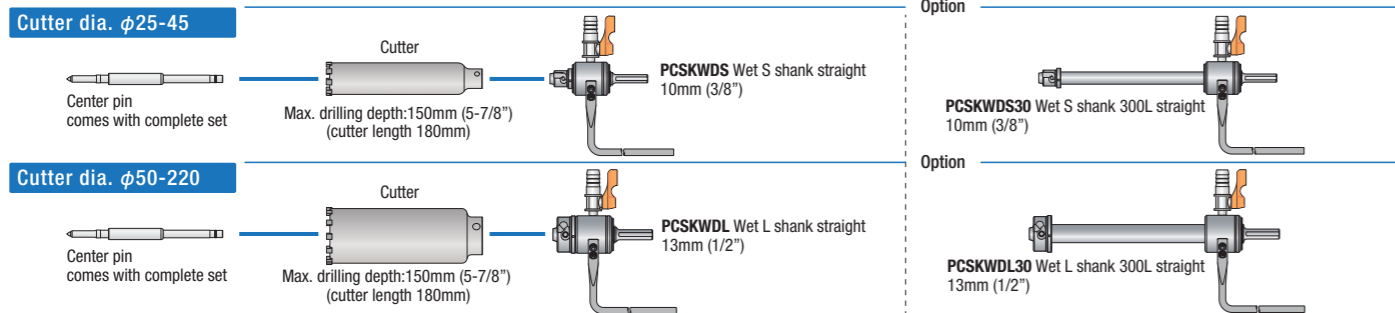
Best for

- Reinforced concrete
- Concrete
- Ceramic tile
- Hume pipe
- Clay pipe
- Tile

Also can be used in

- Block
- Stone
- Extruded cement
- Asphalt
- Brick

Drilling in reinforced concrete, hume pipe. (wet type)



*SDS-plus shank is also available.

Features

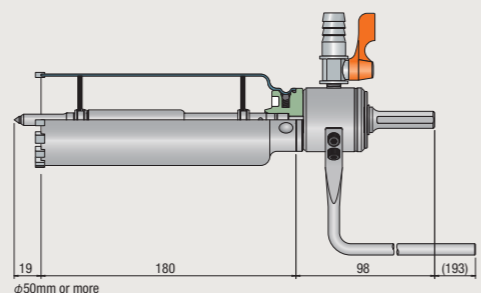
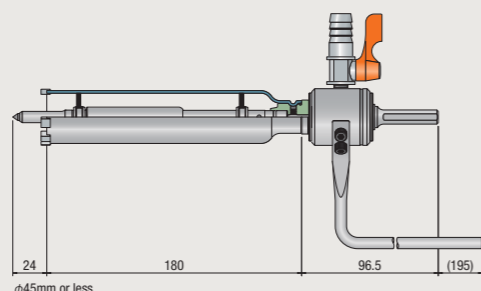
- Easy to replace a cutter with Quick-change system without any tools.
- Drill into reinforcing bar only with rotative force.
- Efficient water feed system allows cooling the cutting teeth and smooth discharge of dust.

For use in

- Concrete, Reinforced concrete, Stone, Ceramic tile, Granite, Hume & Clay pipe

For use with

- Double insulated electric drills in rotaly mode only
- Light-weight hammer drills in rotary mode only



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 150mm (5-7/8")

Cutter dia.	Straight shank Set		Cutter	Guide plate
	mm	inch		
25	1"	PCWD25	PCWD25C	PCSGP25
29	1-1/8"	PCWD29	PCWD29C	PCSGP29
32	1-1/4"	PCWD32	PCWD32C	PCSGP32
35	1-3/8"	PCWD35	PCWD35C	PCSGP35
38	1-1/2"	PCWD38	PCWD38C	PCSGP38
45	1-3/4"	PCWD45	PCWD45C	PCSGP45
50	2"	PCWD50	PCWD50C	PCSGP50
55	2-1/8"	PCWD55	PCWD55C	PCSGP55
60	2-3/8"	PCWD60	PCWD60C	PCSGP60
65	2-9/16"	PCWD65	PCWD65C	PCSGP65
70	2-3/4"	PCWD70	PCWD70C	PCSGP70
75	2-7/8"	PCWD75	PCWD75C	PCSGP75
80	3-1/8"	PCWD80	PCWD80C	PCSGP80
90	3-1/2"	PCWD90	PCWD90C	PCSGP90
95	3-3/4"	PCWD95	PCWD95C	PCSGP95
100	3-7/8"	PCWD100	PCWD100C	PCSGP100
110	4-1/4"	PCWD110	PCWD110C	PCSGP110
120	4-3/4"	PCWD120	PCWD120C	PCSGP120
130	5-1/8"	PCWD130	PCWD130C	PCSGP130
150	5-7/8"	PCWD150	PCWD150C	PCSGP150
160	6-5/16"	PCWD160	PCWD160C	PCSGP160
170	6-11/16"	PCWD170	PCWD170C	PCSGP170
200	7-7/8"	PCWD200	PCWD200C	PCSGP200
220	8-5/8"	PCWD220	PCWD220C	PCSGP220

*SDS-plus shank set is not available. Purchase cutter, SDS-plus shank, and center pin separately.
* 2 Guide plates are included up to 80mm in diameter.

Long type 220L (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 220mm (8-5/8")

Cutter dia.	Straight shank Set		Cutter	Guide plate
	mm	inch		
32	1-1/4"	PCWD3222	PCWD3222C	PCSGP32
38	1-1/2"	PCWD3822	PCWD3822C	PCSGP38
50	2"	PCWD5022	PCWD5022C	PCSGP50
60	2-3/8"	PCWD6022	PCWD6022C	PCSGP60
65	2-9/16"	PCWD6522	PCWD6522C	PCSGP65
75	2-7/8"	PCWD7522	PCWD7522C	PCSGP75
80	3-1/8"	PCWD8022	PCWD8022C	PCSGP80

*SDS-plus shank set is not available. Purchase cutter, SDS-plus shank, and center pin 250 separately.
* 2 Guide plates are included up to 80mm in diameter.

Option

Water Bottle Swivel Set (Hands-Free Type) [PBSSH]

*Water bottle is not included

Spare Valve [DMNV]

Simple Water Supply kit. [DME]

For supplying water to Mistdia or Wetmond Core Bit.

Wetmond Shank

Item	Part No.	For use with
Wet S shank straight	PCSKWDS	ϕ 25 – 45mm
Wet S shank SDS-plus	PCSKWDSR	
Wet S shank 300L straight	PCSKWDS30	
Wet S shank SDS-plus 300L	PCSKWDSR30	ϕ 50 – 220mm
Wet L shank straight	PCSKWDL	
Wet L shank SDS-plus	PCSKWDLR	
Wet L shank 300L straight	PCSKWDL30	
Wet L shank SDS-plus 300L	PCSKWDLR30	

*Use only with Wetmond cutters and Wetmond center pin. Do not attach Wetmond shanks to other Poly-Clic cutters.

Center pin

Item	Part No.	For use with
Center pin	PCWDCP	ϕ 25 – 220mm
Center pin 250 for long type 220L	PCWDCP25	ϕ 50 – 80mm

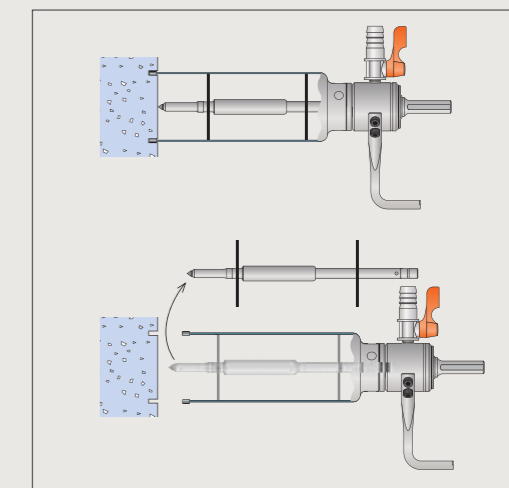
Recommended Rotation Speed / Wattage

Poly-Clic Wetmond Core Bit

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
ϕ 25 – 38	4900 – 800	500W and above
ϕ 45 – 65	2700 – 700	500W and above
ϕ 70 – 120	1800 – 700	700W and above
ϕ 130 – 220	1100 – 500	700W and above

How to use a center pin

Make sure to detach a center pin after positioning.



Center pin is used only for positioning.
Detach a center pin after drilling into work material 2 to 3mm.



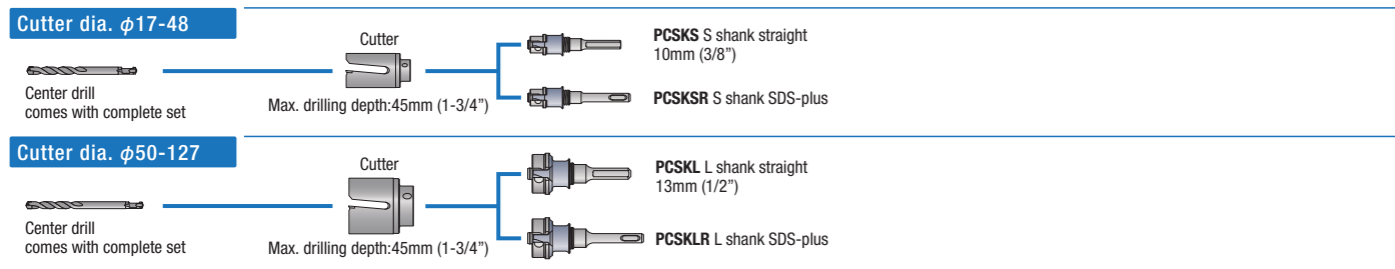
Best for

- FRP
- Acrylic board

Also can be used in

- Artificial marble
- Wood, Plywood
- PVC pipe
- Composite material

High efficient drilling in work materials including in glass fiber.



Features

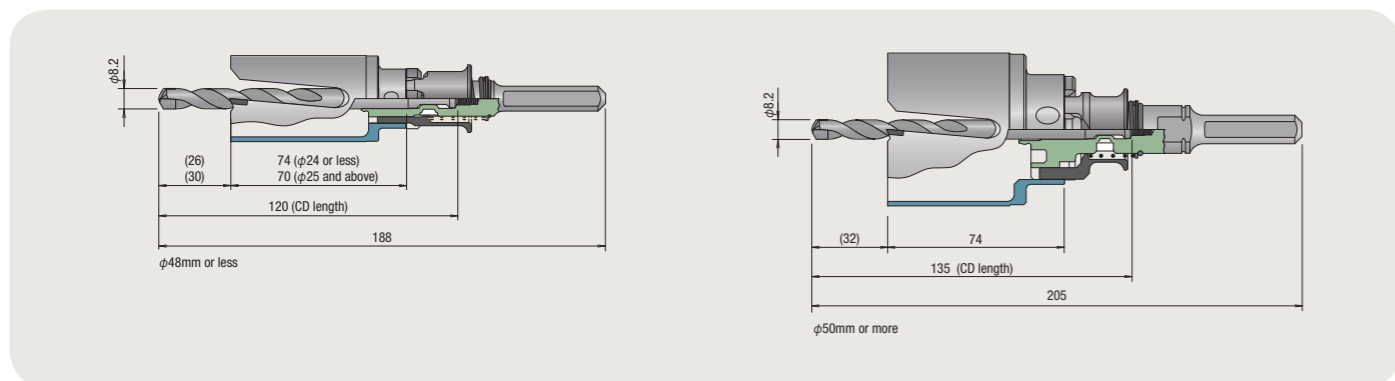
- Sharp cutting teeth can drill into the work materials including in glass fiber.
- Deep chip pockets increase heat dissipation.
- Cut core can be removed easily by deep chip pockets.

For use in

- FRP, Acrylic resin fiber, Vinyl chloride pipe, and Composite material

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 45mm (1-3/4")

Cutter dia.		Straight shank Set		Cutter	
mm	inch				
17	21/32"	PCFRP017		PCFRP017C	
18	45/64"	PCFRP018		PCFRP018C	
19	3/4"	PCFRP019		PCFRP019C	
20	25/32"	PCFRP020		PCFRP020C	
21	13/16"	PCFRP021		PCFRP021C	
22	7/8"	PCFRP022		PCFRP022C	
23	29/32"	PCFRP023		PCFRP023C	
24	15/16"	PCFRP024		PCFRP024C	
25	1"	PCFRP025		PCFRP025C	
26	1-1/64"	PCFRP026		PCFRP026C	
27	1-1/16"	PCFRP027		PCFRP027C	
28	1-3/32"	PCFRP028		PCFRP028C	
29	1-1/8"	PCFRP029		PCFRP029C	
30	1-3/16"	PCFRP030		PCFRP030C	
32	1-1/4"	PCFRP032		PCFRP032C	
33	1-9/32"	PCFRP033		PCFRP033C	
35	1-3/8"	PCFRP035		PCFRP035C	
36	1-13/32"	PCFRP036		PCFRP036C	
38	1-1/2"	PCFRP038		PCFRP038C	
40	1-9/16"	PCFRP040		PCFRP040C	
42	1-5/8"	PCFRP042		PCFRP042C	
45	1-3/4"	PCFRP045		PCFRP045C	
48	1-7/8"	PCFRP048		PCFRP048C	
50	2"	PCFRP050		PCFRP050C	
51	2-1/64"	PCFRP051		PCFRP051C	
52	2-3/64"	PCFRP052		PCFRP052C	
55	2-1/8"	PCFRP055		PCFRP055C	
60	2-3/8"	PCFRP060		PCFRP060C	
65	2-9/16"	PCFRP065		PCFRP065C	
70	2-3/4"	PCFRP070		PCFRP070C	
75	2-7/8"	PCFRP075		PCFRP075C	
80	3-1/8"	PCFRP080		PCFRP080C	
90	3-1/2"	PCFRP090		PCFRP090C	
95	3-3/4"	PCFRP095		PCFRP095C	
100	3-7/8"	PCFRP100		PCFRP100C	
110	4-1/4"	PCFRP110		PCFRP110C	
115	4-1/2"	PCFRP115		PCFRP115C	
120	4-3/4"	PCFRP120		PCFRP120C	
127	5"	PCFRP127		PCFRP127C	

*SDS-plus shank set is not available. Purchase cutter, SDS-plus shank, and center drill separately.

*Guide plate does not include.

Poly-Clie Shank

Item	Part No.	For use with
S shank straight	PCSKS	ϕ 17 – 48mm
S shank SDS-plus	PCSKSR	
S shank 200L straight	PCSKS200	ϕ 29 – 48mm
S shank SDS-plus 200L	PCSKSR200	
L shank straight	PCSKL	ϕ 50 – 127mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	ϕ 50 – 80mm
L shank 200L straight	PCSKL200	
L shank SDS-plus 200L	PCSKLR200	ϕ 50 – 127mm
L shank 200L (10mm)	PCSKLT200	
X shank SDS-max	PCSKXMXK	ϕ 50mm and above (Over ϕ 120mm is recommended)
X shank SDS-plus	PCSKXR	

Center drill

Item	Part No.	For use with
Center drill S	PCFRPCDS	ϕ 17 – 48mm
Center drill L	PCFRPCDL	ϕ 50 – 127mm
Carbide tipped acute Center drill (length 120mm)	PCBHCD120	



Carbide tipped acute center drill



Tip of Carbide tipped acute center drill



Portable electric drill in rotary mode



Light-weight hammer drill in rotary mode

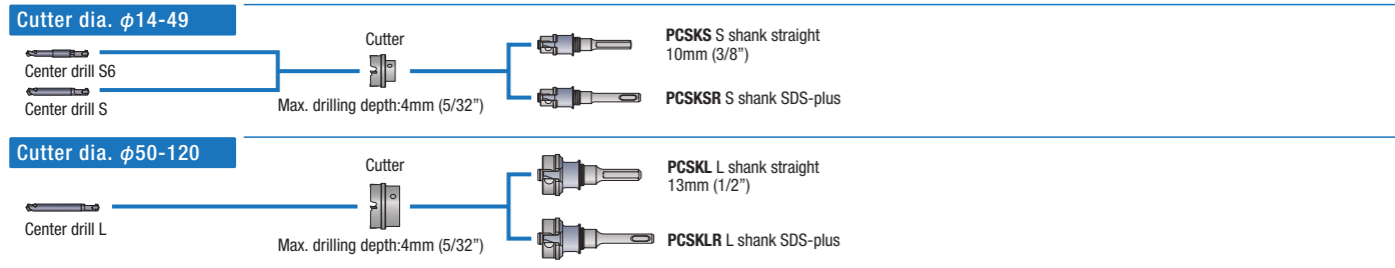
Best for

- Sheet metal (up to 4mm in thickness)
- Stainless steel plate

Also can be used in

- Aluminium
- Spiral duct
- Plastic
- Resin material
- Catch basin

Dramatically improved drilling efficiency and cost effectiveness thanks to the Poly-Clic system.



Features

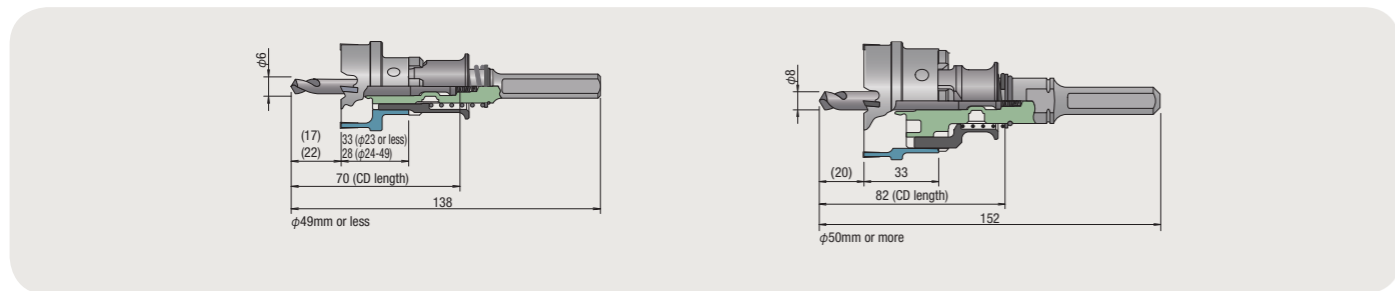
- Carbide-tipped holesaw can drill in stainless steel.
- Easily to drill in work materials up to 4mm in thickness.
- Drills faster than HSS cutters.
- Safety stopper prevents a cutter from drilling through after penetration.

For use in

- Steel, Stainless steel, Aluminium, FRP, and Resin

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



TIPS

After drilling a center drill hole only without attaching a holecutter, attach a holecutter and drill a hole. The damage to the cutting teeth can be prevented when the center drill penetrates.

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 4mm (5/32")

Cutter dia.			Cutter dia.		
mm	inch	Cutter	mm	inch	Cutter
14	35/64"	PC378014C	42	1-5/8"	PC378042C
15	19/32"	PC378015C	43	1-11/16"	PC378043C
16	5/8"	PC378016C	44	1-23/32"	PC378044C
17	21/32"	PC378017C	45	1-3/4"	PC378045C
18	45/64"	PC378018C	48	1-7/8"	PC378048C
19	3/4"	PC378019C	49	1-59/64"	PC378049C
20	25/32"	PC378020C	50	2"	PC378050C
21	13/16"	PC378021C	51	2-1/64"	PC378051C
22	7/8"	PC378022C	52	2-3/64"	PC378052C
23	29/32"	PC378023C	53	2-1/16"	PC378053C
24	15/16"	PC378024C	55	2-1/8"	PC378055C
25	1"	PC378025C	56	2-11/64"	PC378056C
26	1-1/64"	PC378026C	57	2-15/64"	PC378057C
27	1-1/16"	PC378027C	58	2-1/4"	PC378058C
28	1-3/32"	PC378028C	60	2-3/8"	PC378060C
29	1-1/8"	PC378029C	61	2-25/64"	PC378061C
30	1-3/16"	PC378030C	65	2-9/16"	PC378065C
31	1-7/32"	PC378031C	70	2-3/4"	PC378070C
32	1-1/4"	PC378032C	75	2-7/8"	PC378075C
33	1-9/32"	PC378033C	80	3-1/8"	PC378080C
34	1-5/16"	PC378034C	85	3-3/8"	PC378085C
35	1-3/8"	PC378035C	90	3-1/2"	PC378090C
36	1-13/32"	PC378036C	95	3-3/4"	PC378095C
37	1-7/16"	PC378037C	100	3-7/8"	PC378100C
38	1-1/2"	PC378038C	110	4-1/4"	PC378110C
39	1-17/32"	PC378039C	115	4-1/2"	PC378115C
40	1-9/16"	PC378040C	120	4-3/4"	PC378120C

*Complete set is not available. Purchase cutter, shank, and center drill separately.

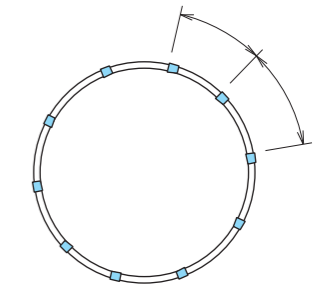
*One-piece type→Please refer to P-110 Holesaw 278.

Poly-Clic Shank

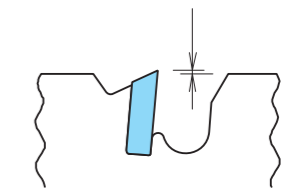
Item	Part No.	For use with
S shank straight	PCSKS	φ14 – 49mm
S shank SDS-plus	PCSKSR	
L shank straight	PCSKL	φ50 – 120mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	

Center drill

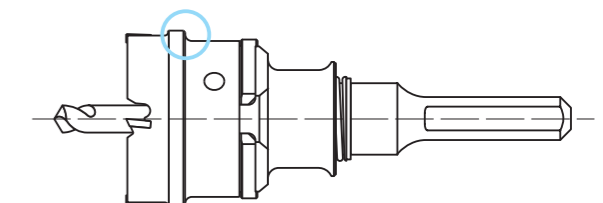
Item	Part No.	Drill dia.	For use with
Center drill S6	PC378CDS6	φ6	φ14 – 49mm
Center drill S	PC378CDS	φ8	
Center drill L	PC378CDL	φ8	φ50 – 120mm



Random spaced carbide tips



Safe drilling



Safety stopper



Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

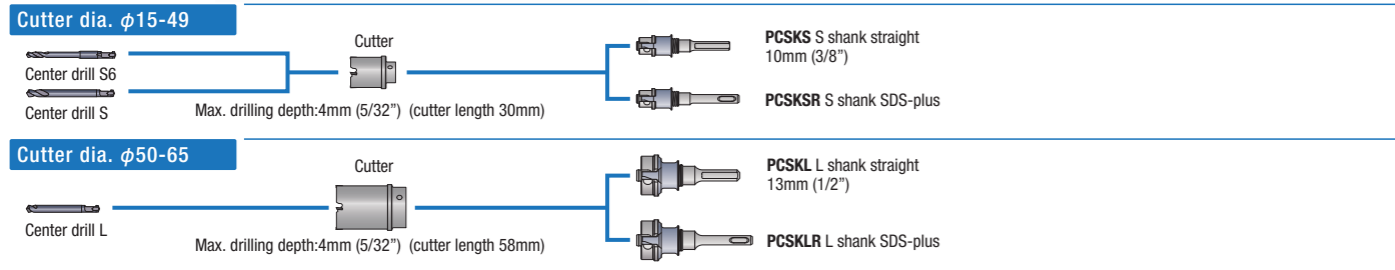
Best for

- Sheet metal (up to 4mm in thickness)
- Stainless steel plate

Also can be used in

- PVC pipe
- Metal siding
- Aluminium
- Spiral duct
- Plastic
- Resin material

Longer body for drilling into curved surfaces such as pipes.



Features

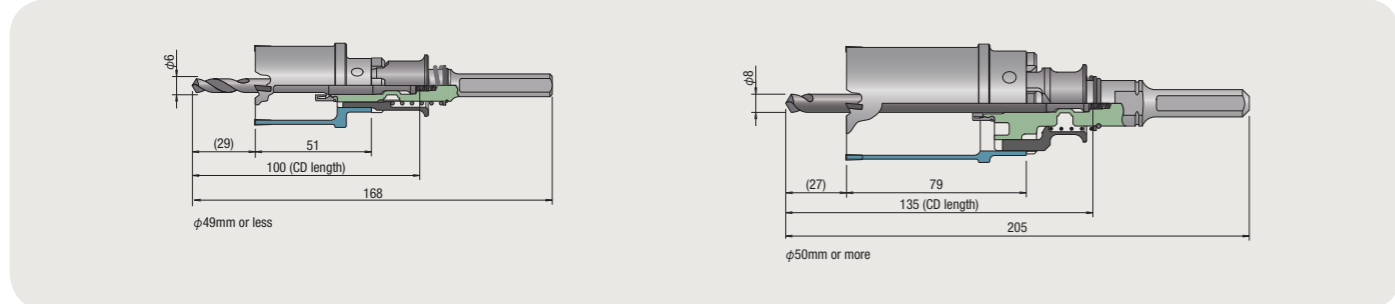
- Long body length suitable for drilling pipe and curved surfaces.
- Carbide-tipped holesaw drills in work materials up to 4mm in thickness.

For use in

- Steel up to 4mm in thickness
- PVC Pipe and Metal siding

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



TIPS

After drilling a center drill hole only without attaching a holecutter, attach a holecutter and drill a hole. The damage to the cutting teeth can be prevented when the center drill penetrates.

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 4mm (5/32")

Cutter dia.		Cutter	Cutter length (mm)
mm	inch		
15	19/32"	PC378P015C	30
16	5/8"	PC378P016C	
17	21/32"	PC378P017C	
18	45/64"	PC378P018C	
19	3/4"	PC378P019C	
20	25/32"	PC378P020C	
21	13/16"	PC378P021C	
22	7/8"	PC378P022C	
23	29/32"	PC378P023C	
24	15/16"	PC378P024C	
25	1"	PC378P025C	
26	1-1/64"	PC378P026C	
27	1-1/16"	PC378P027C	
28	1-3/32"	PC378P028C	
29	1-1/8"	PC378P029C	
30	1-3/16"	PC378P030C	
31	1-7/32"	PC378P031C	
32	1-1/4"	PC378P032C	
33	1-9/32"	PC378P033C	
34	1-5/16"	PC378P034C	
35	1-3/8"	PC378P035C	
36	1-13/32"	PC378P036C	
38	1-1/2"	PC378P038C	
40	1-9/16"	PC378P040C	
41	1-39/64"	PC378P041C	
42	1-5/8"	PC378P042C	
43	1-11/16"	PC378P043C	
44	1-23/32"	PC378P044C	
45	1-3/4"	PC378P045C	
48	1-7/8"	PC378P048C	
49	1-59/64"	PC378P049C	
50	2"	PC378P050C	58
53	2-1/16"	PC378P053C	
55	2-1/8"	PC378P055C	
60	2-3/8"	PC378P060C	
65	2-9/16"	PC378P065C	

*Complete set is not available. Purchase cutter, shank, and center drill separately.

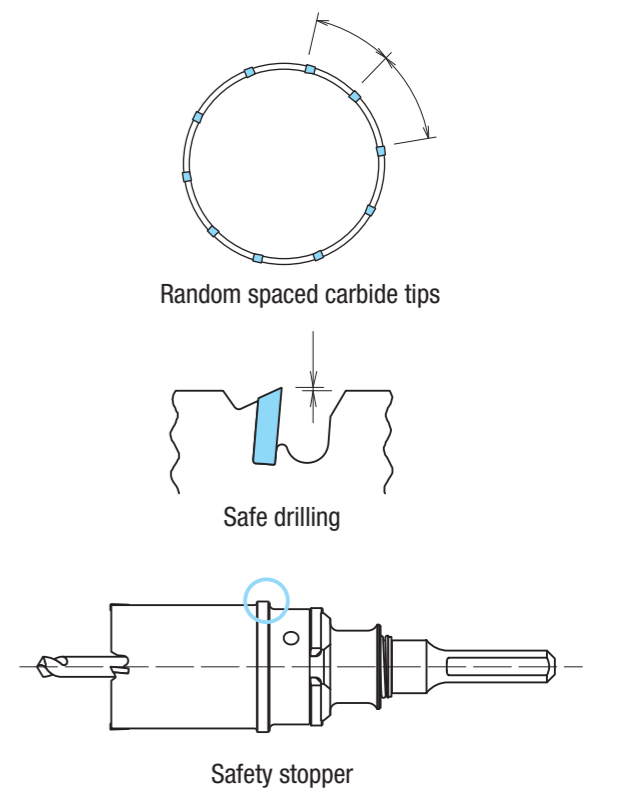
*Cutter diameter 66mm and above→Please refer to P-112 Holesaw 278P.
 *One-piece type→Please refer to P-112 Holesaw 278P.

Poly-Clie Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ15 – 49mm
S shank SDS-plus	PCSKSR	
L shank straight	PCSKL	φ50 – 65mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	φ50 – 65mm

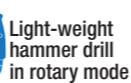
Center drill

Item	Part No.	Drill dia.	For use with
Center drill S6	PC378PCDS6	φ6	φ15 – 49mm
Center drill S	PC378PCDS	φ8	
Center drill L	PC378PCDL	φ8	φ50 – 65mm





Deep-Bore Holesaw



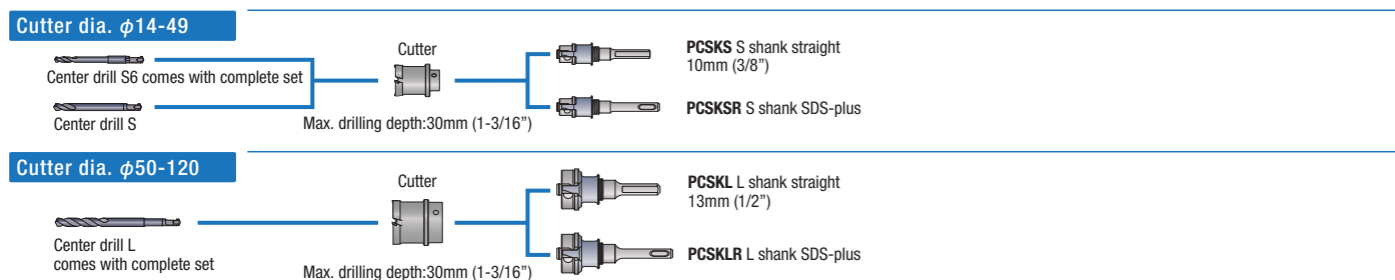
Best for

- Sheet metal
- Stainless steel plate

Also can be used in

- PVC pipe
- Metal siding
- FRP
- Composite material
- Aluminium
- Spiral duct

Specially designed cutting teeth for efficient removal of chips.



Features

- Carbide tipped cutting teeth can drill in stainless steel.
- Long body length is suitable for drilling into curved surfaces such as metal pipe.
- Efficient chips removal by original designed cutting teeth.

For use in

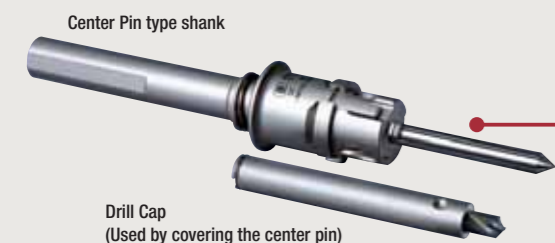
- Steel, Copper, Stainless steel, and Metal plate up to 12mm in thickness
- Metal pipe
- Composite material up to 30mm in thickness

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

Precautions for use

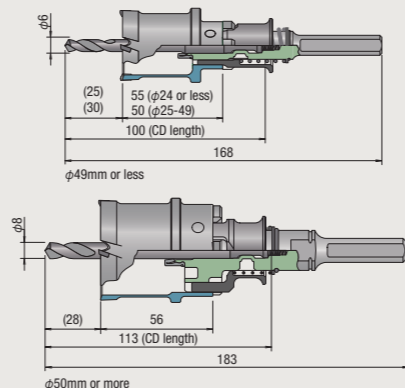
*Using a drilling machine is recommended for drilling into metal 12mm or more in thickness and cutters 36mm or more in diameter.



For metal (4mm or more in thickness), Center Pin type shank allows smooth drilling without a pilot hole.

