



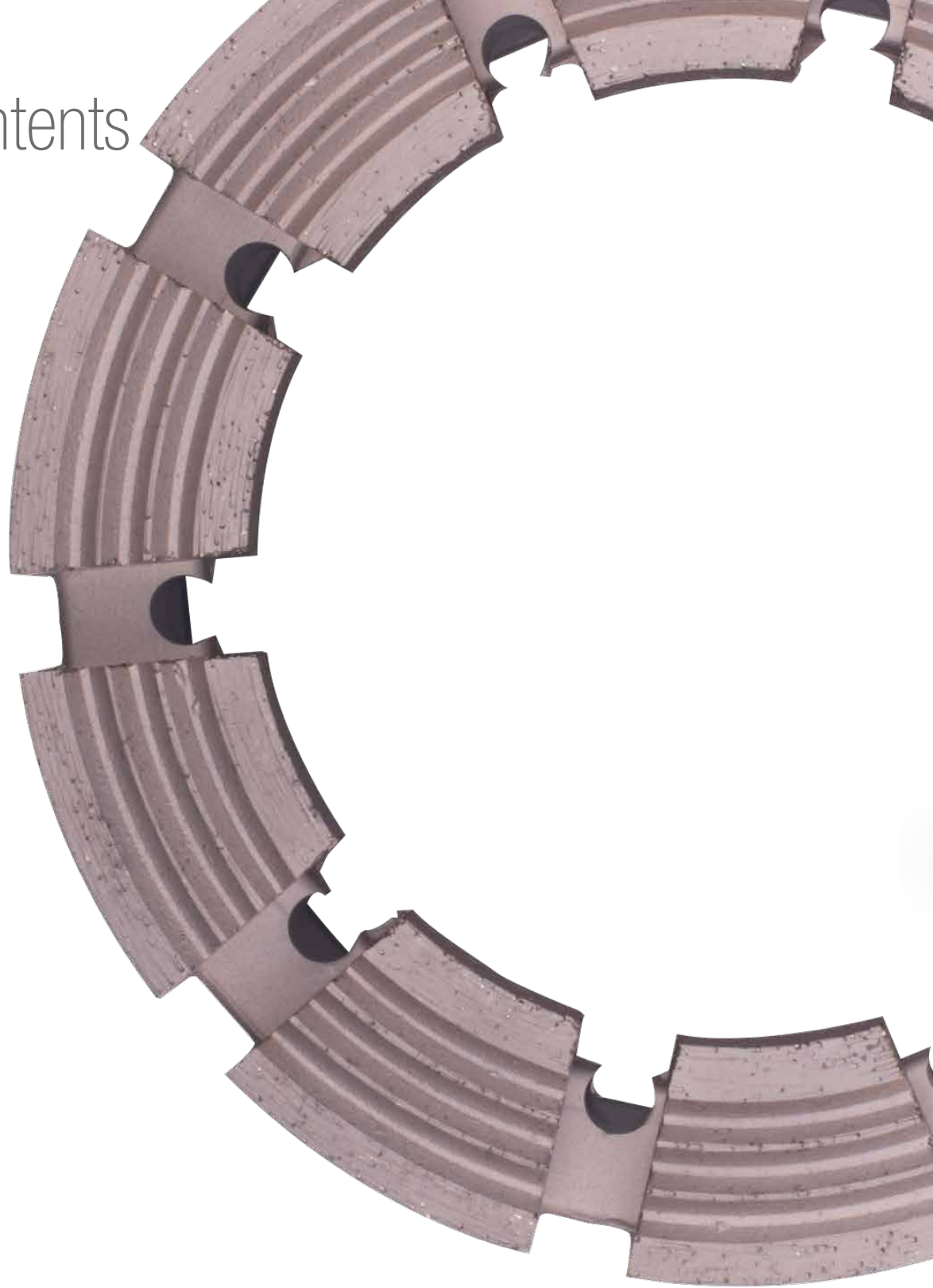
**EHWA**<sup>®</sup>  
EXPLORER SERIES  
H03-3.830

**GENERAL TOOL**

**DIAMOND DRILLING PRODUCTS**



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## FOR DRILLERS WHO DEMAND THE BEST

EHWa Diamond Industrial Co. Ltd and General Tool have developed a family of Drilling Tools to achieve maximum performance for all drilling applications.

These tools include:

- Impregnated core bits
- Reaming shells
- Casing shoes
- Thin wall core bits
- Diamond blades for cutting core samples

Whether you're performing Exploration, Soil Sampling, Foundation Testing, Highway & Dam Investigation you can expect our Diamond Tools to exceed your drilling and sampling expectations.





# mining core bits

We offer two grades of bits for all drilling applications. Each bit has a standard diamond depth of 13mm, controlled diamond distribution, a pre-conditioned matrix for reduced break-in time, advanced engineered waterways for enhanced flow, and precise placement of natural diamonds, TC pads, and TSP diamond for ID and OD wear protection.



## EXPLORER SERIES\*

The Explorer Series of Impregnated Core Bits is a unique blend of components and ultra-high-quality diamonds designed for the most demanding drilling applications.

Each core bit is manufactured under controlled conditions to ensure consistency and repeatability. The Explorer Series provides a variety of matrices for all rock formations.



## GEO-PRO SERIES\*

The Geo-Pro Series of Impregnated Core Bits is manufactured with the same precise high-quality standards as the Explorer Series.

These bits were developed for the Drilling Contractor that demands consistency of product and performance under the severest ground conditions. Available in four (4) distinct series.