TIPS

After drilling a center drill hole only without attaching a holecutter, attach a holecutter and drill a hole. The damage to the cutting teeth can be prevented when the center drill penetrates.



Size table (The actual sizes are in metric, and imperial sizes are approximate.) Max. drilling depth : 30mm (1-3/16")

Cutter dia.		Straight Shank Set		Cutter
mm	inch			
14	35/64"	PCF014		PCF014C
15	19/32"	PCF015		PCF015C
16	5/8"	PCF016		PCF016C
17	21/32"	PCF017		PCF017C
18	45/64"	PCF018		PCF018C
19	3/4"	PCF019		PCF019C
20	25/32"	PCF020		PCF020C
21	13/16"	PCF021		PCF021C
22	7/8"	PCF022		PCF022C
23	29/32"	PCF023		PCF023C
24	15/16"	PCF024		PCF024C
25	1"	PCF025		PCF025C
26	1-1/64"	PCF026		PCF026C
27	1-1/16"	PCF027		PCF027C
28	1-3/32"	PCF028		PCF028C
29	1-1/8"	PCF029		PCF029C
30	1-3/16"	PCF030		PCF030C
31	1-7/32"	PCF031		PCF031C
32	1-1/4"	PCF032		PCF032C
33	1-9/32"	PCF033		PCF033C
34	1-5/16"	PCF034		PCF034C
35	1-3/8"	PCF035		PCF035C
36	1-13/32"	PCF036		PCF036C
37	1-7/16"	PCF037		PCF037C
38	1-1/2"	PCF038		PCF038C
39	1-17/32"	PCF039		PCF039C
40	1-9/16"	PCF040		PCF040C
41	1-39/64"	PCF041		PCF041C
42	1-5/8"	PCF042		PCF042C
43	1-11/16"	PCF043		PCF043C
44	1-23/32"	PCF044		PCF044C
45	1-3/4"	PCF045		PCF045C
46	1-51/64"	PCF046		PCF046C
47	1-13/16"	PCF047		PCF047C
48	1-7/8"	PCF048		PCF048C
49	1-59/64"	PCF049		PCF049C
50	2"	PCF050		PCF050C
51	2-1/64"	*Note1		PCF051C
52	2-3/64"	*Note1		PCF052C
53	2-1/16"	*Note1		PCF053C
54	2-7/64"	*Note1		PCF054C
55	2-1/8"	PCF055		PCF055C
60	2-3/8"	PCF060		PCF060C
61	2-25/64"	PCF061		PCF061C
62	2-7/16"	PCF062		PCF062C
63	2-15/32"	*Note1		PCF063C
65	2-9/16"	PCF065		PCF065C

*SDS-plus shank set is not available. Purchase cutter, SDS-plus shank, and center drill separately.
*Note1: Complete set is not available. Purchase cutter, shank, and center drill separately.

Cutter dia.		Straight Shank Set		Cutter
mm	inch			
70	2-3/4"	PCF070		PCF070C
75	2-7/8"	PCF075		PCF075C
76	3"	*Note1		PCF076C
77	3-1/32"	PCF077		PCF077C
78	3-1/16"	*Note1		PCF078C
80	3-1/8"	PCF080		PCF080C
85	3-3/8"	PCF085		PCF085C
90	3-1/2"	PCF090		PCF090C
95	3-3/4"	PCF095		PCF095C
100	3-7/8"	PCF100		PCF100C
105	4-1/8"	PCF105		PCF105C
110	4-1/4"	PCF110		PCF110C
115	4-1/2"	PCF115		PCF115C
120	4-3/4"	PCF120		PCF120C

*SDS-plus shank set is not available. Purchase cutter, SDS-plus shank, and center drill separately.
*Note1: Complete set is not available. Purchase cutter, shank, and center drill separately.

Poly-Clik Shank

Item	Part No.	For use with
S shank straight	PCSKS	φ14 – 49mm
S shank SDS-plus	PCSKSR	
L shank straight	PCSKL	φ50 – 120mm
L shank SDS-plus	PCSKLR	
L shank (10mm)	PCSKLT	φ50 – 80mm
Center Pin type S shank	PCSKSCP	φ14 – 49mm
Center Pin type L shank	PCSKLCP	φ50 – 120mm
Drill Cap	PCSKDC	for Center Pin type shank
X shank SDS-max	PCSKXMXK	φ50mm and above (Over φ120mm is recommended)
X shank SDS-plus	PCSKXR	φ50mm and above

Center drill

Item	Part No.	Drill dia.	For use with
Center drill S6	PCFCDS6	φ6	φ14 – 49mm
Center drill S	PCFCDS	φ8	
Center drill L	PCFCDL	φ8	φ50 – 120mm

Center drill (Option)

Item	Part No.	For use with
Center drill SH	PCFCDSH	φ14 – 49mm (S shank)
Center drill	PCHCDS	φ50mm and above (L shank)

*Use optional center drills for resin, plywood, or other work materials. (12mm and above in thickness)



Portable electric drill in rotary mode



Light-weight hammer drill in rotary mode

Best for

Sheet metal
(up to 3.5mm in thickness)

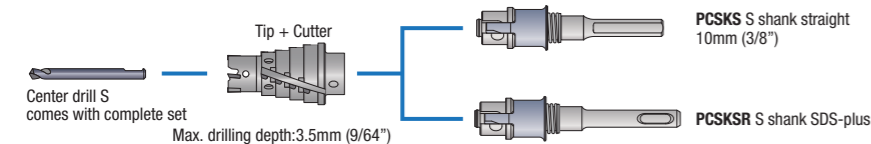
Also can be used in

Stainless steel plate
(up to 3.5mm in thickness)

One cutter can drill five sizes of holes.



Cutter dia. φ16-25



Features

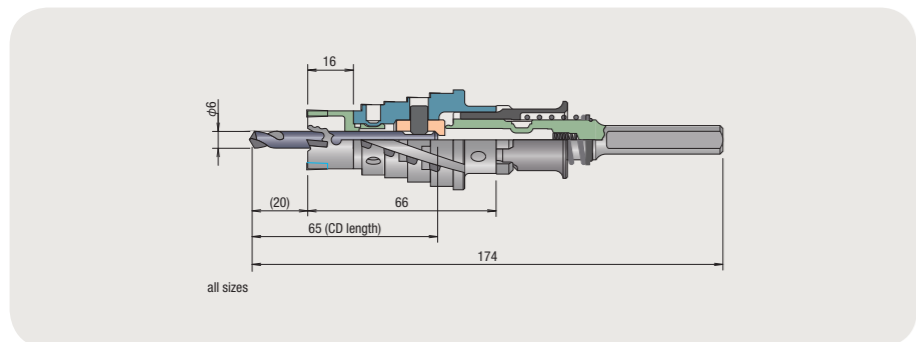
- Easy drilling in stainless steel up to 3.5mm in thickness.
- Holes of 5 different diameters can be drilled with one tool.
- The tip and cutter can be easily replaced.

For use in

- Metal plate up to 3.5mm in thickness

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



Poly-Clic Shank

Item	Part No.	For use with
S shank straight	PCSKS	No.1 No.2 No.3 No.4
S shank SDS-plus	PCSKSR	No.1 No.2 No.3 No.4

Center drill

Item	Part No.	For use with
Center drill S	PCSCDS	No.1 No.2 No.3 No.4

Size table Complete set

The actual sizes are in metric, and imperial sizes are approximate. Max. drilling depth : 3.5mm (9/64")

Item	Cutter dia.		Straight shank Set	SDS-plus shank Set
	mm	inch		
No.1	21	13/16"	PCS1	PCS1R
	25	1"		
	27	1-1/16"		
	30	1-3/16"		
	33	1-9/32"		
No.2	16	5/8"	PCS2	PCS2R
	18	45/64"		
	22	7/8"		
	25	1"		
	28	1-3/32"		
No.3	22	7/8"	PCS3	PCS3R
	25	1"		
	28	1-3/32"		
	30	1-3/16"		
	34	1-5/16"		
No.4	25	1"	PCS4	PCS4R
	28	1-3/32"		
	32	1-1/4"		
	35	1-3/8"		
	38	1-1/2"		

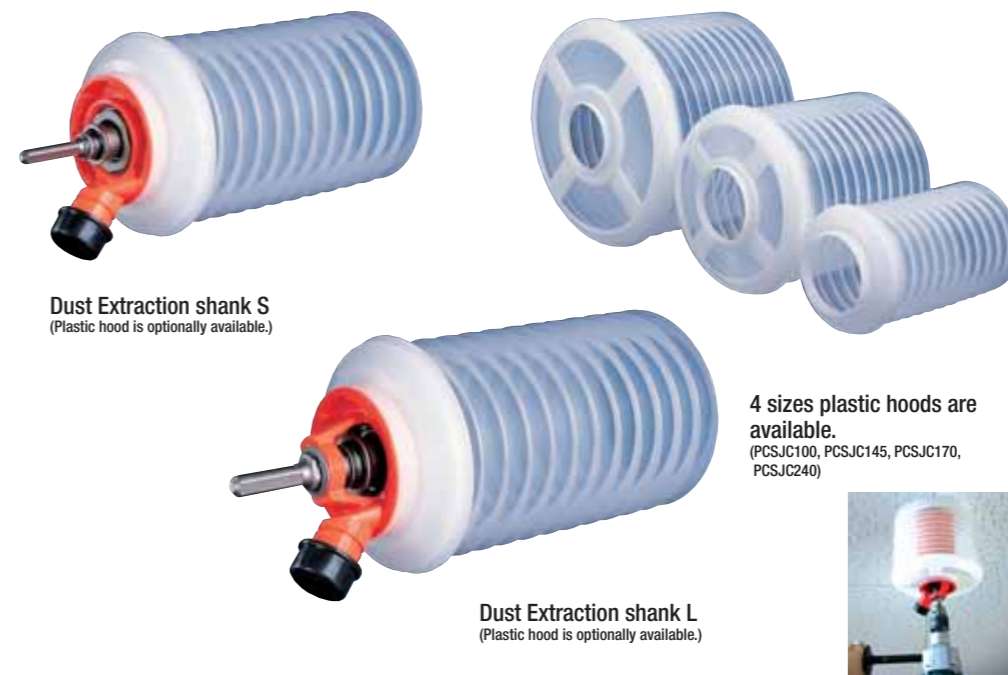
Tip

Item	Cutter dia.		Part No.
	mm	inch	
No.1	21	13/16"	PCSB21
No.2	16	5/8"	PCSB16
No.3	22	7/8"	PCSB22
No.4	25	1"	PCSB25

Cutter

Item	Cutter dia.		Part No.
	mm	inch	
No.1	25	1"	PCS1C
	27	1-1/16"	
	30	1-3/16"	
	33	1-9/32"	
	18	45/64"	
No.2	22	7/8"	PCS2C
	25	1"	
	28	1-3/32"	
	25	1"	
	28	1-3/32"	
No.3	30	1-3/16"	PCS3C
	34	1-5/16"	
	28	1-3/32"	
No.4	32	1-1/4"	PCS4C
	35	1-3/8"	
	38	1-1/2"	
	28	1-3/32"	

Dust Extraction shank



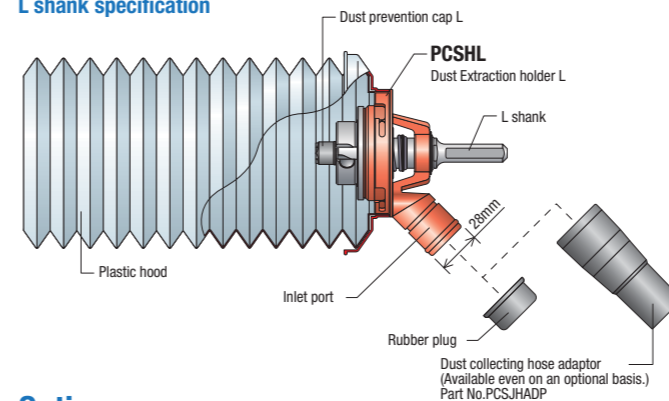
Dust Extraction shank

Item	Part No.	For use with	Specification
*Dust Extraction shank S Straight	PCSKSS	φ49mm (1-59/64") or less	10mm Straight shank (comes with Dust collecting hose adaptor and rubber plug)
*Dust Extraction shank S SDS-plus	PCSKSSR		SDS-plus (comes with Dust collecting hose adaptor and rubber plug)
Dust Extraction shank L Straight	PCSKLS	φ50mm (2") or larger	13mm Straight shank (comes with Dust collecting hose adaptor and rubber plug)
Dust Extraction shank L SDS-plus	PCSKLSR		SDS-plus (comes with Dust collecting hose adaptor and rubber plug)
Plastic hood 100	PCSJC100	Up to φ80mm (3-1/8")	Hood inner diameter 100mm (3-7/8")
Plastic hood 145	PCSJC145	Up to φ125mm (4-15/16")	Hood inner diameter 145mm (5-23/32")
Plastic hood 170	PCSJC170	Up to φ150mm (5-7/8")	Hood inner diameter 170mm (6-11/16")
Plastic hood 240	PCSJC240	Up to φ220mm (8-5/8")	Hood inner diameter 240mm (9-29/64")

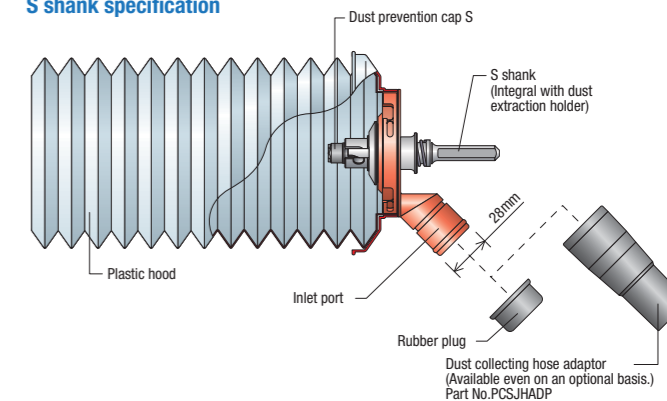
*Dust Extraction shank S is integrated with Dust Extraction holder.

<Structural drawing>

L shank specification



S shank specification



Option

Item	Part No.	Shank size	For use with
Dust Extraction holder L	PCSHL	φ50mm (2") or larger	L shank
Dust collecting hose adaptor	PCSJHADP	Hose diameter φ30-38mm	S and L shank

*Dust collecting hose adaptor comes standard with Dust Extraction shank

Dust prevention caps

Item	Part No.	For use with
Dust prevention cap S	PCBCS	S shank
Dust prevention cap L	PCBCL	L shank



Dust Collecting Pad

Supports Clean and Efficient Work Environments.



Features

- Excellent flexibility and adsorption allow attaching to wall and ceiling.
- Usable for both dry and wet drilling. (Use a wet type vacuum cleaner for wet drilling)
- Usable with other manufacturers' products.
- Plate 38 and Plate 38A can be used as a positioning guide as well.
- Promotes clean and comfortable work environments.

Adsorption of the Dust Collecting Pad (Guideline)

Vacuum cleaner used	Portable vacuum cleaner		Vacuum cleaner with 600W or more		Vacuum cleaner with 1000W or more	
	Ceiling	Wall	Ceiling	Wall	Ceiling	Wall
Dust Collecting Pad 38	×	Flat wall ○ Brick wall ×	○	○	○	○
Dust Collecting Pad 80・125	×	×	×	Flat wall ○ Brick wall ×	○	○
Dust Collecting Pad V・L	×	×	×	×	○	○

⚠️ Precautions for use

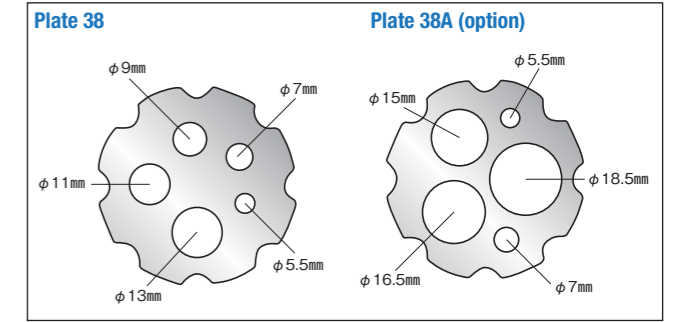
- Attachment to ceiling: Dust Collecting Pad may not be attached to the ceiling depending on the height of the ceiling, suction force of the vacuum cleaner, or condition of the ceiling surface.
- It is possible that dust cannot be removed from Dust Collecting Pad if it is used for drilling into walls with deep colored wallpaper or fabric wallpaper.
- Using an electric drill and a vacuum cleaner with the same power supply reduces the power of each of them.

Size table

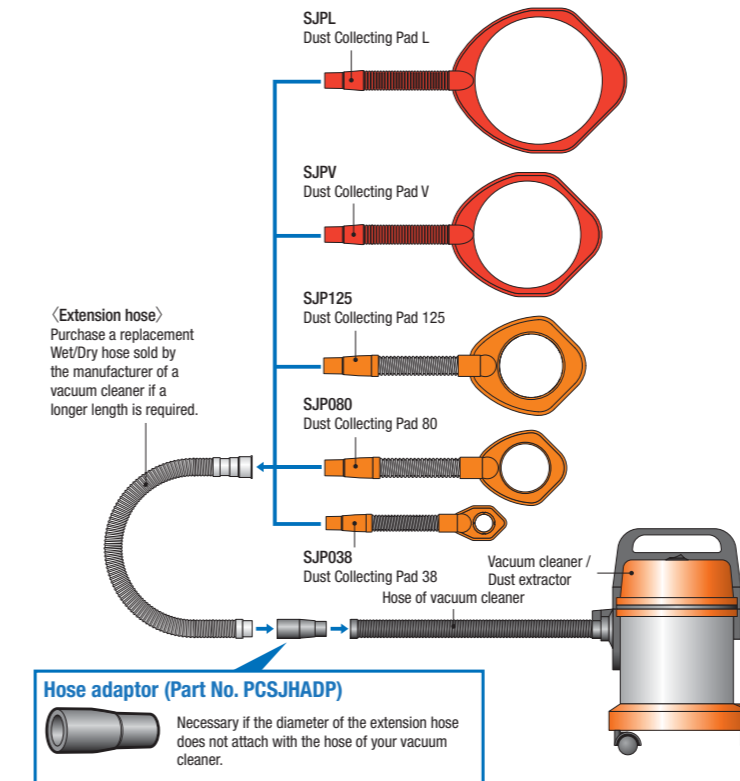
Item	Part No.	Drill Diameter	Note
Dust Collecting Pad 38	SJP038	$\phi 38$ mm or below	includes SJP038P
Dust Collecting Pad 80	SJP080	$\phi 80$ mm or below	includes SJP080P
Dust Collecting Pad 125	SJP125	$\phi 125$ mm or below	includes SJP125P
Dust Collecting Pad V	SJPV	$\phi 165$ mm or below	includes SJPVA
Dust Collecting Pad L	SJPL	$\phi 220$ mm or below	includes SJPLA

Option

Item	Part No.	Drill Diameter
Plate 38 (Metallic)	SJP038P	$\phi 5.5, 7, 9, 11, 13$ mm
Plate 38A (Metallic)	SJP038PA	$\phi 5.5, 7, 15, 16.5, 18.5$ mm
Plate 80 (Resin)	SJP080P	$\phi 80$ mm or below
Plate 125 (Resin)	SJP125P	$\phi 125$ mm or below
Plate V (Rubber)	SJPVA	$\phi 165$ mm or below
Plate L (Rubber)	SJPLA	$\phi 220$ mm or below
Hose adaptor	PCSJHADP	Usable with hoses $\phi 30 - 38$ mm in diameter



How to connect



50 Bi-Metal Holesaw



Dia. **14-85**mm

High Speed Steel (M42) is used.
For drilling in sheet metal.

51 Holesaw 578



Dia. **14-65**mm

Excellent cutting performance for
steel plate and stainless steel plate.

52 Holesaw 578P



Dia. **14-65**mm

Easy drilling into metal pipe.

56 Hyperdia Holesaw



Dia. **22-65**mm

Diamond-tipped teeth can drill into
various types of work materials.

57 Tile Holesaw



Dia. **22-65**mm

Diamond-tipped teeth can drill into
ceramic tile and rigid tile.

58 Dust Collecting Cover



Suitable for drilling in ceiling.

53 Wooding Holesaw



Dia. **22-65**mm

Safe and fast drilling through nails.

54 Deep-Bore Holesaw



Dia. **14-65**mm

For deep boring. Specially designed
cutting teeth make it easy to remove
dust.

55 DL Core Bit



Dia. **20-65**mm

Drill through 2x4 lumber with
cordless impact driver.

S-LOCK series

S-LOCK is simple, speedy and safe system. High-quality and low-price system for a wide range of customer's needs.

Individually replaceable cutter delivers reduction of running costs.

Usable with commercially-available bi-metal holesaws based on American National Standards.

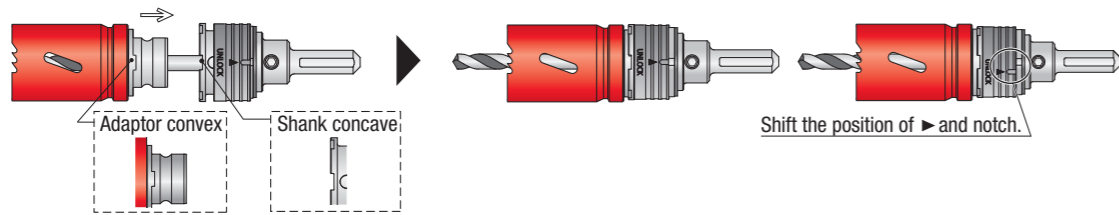
2

S-LOCK series

Feature 1 Automatic locking and manual release (cutter falling prevention function)

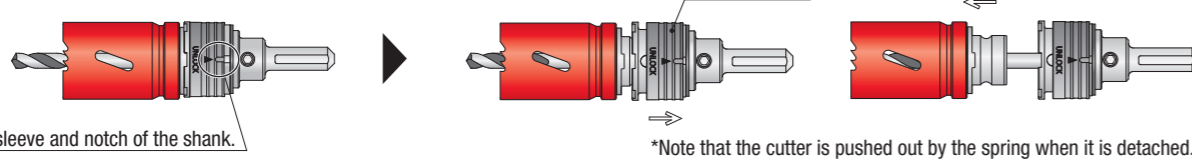
- Align the convex of adaptor and the concave of shank. Push the adaptor onto the shank.
- Turn the sleeve and lock the cutter.

How to attach



- Turn the sleeve and align the ▶ of the sleeve and notch of the shank.
- Pull the sleeve toward the electric drill.

How to detach

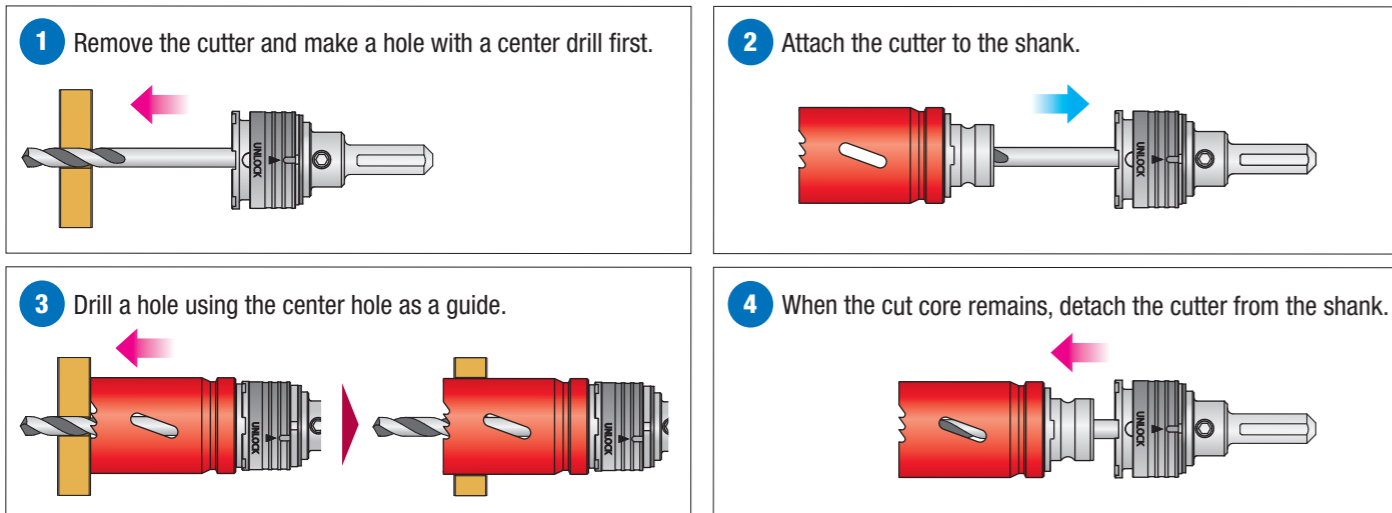


Simple, Fast, and Safe

- High-quality and low-price system for a wide range of customer's needs.
- Automatic lock and manual release shank.
- Anti-drop mechanism for cutter.
- Individually replaceable cutter delivers reduction of running costs.

Feature 2 One-touch shank protects cutting edge and increases durability

How to avoid contact between the cutter and work material when penetrating the center drill



Plug ejector

Cut core can be removed easily with Plug ejector.

*Plug ejector comes with S-LOCK shank.

S-LOCK shank Combination List

*Each shank comes with a high speed steel center drill

Can be used with cutter up to 35mm. (DL Core → up to 38mm)

10mm straight shank <SLSK> SDS-plus shank <SLSKR> Hex shank for cordless impact drivers <SLSKJDE>

High Speed Steel (M42) is used. For drilling in sheet metal up to 3.2mm in thickness.

Excellent drilling performance for steel plate up to 4mm in thickness and stainless steel plate.

Suitable for drilling into metal pipe.

Best for wood and composite material.

Drill in sheet metal up to 12mm in thickness.

Drill through 2x4 lumber with cordless impact driver.

Diamond-tipped teeth can drill into various types of work materials. **PBSSH** Water Bottle Swivel Set

Diamond-tipped teeth can drill into ceramic tile. (WET type)

HSS center drill for Holesaw 578 <SLCD80> Holesaw 578

Carbide tipped center drill <SLCDT80> Holesaw 578P

HSS center drill <SLCD> (for cutting holes in steel and stainless steel) Wooding Holesaw

Carbide tipped center drill <SLCDT> (for cutting holes in ceramic material) Deep-Bore Holesaw

Center pin <SLCP> 8.5x85.5L DL Core Bit

Tile Holesaw

Use the adaptors below to connect conventional Bi-metal holesaw to S-LOCK shanks.

Adaptor 30 1/2-20UNF Adaptor 38 5/8-18UNF Adaptor 130

Item	Part No.	For use with
Adaptor 30	SLADP30	Under $\phi 30\text{mm}$ (1-3/16")
Adaptor 38	SLADP38	$\phi 31\text{mm}$ (1-7/32") - 37mm (1-7/16")
Adaptor 130	SLADP130	$\phi 38\text{mm}$ (1-1/2") and above



Max. drilling depth: 4mm



Best for

Sheet metal

Also can be used in

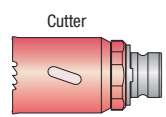
- PVC pipe
- Metal siding
- FRP
- Wood
- Plywood
- Spiral duct
- Catch basin
- Plaster board
- Resin material
- Plastic

High Speed Steel (M42) realizes excellent drilling performance and good durability.



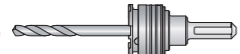
Cutter + Shank + Center drill

Cutter dia. ϕ 14-85

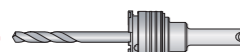


Cutter length: 34mm (ϕ 14-35)
31mm (ϕ 38-85)

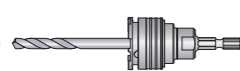
Option



SLSK Straight shank
10mm (3/8")



SLSKR SDS-plus shank



SLSKJDE Shank for cordless impact driver (6.35mm Hex)
(For cutter size of 35mm (1-3/8") or less)

*Each shank comes with a HSS center drill (SLCD)

Features

- Made with High Speed Steel (M42), which provides excellent cutting performance and durability.
- Capable of drilling into various types of materials.
- Easy to use with automatic lock and manual release mechanism.

For use in

- Sheet metal up to 3.2mm in thickness
- Stainless steel plate up to 1mm in thickness
- Plastic and Vinyl chloride pipe

For use with

- Portable electric drills in rotary mode only
- Cordless impact drivers (6.35mm Hex) (DIN3126, ISO1173 Style E6.3) up to ϕ 35mm
- Light-weight hammer drills in rotary mode only

S-LOCK Shank

Item	Part No.	Remark
Straight shank	SLSK	
SDS-plus shank	SLSKR	Shank contains SLCD and SLPE
Shank (6.35mm Hex) (DIN3126, ISO1173 Style E6.3)	SLSKJDE	

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Cutter dia.		Cutter
mm	inch	
14	35/64"	SLBI014
15	19/32"	SLBI015
16	5/8"	SLBI016
17	21/32"	SLBI017
18	45/64"	SLBI018
19	3/4"	SLBI019
20	25/32"	SLBI020
21	13/16"	SLBI021
22	7/8"	SLBI022
23	29/32"	SLBI023
24	15/16"	SLBI024
25	1"	SLBI025
26	1-1/64"	SLBI026
27	1-1/16"	SLBI027
28	1-3/32"	SLBI028
29	1-1/8"	SLBI029
30	1-3/16"	SLBI030
31	1-7/32"	SLBI031
32	1-1/4"	SLBI032
33	1-9/32"	SLBI033
34	1-5/16"	SLBI034
35	1-3/8"	SLBI035
38	1-1/2"	SLBI038
40	1-9/16"	SLBI040
42	1-5/8"	SLBI042
45	1-3/4"	SLBI045
48	1-7/8"	SLBI048
50	2"	SLBI050
53	2-1/16"	SLBI053
55	2-1/8"	SLBI055
60	2-3/8"	SLBI060
65	2-9/16"	SLBI065
70	2-3/4"	SLBI070
85	3-3/8"	SLBI085

Center drill

Item	Part No.	Remark
Center drill	SLCD	Standard accessory to the shank

Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank

Best for

Sheet metal
Stainless steel plate

Also can be used in

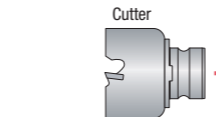
- Aluminium
- Spiral duct
- Catch basin
- Resin material
- Plastic

Carbide-tipped teeth permit drilling into metal and stainless steel.



Cutter + Shank + Center drill

Cutter dia. ϕ 14-65

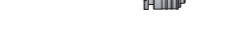


Max. drilling depth: 4mm (5/32")

Option



SLSK578 Straight shank
10mm (3/8")



SLSKR578 SDS-plus shank

*Each shank comes with a HSS center drill (SLCD80).

Features

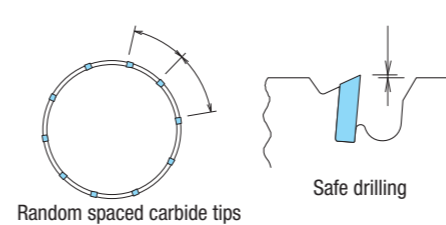
- Excellent drilling performance for steel plate and stainless steel plate. (up to 4mm in thickness)
- Easy to operate with the automatic locking and manual release mechanism.

For use in

- Steel, Stainless steel plate up to 4mm in thickness

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



S-LOCK Shank

Item	Part No.	Remark
Straight shank for 578 (10mm)	SLSK578	Shank contains SLCD80 and SLPE
SDS-plus shank for 578	SLSKR578	

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Cutter dia.		Cutter
mm	inch	
14	35/64"	SL578014
15	19/32"	SL578015
16	5/8"	SL578016
18	45/64"	SL578018
19	3/4"	SL578019
20	25/32"	SL578020
21	13/16"	SL578021
22	7/8"	SL578022
23	29/32"	SL578023
24	15/16"	SL578024
25	1"	SL578025
26	1-1/64"	SL578026
27	1-1/16"	SL578027
28	1-3/32"	SL578028
29	1-1/8"	SL578029
30	1-3/16"	SL578030
32	1-1/4"	SL578032
33	1-9/32"	SL578033
34	1-5/16"	SL578034
35	1-3/8"	SL578035
38	1-1/2"	SL578038
40	1-9/16"	SL578040
42	1-5/8"	SL578042
45	1-3/4"	SL578045
50	2"	SL578050
53	2-1/16"	SL578053
65	2-9/16"	SL578065

Center drill

Item	Part No.	Remark
Center drill 80	SLCD80	Standard accessory to the shank

Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank

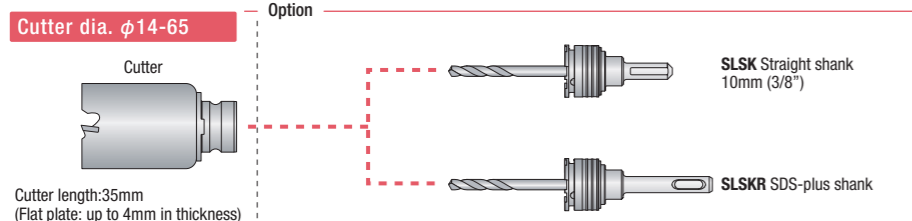


Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

- Best for**
- Sheet metal
 - Stainless steel plate

- Also can be used in**
- Aluminium
 - Spiral duct
 - Catch basin
 - Resin material
 - Plastic

Best for steel plate, stainless steel plate and metal pipe.



*Each shank comes with a HSS center drill (SLCD)

Features

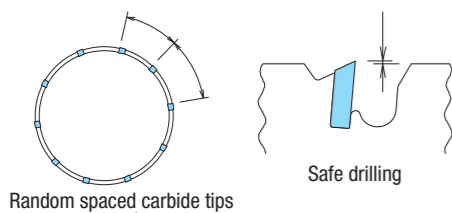
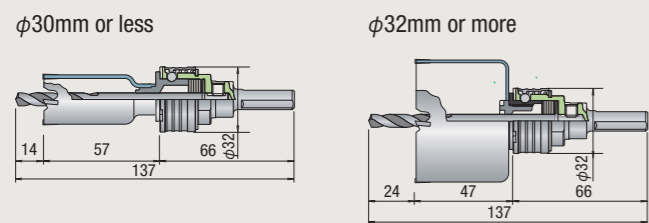
- Excellent cutting performance for work materials such as steel plate, stainless steel plate, and metal pipe.

For use in

- Steel plate up to 4mm in thickness

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 4mm (5/32")

Cutter dia.	Cutter
mm	inch
14	35/64"
15	19/32"
16	5/8"
18	45/64"
19	3/4"
20	25/32"
21	13/16"
22	7/8"
23	29/32"
24	15/16"
25	1"
26	1-1/64"
27	1-1/16"
28	1-3/32"
29	1-1/8"
30	1-3/16"
32	1-1/4"
33	1-9/32"
34	1-5/16"
35	1-3/8"
38	1-1/2"
40	1-9/16"
42	1-5/8"
45	1-3/4"
50	2"
53	2-1/16"
65	2-9/16"

S-LOCK Shank

Item	Part No.	Remark
Straight shank (10mm)	SLSK	Shank contains SLCD and SLPE
SDS-plus shank	SLSKR	

Center drill

Item	Part No.	Remark
Center drill	SLCD	Standard accessory to the shank

Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank

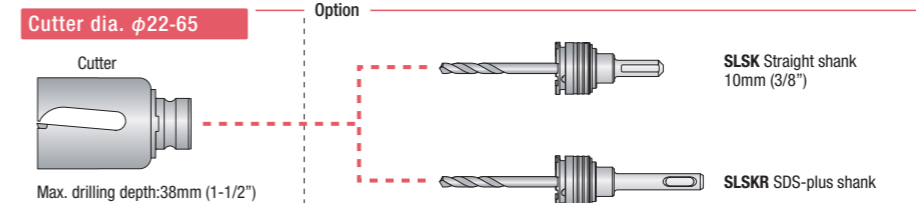


Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

- Best for**
- Wood
 - Ceramic siding
 - Plywood

- Also can be used in**
- Floor material
 - Plastic
 - PVC pipe
 - Catch basin
 - FRP
 - Metal siding
 - Plaster board
 - Slate
 - Resin material

Safe and fast drilling through nails embedded wood with unique cutting teeth and slit.



*Each shank comes with a HSS center drill (SLCD)

Features

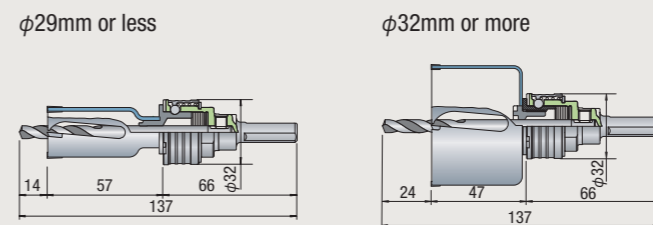
- Our original design of the cutting teeth permit safe cutting through nails.
- Smooth removal of dust.

For use in

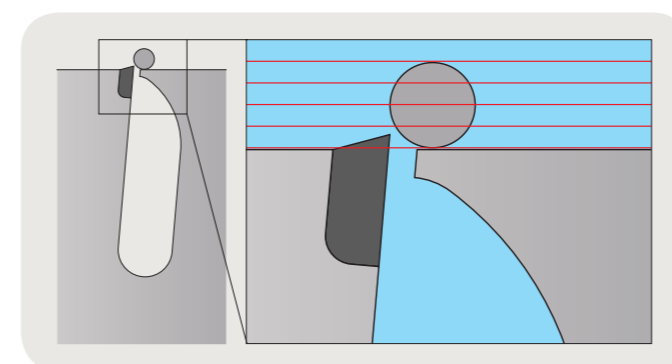
- Wood, Ceramic siding, Plywood, Floor material

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only



Safely cut nails in wood



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 38mm (1-1/2")

Cutter dia.	Cutter
mm	inch
22	7/8"
25	1"
29	1-1/8"
32	1-1/4"
35	1-3/8"
38	1-1/2"
40	1-9/16"
45	1-3/4"
50	2"
53	2-1/16"
60	2-3/8"
65	2-9/16"

S-LOCK Shank

Item	Part No.	Remark
Straight shank (10mm)	SLSK	Shank contains SLCD and SLPE
SDS-plus shank	SLSKR	

Center drill

Item	Part No.	Remark
Center drill	SLCD	Standard accessory to the shank

Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank

S-LOCK Deep-Bore Holesaw



Portable electric drill in rotary mode
Light-weight hammer drill in rotary mode

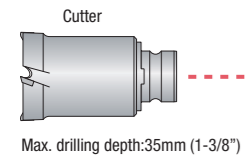
Best for
Sheet metal
Stainless steel plate

Also can be used in
PVC pipe
Metal siding
FRP
Aluminium
Spiral duct
Plastic
Plaster board
Veneer / Plywood
Composite material
Resin material

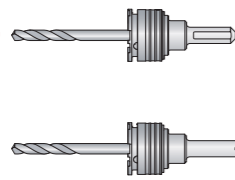
Specially designed cutting teeth realize efficient removal of dust in deep boring.



Cutter dia. ϕ 14-65



Option



SLSK Straight shank 10mm (3/8")



SLSKR SDS-plus shank

*Each shank comes with a HSS center drill (SLCD)

Features

- Specially designed cutting teeth realize efficient removal of dust.

For use in

- Sheet metal and stainless steel plate up to 12mm in thickness
*Using a drilling machine is recommended for drilling into metal 12mm or more in thickness and cutters 38mm or more in diameter.
- Composite material up to 35mm in thickness

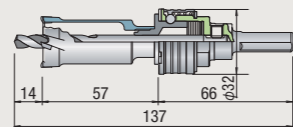
For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

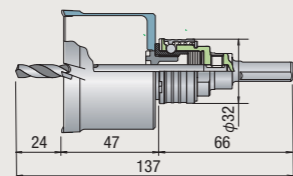
S-LOCK Shank

Item	Part No.	Remark
Straight shank (10mm)	SLSK	Shank contains SLCD and SLPE
SDS-plus shank	SLSKR	

ϕ 38mm or less



ϕ 40mm or more



Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 35mm (1-3/8")

Cutter dia.	Cutter
mm	inch
14	35/64"
15	19/32"
16	5/8"
18	45/64"
19	3/4"
20	25/32"
21	13/16"
22	7/8"
23	29/32"
24	15/16"
25	1"
26	1-1/64"
27	1-1/16"
28	1-3/32"
29	1-1/8"
30	1-3/16"
32	1-1/4"
33	1-9/32"
34	1-5/16"
35	1-3/8"
38	1-1/2"
40	1-9/16"
42	1-5/8"
45	1-3/4"
50	2"
53	2-1/16"
60	2-3/8"
65	2-9/16"

Center drill

Item	Part No.	Remark
Center drill	SLCD	Standard accessory to the shank

Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank

S-LOCK DL Core Bit



Portable electric drill in rotary mode
Cordless impact driver (6.35mm Hex) (Up to ϕ 38mm)
Light-weight hammer drill in rotary mode

Best for
Wood
Veneer
Plywood

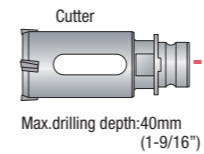
Also can be used in
Artificial marble
*Sheet metal
*Galvanized metal
Plastic
PVC pipe
FRP
Resin material
Catch basin
Plaster board

*Up to 1.6mm in thickness. Use in rotary mode only.

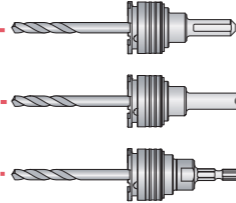
Drill through 2x4 lumber in a single action with cordless impact driver !



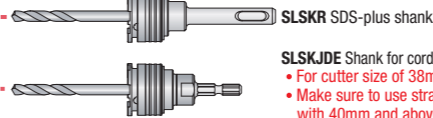
Cutter dia. ϕ 20-65



Option



SLSK Straight shank 10mm (3/8")



SLSKR SDS-plus shank

SLSKJDE Shank for cordless impact driver (6.35mm Hex)
• For cutter size of 38mm (1-1/2") or less
• Make sure to use straight shank or SDS-plus shank with 40mm and above in diameter.

*Each shank comes with a HSS center drill (SLCD)

Features

- Drills through 2x4 (Two-by-four) lumber in a single action with cordless impact drivers (Up to ϕ 38mm).
- Unique 2-step teeth provide easy removal of dust.
- Drills into metal plate up to 1.6mm in thickness with a rotary drill or a cordless driver drill.
*Make sure to use in rotary mode for drilling into metal plate up to 1.6mm in thickness.

For use in

- Wood, Plywood, Resin material, Vinyl chloride pipe, FRP and Metal plate up to 1.6mm in thickness

For use with

- Portable electric drills in rotary mode only
- Cordless impact drivers (6.35mm Hex) (DIN3126, ISO1173 Style E6.3) up to ϕ 38mm
- Light-weight hammer drills in rotary mode only

S-LOCK Shank

Item	Part No.	Remark
Straight shank	SLSK	Shank contains SLCD and SLPE
SDS-plus shank	SLSKR	
Shank (6.35mm Hex) (DIN3126, ISO1173 Style E6.3)	SLSKJDE	

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

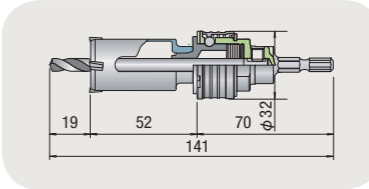
Cutter dia.	Cutter
mm	inch
20	25/32"
21	13/16"
22	7/8"
25	1"
27	1-1/16"
28	1-3/32"
30	1-3/16"
32	1-1/4"
33	1-9/32"
35	1-3/8"
38	1-1/2"
40	1-9/16"
42	1-5/8"
45	1-3/4"
48	1-7/8"
50	2"
60	2-3/8"
65	2-9/16"

Center drill

Item	Part No.	Remark
Center drill	SLCD	Standard accessory to the shank

Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank





Portable electric drill in rotary mode



Light-weight hammer drill in rotary mode

Best for

Ceramic siding

Also can be used in

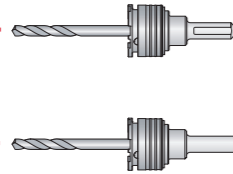
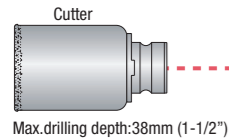
- Artificial marble
- Enamel
- PVC pipe
- Plaster board
- Slate
- Composite material
- Resin material

Diamond-tipped teeth can drill into various types of work materials.

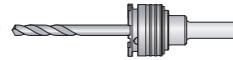


Cutter dia. φ22-65

Option



SLSKH Straight shank 10mm (3/8")



SLSKHR SDS-plus shank

*Each shank comes with Carbide tipped center drill (SLCDT)

Features

- Diamond-tipped cutter permits drilling in a wide variety of work materials such as artificial marble.
- Safely drilling with less getting stuck.

For use in

- Ceramic siding, Artificial marble and PVC pipe

For use with

- Portable electric drills in rotary mode only
- Light-weight hammer drills in rotary mode only

S-LOCK Shank

Item	Part No.	Remark
Straight shank (10mm) for Hyperdia Holesaw	SLSKH	Shank contains SLCDT and SLPE
SDS-plus shank for Hyperdia Holesaw	SLSKHR	SLPE

Size table (The actual sizes are in metric, and imperial sizes are approximate.)
Max. drilling depth : 38mm (1-1/2")

Cutter dia.		Cutter
mm	inch	
22	7/8"	SLHP022
25	1"	SLHP025
29	1-1/8"	SLHP029
32	1-1/4"	SLHP032
35	1-3/8"	SLHP035
38	1-1/2"	SLHP038
40	1-9/16"	SLHP040
45	1-3/4"	SLHP045
50	2"	SLHP050
65	2-9/16"	SLHP065

Center drill

Item	Part No.	Remark
Carbide tipped center drill	SLCDT	Standard accessory to the shank
Center drill (HSS)	SLCD	for PVC pipe

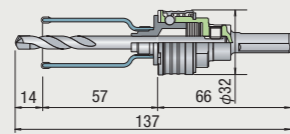
Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank

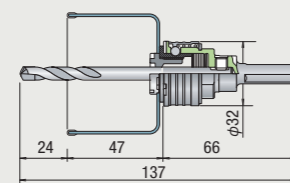
Recommended Rotation Speed / Wattage

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ22 - 45	1500 - 800	450W and above
φ50 - 65	1100 - 700	550W and above

φ29mm or less



φ32mm or more



Electric drill Double insulation, rotary mode



Light-weight hammer drill in rotary mode



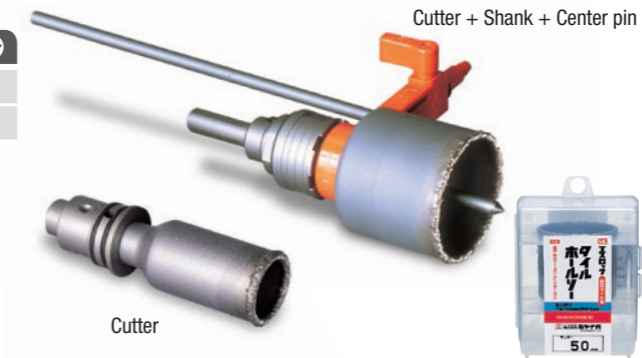
Best for

Ceramic tile
Tile

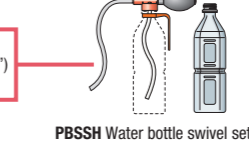
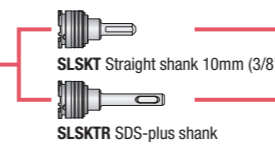
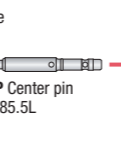
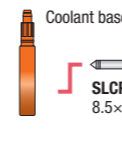
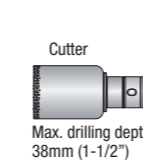
Also can be used in

Stone
Marble

Diamond-tipped teeth can drill into ceramic tile and rigid tile.



Cutter dia. φ22-65



PBSSH Water bottle swivel set

Features

- (Wet type) Diamond-tipped cutter permits drilling in ceramic tile and rigid tile.
- The carbide tipped center pin prevents bit walk when positioning.

For use in

- Ceramic tile up to 38mm in thickness
- *Make sure to use water while drilling.

For use with

- Double insulated electric drills (in rotary mode only)
- Light-weight hammer drills in rotary mode only

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 38mm (1-1/2")

Cutter dia.		Cutter	Straight shank Set	SDS-plus shank Set
mm	inch			
22	7/8"	SLT022	SLT022PB	SLT022RPB
25	1"	SLT025	SLT025PB	SLT025RPB
29	1-1/8"	SLT029	SLT029PB	SLT029RPB
32	1-1/4"	SLT032	SLT032PB	SLT032RPB
35	1-3/8"	SLT035	SLT035PB	SLT035RPB
38	1-1/2"	SLT038	SLT038PB	SLT038RPB
40	1-9/16"	SLT040	SLT040PB	SLT040RPB
45	1-3/4"	SLT045	SLT045PB	SLT045RPB
50	2"	SLT050	SLT050PB	SLT050RPB
65	2-9/16"	SLT065	SLT065PB	SLT065RPB

Complete set includes shank, cutter, center pin, Coolant base, Plug Ejector and PBSSH (Water Bottle Swivel set)

S-LOCK Shank

Item	Part No.	Remark
Straight shank (10mm) for Tile Holesaw	SLSKT	Shank contains SLPE, not includes center pin
SDS-plus shank for Tile Holesaw	SLSKTR	

Center pin

Item	Part No.
Center pin	SLCP

Plug Ejector

Item	Part No.	Remark
Plug Ejector	SLPE	Standard accessory to the shank

Water bottle swivel set

Item	Part No.
Water bottle swivel set	PBSSH

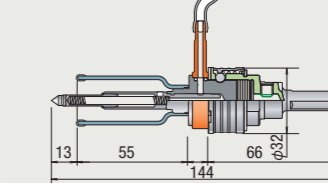
Coolant base

Item	Part No.	Remark
Coolant base	SLCB	For Tile Holesaw

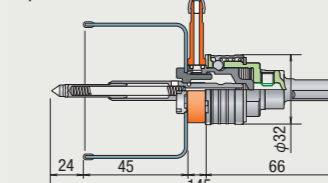
Recommended Rotation Speed / Wattage

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ22 - 45	1500 - 800	450W and above
φ50 - 65	1100 - 700	550W and above

φ29mm or less



φ32mm or more



Dust Collecting Pad → refer to P-44



Tile Holesaw set

(including Water Bottle Swivel Set (PBSSH))

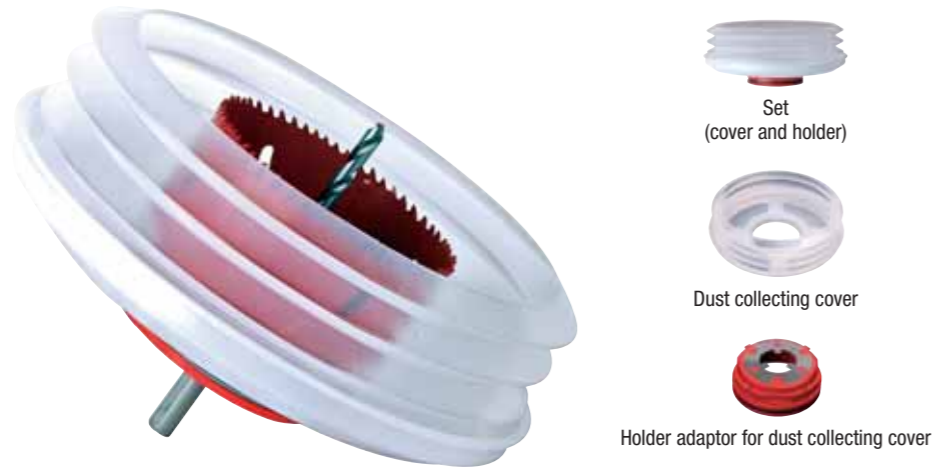


Package contents

- Cutter
- Shank
- Center pin (SLCP)
- Coolant base (SLCB)
- Plug Ejector (SLPE)
- Water Bottle Swivel Set (PBSSH)

S-LOCK Dust Collecting Cover

For dust control when drilling holes in ceiling for downlight construction, etc.



Features

- Minimize dust scattering.
- Comfortable drilling to the ceiling.

For use in

- For upward work such as downlight and spotlight installation
- To prevent dust scattering when using the S-LOCK series
- Holder adaptor for dust collecting cover can be attached to Poly-Clic Dust Extraction plastic hood (option)

S-LOCK Dust Collecting Cover set

Item	Part No.	For use with
Set 145	SLSJCH145ST	φ50 – 125 (cover inner dia. 145mm)
Set 170	SLSJCH170ST	φ50 – 150 (cover inner dia. 170mm)

S-LOCK Dust Collecting Cover

Item	Part No.	For use with
Cover 145	SLSJC145	φ50 – 125 (cover inner dia. 145mm)
Cover 170	SLSJC170	φ50 – 150 (cover inner dia. 170mm)

Holder adaptor for S-LOCK Dust Collecting Cover

Item	Part No.	For use with
Holder adaptor	SLSJCH	Use with S-LOCK shanks

*S-LOCK cutter and shank are required to use.
Cannot use dust collecting cover set only.

⚠ Precautions for use

The holder may become hot when used continuously. In that case, please stop working and wait for the temperature to drop before use.

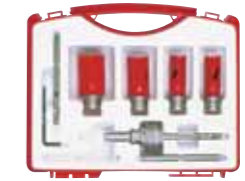


S-LOCK Kit

S-LOCK Bi-Metal Holesaw Box Kit

(Kit contains shank, spare center drill, plug ejector and hex wrench)

Item	Straight shank Set	SDS-plus shank Set	Cutter dia.
Bi-Metal Kit 1	SLBIBOX1	SLBIBOX1R	φ21×2, φ27×1, φ33×1
Bi-Metal Kit 2	SLBIBOX2	SLBIBOX2R	φ22×2, φ28×1, φ34×1
Bi-Metal Kit 3	SLBIBOX3	SLBIBOX3R	φ22, 25, 32, 38
Bi-Metal Kit 4	SLBIBOX4	SLBIBOX4R	φ28, 32, 38, 50



S-LOCK Bi-Metal Holesaw Box Kit

S-LOCK Holesaw 578 Box Kit

(Kit contains shank, spare center drill, plug ejector and hex wrench)

Item	Straight shank Set	SDS-plus shank Set	Cutter dia.
578 Kit 1	SL578BOX1	SL578BOX1R	φ21×2, φ27×1, φ33×1
578 Kit 2	SL578BOX2	SL578BOX2R	φ22×2, φ28×1, φ34×1
578 Kit 4	SL578BOX4	SL578BOX4R	φ28, 32, 38, 50

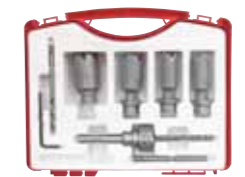


S-LOCK Holesaw 578 Box Kit

S-LOCK Holesaw 578P Box Kit

(Kit contains shank, spare center drill, plug ejector and hex wrench)

Item	Straight shank Set	SDS-plus shank Set	Cutter dia.
578P Kit 1	SL578PBOX1	SL578PBOX1R	φ21×2, φ27×1, φ33×1
578P Kit 2	SL578PBOX2	SL578PBOX2R	φ22×2, φ28×1, φ34×1
578P Kit 4	SL578PBOX4	SL578PBOX4R	φ28, 32, 38, 50



S-LOCK Holesaw 578P Box Kit

S-LOCK Deep-Bore Holesaw Box Kit

(Kit contains shank, spare center drill, plug ejector and hex wrench)

Item	Straight shank Set	SDS-plus shank Set	Cutter dia.
Deep-Bore Holesaw Kit 1	SLFBOX1	SLFBOX1R	φ21×2, φ27×1, φ33×1
Deep-Bore Holesaw Kit 2	SLFBOX2	SLFBOX2R	φ22×2, φ28×1, φ34×1
Deep-Bore Holesaw Kit 4	SLFBOX4	SLFBOX4R	φ28, 32, 38, 50



S-LOCK Deep-Bore Holesaw Box Kit

S-LOCK DL Core Bit Box Kit for Cordless impact driver

(Kit contains shank, spare center drill, plug ejector and hex wrench)

Item	Part No.	Cutter dia.
DL Core Bit Kit 1	SLDLCBOX1JDE	φ25, 28, 32, 38
DL Core Bit Kit 2	SLDLCBOX2JDE	φ21×2, φ27×1, φ33×1



S-LOCK DL Core Bit Box Kit for Cordless impact driver

Poly-Clic Series

S-LOCK Series

Deltagon Bit Series

Drill Bit Series

ANZEX Series

Diamond Series

METAL-BORER Series

Holesaw Series

Core Bit Series

Disk Series

Reference

64 Deltagon SDS-plus Bit



Dia. **4-26mm**

Higher cutting performance for drilling in concrete.

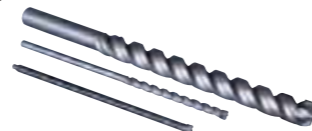
66 Deltagon SDS-max Bit



Dia. **10-32mm**

Improved safety and drilling speed.

67 Deltagon Straight Shank Percussion Bit



Dia. **2.5-14.5mm**

The three edges have significantly improved drilling and cost efficiency.

68 Deltagon Vacuum Bit



Dia. **12.0-32.0mm**

Clean drilling with sucking up the dust in concrete.



3 cutting edges
Cutter dia. below 20mm



5 cutting edges
Cutter dia. 22-26mm



6 cutting edges
Cutter dia. above 28mm

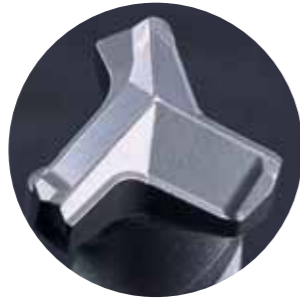
Deltagon Bit series

Deltagon bit can stable drilling with less getting stuck and impact shock.
Less physical burden even in long periods of usage, which leads to less fatigue.
It can drill near-perfectly round holes thanks to the unique teeth geometry.
Increased safety with less getting stuck and less swinging by electric drills in contact with reinforcing bars.
Can penetrate deck plates with limited circumferential wear.

3

Features of Deltagon Bit

Carbide tip is jointed with a special technology



Three edges
Bit size: 21mm or less



Five edges
Bit size: 22mm to 26mm



Six edges
Bit size: 28mm and above

Feature 1 Worker-friendly

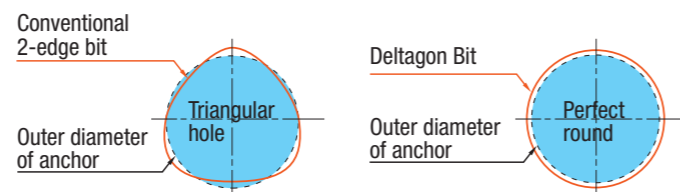
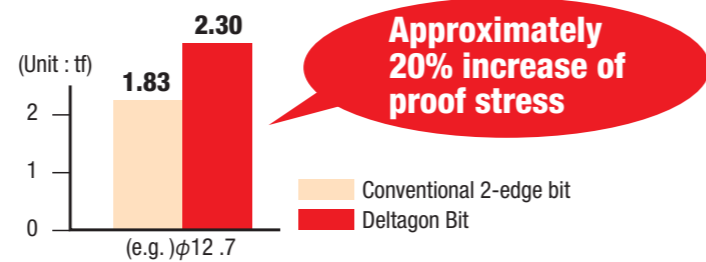
Stable drilling with less getting stuck and impact shock.
Less physical burden even in long periods of usage, which leads to less fatigue.



Feature 2 Drilling near-perfectly round holes

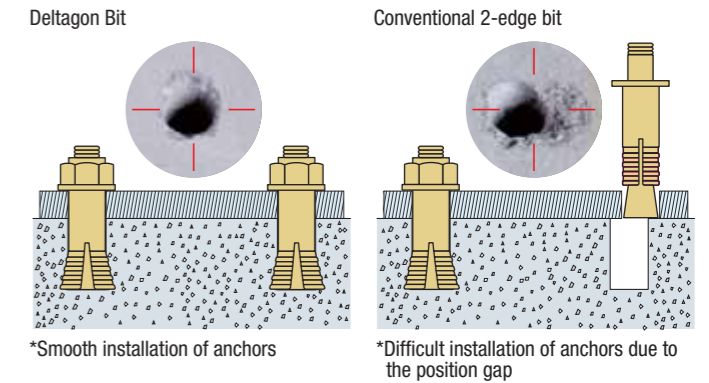
Unique teeth geometry allows drilling near-perfectly round holes.
An anchor can be easily installed into the hole.
The proof strength is increased by approximately 20%.
The gap is constant in each point on the circumference, resulting in a high wedge effect.

Anchor pullout test
(Comparison with our conventional 2-edge bit)
<Anchor type: Hammer drive anchor (M12)>



Feature 3 Improved positioning performance

The tip without chisel point allows easy positioning.

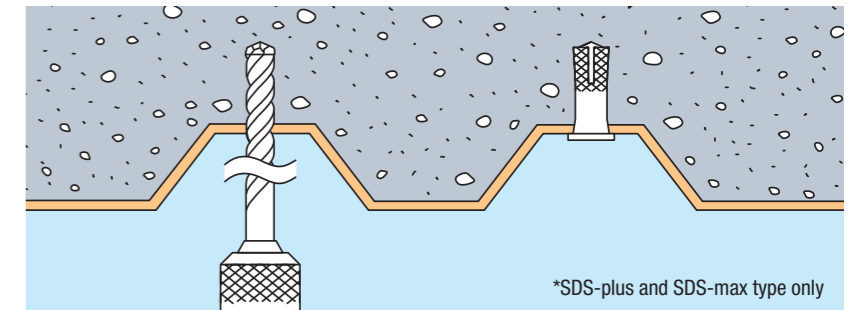


Feature 4 Increased safety in contact with reinforced bar

Increased safety with less getting stuck and less swinging by electric drills in contact with reinforcing bar.

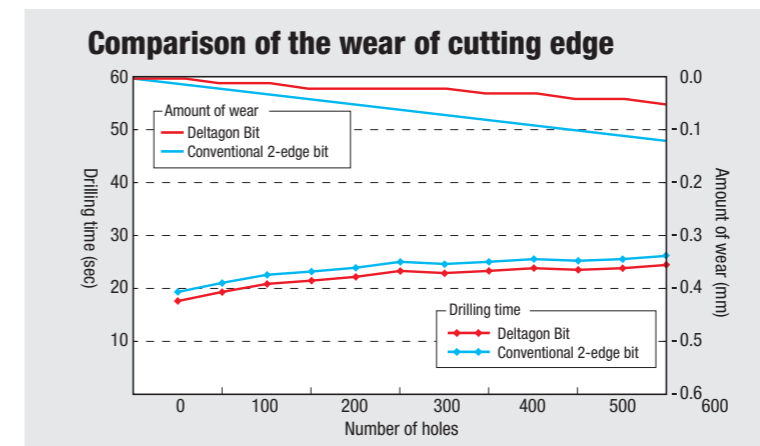
Feature 5 Penetrates deck plate

Easily penetrates concrete-placed deck plate.



Feature 6 Limited circumferential wear

Multi-cutting edges provide reduction of circumferential wear and are suitable for drilling pilot holes for anchors.



This test result is just an example, and it may change depending on work material and electric drill used etc.
Bit diameter: 19.0mm
Electric drill: 1100W
Work material: Concrete 30N/mm²
Drilling depth: 100mm



Deltagon SDS-plus Bit



- Best for**
- Concrete
 - Mortar
 - Block
 - Deck plate and concrete

- Also can be used in**
- PC concrete
 - Stone
 - Brick
 - Asphalt

Higher cutting performance with 3 cutting edges and 5 cutting edges.



Features


- Improved safety and drilling speed.
- Stable drilling with less getting stuck and impact shock.
- Drilling near-perfectly round holes.
- Improved positioning performance.
- Increased safety in contact with reinforced bar.
- Penetrates deck plate.
- Limited circumferential wear.

For use in

- Concrete, Block, Mortar, and Deck plate and concrete

For use with

- Electric hammer drills with SDS-plus



PGM Certified
Deltagon SDS-plus Bit and Deltagon SDS-max Bit bear the mark of conformity of the Prüfgemeinschaft Mauerbohrer e.V. (PGM).

Advantages of PGM marked drill bits:

- Strict criteria of the DIBt (Deutsches Institut für Bautechnik) and of the European Organization for Technical Assessment (EOTA)
- Strict tolerance limits for the diameter and the symmetry of the carbide tip ensuring the exactness of the drill hole.
- Secure anchoring and fixing with a national or European Technical approval.
- Regular sample tests of the drills by independent institutes

Size table (The bit diameter is based on PGM (DIN) specification.)

Deltagon SDS-plus bit (Max. drilling depth 50mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
4	DLSDS0401E	116	50
5	DLSDS0501E		
6	DLSDS0601E		
8	DLSDS0801E		
10	DLSDS1001E		

Deltagon SDS-plus bit (Max. drilling depth 100mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
5	DLSDS050E	166	100
6	DLSDS060E		
7	DLSDS070E		
8	DLSDS080E		
9	DLSDS090E		
10	DLSDS100E		
11	DLSDS110E		
12	DLSDS120E		
13	DLSDS130E		
14	DLSDS140E		
15	DLSDS150E		
16	DLSDS160E		
18	DLSDS180E		
20	DLSDS200E		

Deltagon SDS-plus bit (Max. drilling depth 150mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
5	DLSDS0502E	216	150
6	DLSDS0602E		
7	DLSDS0702E		
8	DLSDS0802E		
9	DLSDS0902E		
10	DLSDS1002E		
11	DLSDS1102E		
12	DLSDS1202E		
14	DLSDS1402E		
15	DLSDS1502E		
16	DLSDS1602E		
18	DLSDS1802E		
20	DLSDS2002E		

Deltagon SDS-plus bit (Max. drilling depth 200mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
6	DLSDS06026E	266	200
8	DLSDS08026E		
10	DLSDS10026E		
12	DLSDS12026E		
14	DLSDS14026E		
16	DLSDS16026E		
18	DLSDS18026E		
20	DLSDS20026E		
22	DLSDS22027E		
23	DLSDS23027E		
24	DLSDS24027E	270	
25	DLSDS25027E		
26	DLSDS26027E		

Deltagon SDS-plus bit (Max. drilling depth 250mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
8	DLSDS0803E	316	250
10	DLSDS1003E		
12	DLSDS1203E		
14	DLSDS1403E		
15	DLSDS1503E		
16	DLSDS1603E		
18	DLSDS1803E		
20	DLSDS2003E		
22	DLSDS22032E		
23	DLSDS23032E		
24	DLSDS24032E		
25	DLSDS25032E		
26	DLSDS26032E		

Deltagon SDS-plus bit (Max. drilling depth 400mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)	
10	DLSDS1004E	466	400	
12	DLSDS1204E			
14	DLSDS1404E			
16	DLSDS1604E			
18	DLSDS1804E			
20	DLSDS2004E			
22	DLSDS22047E			
23	DLSDS23047E			470
24	DLSDS24047E			
25	DLSDS25047E			
26	DLSDS26047E			

Deltagon SDS-max Bit



Best for
Concrete
Deck plate and concrete
Block
Mortar

Also can be used in
Stone
Brick
PC concrete
Asphalt

3 cutting edges, 5 cutting edges and 6 cutting edges increase safety and drilling speed !



3 cutting edges (φ10-20) 5 cutting edges (φ22-26) 6 cutting edges (φ28-32)



3 cutting edges (φ10-20mm)

5 cutting edges (φ22-26mm)

6 cutting edges (φ28-32mm)



Features

- Improved safety and drilling speed.
- Stable drilling with less getting stuck and impact shock.
- Drilling near-perfectly round holes.
- Improved positioning performance.
- Increased safety in contact with reinforced bar.
- Penetrates deck plate.
- Limited circumferential wear.

For use in

- Concrete, Stone, and Deck plate and concrete

For use with

- Electric hammer drills with SDS-max

Size table

(The bit diameter is based on PGM (DIN) specification.)

Deltagon SDS-max bit

(Max. drilling depth 200mm, 300mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
10	DLMAX10034E	340	200
12	DLMAX12034E		
13	DLMAX13034E		
14	DLMAX14034E		
15	DLMAX15034E		
16	DLMAX16034E		
18	DLMAX18034E	320	200
20	DLMAX20034E		
22	DLMAX22034E		
23	DLMAX23034E		
24	DLMAX24032E		
25	DLMAX25032E		
26	DLMAX26032E	420	300
28	DLMAX28042E		
30	DLMAX30042E		
32	DLMAX32042E		

Deltagon SDS-max bit

(Max. drilling depth 400mm, 450mm)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
10	DLMAX10054E	540	400
12	DLMAX12054E		
13	DLMAX13054E		
14	DLMAX14054E		
15	DLMAX15054E		
16	DLMAX16054E		
18	DLMAX18054E	520	400
20	DLMAX20054E		
22	DLMAX22054E		
23	DLMAX23054E		
24	DLMAX24052E		
25	DLMAX25052E		
26	DLMAX26052E	570	450
28	DLMAX28057E		
30	DLMAX30057E		
32	DLMAX32057E		

PGM Certified

Deltagon SDS-plus Bit and Deltagon SDS-max Bit bear the mark of conformity of the Prüfgemeinschaft Mauerbohrer e.V. (PGM).

Advantages of PGM marked drill bits:

- Strict criteria of the DIBt (Deutsches Institut für Bautechnik) and of the European Organization for Technical Assessment (EOTA)
- Strict tolerance limits for the diameter and the symmetry of the carbide tip ensuring the exactness of the drill hole.
- Secure anchoring and fixing with a national or European Technical approval.
- Regular sample tests of the drills by independent institutes

Deltagon Straight Shank Percussion Bit



Best for
Mortar
Block
Concrete

Also can be used in
PC concrete
Brick
Stone

3 cutting edges significantly increase efficiency and durability.



3 cutting edges (φ2.5-14.5)

Spiral type

Delta type

Size table (The bit diameter is based on Miyanaga specification.)

Deltagon Straight Shank Percussion Bit (Spiral type)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
2.5	DLS25	100	45
2.8	DLS28		
3.0	DLS30		
3.2	DLS32		
3.3	DLS33		
3.4	DLS34		
3.5	DLS35		
3.6	DLS36		
3.7	DLS37		
3.8	DLS38		
4.0	DLS40	115	65
4.2	DLS42		
4.3	DLS43		
4.4	DLS44		
4.5	DLS045		
4.8	DLS048		
5.0	DLS050		
5.2	DLS052		
5.3	DLS053		
5.4	DLS054		
5.5	DLS055	125	75
5.8	DLS058		
6.0	DLS060		
6.4	DLS064		
6.5	DLS065		
7.0	DLS070		
7.2	DLS072		
7.5	DLS075		
8.0	DLS080		
8.5	DLS085		
8.7	DLS087	150	90
9.0	DLS090		
9.5	DLS095		
10.0	DLS100		
10.5	DLS105		
11.0	DLS110		
11.5	DLS115		
12.0	DLS120		
12.5	DLS125		
12.7	DLS127		
13.0	DLS130	170	120
13.5	DLS135		
14.0	DLS140		
14.3	DLS143		
14.5	DLS145		

Features

- 3 cutting edges have significantly improved drilling and cost efficiency.
- Excellent durability (compared to our conventional products).
- Increased drilling speed (compared to our conventional products).
- Bit dia.: Spiral type: φ2.5mm to 14.5mm Delta type: φ3.0mm to 4.4mm

For use in

- Concrete, Block and Mortar

For use with

- Electric drills in percussion mode
- *Make sure to use with a percussion drill in percussion mode. Do not use with an impact drill or a driver drill.

Deltagon Straight Shank Percussion Bit (Delta type)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
3.0	DLS030	85	42
3.2	DLS032		
3.4	DLS034		
3.5	DLS035		
3.8	DLS038		
4.0	DLS040		
4.2	DLS042	50	50
4.3	DLS043		
4.4	DLS044		

Deltagon Straight Shank Percussion Bit (Long size)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
3.2	DLS03215	150	90
3.4	DLS03415		
3.5	DLS03515		
4.0	DLS04015		
4.3	DLS04315		
4.5	DLS04515		
4.8	DLS04815		
5.0	DLS05015		
5.2	DLS05215		
5.3	DLS05315		
5.5	DLS05515	200	120
6.0	DLS06015		
3.4	DLS03420		
3.5	DLS03520		
4.5	DLS04520		
4.8	DLS04820		
5.0	DLS05020		
5.3	DLS05320		
5.5	DLS05520		
6.0	DLS06020		
6.4	DLS06420	330	200
7.0	DLS07020		
8.0	DLS08033		
9.0	DLS09033		
10.0	DLS10033		
10.5	DLS10533		
12.0	DLS12033		
12.7	DLS12733		
14.5	DLS14533		

Deltagon Vacuum Bit



- Best for**
- Concrete
 - Deck plate and concrete
- Also can be used in**
- PC concrete
 - Stone

Promotes a clean drilling with sucking up the dust while drilling.



3 cutting edges
(φ12.0-20.0mm)



5 cutting edges
(φ22.0-32.0mm)



3 cutting edges
(φ12.0-20.0mm)



5 cutting edges
(φ22.0-32.0mm)

Features

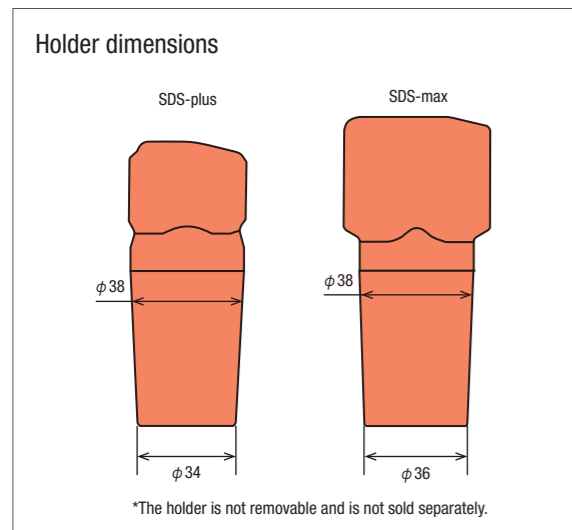
- Promotes a clean drilling with sucking up the dust while drilling.
- Creates clean working environment for operator not only for vertical and horizontal drilling, but also overhead drilling.
- One-piece structure contributes strong body and durability.
- Suction holes on the carbide tip reduce dust scattering.

For use in

- Drilling a pilot hole for installation of chemical anchor, etc.
- Drilling a hole in concrete, etc.

For use with

- Light-weight hammer drills
- Electric hammer drills



CAUTION

When using an electric hammer drill with a power consumption of 1300W or more, the carbide tip will be easily damaged if it hits a reinforcing bar during drilling. In that case, be sure to change the drilling point.

Size table

Deltagon Vacuum Bit (SDS-plus shank) (The bit diameter is based on Miyanaga specification.)

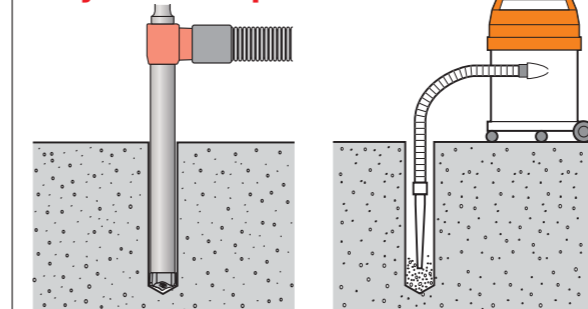
Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)	Cutting edges
12.0	DLVSDS120029	290	150	3
12.5	DLVSDS125029			
14.5	DLVSDS145029			
16.0	DLVSDS160029			

Deltagon Vacuum Bit (SDS-max shank) (The bit diameter is based on Miyanaga specification.)

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)	Cutting edges
16.0	DLVMAX160044	440	210	3
18.0	DLVMAX180049	490	260	
19.0	DLVMAX190049			
20.0	DLVMAX200049			
22.0	DLVMAX220049			540
23.0	DLVMAX230049			
24.0	DLVMAX240054			
25.0	DLVMAX250054			
28.0	DLVMAX280059	590	360	5
32.0	DLVMAX320063	630	400	

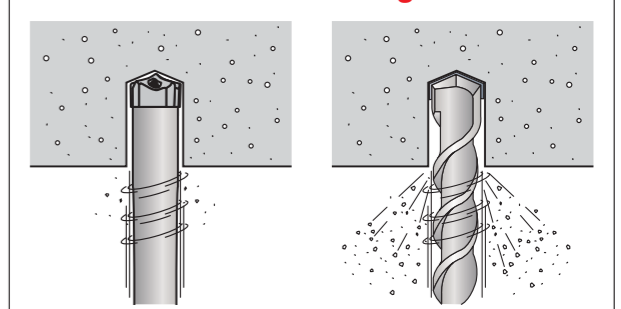
*Product specification is subject to change without notice

Easy to clean up



● Deltagon Vacuum Bit ● Conventional drill bit
It sucks out most of the dust while drilling a pilot hole for anchor works.

Good for overhead drilling



● Deltagon Vacuum Bit ● Conventional drill bit
Even when drilling upwards, most of the dust are sucked out and reduce the burden on the operator.

72 Straight Shank Bit for Ceramic tile



Dia. **3.0-11.0**mm

Carbide tip with excellent drilling performance and durability.

73 Cable Guide Drill Bit



Dia. **10.0-15.0**mm

Best for guiding cables through cavity wall.

Drill Bit series

Our drills use carbide tips with high hardness, low wear and high impact resistance. Various variations are available to meet a wide range of needs. From small holes to large holes, for concrete, blocks, bricks, marble and stone.

4

Straight Shank Bit for Ceramic tile



- Best for**
- Ceramic tile
 - Roof tile
 - Tile
 - Marble
 - ALC

- Also can be used in**
- Ceramic siding
 - FRP
 - Extruded cement
 - PVC pipe

Excellent sharpness and durability.



Features

- Highly sharp and durable carbide tip.
- Specially shaped carbide tip provides easy drilling into ceramic tile.
- The optimum grinding angle provides efficient drilling.
*Using water increases cutting performance and durability.
*Use Mistdia Drill Bit for hard ceramic tile.
- Carbide tip with excellent cutting ability and durability.

For use in

- Ceramic tile, Marble, Ceramic siding

For use with

- Portable electric drills in rotary mode only

Size table

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
3.0	Z030	85	42
3.2	Z032		
3.4	Z034		
3.5	Z035		
3.8	Z038		
4.0	Z040		
4.3	Z043	50	
4.5	Z045		
4.8	Z048		
5.0	Z050		
5.5	Z055	100	65
6.0	Z060		
6.4	Z064		
6.5	Z065		
7.0	Z070	125	75
7.2	Z072		
7.5	Z075		
8.0	Z080		
8.5	Z085		
9.0	Z090		
10.0	Z100	150	90
10.5	Z105		
11.0	Z110		

Cable Guide Drill Bit



- Best for**
- Metal siding
 - Ceramic siding
 - Wood
 - 2x4 wood

- Also can be used in**
- Extruded cement
 - ALC
 - PVC pipe

Best for guiding cables through cavity wall.



Straight shank with Three Milled Flats

Hole for cable



Features

- The one bit solution to guiding cables through cavity wall.
- Smooth drilling in various types of siding wall, wood, etc.
- The specially shaped carbide tip on the cutting edge provides smooth drilling in ceramic/metal siding board, wood, etc.
- Easy centering position due to an acute angle of cutting edge.
- After drilling in cavity wall, you can connect the cable to the drill bit and pull it through the cavity.
- Straight shank with Three Milled Flats for better grip on shank.

For use in

- Metal siding, Ceramic siding and Wood

For use with

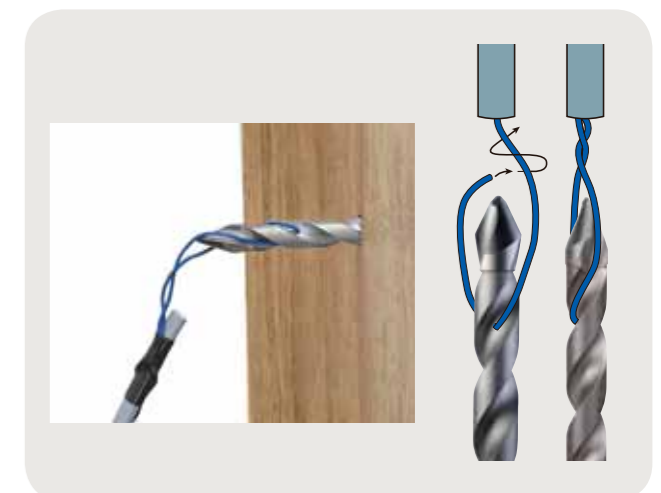
- Light-weight hammer drills in rotary mode only
- Portable electric drills in rotary mode only

Straight shank with Three Milled Flats

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
10.0	TD100032	320	150
12.0	TD120032		
15.0	TD150032		

SDS-plus shank

Bit dia. mm	Part No.	Overall length (mm)	Max. drilling depth (mm)
10.0	TD100032R	320	150
12.0	TD120032R		
15.0	TD150032R		



Poly-Dric Series

S-LOCK Series

Delapan Bit Series

Drill Bit Series

ANZE Series

Diamond Series

METAL-ROTOR Series

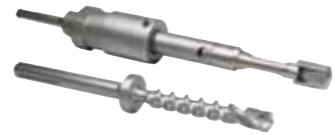
Holesaw Series

Core Bit Series

Disk Series

Reference

78 Undercut Anchor System
ANZEX-D



Unique and reliable undercut anchor system.
Easy and reliable installation.

82 Undercut Anchor System
ANZEX-K



Reliable anchor bolt installation
by mechanical interlock.

ANZEX series

Total post-installed anchor system for secure anchor work.
Using our specialized Undercutter enables to undercut with easy and reliable operation.
Prevents anchor bolt from slip by mechanical interlock.

5

Unique and reliable undercut anchor system. Easy and reliable installation.

European Technical Assessment
ETA-17/0690 (M16/steel grade 8.8)

What's benefits of undercut?

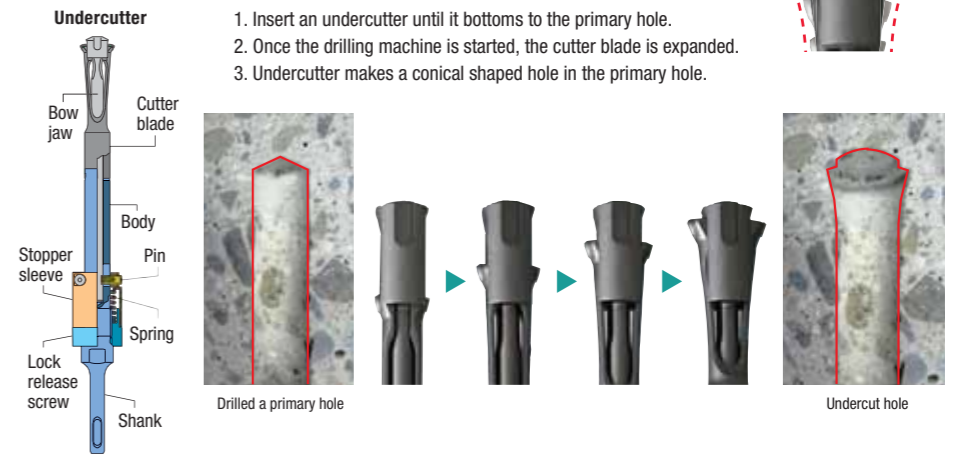
- Mechanical interlock**
Anchor bolt is mechanically fixed in the precise conical surface in the undercut hole.
- Bearing force**
The tensile load is sustained by bearing force on the conical surface.
- Undercut tools**
Creates a reliable undercut hole by original undercut tools.



Key Point
1

Make a conical shaped hole in the primary hole.

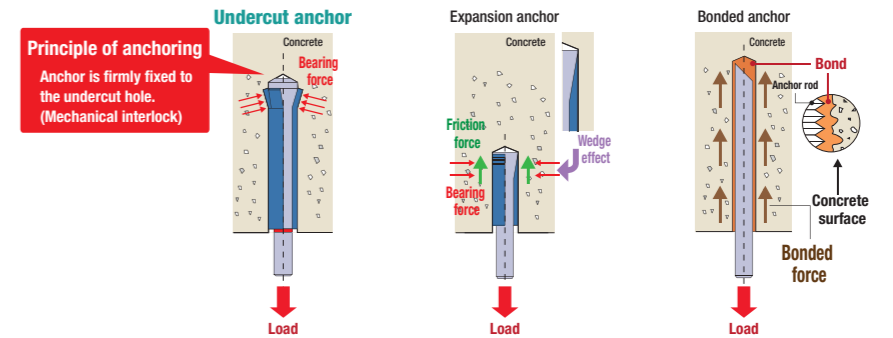
Undercutter expands the bottom of primary hole in conical shape. Undercut part realizes a safe and secure anchoring.



Key Point
2

Reliable anchoring by mechanical interlock.

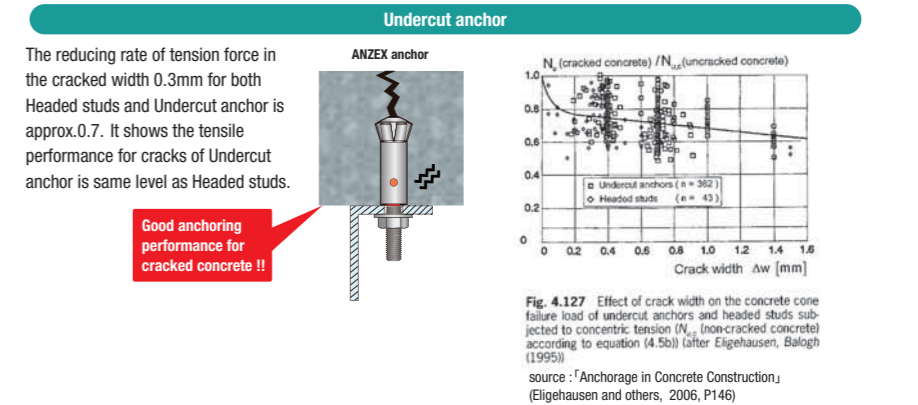
Mechanical interlock without pulling out and slipping. Bearing force ensures the support of the load.



Key Point
3

Efficient installation in non-cracked and cracked concrete.

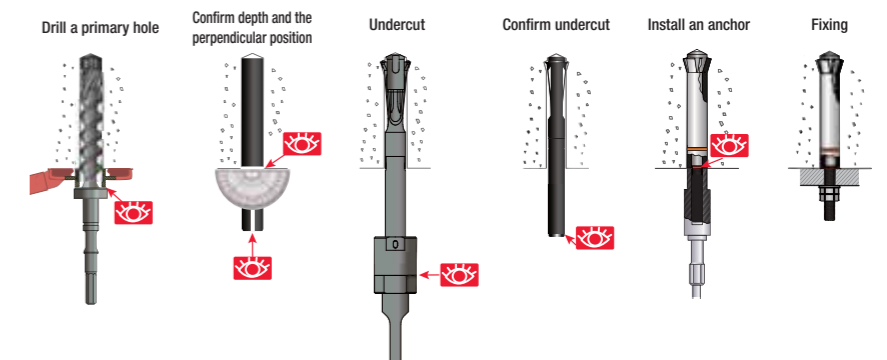
Prevents reducing the anchoring performance for cracked concrete because anchor is firmly fixed to the undercut hole. The tensile performance for cracks of undercut anchor is the same level as headed studs.



Key Point
4

“Visual confirmation” realizes reliable installation.

Each step of anchor installation can be visually confirmed with using our specialized tools. Visual confirmation ensures reliable installation.





Best for
Concrete

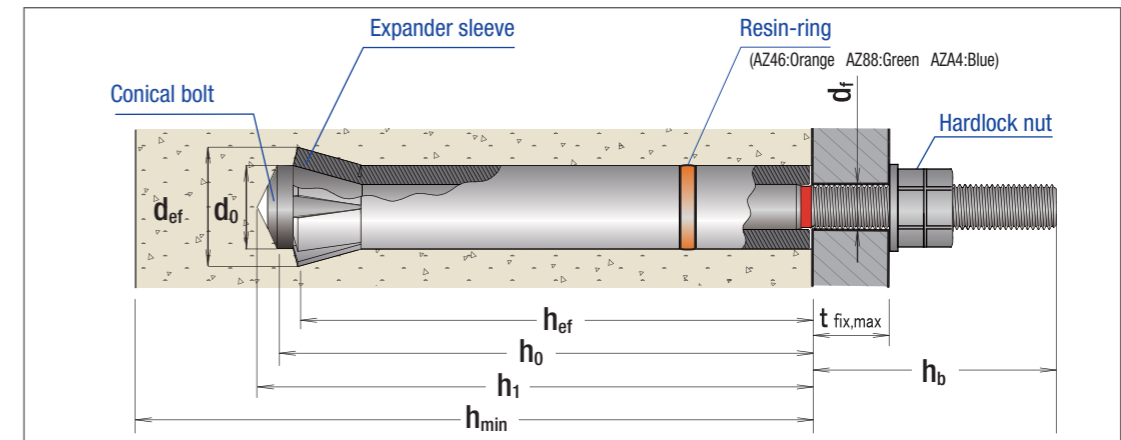
Large bearing area realizes the undercut anchors to achieve full ductile steel failure !



High reliability and superior workability due to mechanical interlock.

Specification of ANZEX-D anchor bolts

AZ46 (grade 4.6) / **AZ88** (grade 8.8) / **AZA4** (SUS316)



	AZ46 Steel grade:4.6*1				AZ88 Steel grade:8.8*1				AZA4 Property class:50*2 A4 (SUS316)				
	Stock items		Made to order items		Stock items		Made to order items		Stock items		Made to order items		
Thread (pitch)	M12 (1.75)	M16 (2.0)	M20 (2.5)	M24 (3.0)	M12 (1.75)	M16 (2.0)	M20 (2.5)	M24 (3.0)	M12 (1.75)	M16 (2.0)	M20 (2.5)	M24 (3.0)	
Coating	Zinc coating (hot dip galvanized)				Zinc coating (electroplated)				No coating				
Part number	AZM12P 46H225	AZM16P 46H305	AZM20P 46H360	AZM24P 46H440	AZM12P 88E225	AZM16P 88E305	AZM20P 88E360	AZM24P 88E440	AZM12P A4N225	AZM16P A4N305	AZM20P A4N360	AZM24P A4N440	
Unit													
Drill hole diameter	d ₀	22.5	30.5	36.0	44.0	22.5	30.5	36.0	44.0	22.5	30.5	36.0	44.0
Drilled hole depth	h ₀	96	131	162	195	141	198	249	296	109	148	185	221
Deepest drilled hole depth	h ₁	100.8	137.5	170.1	204.5	145.8	204.5	257.1	305.5	113.8	154.5	193.1	230.5
Expanded diameter	d _{ef}	31.5	42.3	49.3	59.2	31.5	42.3	49.3	59.2	31.5	42.3	49.3	59.2
Effective anchorage depth	h _{ef}	90	123	153	184	135	190	240	285	103	140	176	210
Effective sectional area of thread	A _s	84.3	157	245	353	84.3	157	245	353	84.3	157	245	353
Minimum thickness of concrete member	h _{min}	150	200	250	300	210	290	360	430	170	230	290	350
Diameter of clearance hole in the fixture	d _f	14	18	22	26	14	18	22	26	14	18	22	26
Projection length of anchor bolt	h _b	63	79	100	121	68	89	110	131	68	89	110	131
Maximum thickness of fixture	t _{fix,max}	25	30	40	50	30	40	50	60	30	40	50	60
Minimum tensile strength	s _t	400	400	400	400	800	800	830	830	500	500	500	500
Lower yield strength	s _y	240	240	240	240	-	-	-	-	-	-	-	-
Stress at 0.2% non-proportional elongation	s _{0.2}	-	-	-	-	640	640	660	660	210	210	210	210

*1: Steel grade according to JIS B 1051 (ISO 898-1)
*2: Steel grade according to JIS B 1054-1 (ISO 3056-1)
JIS: Japanese Industrial Standard

Features

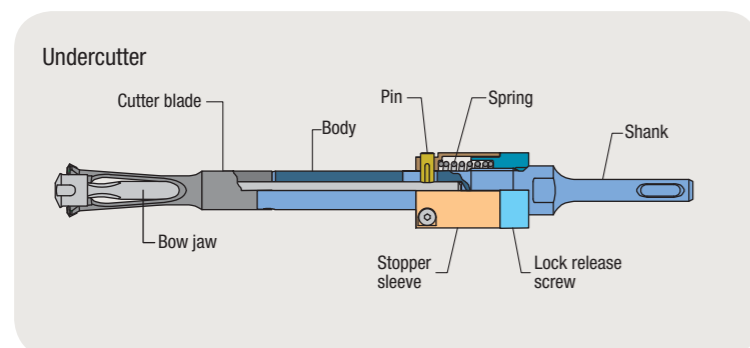
- Total post-installed anchor system for secure anchor work.
- Using our specialized Undercutter enables to undercut with easy and reliable operation.
- Prevents anchor bolt from slip by mechanical interlock.
- Large bearing area at the undercut part ensures secure anchoring even in low-strength concrete. (Even if the cracks occur on the concrete around working area, reduction in anchoring performance is minimized)
- The embedment depth of anchor bolt is designed to bear the characteristic steel yield strength. Anchor bolt can be designed with "full ductile steel failure".
- Anchor bolt materials : steel grade 4.6 / steel grade 8.8 / SUS316

For use in

- Various anchor works.

Specification

- See specification of ANZEX anchor bolt. (P-79)



Tool list

	AZ46				AZ88				AZA4			
	Stock items		Made to order items		Stock items		Made to order items		Stock items		Made to order items	
Primary hole bit with perpendicular guide	PHG225 101MAX	PHG305 138MAX	PHG360 171MAX	PHG440 205MAX	PHG225 146MAX	PHG305 205MAX	PHG360 258MAX	PHG440 306MAX	PHG225 114MAX	PHG305 155MAX	PHG360 194MAX	PHG440 231MAX
Primary hole bit	PH225 101MAX	PH305 138MAX	PH360 171MAX	PH440 205MAX	PH225 146MAX	PH305 205MAX	PH360 258MAX	PH440 306MAX	PH225 114MAX	PH305 155MAX	PH360 194MAX	PH440 231MAX
Undercutter	UC225SDS	UC305MAX UC305HEX	UC360MAX	UC440MAX	UC225SDS	UC305MAX UC305HEX	UC360MAX	UC440MAX	UC225SDS	UC305MAX UC305HEX	UC360MAX	UC440MAX
Mechanical setting tool	STMAXM12	STMAXM16	STMAXM20	STMAXM24	STMAXM12	STMAXM16	STMAXM20	STMAXM24	STMAXM12	STMAXM16	STMAXM20	STMAXM24
Setting tool (hand-operated)	STM12	STM16	STM20	STM24	STM12	STM16	STM20	STM24	STM12	STM16	STM20	STM24
Perpendicular guide	PG225	PG305V	PG360V	PG440V	PG225	PG305V	PG360V	PG440V	PG225	PG305V	PG360V	PG440V
Perpendicular gauge	VG46225	VG46305	VG46360	VG46440	VG88225	VG88305	VG88360	VG88440	VGA4225	VGA4305	VGA4360	VGA4440
Undercut gauge	GE225	GE305	GE360	GE440	GE225	GE305	GE360	GE440	GE225	GE305	GE360	GE440
Cutter blade	BL225	BL305	BL360	BL440	BL225	BL305	BL360	BL440	BL225	BL305	BL360	BL440
Bow jaw	BJ225	BJ305	BJ360	BJ440	BJ225	BJ305	BJ360	BJ440	BJ225	BJ305	BJ360	BJ440

Installation Procedure

(You can visually confirm each process)

	1. Drill a primary hole	2. Clean the hole	3. Confirm depth and the perpendicular position	4. Undercut	5. Clean the undercut hole	6. Confirm undercut	7. Install an anchor bolt	8. Fixing
	Drill a hole in proper depth with our "Primary hole bit with stopper".	Clean the hole using a blow-out bulb or compressed air.	Confirm less than ±5 degrees.	Undercut with undercutter.	Clean the undercut hole using a blow-out bulb or compressed air.	Confirm undercut.	Anchor bolt is expanded with setting tool.	Complete all process after tightening nuts.
Working image diagram								
Visual check	When the stopper of primary hole bit contacts a perpendicular guide (or the surface of concrete), the process is completed.		Confirm the drilled depth and perpendicularity with white line of perpendicular gauge.	Undercut is completed when the gap is closed.		Once the gap of Undercut gauge is closed, undercut is completed.	Once the red line of anchor bolt appears, the bolt is properly installed. (Once the bolt is installed completely, the hammering sound is changed.)	
Features	<ul style="list-style-type: none"> Primary hole bit Perpendicular guide <p>Primary hole bit</p> <ul style="list-style-type: none"> The stopper enables to drill a hole in proper depth. *Make sure to use our "Primary hole bit". 	<ul style="list-style-type: none"> A blow-out bulb or compressed air 	<ul style="list-style-type: none"> Depth perpendicular gauge A protractor <p>Depth perpendicular gauge</p> <ul style="list-style-type: none"> Measure the perpendicularity of the drilled hole. Confirm the depth of the primary hole. 	<ul style="list-style-type: none"> Undercutter <p>Undercutter</p> <ul style="list-style-type: none"> The cutter blade is expanded and undercut. Undercut process can be completed in a short time. The completion of undercut process is visually confirmed. Cutter blade is easily interchangeable. 	<ul style="list-style-type: none"> A blow-out bulb or compressed air 	<ul style="list-style-type: none"> Undercut gauge <p>Undercut gauge</p> <ul style="list-style-type: none"> Undercut can be visually confirmed with using gauge. 	<ul style="list-style-type: none"> Setting tool Anchor bolt <p>Setting tool</p> <ul style="list-style-type: none"> The undercut anchor bolt is installed with using original setting tool. 	<ul style="list-style-type: none"> Nuts Washer Torque wrench <p>Anchor bolt</p> <ul style="list-style-type: none"> Interlocked mechanically by applying proper torque. Few stress to concrete.

Poly-Glic Series

S-LOCK Series

Deltagon Bit Series

Drill Bit Series

ANZEX Series

Diamond Series

METAL-BORER Series

Holesaw Series

Core Bit Series

Disk Series

Reference



Best for
Concrete

Reliable anchor bolt installation by mechanical interlock.



Features

- Prevents anchor bolt from slip by mechanical interlock.
- ANZEX-K is designed with higher failure strength than yield strength of anchor bolt.
- Maintains anchoring performance in cracked concrete is minimized.
- Prevents anchor bolt from contact with the rebar by minimalizing the primary hole depth.
- Both "External thread" and "Internal thread" are available. Tools can be used with both types.
- Completion of installation can be visually checked.

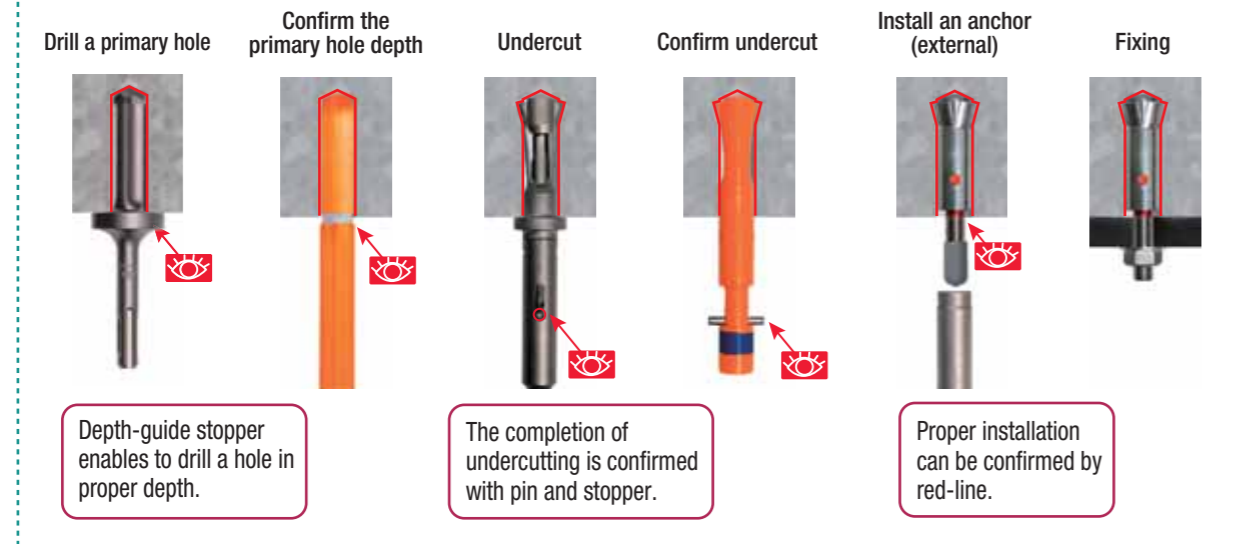
Application

- Application for request of safety or reliability. e.g. Installation of ceiling hanger. Installation of air conditioning ducts. Installation of cable rack. Installation of high ceiling lighting in tunnel.



ANZEX series	M6	M8	M10	M12	M16	M20	M24
ANZEX-D (Steel failure)	Standard	Standard	Standard	Standard	Standard	Made-to-order	Made-to-order
ANZEX-K (Concrete cone failure) (Yield anchor)	Standard	Standard	Standard	Standard	Standard	Standard	Standard

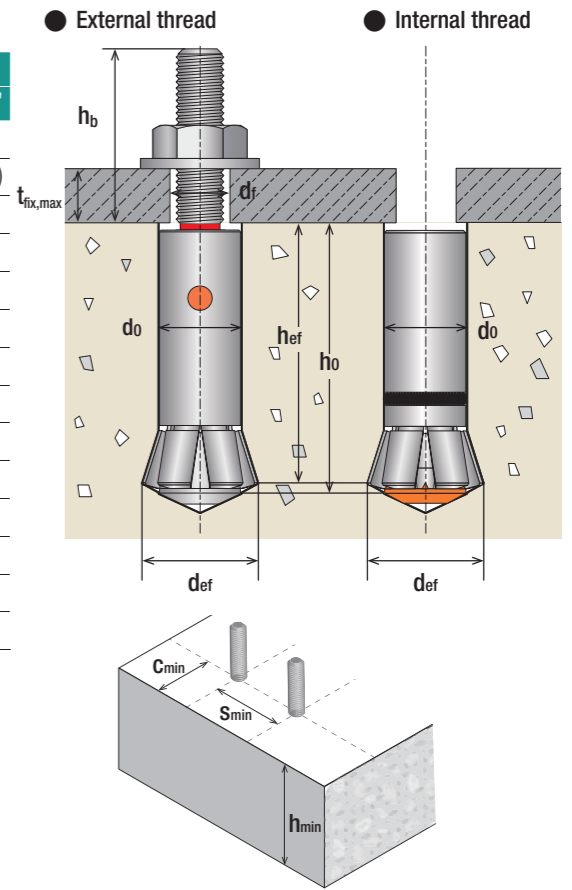
Visual confirmation



ANZEX-K Specifications (External thread / Internal thread)

Thread size	M6				M8				M10				M12			
	-				W5/16"				W3/8"				W1/2"			
Property class	AZK-46E/H				Steel grade:4.6*1				AZK-A4N				Property class:50*2 Steel grade:A4 (SUS316)			
Coating	AZK-46E				Zinc coating (electroplated)				AZK-46H				Zinc coating (hot dip galvanized)			
	AZK-A4N				No coating											
Drill hole diameter	d_0	mm	10.6	13.6	16.6	19.6										
Drill hole depth	h_0	mm	33.1	43.3	53.7	64										
Effective anchorage depth	h_{ef}	mm	32	42	52	62										
Projection length of anchor bolt	h_b	mm	20	25	30	41										
Maximum thickness of fixture	$t_{fix,max}$	mm	10	13	15	22										
Diameter of clearance hole in fixture	d_f	mm	7	9	12	14										
Minimum member thickness	h_{min}	mm	100	100	110	120										
Minimum edge distance	c_{min}	mm	30	35	45	50										
Minimum spacing	s_{min}	mm	32	42	52	62										

*1 Steel grade according to JIS B 1051 (ISO 898-1)
*2 Steel grade according to JIS B 1054-1 (ISO 3506-1)
(JIS: Japanese Industrial Standards)



Anchor bolts

		M6	M8	M10	M12	W5/16"	W3/8"	W1/2"
External thread	AZK-46E Zinc coating (electroplated)	KM06P46E106	KM08P46E136	KM10P46E166	KM12P46E196	-	-	-
	AZK-46H Zinc coating (hot dip galvanized)	-	-	KM10P46H166	KM12P46H196	-	-	-
	AZK-A4N	KM06PA4N106	KM08PA4N136	KM10PA4N166	KM12PA4N196	-	-	-
Internal thread	AZK-46E Zinc coating (electroplated)	KM06I46E106	KM08I46E136	KM10I46E166	KM12I46E196	KW25I46E136	KW30I46E166	KW40I46E196
	AZK-46H Zinc coating (hot dip galvanized)	-	-	KM10I46H166	KM12I46H196	-	KW30I46H166	KW40I46H196
	AZK-A4N	KM06IA4N106	KM08IA4N136	KM10IA4N166	KM12IA4N196	KW25IA4N136	KW30IA4N166	KW40IA4N196

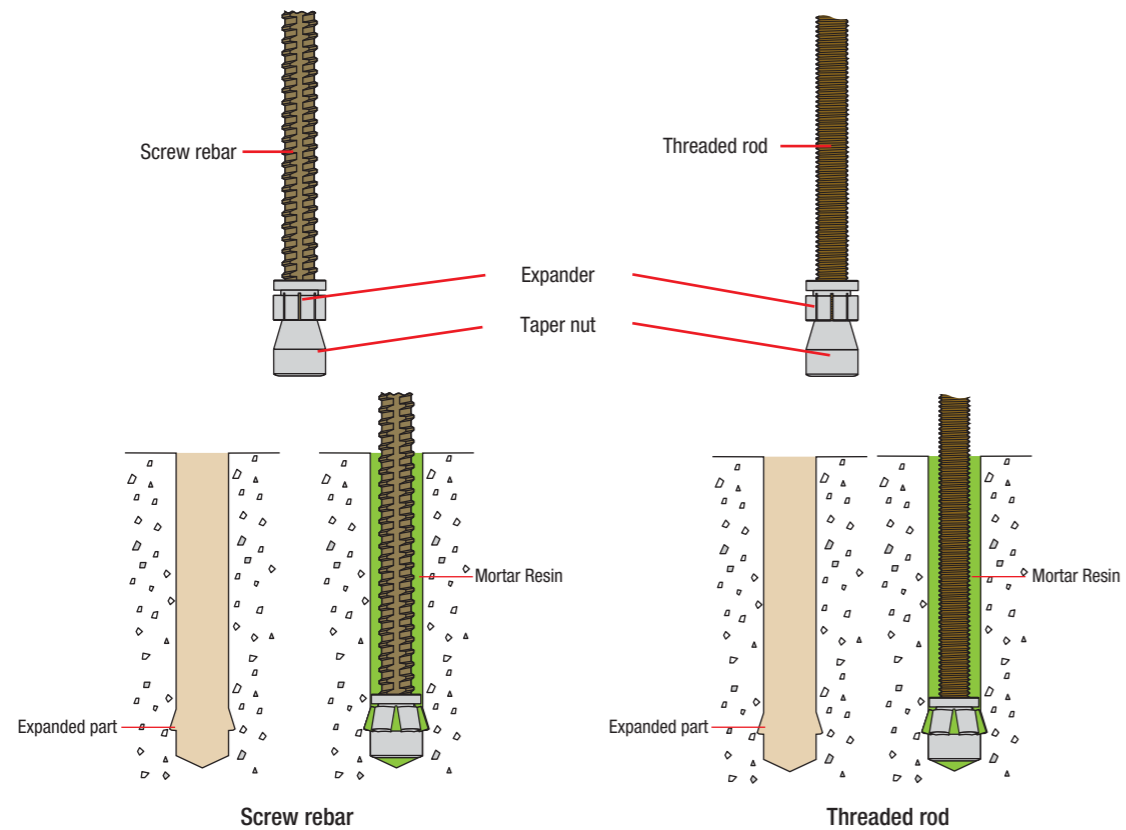
Specialized tools (usable for both external thread and internal thread)

	M6	M8 · W5/16"	M10 · W3/8"	M12 · W1/2"
Primary hole bit	KPH106036SDS	KPH136047SDS	KPH166058SDS	KPH196069SDS
Depth gauge	KVG106	KVG136	KVG166	KVG196
Undercutter	KUC106SDS	KUC136SDS	KUC166SDS	KUC196SDS
Cutter blade	KBL106	KBL136	KBL166	KBL196
Bow jaw	KBJ106	KBJ136	KBJ166	KBJ196
Undercut gauge	KGE106	KGE136	KGE166	KGE196
Setting tool (External thread)	KSTSDSM6	KSTSDSM8	KSTSDSM10	KSTSDSM12
Setting tool (Internal thread)	KSTSDSM6I	KSTSDSM8I	KSTSDSM10I	KSTSDSM12I
Setting tool (hand-operated / External)	KSTM6	KSTM8	KSTM10	KSTM12
Setting tool (hand-operated / Internal)	KSTM6I	KSTM8I	KSTM10I	KSTM12I

*All specifications are subject to change without prior notice.

Undercut Anchor System

ANZEX-LF (made to order)



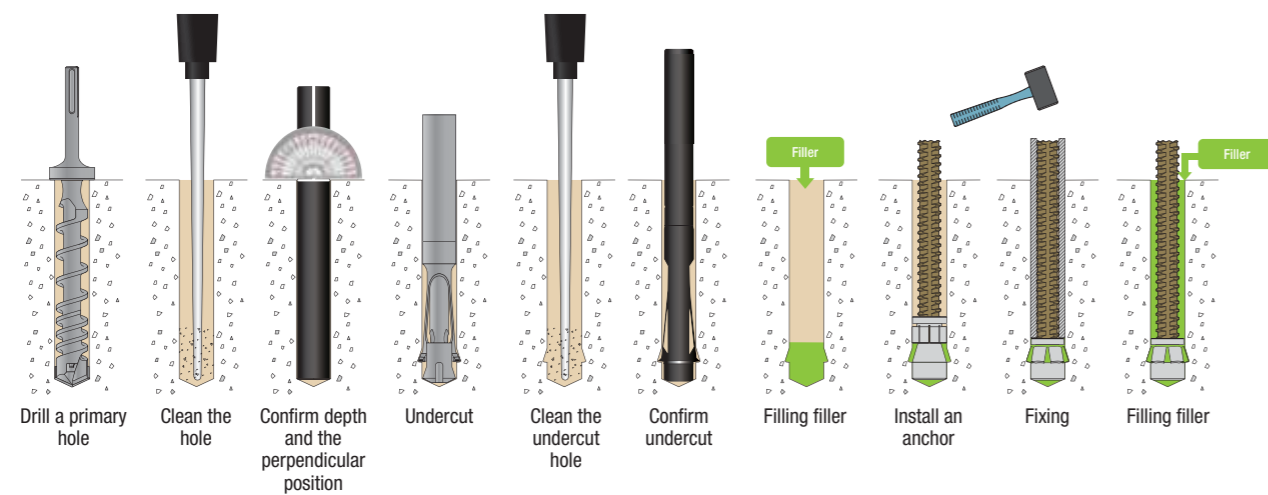
Features

- Fixing the anchor mechanically in the undercut hole, the initial stress is not applied to the concrete.
- Compared to the bonded anchor, the shorter fixing length realizes the reliable fixing.
- Ensures high reliability for cracked concrete compared to expansion anchor or bonded anchor.
- Anchor length or fixing length can be freely designed.

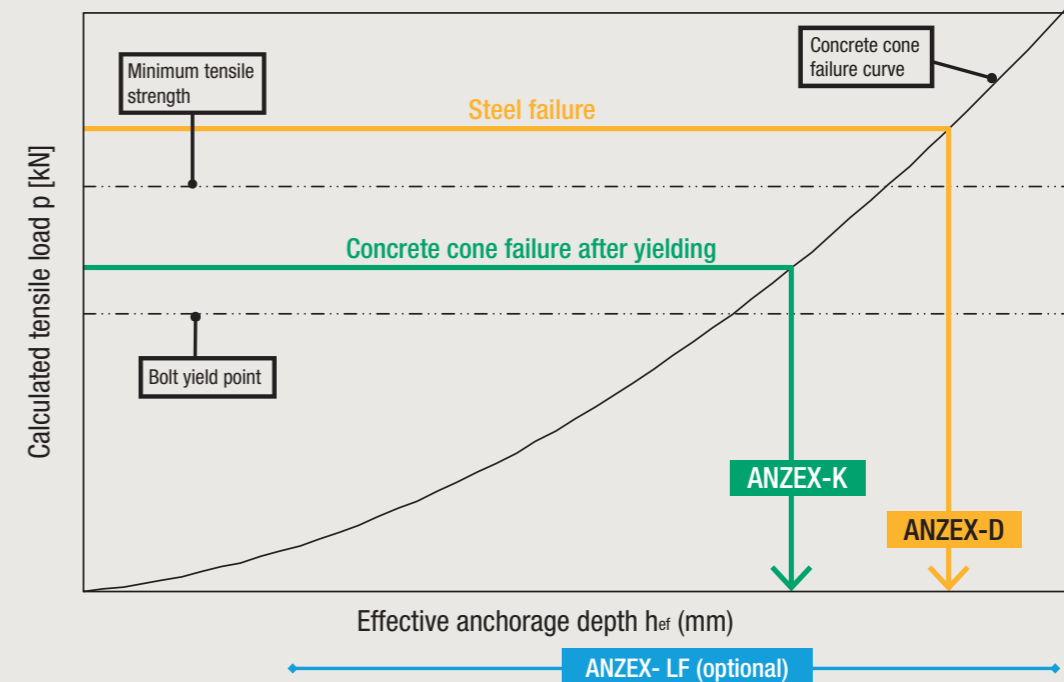
Example of anchor reinforcing bar

- Screw rebar
SD345, SD490 Size: D13 – D32
- Threaded rod :
steel grade 4.6, steel grade 8.8, SUS316 Size: M12 – M36

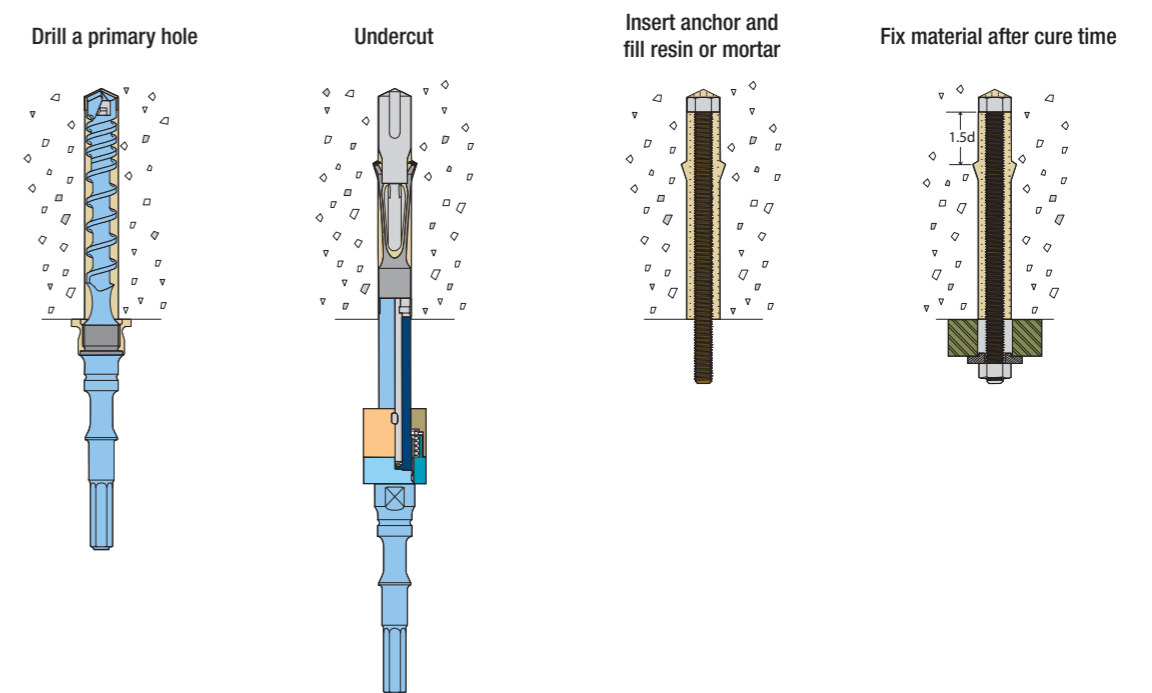
How to install



Design of effective anchorage depth (ANZEX series)



Application example



Features

- Undercut part at about 1.5d from bottom of the hole realizes high security against tensile load.
Less rust by covering the bolts with resin or mortar even in the severe environment where rust is gathered easily.

90 → **WET TYPE** Mistdia Drill Bit
(Quick-Change Type)



Dia. **4.0-24.0**mm

Best for low vibration and low noise construction.

92 → **WET TYPE** AQUASHOT



Dia. **4.0-10.5**mm

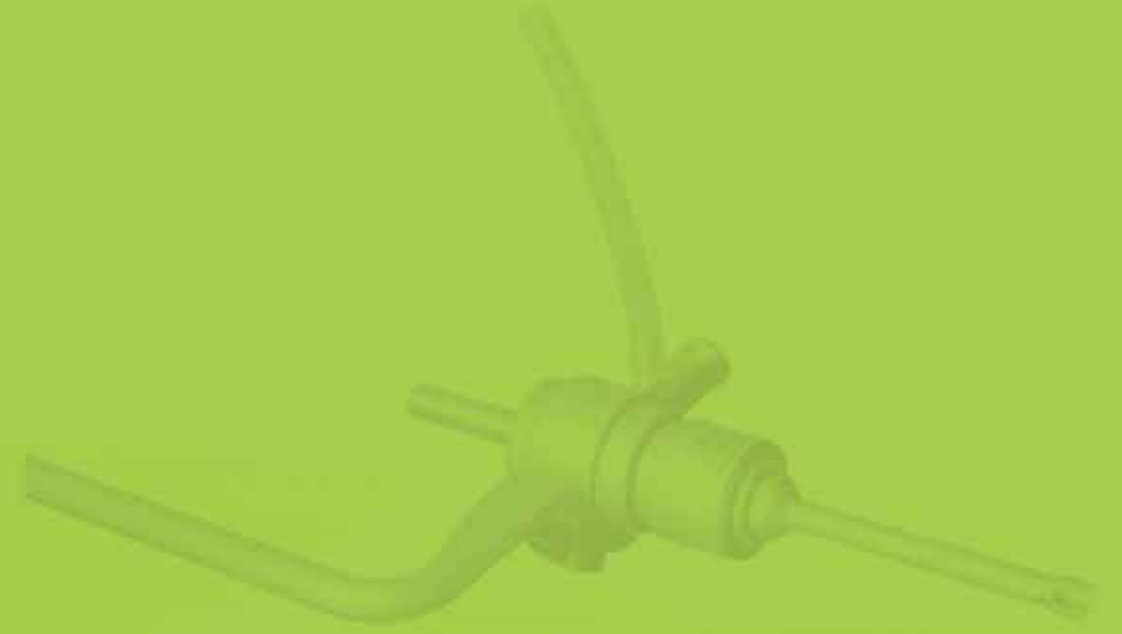
Easy drilling into difficult-to-cut materials such as ceramic tile.

94 → **COOLDIA (Diamond Bit)**



Dia. **5.0-38.0**mm

Easy drilling into ceramic tile with use of Cool Gel for waterless operation.



Diamond series

Diamond enables drilling of difficult-to-cut materials such as concrete, ceramic tile, and stone with a rotary drill. We realized more speedy and efficient drilling.

Diamond abrasive grains and metal powders are sintered and used as a cutting blade. Drilling in rotation mode reduces the burden on the body and enables low-vibration and low-noise construction.

6

Wet Type Mistdia Drill Bit (Quick-Change Type) Features

Feature 1 Drilling only in rotary mode

Drilling holes into concrete, ceramic tile, porcelain tile and stone only with drilling in rotary mode.
Cracks do not get clogged with dust.
Delamination on the back side at the time of penetration is minimized.

Comparison of residual dust around cracks



Hammer drill bit



Mistdia Drill Bit

Comparison of delamination on the back side



Hammer drill bit

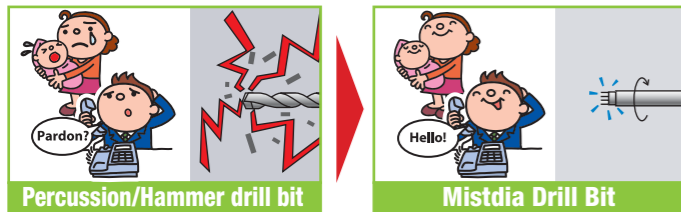
Percussion drill bit

Mistdia Drill Bit

Delamination on the back side at the time of penetration is minimized by rotary-only drilling, which achieves the best finish for resin injection.

Feature 2 Low vibration and low noise

Low noise is achieved by rotary-only drilling. It is possible to work anytime and anywhere.

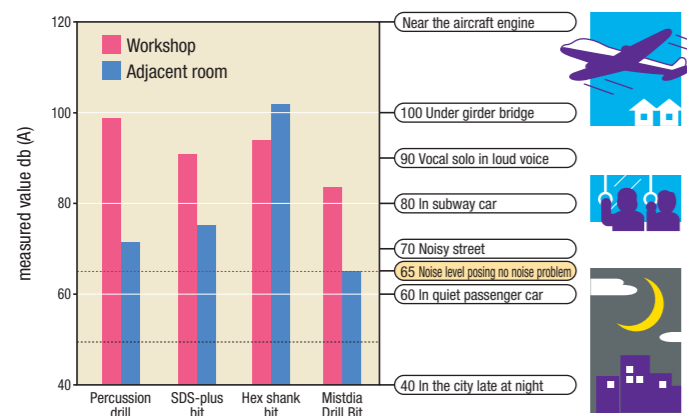


Percussion/Hammer drill bit

Mistdia Drill Bit

Noise level comparison

*The measurement results are a few examples and may differ depending on environment and drilling conditions.



Feature 3 Greatly increased drilling efficiency and durability

Easy drilling in materials such as hard ceramic tile and stone without burning or chipping of cutting edge.



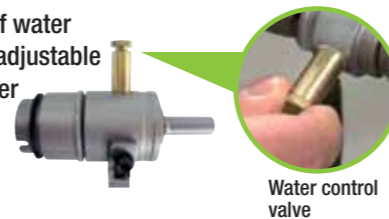
Chipped cutting edge



Drilling with Mistdia Drill Bit

Feature 6 Finely adjustable water flow

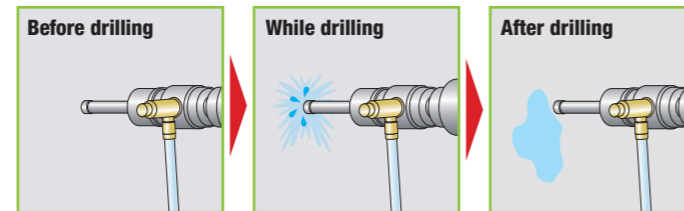
The amount of water flow is finely adjustable using the water control valve attached onto the shank.



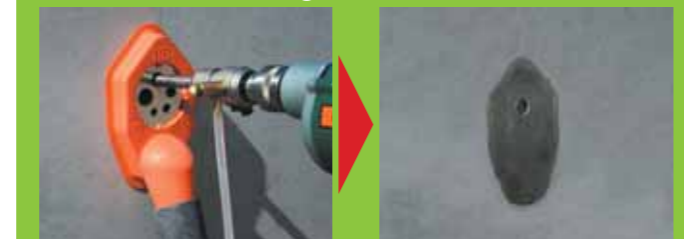
Water control valve

Feature 5 Reduced wetting (Automatic lock mechanism)

By automatic lock mechanism, water is fed to the cutting teeth only while drilling. Wetting in workplace is reduced.



Dust Collecting Pad leaves no mess!

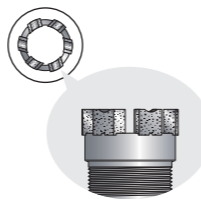


Using Dust Collecting Pad

After using Dust Collecting Pad
(Only the area under the pad is exposed to the water.)

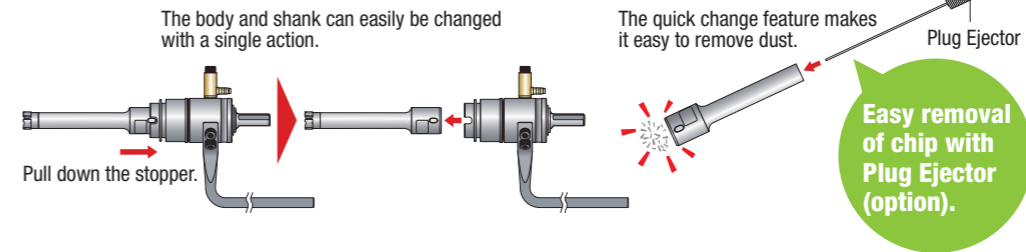
Feature 4 Limited circumferential wear

Proper diameter is kept until the cutter reaches the durable period.



Feature 7 Easy body replacement with Quick Change system

The body can be detached with a single action.



Pull down the stopper.

The body and shank can easily be changed with a single action.

The quick change feature makes it easy to remove dust.

Easy removal of chip with Plug Ejector (option).

Feature 8 Cost saving

Individually replaceable cutter that delivers cost saving.



Option



Water Bottle Swivel Set [PBSSH]
*Water bottle is not included.

For hanging plastic bottle onto your belt.
Hands-Free Belt Clip [PBHBC]



Spare Hose [PBT1200]
Length: 1,200mm

Hands-Free Kit [PBHKIT]
*Replacement parts for PBSSH.

Spare Valve [DMNV]



Positioning Plate [PP]

For Positioning Mistdia Drill Bit.
Positioning Guide [PG]

When the diamond segment is clogged or burned, drill a few times into the dressing plate.
Diamond Dressing Plate [DDP]
L75mm x W150mm x H40mm

For removing dust and water (Please use with Wet Vacuum Cleaner.)
Also can be used as positioning guide.



Dust Collecting Pad 38 [SJP038]

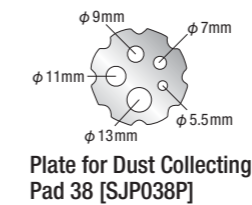


Plate for Dust Collecting Pad 38 [SJP038P]

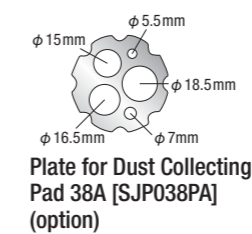


Plate for Dust Collecting Pad 38A [SJP038PA] (option)

To remove slug in the body.



Plug Ejector [DMPE1]

For supplying water to Mistdia Drill Bit.
Simple Water Supply Kit [DME]



Mistdia Drill Bit (Quick-Change Type)



Mistdia Drill Bit (Quick-Change Type)

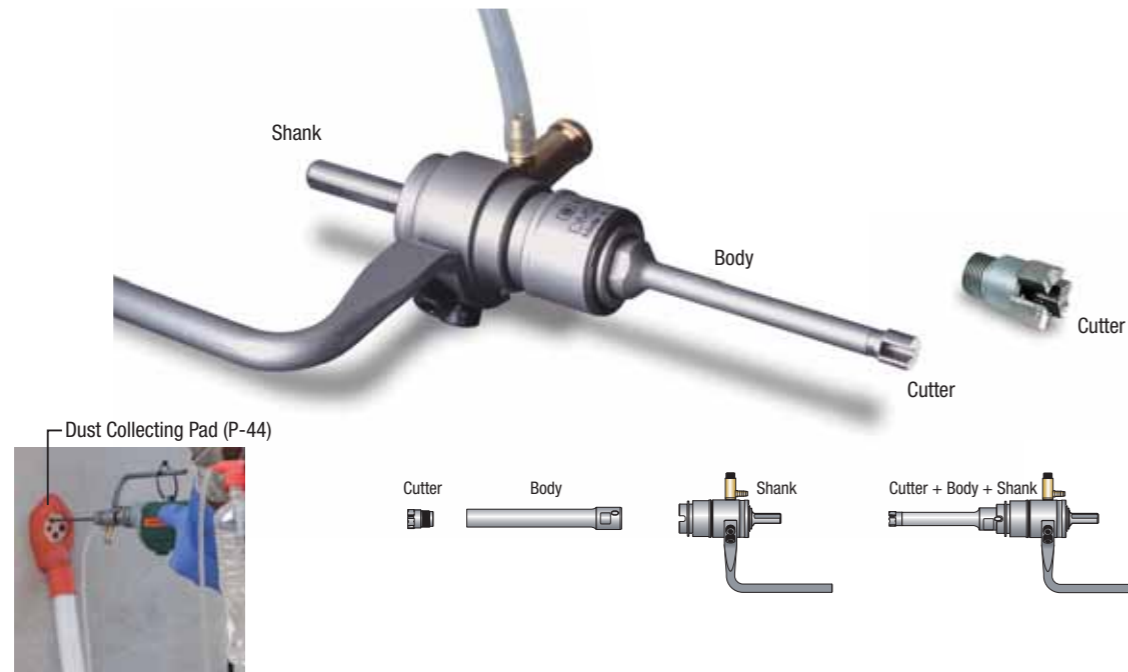
Best for

- Concrete
- PC concrete
- Porcelain tile
- Ceramic tile
- Stone
- Roof tile
- Artificial marble
- Tile

Also can be used in

- Mortar
- Brick

Best for low vibration and low noise construction.



Features

- Speedy drilling into concrete, porcelain tile, ceramic tile, granite, and marble with low noise and vibration.
- Best for drilling holes in small diameters with low vibration and low noise.
- Quickly drills into difficult-to-cut materials such as ceramic tile and stone.
- Supplied water cools the diamond-tipped teeth, removes dust, and increases drilling efficiency.
- The cutter can be individually replaced when the cutting teeth is worn out.

For use in

- Concrete, Stone, Ceramic tile, and Porcelain tile
- *For earthquake-resistant reinforcement work, water-proofing work, and drilling pilot holes for installation of anchor bolts

For use with

- Recommended rotation speed: 1500 to 15000min⁻¹ (ensure to use with double insulated drilling machine in rotary mode only)
- Earthquake-resistant reinforcement work

Positioning Plate



Example of use

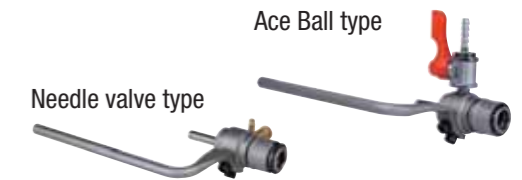


Size table

Cutter dia. mm	Cutter Part No.	Body			
		Max. drilling depth 50mm Part No.	Max. drilling depth 100mm Part No.	Max. drilling depth 130mm Part No.	Max. drilling depth 200mm Part No.
4.0	DM040C	DMA04050B			
5.0	DM050C	DMA05050B	DMA050100B		
5.5	DM055C				
6.0	DM060C				
6.5	DM065C	DMA06050B	DMA060100B		
7.0	DM070C				
8.0	DM080C	DMA08050B	DMA080100B		
8.5	DM085C				
9.0	DM090C	DMA08550B	DMA085100B		
10.0	DM100C	DMA10050B	DMA100100B		
10.5	DM105C	DMA10550B	DMA105100B		
12.0	DM120C	DMA12050B	DMA120100B		
12.5	DM125C	DMA12550B	DMA125100B		
14.5	DM145C	DMA14550B	DMA145100B		
16.0	DM160C		DMA160100B		
16.5	DM165C		DMA165100B		
18.0	DM180C		DMA180100B		
19.0	DM190C			DMA190130B	
20.0	DM200C			DMA200130B	
22.0	DM220C				DMA220200B
23.0	DM230C				DMA230200B
24.0	DM240C				DMA240200B

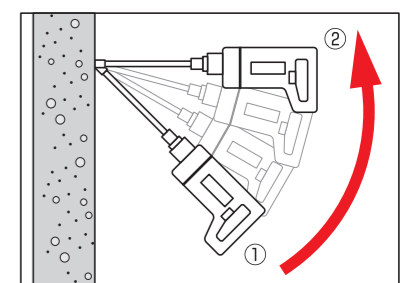
Shank Assembly

Item	Part No.	For use with	Note
No.1	DMSK1A	φ4.0 – 12.5mm Shank size 6.5mm	Needle valve type
No.2	DMSK2A	φ14.5 – 24.0mm Shank size 10mm	
No.1 Ace Ball	DMSK1ABH	φ4.0 – 12.5mm Shank size 6.5mm	Ace Ball type
No.2 Ace Ball	DMSK2ABH	φ14.5 – 24.0mm Shank size 10mm	



Recommended Rotation Speed / Wattage

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ4.0 – 10.5	15000 – 3000	250W and above
φ12.0 – 24.0	7000 – 1500	500W and above



Positioning

- ① Put the cutter to the work material in an oblique direction and start drilling.
- ② Slowly move the drilling position to vertical.

Poly-Clc Series

S-LOCK Series

Delapan Bit Series

Drill Bit Series

ANZEK Series

Diamond Series

META-DRILL Series

Holesaw Series

Core Bit Series

Disk Series

Reference

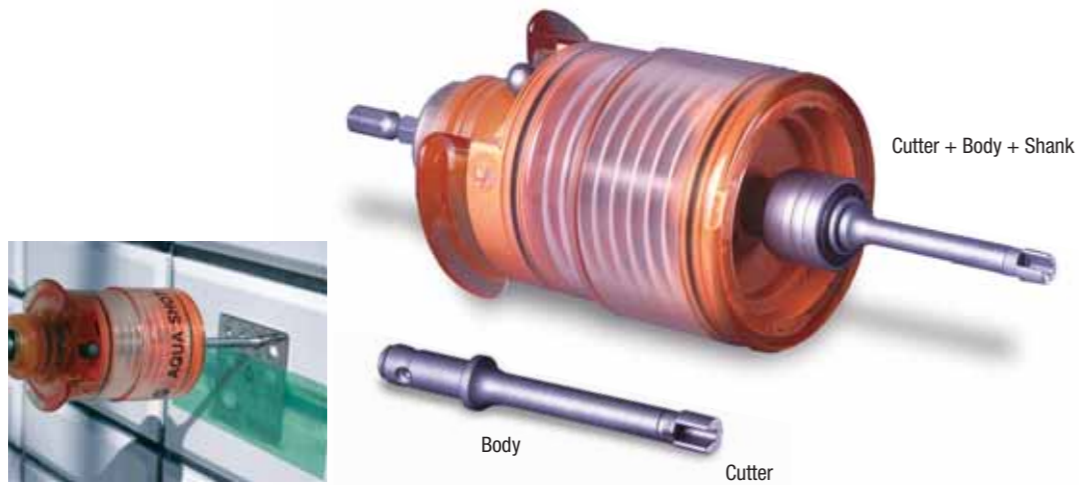
Best for

- Ceramic tile
- Porcelain tile
- Stone
- Tile

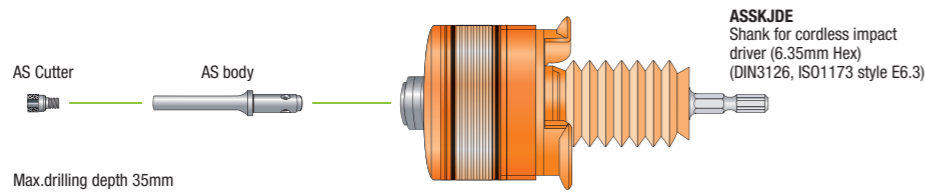
Also can be used in

- Marble
- Artificial marble
- Clay pipe
- Brick

Easy drilling into difficult-to-cut materials such as ceramic tile.



Cutter dia. ϕ 4-10.5



Features

- Smoothly drilling into porcelain tile, ceramic tile, granite, and marble with cordless impact drivers.
- Built-in water tank self feeds water.
- One shank fits all replaceable cutters.

Built-in water supply tank !

Simple workability without water tank, hose and stopper



feed water to built-in tank

For use in

- Ceramic tile and Stone

For use with

- Recommended rotation speed: 1000 to 3000min⁻¹
(NOTE: Maintain between 1000-3000min⁻¹ while drilling to ensure water is released.)
(NOTE: Make sure to use with double insulated drilling machine in rotary mode.)
- Cordless impact drivers (1/4" Hexagonal shank (6.35mm))
(DIN 3126, ISO1173 Style E6.3)
*AQUASHOT can be used with impact driver drill.
(NOTE: The cutter can be damaged if it is constantly subjected to impact. Use the drill with the optimum thrust.)

How to use



① Expand water tank by pulling the handle portion towards drill.



② Fill with clean water.
NOTE
Use only our standard water bottle.(ASWB)



③ Flip the release lever switch towards the arrow to activate the water tank.



④ Start drilling.
NOTE
Maintain between 1000 -3000 min⁻¹ while drilling to ensure water is released.

Size table

*AS set contains shank, body, cutter, and water bottle (ASWB).

Cutter dia.	AS set Part No.	AS cutter Part No.	AS body Part No. Max. drilling depth 35mm
4.0	AS040STE	AS040C	AS040B
5.0	AS050STE	AS050C	AS050B
5.5	AS055STE	AS055C	AS050B
6.0	AS060STE	AS060C	AS060B
6.5	AS065STE	AS065C	AS060B
7.0	AS070STE	AS070C	AS060B
8.0	AS080STE	AS080C	AS080B
8.5	AS085STE	AS085C	AS085B
9.0	AS090STE	AS090C	AS100B
10.0	AS100STE	AS100C	AS100B
10.5	AS105STE	AS105C	AS105B

Shank

Item	Part No.	Remark
AS impact shank w/tank (6.35mm Hex)	ASSKJDE	DIN3126, ISO1173 style E6.3



Replacement parts

Item	Part No.	Remark
AS impact shank w/o tank	ASSKJDPE	DIN3126, ISO1173 style E6.3
AS water tank	ASWT	



impact shank w/o tank (ASSKJDPE)



water tank (ASWT)

Option

Positioning Plate [PP]



Dust Collecting Pad 38 [SJP038]

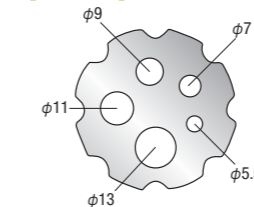


Plate for Dust Collecting Pad 38 [SJP038P]
For removing dust and water (Please use with Wet Vacuum Cleaner) Also can be used as positioning guide.

Positioning Guide [PG]



Plate for Dust Collecting Pad 38 [SJP038P]



Water Bottle [ASWB]



Plug Ejector [DMPE1]
To remove slug in the body.



Diamond Dressing Plate [DDP]

When the diamond segment is clogged or burned, drill a few time into the dressing plate.



L75mm x W150mm x H40mm

COOLDIA (Diamond Bit)



Cordless impact driver
Electric drill in rotary mode (2000-3000min⁻¹)

COOLDIA (Diamond Bit)

Best for	▼
Ceramic tile	
Stone plate	
Tile	

Easy drilling into ceramic tile with use of Cool Gel for waterless operation.

Also can be used in	▼
Extruded cement	
Artificial marble	



Size table

Bit dia. mm	Part No.	Max. drilling depth (mm)
5.0	DG050	15
6.0	DG060	
6.5	DG065	
7.0	DG070	
8.0	DG080	
10.0	DG100	
12.0	DG120	
13.5	DG135	
15.0	DG150	
20.0	DG200	
25.0	DG250	
30.0	DG300	
32.0	DG320	
35.0	DG350	
38.0	DG380	

Cool Gel

Item	Part No.	Volume
Cool Gel	GEL50	50ml
	GEL100	100ml



NOTE Please apply Cool Gel to 1/4 of cutting edge.

Features

- Use with Cool Gel for waterless operation.
- Efficient removal of dust due to side slot.
- Cordless impact drivers (6.35mm Hexagonal shank) is usable.

For use in

- Ceramic tile, Extruded cement, Artificial marble, etc.

For use with

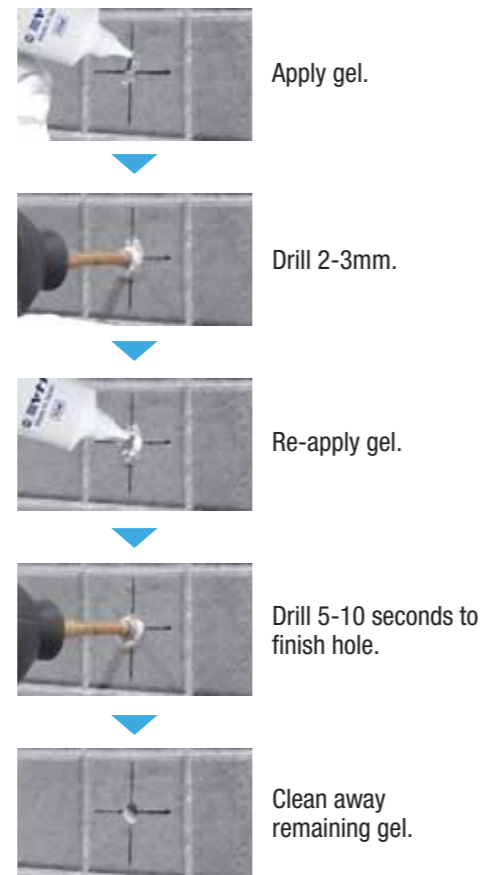
- Portable electric drills in rotary mode
- Cordless impact drivers (6.35mm Hexagonal shank)

⚠ Precautions for use

Please use Cool Gel (option).
Water is also usable.



How to use (with Cool Gel)



Option

Positioning Plate [PP]



Positioning Guide [PG]



Plug Ejector [DMPE1]

To remove slug in the body.



Center pin [DGCP]



Use with bits dia. 20mm and above

Bit and center pin



Remove the center pin after drill 2-3mm depth into work material.

Option

Item	Part No.
Positioning Plate	PP
Positioning Guide	PG
Plug Ejector	DMPE1
Center pin for above 20.0mm	DGCP

Poly-Dic Series

S-LOCK Series

Delapan Bit Series

Drill Bit Series

ANEX Series

Diamond Series

METAL-BORER Series

Holesaw Series

Core Bit Series

Disk Series

Reference

Combination of the Mistdia cutters, bodies, and shanks

Wet type For concrete, porcelain tile, ceramic tile and stone

Mistdia Drill Bit (Quick-Change Type)

Cutters(Part No.)	Bodies(Part No.)
DM040C	DMA04050B
DM050C	DMA050100B
DM055C	DMA05050B
DM060C	DMA060100B
DM065C	DMA06050B
DM070C	DMA06050B
DM080C	DMA080100B
DM085C	DMA085100B
DM090C	DMA08550B
DM100C	DMA100100B
DM105C	DMA10050B
DM105C	DMA105100B
DM105C	DMA10550B
DM120C	DMA120100B
DM120C	DMA12050B
DM125C	DMA125100B
DM125C	DMA12550B
DM145C	DMA145100B
DM145C	DMA14550B
DM160C	DMA160100B
DM165C	DMA165100B
DM180C	DMA180100B
DM190C	DMA190130B
DM200C	DMA200130B
DM220C	DMA220200B
DM230C	DMA230200B
DM240C	DMA240200B

Shank No.1
Shank size 6.5mm

Shank No.2
Shank size 10.0mm

Mistdia Drill Shank Assembly (Quick-Change type) No.1 DMSK1A

Mistdia Drill Shank Assembly (Quick-Change type) No.2 DMSK2A

Outer diameter of valve's nozzle : 5mm

Water Bottle Swivel Set (Hands-Free Type) PBSSH

Simple Water Supply kit DME

Nipple NIP16 Option

Inner diameter of hose 15mm

From a water supply

Max. drilling depth 50 or 100mm

Horseshoe type

Max. drilling depth 100mm

Max. drilling depth 130mm

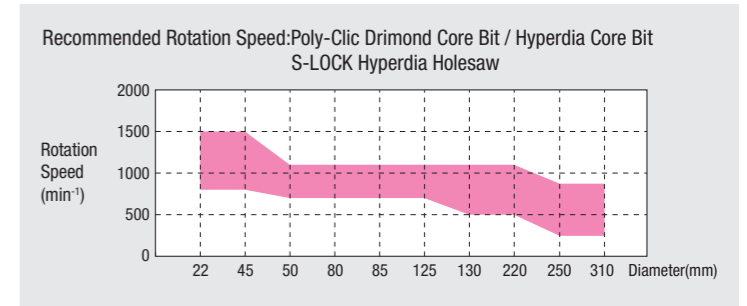
Max. drilling depth 200mm

*Water bottle(Plastic bottle) is not included.

Recommended Rotation Speed / Wattage

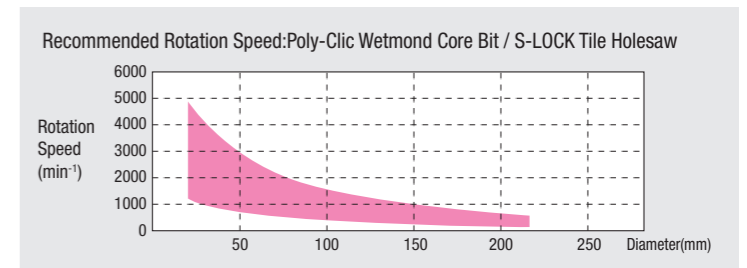
Poly-Clic Drimond Core Bit / Hyperdia Core Bit S-LOCK Hyperdia Holesaw

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ22 – 45	1500 – 800	450W and above
φ50 – 80	1100 – 700	550W and above
φ85 – 125	1100 – 700	650W and above
φ130 – 220	1100 – 500	750W and above
φ250 – 310	850 – 250	1100W and above



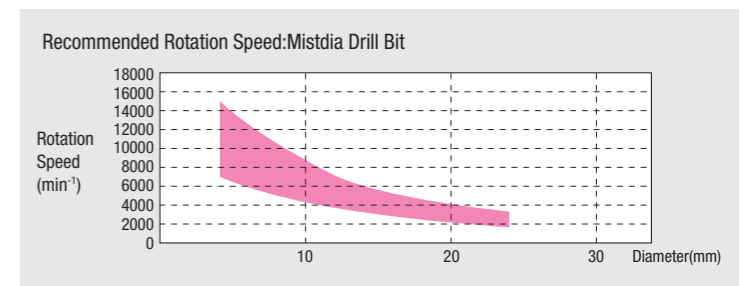
Poly-Clic Wetmond Core Bit / S-LOCK Tile Holesaw

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ22 – 40	4900 – 800	500W and above
φ45 – 65	2700 – 700	500W and above
φ70 – 120	1800 – 700	700W and above
φ130 – 220	1100 – 500	700W and above



Mistdia Drill Bit

Cutter diameter (mm)	Rotation speed (min ⁻¹)	Power consumption (W)
φ4.0 – 10.5	15000 – 3000	250W and above
φ12.0 – 24.0	7000 – 1500	500W and above

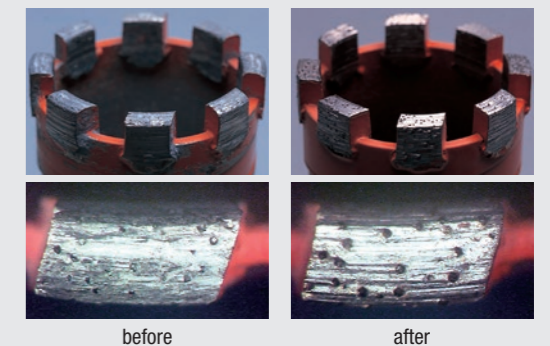


Dressing


Dressing with block or dressing plate when drilling slow down.

Diamond dressing plate

Item	Part No.	Size (W×L×H)
Diamond dressing plate	DDP	150×75×40mm



100 METAL-BORER 350/500



Dia. **14-80mm**

Drilling a large-diameter hole of 50mm in a 50mm thick steel plate (MB500).

102 METAL-BORER 350A/500A



Dia. **14-65mm**

Realize high-speed and high-precision drilling with a minimal force.

104 METAL-BORER M500



Dia. **35-150mm**

Drill into sheet metal up to 50mm in thickness with a large diameter.

106 METAL-BORER 750/750A



Dia. **22.5-26.5mm**

Realize high-speed and high-precision drilling with a minimal force (Max drilling depth 75mm).

● **Dual-spring center pin (MT-2/MT-3)**

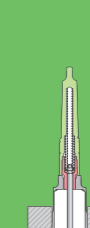
The center pin has eliminated the necessity for drilling a pilot hole to ensure accurate hole starting. The inner spring acts to push out the cut core and thus achieves smooth ejection.



● **During positioning**
The center pin undergoes the compression forces of the inner and outer springs.



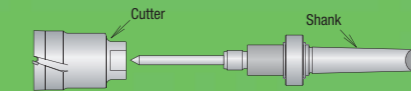
● **During cutting**
The center pin is separated from the outer spring and so undergoes the compression force of the inner spring only.



● **After completion of cutting**
After the work materials has been drilled through, the cut core is pushed out by the restoring force of the compressed inner spring.

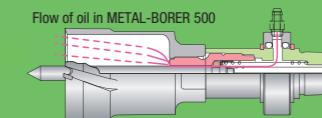
● **Cutter can be separated from shank**

Since the METAL-BORER is so designed that the cutter can be separated from the shank, cutters of different sizes can be fitted into the same shank.



● **Cutting oil is fed from inside**

Adopting the internal oiling system in which cutting oil is fed from inside the cutter, the METAL-BORER offers high efficiency of oiling and even longer life of the cutting bits.



● **Energy-saving and efficient cutting**

While every conventional twist drill cuts the whole area of a drilling spot, the METAL-BORER only cuts the perimeter of a drilling spot in the form of a ring. Therefore, it requires low horsepower and thrust, thus achieving energy-saving cutting. Besides, in order to prevent the efficiency of cutting from lowering due to the jamming with dust, the Deltagon METAL-BORER uses three-part split bits and other METAL-BORERS use two-part split bits, which achieves smooth removal of dust and efficient cutting.



METAL-BORER cuts in the form of a ring

METAL-BORER series

METAL BORERS are products that enable drilling large-diameter metal materials with less energy consumption and faster working speed.

In addition to steel plates, stainless steel and cast iron as well as curved holes such as steel pipes can be drilled.

It is a high-performance drilling universal tool made of metal material that can drill holes up to 150mm in diameter in materials up to 50mm thick.

7

METAL-BORER 350/500



- Best for**
- Sheet metal
 - Stainless steel plate
 - Aluminium

Drilling a large-diameter hole of 50mm in a 50mm thick steel plate (MB500).



Features

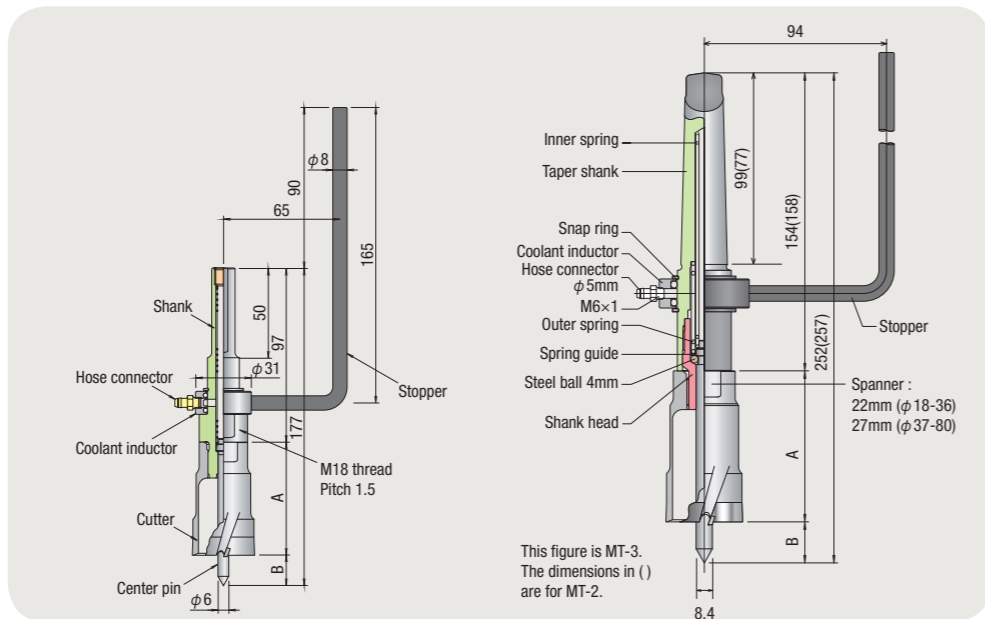
- High-speed and high-precision drilling is possible with a minimal force.

For use in

- For drilling in Steel, Shape steel, Stainless steel plate, and Cast iron up to 35mm (MB350) or 50mm (MB500) in thickness
- Best for drilling work in shipbuilding, bridge building, framework building, and steel structure building

For use with

- Magnetic drill presses, Upright drilling machines, Radial drilling machines, Lathes, and Milling machines



Size	A	B
MB350 φ14 – 25	67mm	13mm
MB350 φ25.5 – 36	63mm	17mm

Size	A	B
MB500 φ18 – 25	82mm	17mm
MB500 φ25.5 and above	78mm	21mm

Size table METAL-BORER 350

(Max. drilling depth: 35mm)

Cutter dia. mm	Part No.
14	MB35014
14.5	MB350145
15	MB35015
16	MB35016
17	MB35017
17.5	MB350175
18	MB35018
19	MB35019
20	MB35020
21	MB35021
21.5	MB350215
22	MB35022
22.5	MB350225
23	MB35023
23.5	MB350235
24	MB35024
24.5	MB350245
25	MB35025
25.5	MB350255
26	MB35026
26.5	MB350265
27	MB35027
28	MB35028
29	MB35029
30	MB35030
31	MB35031
32	MB35032
33	MB35033
35	MB35035
36	MB35036

Size table METAL-BORER 500

(Max. drilling depth: 50mm)

Cutter dia. mm	Part No.
18	MB50018
19	MB50019
20	MB50020
21	MB50021
21.5	MB500215
22	MB50022
22.5	MB500225
23	MB50023
23.5	MB500235
24	MB50024
24.5	MB500245
25	MB50025
25.5	MB500255
26	MB50026
26.5	MB500265
27	MB50027
27.5	MB500275
28	MB50028
29	MB50029
30	MB50030
31	MB50031
32	MB50032
33	MB50033
34	MB50034
35	MB50035
36	MB50036
37	MB50037
38	MB50038
39	MB50039
40	MB50040
41	MB50041
42	MB50042
43	MB50043

Cutter dia. mm	Part No.
44	MB50044
45	MB50045
46	MB50046
47	MB50047
48	MB50048
49	MB50049
50	MB50050
51	MB50051
52	MB50052
53	MB50053
54	MB50054
55	MB50055
56	MB50056
57	MB50057
58	MB50058
59	MB50059
60	MB50060
61	MB50061
62	MB50062
63	MB50063
64	MB50064
65	MB50065
66	MB50066
67	MB50067
68	MB50068
70	MB50070
71	MB50071
72	MB50072
75	MB50075
77	MB50077
78	MB50078
80	MB50080

MB350 Shank Assembly

Item	Part No.	For use with
Straight 13	MBSK13	φ14 – 25mm
Straight 16	MBSK16	φ14 – 36mm

*φ17mm or above cutters can be attached to MB500 Shank Assembly.
*Oiler is not included.

MB500 Shank Assembly

Item	Part No.	For use with
MT-2	MBSK2	φ18 – 35mm
MT-3	MBSK3	φ18 – 80mm

*Oiler is included.

Oiler

Item	Part No.
Oiler	MBO



METAL-BORER 350A/500A



Magnetic drill presses



Magnetic drill presses for smaller sizes

METAL-BORER 350A/500A

- Best for**
- Sheet metal
 - Stainless steel plate
 - Aluminium

Realize high-speed and high-precision drilling with a minimal force.



Features

- Nitto Quick-change type.
- Circumferential cutting, in which cutting area is very small, permits boring large holes with low-powered machines.
- No need of pilot holes for positioning by using center pin. An inner spring provides easy removal of chips.

For use in

- For drilling in Steel, Shape steel, Stainless steel plate, and Cast iron up to 35mm (MB350A) or 50mm (MB500A) in thickness
- Best for drilling work in shipbuilding, bridge building, framework building, and steel structure building

For use with

- Magnetic drill presses, Upright drilling machines, Radial drilling machines, Lathes, and Milling machines

Size table METAL-BORER 350A (Max. drilling depth: 35mm)

Cutter dia. mm	Part No.
14	MB350A14
14.5	MB350A145
15	MB350A15
16	MB350A16
17	MB350A17
17.5	MB350A175
18	MB350A18
19	MB350A19
20	MB350A20
21	MB350A21
21.5	MB350A215
22	MB350A22
22.5	MB350A225
23	MB350A23
23.5	MB350A235
24	MB350A24
24.5	MB350A245
25	MB350A25
25.5	MB350A255
26	MB350A26
26.5	MB350A265
27	MB350A27
28	MB350A28
29	MB350A29
30	MB350A30
31	MB350A31
32	MB350A32
33	MB350A33
34	MB350A34
35	MB350A35
36	MB350A36
37	MB350A37
38	MB350A38
39	MB350A39
40	MB350A40

Size table METAL-BORER 500A (Max. drilling depth: 50mm)

Cutter dia. mm	Part No.
18	MB500A18
19	MB500A19
20	MB500A20
21	MB500A21
21.5	MB500A215
22	MB500A22
22.5	MB500A225
23	MB500A23
23.5	MB500A235
24	MB500A24
24.5	MB500A245
25	MB500A25
25.5	MB500A255
26	MB500A26
26.5	MB500A265
27	MB500A27
28	MB500A28
29	MB500A29
30	MB500A30
31	MB500A31
32	MB500A32
33	MB500A33
34	MB500A34
35	MB500A35
36	MB500A36
37	MB500A37
38	MB500A38
39	MB500A39
40	MB500A40
41	MB500A41
42	MB500A42
43	MB500A43
44	MB500A44
45	MB500A45
46	MB500A46
47	MB500A47
48	MB500A48
49	MB500A49
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51	MB500A51
52	MB500A52
53	MB500A53
54	MB500A54
55	MB500A55
56	MB500A56
57	MB500A57
58	MB500A58
59	MB500A59
60	MB500A60
61	MB500A61
62	MB500A62
63	MB500A63
64	MB500A64
65	MB500A65

Shank Assembly

Item	Part No.	For use with
MT-2A	MBSK2A	φ14 – 35mm
MT-3A	MBSK3A	φ17.5 – 65mm

*Optional center pin (MB35ACP1) is needed to use cutters of φ14mm to 17mm
 *Shank assembly is common to 350A and 500A
 *Oilier and vinyl chloride hose are included

Carbide Tipped Center Pin

Part No.	dia.(mm)	OVL(mm)	For use with
MB35ACP1	7.1	91	MB350A φ14 – 17mm
MB35ACP2	8.0	93	MB350A φ17.5 – 40mm
MB50ACP	8.0	115	MB500A φ18 – 65mm



METAL-BORER M500



- Best for**
- Sheet metal
 - Stainless steel plate
 - Aluminium

Drill into sheet metal up to 50mm in thickness with a large diameter.



Features

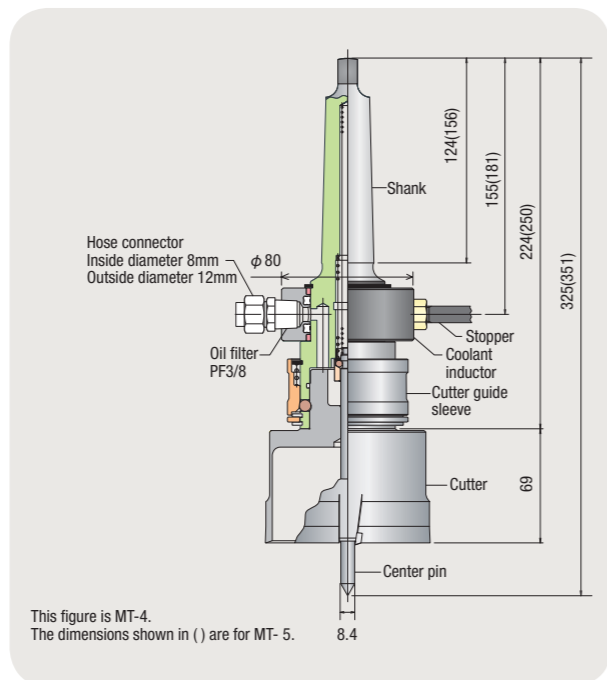
- Drill into sheet metal up to 50mm in thickness with a large diameter up to 150mm by using machine over 5 horsepower.
- The thick cutter body and thick carbide tips for heavy duty machine with large feed rate.

For use in

- Steel, Copper, Aluminium, Stainless steel plate, and Cast iron up to 50mm in thickness

For use with

- Various heavy-cutting machine tools such as Radial drilling machines, Milling machines, Horizontal boring machines, and Machining center



Size table METAL-BORER M500 (Max. drilling depth: 50mm)

Cutter dia. mm	Part No.	Shank Assembly
35	MBM35	(Morse taper) MT-4 MT-5
36	MBM36	
37*	MBM37	
38	MBM38	
39*	MBM39	
40	MBM40	
41*	MBM41	
42	MBM42	
43	MBM43	
44	MBM44	
45	MBM45	
46*	MBM46	
47*	MBM47	
48	MBM48	
49	MBM49	
50	MBM50	
51	MBM51	
52	MBM52	
53	MBM53	
54	MBM54	
55	MBM55	
56	MBM56	
57*	MBM57	
58	MBM58	
59*	MBM59	
60	MBM60	
61	MBM61	
62	MBM62	
63*	MBM63	
64*	MBM64	
65	MBM65	
66	MBM66	
67*	MBM67	
68	MBM68	
69*	MBM69	
70	MBM70	
71*	MBM71	
72*	MBM72	
73*	MBM73	
74*	MBM74	
75	MBM75	

Cutter dia. mm	Part No.	Shank Assembly
76*	MBM76	(Morse taper) MT-5
77	MBM77	
78	MBM78	
79*	MBM79	
80	MBM80	
81*	MBM81	
82	MBM82	
83*	MBM83	
84*	MBM84	
85	MBM85	
86*	MBM86	
87*	MBM87	
88*	MBM88	
89*	MBM89	
90	MBM90	
91*	MBM91	
92*	MBM92	
93*	MBM93	
94*	MBM94	
95	MBM95	
96*	MBM96	
97*	MBM97	
98*	MBM98	
99*	MBM99	
100	MBM100	
105	MBM105	
110	MBM110	
115	MBM115	
120	MBM120	
125	MBM125	
130	MBM130	
140	MBM140	
150	MBM150	

*Made to order products



Shank Assembly

Item	Part No.	For use with
MT-4	MBMSK4	φ35 – 75mm
MT-5	MBMSK5	φ35 – 150mm



Poly-Clc Series
S-LOCK Series
Delapan Bit Series
Drill Bit Series
ANZEK Series
Diamond Series
METAL-BORER Series
Holesaw Series
Core Bit Series
Disk Series
Reference

METAL-BORER 750/750A



Best for
Sheet metal
Stainless steel plate

Realize high-speed and high-precision drilling with a minimal force (Max. drilling depth: 75mm).



Features

- High-speed and high-precision drilling is possible with a minimal force.

For use in

- For drilling in Steel, Shape steel, Stainless steel plate, and Cast iron up to 75mm in thickness
- Best for drilling work in shipbuilding, bridge building, framework building, and steel structure building

For use with

- Magnetic drill presses, Upright drilling machines, Radial drilling machines, Lathes, and Milling machines

Size table METAL-BORER 750

(Max. drilling depth: 75mm)

Cutter dia. mm	Part No.
23.5	MB75235
24	MB75240
24.5	MB75245
26	MB75260
26.5	MB75265

MB750 Center Pin Adaptor

Item	Part No.
MB750 Center Pin Adaptor	MB75CPAD

* For use with METAL-BORER Shank MT-2 and MT-3.

Size table METAL-BORER 750A (Nitto Quick-change type)

(Max. drilling depth: 75mm)

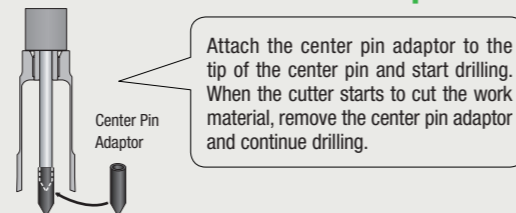
Cutter dia. mm	Part No.
22.5	MB75A225
23.5	MB75A235
24	MB75A240
24.5	MB75A245
25	MB75A250
26	MB75A260
26.5	MB75A265

MB750A Center Pin Adaptor

Item	Part No.
MB750A Center Pin Adaptor	MB75ACPAD

* For use with METAL-BORER Center Pin (MB50ACP)

How to use Center Pin Adaptor



Attach the center pin adaptor to the tip of the center pin and start drilling. When the cutter starts to cut the work material, remove the center pin adaptor and continue drilling.

*Drilling into stainless steel is not suitable for magnetic drilling machine.

Guidelines on the required work conditions of METAL-BORER and Holesaw

Recommended rotation speed

Please note that the rotation speeds provided in this chart are only guidelines. Ensure to select the most appropriate speed according to your electric drill and work material.

<Formula for determining the recommended rotation speed>

$$\text{Rotation speed (mm}^{-1}\text{)} = \frac{1000 \times \text{Peripheral speed (m/min)}}{\pi(3.14) \times \text{Cutter diameter (mm)}}$$

Peripheral speed (m/min)	Cutter diameter (mm)																						
	16	17	18	19	20	25	30	35	40	45	50	55	60	65	70	80	90	100	110	120	130	140	150
90	1790	1685	1591	1507	1432	1145	954	818	716	636	572	520	477	440	409	358	318	286	260	238	220	204	190
85	1691	1591	1503	1424	1352	1082	901	773	676	601	541	491	450	416	386	338	300	270	245	225	208	193	180
80	1591	1497	1414	1340	1273	1018	848	727	636	565	509	462	424	391	363	318	282	254	231	212	195	181	169
75	1492	1404	1326	1256	1193	954	795	682	596	530	477	434	397	367	341	298	265	238	217	198	183	170	159
70	1392	1310	1237	1172	1114	891	742	636	557	495	445	405	371	342	318	278	247	222	202	185	171	159	148
65	1293	1217	1149	1088	1034	827	689	691	517	459	413	376	344	318	295	258	229	206	188	172	159	147	137
60	1193	1123	1061	1005	954	763	636	545	477	424	381	347	318	293	272	238	212	190	173	159	146	136	127
55	1094	1029	972	921	875	700	583	500	437	389	350	318	291	269	250	218	194	175	159	145	134	125	116
50	994	936	884	837	795	636	530	454	397	353	318	289	265	244	227	198	176	159	144	132	122	113	106
45	895	842	795	753	716	572	477	409	358	318	285	260	238	220	204	179	159	143	130	119	110	102	95
40	795	748	707	670	636	509	424	363	318	282	254	231	212	195	181	159	141	127	115	106	97	90	84
35	696	655	618	586	557	445	371	318	278	247	222	202	185	171	159	139	123	111	101	92	85	79	74
30	596	561	530	502	477	381	318	272	238	212	190	173	159	146	136	119	106	95	86	79	73	68	63
25	497	468	442	418	397	318	265	227	198	176	159	144	132	122	113	99	88	79	72	66	61	56	53
20	397	374	353	335	318	254	212	181	159	141	127	115	106	97	90	79	70	63	57	53	48	45	42
15	296	280	265	251	238	190	159	136	119	106	95	86	79	73	68	59	53	47	43	39	36	34	31
10	198	187	176	167	159	127	106	90	79	70	63	57	53	48	45	39	35	31	28	26	24	22	21

[TCT] When carbide tipped cutter is used
[BI] When Bi-Metal Holesaw is used

<How to use the recommended rotation speed chart>

(Example)Cutter: Carbide tipped cutter

Cutter diameter: 50mm

Work material: Ordinary steel

1. Identify "50" along the x-axis (cutter blade diameter).

2. Move vertically up the y-axis from that point and then identify the figures provided for the range of "[TCT] Ordinary steel".

3. The range is between 254 and 381. Ensure to set the speed of your electric drill to within this range.

Recommended feed rate

(mm/revolution)

METAL-BORER	Ordinary steel	Stainless steel	Cast iron
350/500/750	0.01 – 0.05	0.01 – 0.05	0.01 – 0.05
350A/500A/750A	0.01 – 0.05	0.01 – 0.05	0.01 – 0.05
M500	0.08 – 0.12	0.08 – 0.12	0.10 – 0.20

110 Holesaw 278
→



Dia. **14-120**mm

Excellent cutting ability for use in steel plate, stainless steel plate, and synthetic resin plate.


112 Holesaw 278P (for pipe)
→



Dia. **16-120**mm

Long body length suitable for drilling pipe and curved surface.

114 DL Core Bit
→



Dia. **20-65**mm

Efficient drilling with cordless impact driver and electric drill.

116 Bi-Metal Holesaw for Cordless impact driver
→



Dia. **12-38**mm

Best for drilling with cordless impact drivers and portable electric drills.

117 Bi-Metal Stopperless Holesaw for Cordless impact driver
→



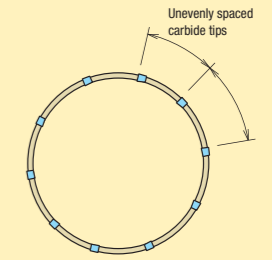
Dia. **12-38**mm

Best for penetrating work such as metal stud framing.

Holesaw 278•Holesaw 278P

●Carbide-tipped cutting teeth

The carbide tips having an excellent cutting ability and wear resistance realize surprisingly high-speed hole cutting performance. In addition, remarkable heat resistance of the carbide tip makes the dry drilling possible. Furthermore, unevenly spaced carbide tips prevent chattering caused by resonance action during cutting, firmly grab the work materials, and cut a hole efficiently.



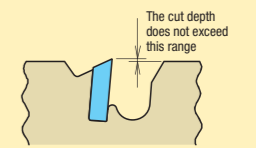
●Cutting large diameter hole with minimum power

Unlike the twist drill, which cuts the whole surface area of a hole, the cylindrical body of the holesaw 278, which cuts only the circumference of the hole, can cut a large diameter hole with minimum power, and the finished hole is close to a perfect roundness with smooth appearance as shown in the photo.



●Optimal setting of cut depth for safety in hole cutting work

The ultimate geometry of the cutting teeth developed for preventing stalling and/or recoil even in case of excessive cutter binding. This safety design always allows smooth cutting with constant cutting depth for a wide range of work materials.



Holesaw series

8

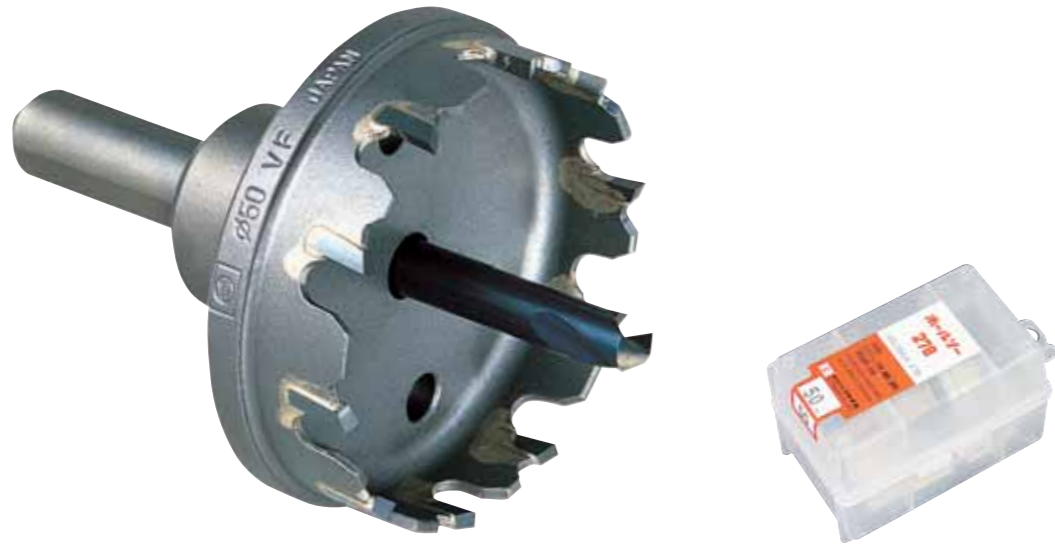
Holesaw 278



Best for
Sheet metal
Stainless steel plate

Excellent cutting ability for use in steel plate, stainless steel plate, and synthetic resin plate.

Also can be used in
Aluminium
Spiral duct
Catch basin
FRP
Synthetic resin



Features

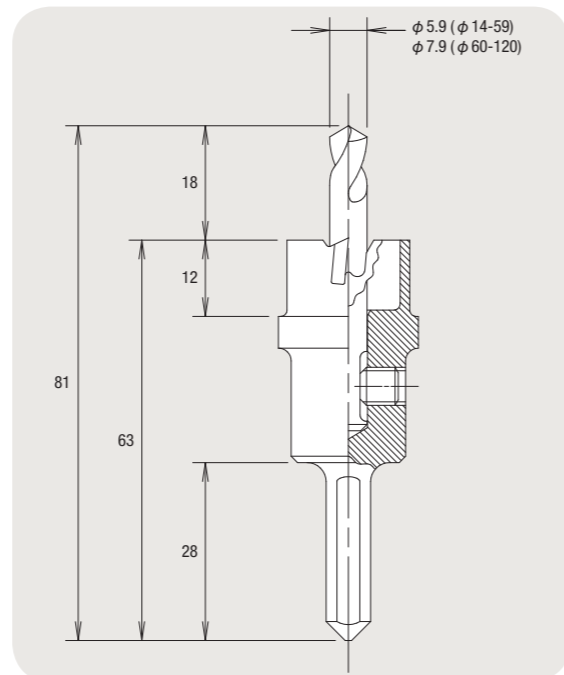
- Excellent cutting performance that achieves drilling into steel plate, stainless steel plate, and synthetic resin plate.
- Randomly arranged carbide tips prevent chattering caused by resonance.
- Usable with high revolution drills. Drills faster than High Speed Steel (HSS) cutters.
- Safety stopper prevents the cutter from moving forward after penetration.
- Easily drills into work materials up to 4mm in thickness.

For use in

- With "C" type center drill (cobalt)
Drilling into steel plate, Stainless steel plate, Copper plate, Aluminium plate up to 4mm in thickness
- With "T" type center drill (tungsten carbide tipped)
Drilling into FRP and resin plate up to 4mm in thickness

For use with

- Portable electric drills in rotary mode only

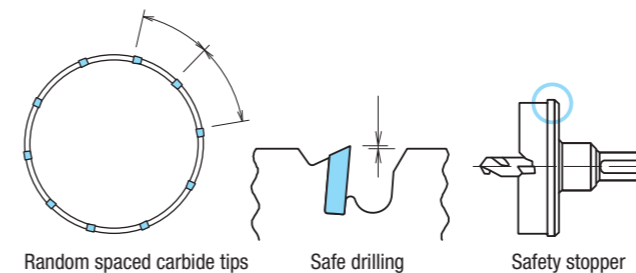


Size table

(The actual sizes are in metric, and imperial sizes are approximate.)

Cutter dia. mm	inch	Part No.	Number of tips (pcs)	Center drill	Shank dia.(mm)			
14	35/64"	278014	3		6.5			
14.5	9/16"	2780145						
15	19/32"	278015						
16	5/8"	278016						
17	21/32"	278017	4		6.5			
18	45/64"	278018						
19	3/4"	278019						
20	25/32"	278020						
21	13/16"	278021						
22	7/8"	278022						
23	29/32"	278023	6	C-6 <Standard>	10			
24	15/16"	278024						
25	1"	278025						
26	1-1/64"	278026						
27	1-1/16"	278027						
28	1-3/32"	278028						
29	1-1/8"	278029						
30	1-3/16"	278030						
31	1-7/32"	278031	8	T-6 <Option>	10			
32	1-1/4"	278032						
33	1-9/32"	278033						
34	1-5/16"	278034						
35	1-3/8"	278035	10		10			
36	1-13/32"	278036						
37	1-7/16"	278037						
38	1-1/2"	278038						
39	1-17/32"	278039						
40	1-9/16"	278040						
41	1-39/64"	278041						
42	1-5/8"	278042						
43	1-11/16"	278043						
44	1-23/32"	278044						
45	1-3/4"	278045	16		13			
46	1-51/64"	278046						
47	1-13/16"	278047						
48	1-7/8"	278048						
49	1-59/64"	278049						
50	2"	278050						
51	2-1/64"	278051						
52	2-3/64"	278052						
53	2-1/16"	278053						
54	2-7/64"	278054						
55	2-1/8"	278055				12	C-6 <Standard>	10
56	2-11/64"	278056						
57	2-15/64"	278057						
58	2-1/4"	278058						
59	2-21/64"	278059						
60	2-3/8"	278060						
61	2-25/64"	278061						
62	2-7/16"	278062						
63	2-15/32"	278063						
64	2-33/64"	278064						
65	2-9/16"	278065						
66	2-19/32"	278066						
67	2-5/8"	278067						
68	2-43/64"	278068						
69	2-23/32"	278069						
70	2-3/4"	278070	14	C-8 <Standard>	13			
71	2-51/64"	278071						
72	2-53/64"	278072						
73	2-7/8"	278073						
74	2-29/32"	278074						
75	2-7/8"	278075						
76	3"	278076						
77	3-1/32"	278077						
78	3-1/16"	278078	16	T-8 <Option>	13			
79	3-7/64"	278079						
80	3-1/8"	278080						
81	3-3/16"	278081						
82	3-15/64"	278082						
83	3-17/64"	278083						
84	3-5/16"	278084						
85	3-3/8"	278085						
89	3-15/32"	278089						
90	3-1/2"	278090				18		13
91	3-37/64"	278091						
92	3-5/8"	278092						
95	3-3/4"	278095						
100	3-7/8"	278100	20		13			
102	4-1/64"	278102						
105	4-1/8"	278105						
110	4-1/4"	278110						
115	4-1/2"	278115						
120	4-3/4"	278120						

Cutter dia. mm	inch	Part No.	Number of tips (pcs)	Center drill	Shank dia.(mm)
55	2-1/8"	278055	12	C-6 <Standard>	10
56	2-11/64"	278056			
57	2-15/64"	278057			
58	2-1/4"	278058			
59	2-21/64"	278059			
60	2-3/8"	278060			
61	2-25/64"	278061			
62	2-7/16"	278062			
63	2-15/32"	278063			
64	2-33/64"	278064			
65	2-9/16"	278065			
66	2-19/32"	278066			
67	2-5/8"	278067			
68	2-43/64"	278068			
69	2-23/32"	278069			
70	2-3/4"	278070	14	C-8 <Standard>	13
71	2-51/64"	278071			
72	2-53/64"	278072			
73	2-7/8"	278073			
74	2-29/32"	278074			
75	2-7/8"	278075			
76	3"	278076			
77	3-1/32"	278077			
78	3-1/16"	278078	16	T-8 <Option>	13
79	3-7/64"	278079			
80	3-1/8"	278080			
81	3-3/16"	278081			
82	3-15/64"	278082			
83	3-17/64"	278083			
84	3-5/16"	278084			
85	3-3/8"	278085			
89	3-15/32"	278089			
90	3-1/2"	278090			
91	3-37/64"	278091			
92	3-5/8"	278092			
95	3-3/4"	278095			
100	3-7/8"	278100	20		13
102	4-1/64"	278102			
105	4-1/8"	278105			
110	4-1/4"	278110			
115	4-1/2"	278115			
120	4-3/4"	278120			



Center drill

Item	Part No.	For use with	Specification
C-6 (HSS Center drill)	278CDC6	φ14mm – 59mm	φ5.9×48
C-8 (HSS Center drill)	278CDC8	φ60mm – 120mm	φ7.9×48
T-6 (Carbide tipped Center drill)	278CDT6	φ14mm – 59mm	φ5.9×48
T-8 (Carbide tipped Center drill)	278CDT8	φ60mm – 120mm	φ7.9×48

Holesaw 278P (for pipe)



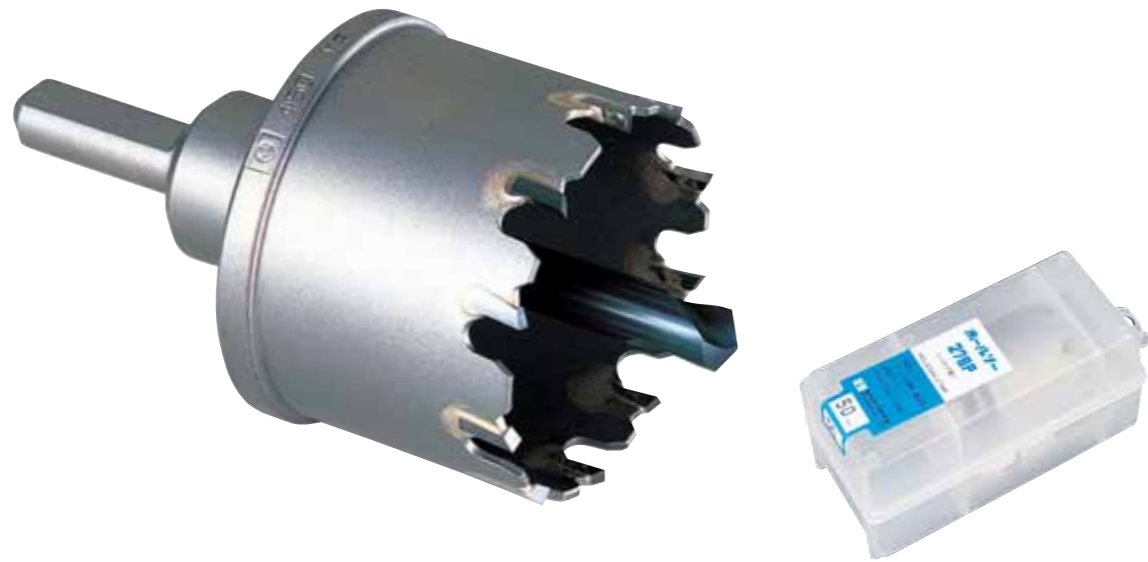
Best for

- Sheet metal
- Stainless steel plate

Long body length suitable for drilling pipe and curved surface.

Also can be used in

- Aluminium
- Spiral duct
- Catch basin
- FRP
- Synthetic resin



Features

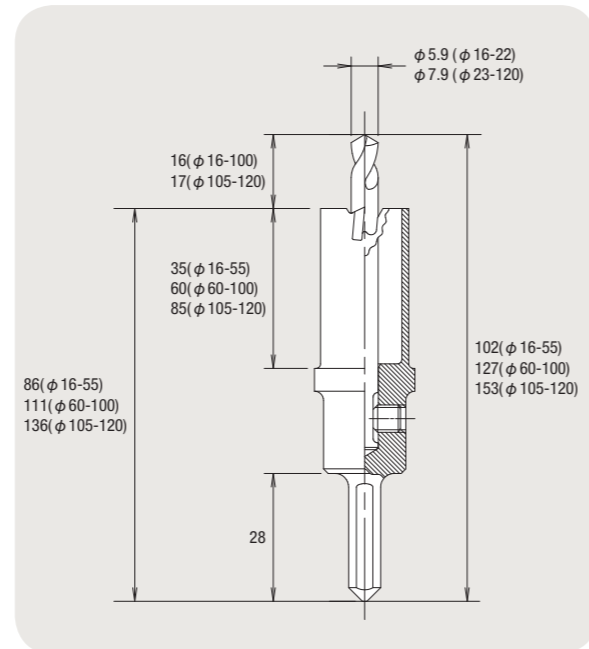
- Longer body allows drilling into curved surface such as metal pipe.

For use in

- Stainless steel pipe, Steel pipe and Copper pipe

For use with

- Portable electric drills in rotary mode only



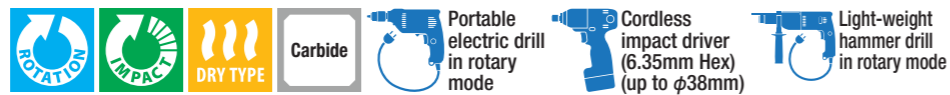
Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Holesaw 278P (for pipe)

Cutter dia. mm	Cutter dia. inch	Part No.	Overall length (mm)	Cutter length (mm)	Number of tips (pcs)	Center drill	Shank dia. (mm)	
16	5/8"	278P016	86	35	3	PC6-69 <278PCD669>	6.5	
17	21/32"	278P017						
18	45/64"	278P018						
19	3/4"	278P019						
20	25/32"	278P020			6	8	PC8-69 <278PCD869>	10
21	13/16"	278P021						
22	7/8"	278P022						
23	29/32"	278P023						
24	15/16"	278P024						
25	1"	278P025						
26	1-1/64"	278P026						
27	1-1/16"	278P027						
28	1-3/32"	278P028			10	10	PC8-94 <278PCD894>	13
29	1-1/8"	278P029						
30	1-3/16"	278P030						
31	1-7/32"	278P031						
32	1-1/4"	278P032						
33	1-9/32"	278P033						
34	1-5/16"	278P034						
35	1-3/8"	278P035						
36	1-13/32"	278P036						
37	1-7/16"	278P037						
38	1-1/2"	278P038	111	60	PC8-94 <278PCD894>	13		
39	1-17/32"	278P039						
40	1-9/16"	278P040						
41	1-39/64"	278P041						
42	1-5/8"	278P042						
43	1-11/16"	278P043						
44	1-23/32"	278P044						
45	1-3/4"	278P045						
46	1-51/64"	278P046						
47	1-13/16"	278P047						
48	1-7/8"	278P048						
49	1-59/64"	278P049					12	14
50	2"	278P050						
51	2-1/64"	278P051						
52	2-3/64"	278P052						
53	2-1/16"	278P053						
54	2-7/64"	278P054						
55	2-1/8"	278P055						
60	2-3/8"	278P060	136	85	PC8-120 <278PCD8120>	13		
61	2-25/64"	278P061						
62	2-7/16"	278P062						
65	2-9/16"	278P065						
70	2-3/4"	278P070						
75	2-7/8"	278P075						
77	3-1/32"	278P077						
80	3-1/8"	278P080						
85	3-3/8"	278P085						
90	3-1/2"	278P090						
95	3-3/4"	278P095	18	20	PC8-120 <278PCD8120>	13		
100	3-7/8"	278P100						
105	4-1/8"	278P105						
110	4-1/4"	278P110						
115	4-1/2"	278P115						
120	4-3/4"	278P120						

Center drill (HSS Center drill)

Item	Part No.	For use with	Specification
PC6-69	278PCD669	$\phi 16\text{mm} - 22\text{mm}$	$\phi 5.9 \times 69$
PC8-69	278PCD869	$\phi 23\text{mm} - 55\text{mm}$	$\phi 7.9 \times 69$
PC8-94	278PCD894	$\phi 60\text{mm} - 100\text{mm}$	$\phi 7.9 \times 94$
PC8-120	278PCD8120	$\phi 105\text{mm} - 120\text{mm}$	$\phi 7.9 \times 120$



Best for

Wood
Veneer
Plywood

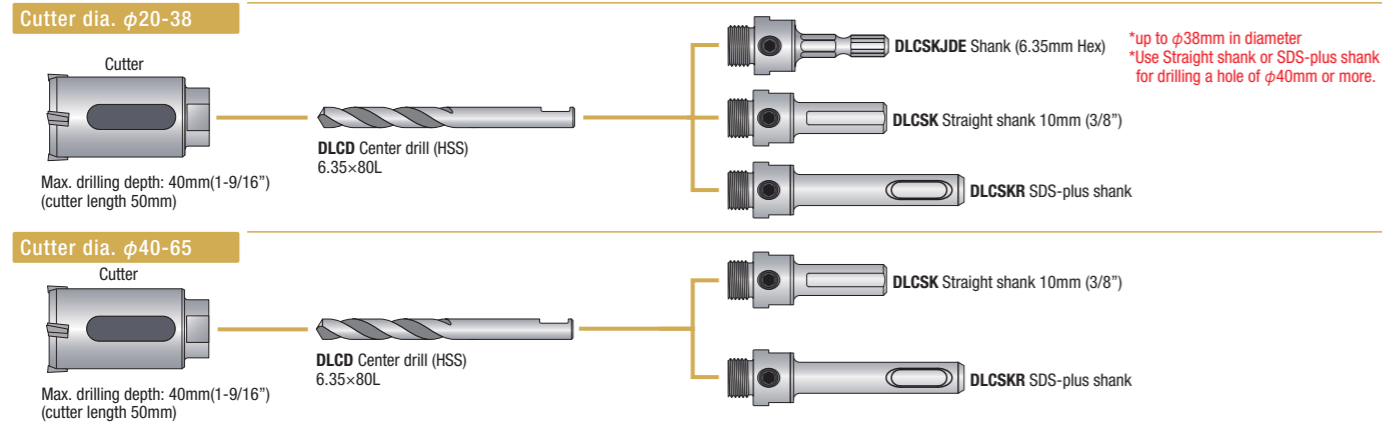
Efficient drilling with cordless impact driver and electric drill.

Also can be used in

Artificial marble
Sheet metal*
Galvanized steel sheet*
Plastic
PVC pipe
FRP
Resin material
Catch basin
Plaster board



*Up to 1.6mm in thickness with rotary mode only
(Not drill in impact mode)



Features

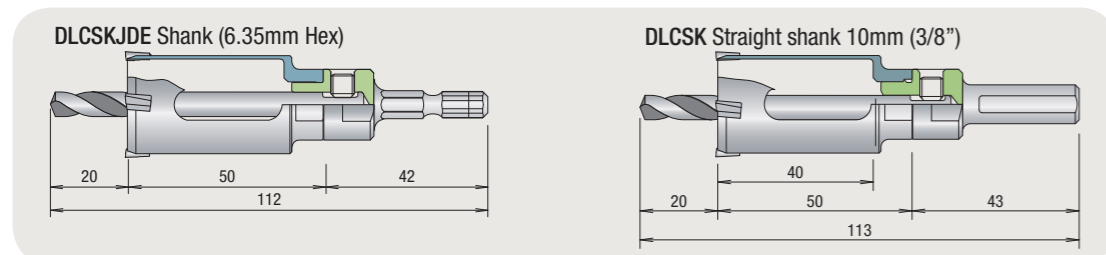
- Easily drills holes into wood and resin with cordless impact drivers (Up to φ38mm).
*Use Straight shank or SDS-plus shank for drilling a hole of φ40mm or more.
- Unique 2-step teeth improve the initial drilling efficiency.
- Cutter without chip pocket allows stuck-free drilling.
- Easy chip removal from a side slot in the cutter body.
*Use a cordless driver drill for drilling into a metal plate. Do not use with a cordless impact drill.

For use in

- Wood, Plywood, Resin material, PVC pipe, and FRP

For use with

- Portable electric drills in rotary mode only
- Cordless impact drivers (6.35mm Hex) (DIN3126, ISO1173 Style E6.3) up to φ38mm
- Light-weight hammer drills in rotary mode only



Size table

(The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 40mm (1-9/16")

Cutter dia.		Set	Cutter
mm	inch		
20	25/32"	DLC20JDE	DLC20C
21	13/16"	DLC21JDE	DLC21C
22	7/8"	DLC22JDE	DLC22C
25	1"	DLC25JDE	DLC25C
27	1-1/16"	DLC27JDE	DLC27C
28	1-3/32"	DLC28JDE	DLC28C
30	1-3/16"	DLC30JDE	DLC30C
32	1-1/4"	DLC32JDE	DLC32C
33	1-9/32"	DLC33JDE	DLC33C
35	1-3/8"	DLC35JDE	DLC35C
38	1-1/2"	DLC38JDE	DLC38C

Size table

(The actual sizes are in metric, and imperial sizes are approximate.)

Max. drilling depth : 40mm (1-9/16")

Cutter dia.		Cutter
mm	inch	
40	1-9/16"	DLC40C
42	1-5/8"	DLC42C
45	1-3/4"	DLC45C
48	1-7/8"	DLC48C
50	2"	DLC50C
60	2-3/8"	DLC60C
65	2-9/16"	DLC65C

*Use φ40mm and above cutters with DLCSK or DLCSKR (not use with DLCSKJDE)

Shank

Item	Part No.	Remark
Shank (6.35mm Hex)	DLCSKJDE	DIN3126, ISO1173 Style E6.3 *Up to φ38mm
Straight shank	DLCSK	10mm
SDS-plus shank	DLCSKR	Portable electric drill

Center drill

Item	Part No.	Specification
Center drill	DLCD	6.35×80L



Easy slug removal with side slot.

Bi-Metal Holesaw for Cordless impact



Best for

- Sheet metal (up to 1.6mm in thickness)
- Stainless steel plate (up to 0.6mm in thickness)

Also can be used in

- PVC
- Plastic



Best for drilling with cordless impact drivers and portable electric drills.

Size table (Cutter length: 10mm)
(The actual sizes are in metric, and imperial sizes are approximate.)

Cutter dia.		Part No.
mm	inch	
12	15/32"	BITJD12
13	1/2"	BITJD13
14	35/64"	BITJD14
15	19/32"	BITJD15
16	5/8"	BITJD16
17	21/32"	BITJD17
18	45/64"	BITJD18
19	3/4"	BITJD19
20	25/32"	BITJD20
21	13/16"	BITJD21
22	7/8"	BITJD22
23	29/32"	BITJD23
24	15/16"	BITJD24
25	1"	BITJD25
26	1-1/64"	BITJD26
27	1-1/16"	BITJD27
28	1-3/32"	BITJD28
29	1-1/8"	BITJD29
30	1-3/16"	BITJD30
31	1-7/32"	BITJD31
32	1-1/4"	BITJD32
33	1-9/32"	BITJD33
34	1-5/16"	BITJD34
35	1-3/8"	BITJD35
36	1-13/32"	BITJD36
37	1-7/16"	BITJD37
38	1-1/2"	BITJD38

Features

- Excellent sharpness with ultra-thin bi-metal blade (blade thickness 0.6mm).
- Reduced cutting force and ideal for drilling with cordless impact drivers and portable electric drills.

For use in

- Steel plate (up to 1.6mm in thickness), stainless steel plate (up to 0.6mm in thickness)
- PVC, plastic

For use with

- Portable electric drills in rotary mode only
- Cordless impact drivers / Cordless drills

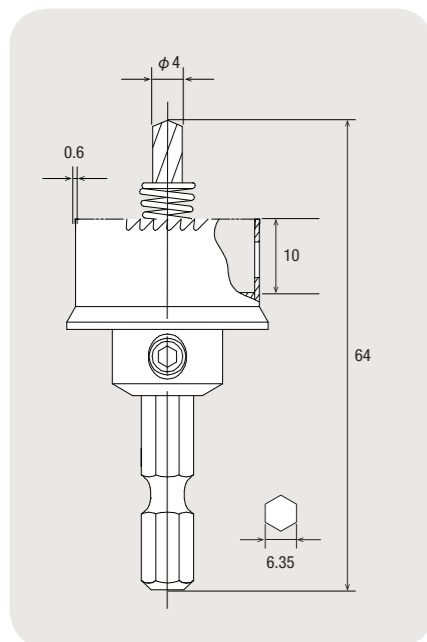
⚠ Precautions for use

Use a cordless drill when drilling in stainless steel.
Do not use a cordless impact driver.

Replacement parts



Item	Part No.
Center drill	BITCD
Spring	BITSP



Bi-Metal Stopperless Holesaw for Cordless impact



Best for

- Sheet metal (up to 3.2mm in thickness)
- Metal stud

Also can be used in

- Aluminium
- PVC



Best for penetrating work such as metal stud framing.

Size table (Cutter length: 40mm)
(The actual sizes are in metric, and imperial sizes are approximate.)

Cutter dia.		Part No.
mm	inch	
12	15/32"	BINSJD12
13	1/2"	BINSJD13
14	35/64"	BINSJD14
15	19/32"	BINSJD15
16	5/8"	BINSJD16
17	21/32"	BINSJD17
18	45/64"	BINSJD18
19	3/4"	BINSJD19
20	25/32"	BINSJD20
21	13/16"	BINSJD21
22	7/8"	BINSJD22
23	29/32"	BINSJD23
24	15/16"	BINSJD24
25	1"	BINSJD25
26	1-1/64"	BINSJD26
27	1-1/16"	BINSJD27
28	1-3/32"	BINSJD28
29	1-1/8"	BINSJD29
30	1-3/16"	BINSJD30
31	1-7/32"	BINSJD31
32	1-1/4"	BINSJD32
33	1-9/32"	BINSJD33
34	1-5/16"	BINSJD34
35	1-3/8"	BINSJD35
36	1-13/32"	BINSJD36
37	1-7/16"	BINSJD37
38	1-1/2"	BINSJD38

Features

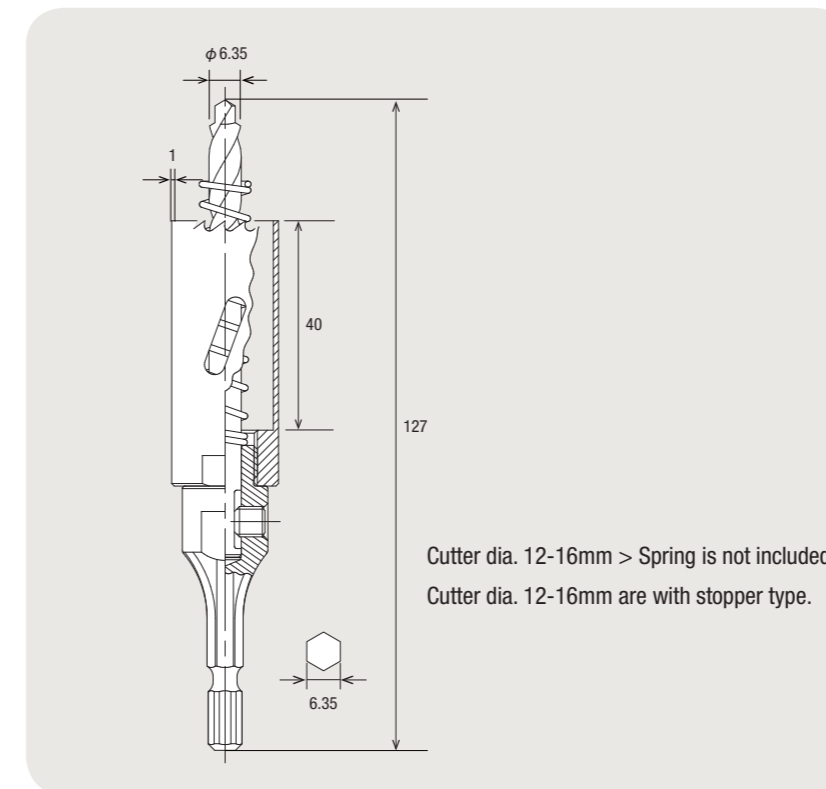
- Smooth cutting with 1mm blade thickness.
- Eliminates the stopper and allows smooth penetration (cutter diameter 17mm and above).
- Improved operability by using a stepped center drill.

For use in

- Penetrating work such as metal stud framing

For use with

- Portable electric drills in rotary mode only
- Cordless impact drivers / Cordless drills



Cutter dia. 12-16mm > Spring is not included.
Cutter dia. 12-16mm are with stopper type.

Replacement parts



Item	Part No.
Stepped center drill	BINSCD
Spring (for ϕ 17mm and above)	BINSSP

120 Rotary Hammer Core Bit 600W



Dia. **25-100**mm

The light-weight hammer drill bit can easily drill a large-diameter hole.

121 Rotary Hammer Core Bit



Dia. **25-150**mm

Easily drill a hole in reinforced concrete with heavy-weight hammer drill.

Core Bit series

Product series for efficient drilling in concrete walls.
Fast drilling of large-diameter holes by shaping the cutter into a cylinder.

9

Rotary Hammer Core Bit 600W



Best for
Concrete w/o rebar

Also can be used in
Mortar
Brick
Block
PC concrete
Asphalt

The light-weight hammer drill bit can easily drill a large-diameter hole.



Features

- Thanks to SDS-plus shank, it can be used with various light-weight hammer drills.
- Drills large-diameter holes with light-weight rotary hammer drills.
- Efficiently transmit the power of light-weight rotary hammer drill to the cutting teeth, which achieves fast drilling of large-diameter holes.
- The center pin ensures accurate positioning.
- Randomly arranged carbide tips provide effective drilling.

For use in

- Non-reinforced concrete, Mortar and Brick

For use with

- 600W type rotary hammer with SDS-plus

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Cutter dia.		SDS-plus Set	Cutter	Guide plate	Max. drilling depth (mm)	Shank (SDS-plus)	Center Pin
mm	inch						
25	1"	600W25	600W25C	600WGP25	70 (Cutter length 105mm)	No.601×105 <600WSK1105> No.601×200 <600WSK1200> No.601×300 <600WSK1300>	No.600 <600WCP0> No.601 <600WCP1>
29	1-1/8"	600W29	600W29C	600WGP29			
32	1-1/4"	600W32	600W32C	600WGP32			
35	1-3/8"	600W35	600W35C	600WGP35			
38	1-1/2"	600W38	600W38C	600WGP38			
45	1-3/4"	600W45	600W45C	600WGP45			
50	2"	600W50	600W50C	600WGP50			
55	2-1/8"	600W55	600W55C	600WGP55			
60	2-3/8"	600W60	600W60C	600WGP60			
65	2-9/16"	600W65	600W65C	600WGP65			
70	2-3/4"	600W70	600W70C	600WGP70	No.602×105 <600WSK2105> No.602×200 <600WSK2200> No.602×300 <600WSK2300>	No.602 <600WCP2>	
75	2-7/8"	600W75	600W75C	600WGP75			
80	3-1/8"	600W80	600W80C	600WGP80			
90	3-1/2"	600W90	600W90C	600WGP90			
100	3-7/8"	600W100	600W100C	600WGP100			

Shank (SDS-plus)

Item	Overall length		Part No.	For use with
	mm	inch		
No. 601	105	4-1/8"	600WSK1105	φ25 – 38mm
	200	7-7/8"	600WSK1200	
	300	11-7/8"	600WSK1300	
No. 602	105	4-1/8"	600WSK2105	φ45 – 100mm
	200	7-7/8"	600WSK2200	
	300	11-7/8"	600WSK2300	

Max. drilling depth (guideline)

Shank	Overall length	Max. drilling depth
No. 601×105	190mm	130mm
No. 601×200	285mm	225mm
No. 601×300	385mm	325mm
No. 602×105	180mm	120mm
No. 602×200	275mm	215mm
No. 602×300	375mm	315mm

Center Pin

Item	Part No.	For use with
No. 600	600WCP0	φ25 and 29mm
No. 601	600WCP1	φ32 – 38mm
No. 602	600WCP2	φ45 – 100mm

Rotary Hammer Core Bit



Best for
Concrete
Reinforced concrete

Also can be used in
Mortar
Brick
Block
PC concrete
Asphalt

Easily drill a hole in reinforced concrete with heavy-weight hammer drill.



Features

- The center pin realizes accurate hole starting without bit walk.
- Easily drills into reinforced concrete with heavy duty rotary hammer drills.
- Efficiently transmit the high power of heavy duty rotary hammer drill to the cutting teeth, which achieves fast drilling in concrete.

For use in

- Reinforced concrete and Non-reinforced concrete

For use with

- Heavy duty rotary hammer with SDS-max

Size table (The actual sizes are in metric, and imperial sizes are approximate.)

Cutter dia.		Cutter	Guide plate	Max. drilling depth (mm)	Shank (SDS-max)	Center Pin
mm	inch					
25	1"	MH25C	MHGP25	100 (Cutter length 150mm)	No.1 <MHSK1MAX> No.2 <MHSK2MAX>	No.0 <MHCP0> No.1 <MHCP1> No.2 <MHCP2>
29	1-1/8"	MH29C	MHGP29			
32	1-1/4"	MH32C	MHGP32			
35	1-3/8"	MH35C	MHGP35			
38	1-1/2"	MH38C	MHGP38			
45	1-3/4"	MH45C	MHGP45			
50	2"	MH50C	MHGP50			
55	2-1/8"	MH55C	MHGP55			
60	2-3/8"	MH60C	MHGP60			
65	2-9/16"	MH65C	MHGP65			
70	2-3/4"	MH70C	MHGP70	No.2 <MHCP2>		
75	2-7/8"	MH75C	MHGP75			
80	3-1/8"	MH80C	MHGP80			
90	3-1/2"	MH90C	MHGP90			
100	3-7/8"	MH100C	MHGP100			
120	4-3/4"	MH120C	MHGP120			
150	5-7/8"	MH150C	MHGP150			

Shank (SDS-max)

Item	Overall length		Part No.	For use with
	mm	inch		
No. 1	300	11-7/8"	MHSK1MAX	φ25 – 35mm
No. 2	300	11-7/8"	MHSK2MAX	φ38 – 150mm

Center Pin

Item	Part No.	For use with
No. 0	MHCP0	φ25 and 29mm
No. 1	MHCP1	φ32 and 35mm
No. 2	MHCP2	φ38 – 150mm

124 Hyperdia Disk
→ (Curved surface type)



Dia. **100-125**mm

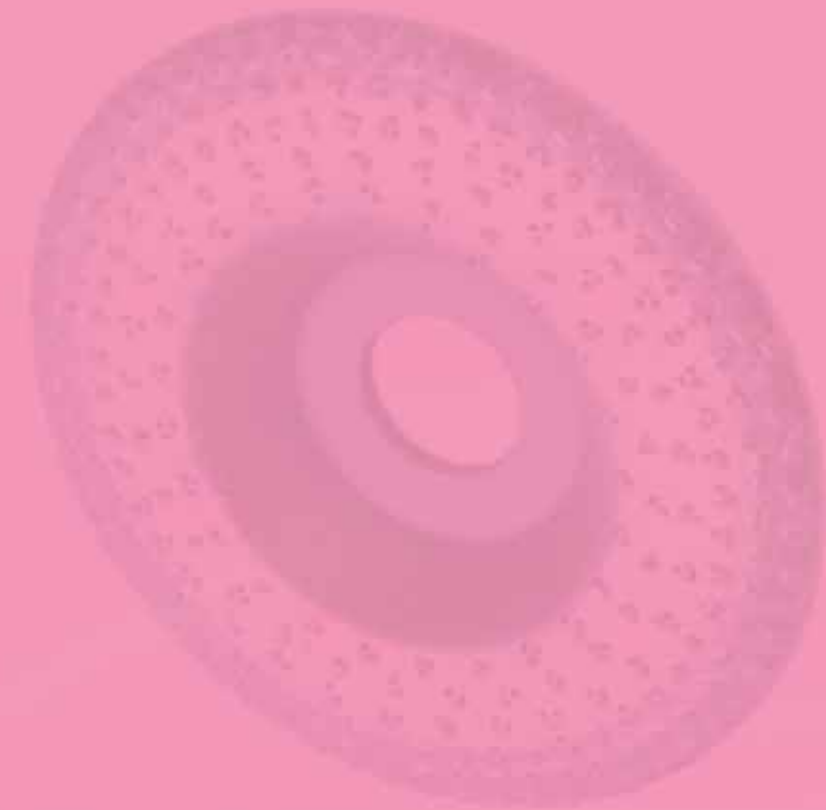
Hard to clog. Original curved shape increases cutting ability.

125 Hyperdia Disk
→ (Flat surface type)



Dia. **100**mm

Hard to clog. Ideal for a wide variety of works.



Disk series

The diamond disk has obtained high grinding power by special method for joining abrasive grains.

10

Hyperdia Disk (Curved surface type)



Best for

- Concrete
- Stone
- Mortar
- Block
- Brick
- Ceramic siding
- Hume pipe
- Clay pipe
- PVC pipe
- Extruded cement

Also can be used in

- ALC
- FRP
- Metal
- Artificial marble
- Wood
- Ceramic tile

Hard to clog. Original curved shape increases cutting ability.

Increased efficiency with less sparks and dust!



Features

- Hard to clog design.
- Diamond grains embedded on the whole surface provides safe work without bouncing.
- Larger diamond grains significantly increase durability and speed.
- Increased efficiency with less sparks and dust.
- Unique curved surface and the arrangement of diamond grains increase usability.
- Diamond grains embedded around the outer circumference allow cutting materials such as PVC pipe.

For use in

- Chamfering, surfacing, and grinding concrete, stone
- Eliminating difference in surface level
- Removing elastic film
- Removing mill scale on metal and weld bead

For use with

- Electric disk grinders

Size table

(The actual sizes are in metric, and imperial sizes are approximate.)

Hyperdia Disk (Curved surface type for Rough finish)

Outer diameter		Part No.	Mounting hole (inch)	Grain size
mm	inch			
100	3-7/8"	HPD100C030	15mm (19/32")	#30
125	4-15/16"	HPD125C030	22mm (7/8")	#30
100	3-7/8"	HPD100C030E	22.2mm (7/8")	#30
115	4-1/2"	HPD115C030E	22.2mm (7/8")	#30
125	4-15/16"	HPD125C030E	22.2mm (7/8")	#30

Option (for outer diameter 100mm)

Item	Part No.	Specification (inch)
*Spacer set 100	HPDSN100	100mm (3-7/8")
*Spacer 100	HPDS100	100mm (3-7/8")
*Nut	HPDN100	100mm (3-7/8")
Vibration-proof spacer	HPDBADP	100mm (3-7/8")

*Use these when the protection cover hits the disk and cutting has become impossible.



▲ For eliminating difference in level on concrete walls



▲ For wood, PVC, tile, etc.



▲ For removing mill scale



▲ Chamfering the inside edge of PVC pipe, etc.

⚠ Precautions for use

Do not push the Hyperdia Disk with an excessively strong force. Otherwise, it may result in damage or bend.

Hyperdia Disk (Flat surface type)



Best for

- Concrete
- Stone
- Mortar
- Block
- Brick
- Ceramic siding
- Hume pipe
- Clay pipe
- PVC pipe
- Extruded cement

Also can be used in

- ALC
- FRP
- Metal
- Artificial marble
- Wood
- Ceramic tile

Hard to clog. Ideal for a wide variety of works.



Features

- Hard to clog design.
- Diamond grains embedded on the whole surface provides safe work without bouncing.
- Larger diamond grains significantly increase durability and speed.
- Increased efficiency with less sparks and dust.
- Diamond grains embedded around the outer circumference allow cutting materials such as PVC pipe.

For use in

- Chamfering, surfacing, and grinding concrete, stone
- Eliminating difference in surface level
- Removing elastic film
- Removing mill scale on metal and weld bead
- Grooving tile joints

For use with

- Electric disk grinders



▲ For removing elastic film



▲ For grooving tile joints etc.

Size table

(The actual sizes are in metric, and imperial sizes are approximate.)

Hyperdia Disk (Flat surface type for Rough finish)

Outer diameter		Part No.	Mounting hole (inch)	Grain size
mm	inch			
100	3-7/8"	HPD100F030	22mm (7/8")	#30
100	3-7/8"	HPD100F030E	22.2mm (7/8")	#30

Option (for outer diameter 100mm)

Item	Part No.	Specification (inch)
*Spacer set 100	HPDSN100	100mm (3-7/8")
*Spacer 100	HPDS100	100mm (3-7/8")
*Nut	HPDN100	100mm (3-7/8")
Vibration-proof spacer	HPDBADP	100mm (3-7/8")

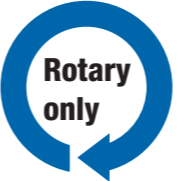
*Use these when the protection cover hits the disk and cutting has become impossible.

Criteria of Core Bit Breakage Claims

Condition	Remark	Cause
	Drimond Core Bit : Breakage of diamond tip	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Excess force in cross direction while drilling. Thrust in cross direction without rotating when pulling out core bit from a drilled hole. 
	Drimond Core Bit : Diamond tips come off	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Drilling with hammering mode, tips might be broken.  <p>Guarantee claim: accepted</p> <ul style="list-style-type: none"> Diamond tips come off by poor welding. 
	Drimond Core Bit : Body breakage	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Improper r.p.m might lead to body breakage. Insufficient thrust might lead to body breakage. 
	Drimond Core Bit : Early wear	<p>Guarantee claim: not accepted</p> <ol style="list-style-type: none"> Drilling into block causes early wearing. *For drilling into block, please use Drimond Core Bit for Block. Less thrust by using the low-powered electric drill causes early wearing of segment. 
	Drimond Core Bit : Early wear	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Drilling in wet condition leads to early wear. <p>The marks of wet drilling remain in the inner or outer side of cutter body.</p> 
	Drimond Core Bit : Burned cutter body	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Continuous drilling after diamond tip dulled. Excess circumferential speed or excess thrust. Excess thrust when drilling into reinforced bar.  <p>Dulled diamond tip</p>
	Drimond Core Bit : Deformed cutter body and dulled diamond tip	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Deformed the cutter body and dulled the diamond tips by drilling in hammering mode.   <p>Dulling in hammering mode Normal tip</p>


Products may be damaged by the following reasons.
 1. Lifetime reached.
 2. Use with the unsuitable machine.
 3. Drill to the unsuitable materials.

⚠️ Precaution for Poly-Clic Drimond Core Bit



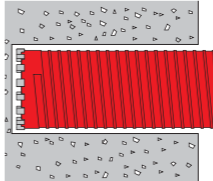
Rotary only

Use in Rotary mode only

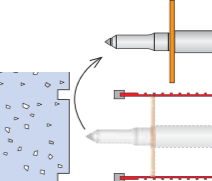


Water


Dry operation (do not use water)



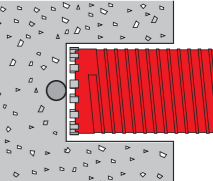
Drill straightly

















Detach center pin after centering



Dress when drilling speed slows down.



Reduce thrust against reinforced bar

Condition	Remark	Cause
	Poly-Clic ALC Core Bit : Breakage of carbide tips	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Excess thrust when drilling into reinforced bar. 
	Poly-Clic cutter : Droop of embossed part	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Lifetime reached when the embossed part is drooped or cracked. 
	Holesaw 278 : Breakage of carbide tip	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Excess thrust when the center drill penetrates or while drilling, causes tip breakage or body breakage.   <p>Tip breakage Cutter body breakage</p>
	Holesaw 278P : Breakage of cutter	<p>Guarantee claim: accepted</p> <ul style="list-style-type: none"> Poor brazing 
	METAL-BORER : Breakage of body	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Excess thrust or excess feed while drilling.
	METAL-BORER : Breakage of carbide tip	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Excess thrust or excess feed while drilling. 
	Poly-Clic Carbide STEPDRILL : Breakage of carbide tip	<p>Guarantee claim: not accepted</p> <ul style="list-style-type: none"> Excess thrust when center drill penetrates or while drilling causes tip breakage or body breakage. 

Poly-Clic Series

S-LOCK Series

Delapan Bit Series

Drill Bit Series

ANZEX Series

Diamond Series

METAL-BORER Series

Holesaw Series

Core Bit Series

Disk Series

Reference

Criteria of Concrete Drill Bit Breakage Claims

Drill bits may be damaged by the following reasons.




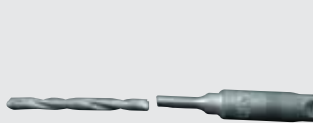


1. Lifetime reached.
2. Use with the unsuitable machine.
3. Drill to the unsuitable material.
4. Drilling over the maximum drilling depth.



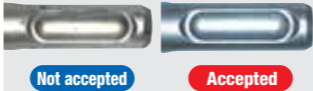
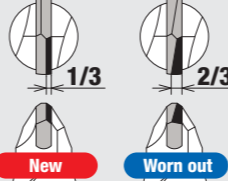






How to check the lifetime of drill bits.

1. Wear of carbide tip
2. Wear of the flute
3. Wear of the shank

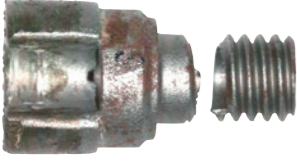







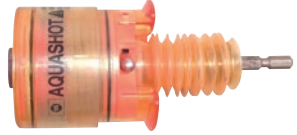

Criteria of lifetime

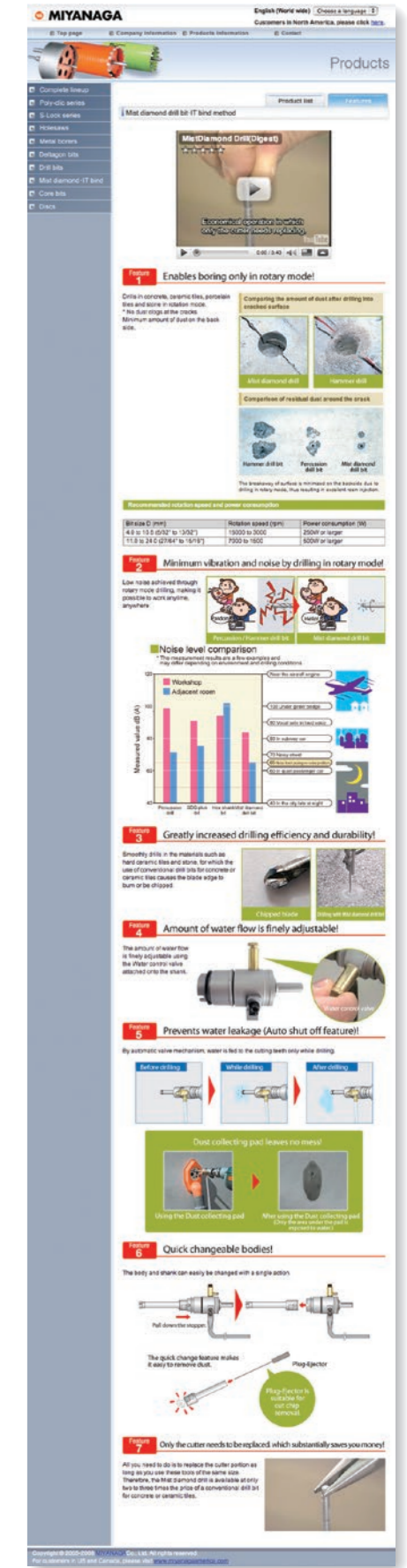
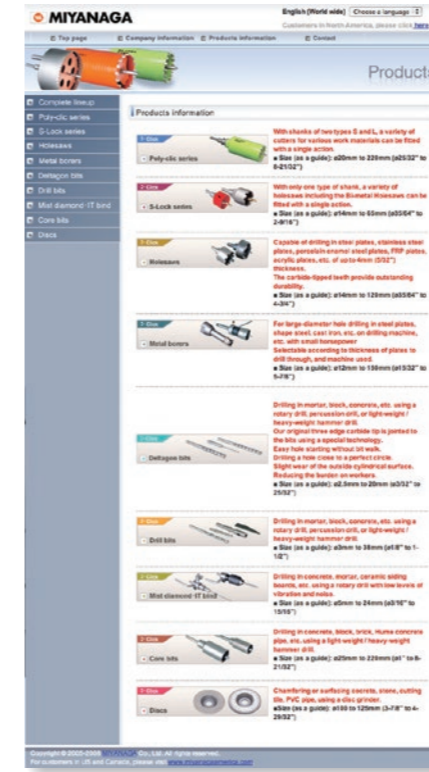
Part	Guideline
Wear of the carbide tip	Diameter of carbide tip becomes less than nominal diameter.
Wear of the flute of drill bit	Width of the thread becomes wider than unworn part.

Condition	Remark	Cause
	Carbide tip separation	Guarantee claim: not accepted Carbide tip comes off by melting the brazing materials due to generated heat for long term use.
	Breakage of flute	Guarantee claim: not accepted Drilling beyond the wear-limit of flute results in metal fatigue.
	Breakage of flute	Guarantee claim: accepted Defective of heat treatment. *When the bit breaks with few wear on the carbide tip and flute.
	Breakage of flute	Guarantee claim: not accepted Drilling over maximum drilling depth. Non-threaded part is polished by chips.
	Breakage of head	Guarantee claim: not accepted Drilling over maximum drilling depth or drilling beyond the wear-limit result in metal fatigue. Non-threaded part is polished by chips.
	Wear of flute	Guarantee claim: not accepted The flute is worn by chips after long term use.

Condition	Remark	Cause
	Breakage of carbide tip	Guarantee claim: not accepted Drilling into hard materials such as reinforced bar.
	Crack of carbide tip	Guarantee claim: not accepted Continuous drilling after the breakage of carbide tip.
	SDS-plus shank can not be attached to machine.	Guarantee claim: not accepted •Ball groove burrs due to long use. •Wear of drive key in a drilling machine. Guarantee claim: accepted Unused product(new) can not attach to SDS-plus machine.
	Wear of carbide tip (Two edges)	Guarantee claim: not accepted As shown in the left figure.
	Wear of carbide tip (Deltagon bit)	Guarantee claim: not accepted As shown in the left figure.
	Wear of carbide tip (Deltagon bit)	Guarantee claim: not accepted The burnt "blue" shows wear-limit when drilling beyond the wear-limit of carbide tip, drilling in rotation mode, or drilling into extremely hard material.
	Carbide tip separation	Guarantee claim: not accepted Lifetime *When the flute is burnt and turned "blue", and the carbide tip is come off. Guarantee claim: accepted Joining defective *When the carbide tip is come off without burning and turning "blue" on the flute.
	Tip breakage	Guarantee claim: not accepted When flute part on the shank is burned, claim of tip breakage is not accepted. Guarantee claim: accepted Early tip removal without burnt flute.
	Chipping tip	Guarantee claim: not accepted Tip is chipped when continuing to drill after hitting re-bar.
	Tip breakage of Deltagon Vacuum Bit	Guarantee claim: not accepted Tip is chipped when continuing to drill after hitting re-bar.

Criteria of AQUASHOT Breakage Claims

Condition	Remark	Cause
	Breakage of the threads of the diamond cutter	Guarantee claim: not accepted The threads are sheared off during drilling when the tip becomes stuck due to insufficient water flow or excessive thrusting force.
	The diamond tip separates from the cutter	Guarantee claim: accepted <ul style="list-style-type: none"> •Poor welding. •If the diamond tip separates at the welding point when stuck during drilling, this can be attributed to a welding failure.
	Water is expelled from the water-feed inlet	Guarantee claim: not accepted This is caused by the failure of the water stop valve. <ol style="list-style-type: none"> 1) The nozzle of the refill bottle is pushed into the water-feed inlet with excessive force. 2) Something other than the Miyanaga refill water bottle was inserted into the water-feed inlet and damaged the valve.
	The cover of the water tank separates	Guarantee claim: not accepted The upper outer cover can separate from the shank if it is pulled while retracting the lower internal cover at the same time.
	Water does not feed	Guarantee claim: not accepted If the water tank is held while drilling, this can cause the internal o-ring seals to melt and the water supply route to become clogged with dregs. 
	The bellows are exposed	Guarantee claim: not accepted The fixing pin is melted and the cover is forward if you hold the tank while drilling. 
	The body cannot be attached to the tank	Guarantee claim: not accepted This is because the fixing pin in the tank was broken due to holding the tank while drilling, and the tank was displaced and hit the removable ring. 



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