GRADES	BOND DESIGNATION	ROCK FORMATIONS
<b>EXPLORER SERIES</b> Available Sizes: A, B, N, H, P TT option available on all bits to assist in core recovery in fractured rock applications.	<b>#2</b>	Extremely Abrasive, Broken, Coarse, Fractured, Shales, Limestone, Sandstone
	<b>#4</b>	Abrasive, Medium to Coarse Grain, Solid to Fractured Formations. Dolomite, Granite, Peridotite
	<b>#6</b>	Moderately Abrasive, Medium to Fine Grain. Basalt, Diorite, Quartz, Volcanic
	<b>#8</b>	Low Abrasive, Hard to Very Hard Formations. Diorite, Granite, Gneiss, Quartzite
	<b>#10</b>	Extremely Hard, Non-Abrasive Formations. Jasterite, Rhyolite, Quartzite
<b>GEO-PRO SERIES</b> Available Sizes: A, B, N, H, P	<b>#2</b>	Extremely Abrasive Fractured Formations Coarse Grain Formations
	<b>#4</b>	Abrasive to Moderatley Abrasive Fractured Formations
	<b>#6</b>	Slightly Abrasive Medium Hard Formations
	<b>#8</b>	Extremely Hard, Low Abrasive Solid Formations

\* Other crown profiles available upon request. \* All crown profiles available for both Explorer and Geo-Pro Series.



# explorer series waterway options

## PIE WATERWAY

provides increased flow for flushing debris over straight waterways



## TURBO WATERWAY

preferred profile for competent, less fractured rock formations



## FACE DISCHARGE

recommended for use with TT style bits



## LATERAL (DEEP WATERWAY)

Used instead of Face Discharge when waterways are likely to become blocked from particles in the fluid.





# reaming shells

We offer two distinct grades of Reaming Shells: Standard and Heavy-Duty. EHWA Reaming Shells are manufactured with a unique patent-pending design. The design facilitates the transition of the cuttings into the waterway area, resulting in longer life and reduced vibration of the drilling tools.

## STANDARD-GRADE REAMING SHELL

Standard Grade Reaming Shells are manufactured with a unique design to facilitate the transition of the cuttings into the waterway area. This design also reduces vibration and utilizes precision set natural diamond for increased abrasion resistance.

Available sizes B, N, H, P & Oversize  
Additional sizes available on request



## HEAVY-DUTY GRADE REAMING SHELL

Heavy-Duty Grade Reaming Shells are manufactured with an ultra-high abrasion-resistant matrix. Additional features include premium-grade natural diamonds, carbide wear pads, and TSPs, precision set for maximum wear. The helical waterways extend along the length of the core to maximize water flow and removal of cuttings.

Available sizes: B, N, H, & P  
Oversize N, H, & P  
Additional sizes available on request.

Casing shoes are available in both Explorer Series and Geo-Pro Series for advancing casing through a wide variety of overburden.

## EXPLORER SERIES

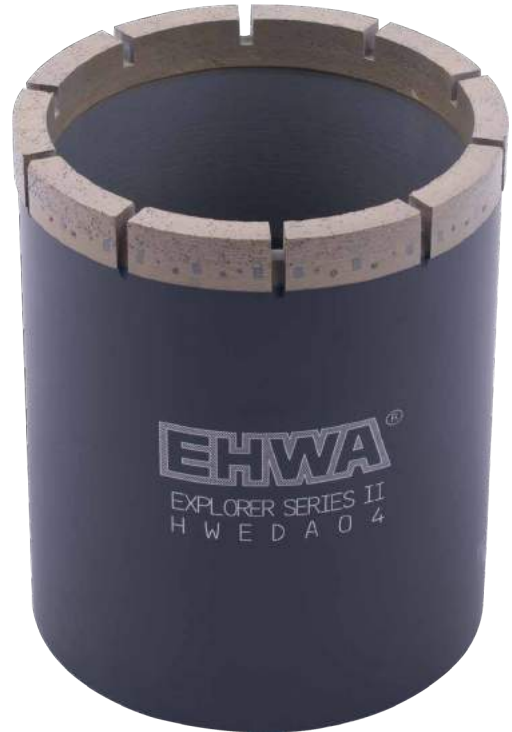
The Explorer Series, available in both standard sizes (DCDMA) and oversize, is manufactured with high-grade diamonds in high concentrations for severe applications. 0.250" diamond depth, select-grade natural diamonds and precision set wear pads guarantee OD and ID gauge protection.

Available sizes BW, NW, HW, PW, NWT, HWT & PWT

The Explorer Oversize Casing Shoe is designed for use with Wire Line Casing Advancers. (0.315" diamond depth)

Available sizes include NW and HW.

Set sizes are as follows:  
- NW OD 3.875" x 2.992"  
- HW OD 4.875" x 3.975"



## GEO-PRO SERIES

The Geo-Pro Series is manufactured with the same high-quality diamonds as the Explorer Series, but is designed for less demanding drilling applications. These casing shoes also come with 0.250" diamond depths, select-grade diamonds and wear pads for OD and ID wear protection.

Available sizes BW, NW, HW, PW, NWT, HWT & PWT







# core drills

## THIN WALL CORE BITS

When the drilling application calls for drilling concrete, asphalt with electric, gasoline, or hydraulic powered core drills; we offer a broad range of thin wall wet core bits.

### OE30P/OEZ30PR

These are our standard, high volume core bits with excellent cutting speed and long life. Outside diameter sizes range from 5/8" to 14" with 14" barrel lengths and 8mm segment heights. OEZ30PR bits have turbo style segments and a unique patented zig zag crown profile.



### OE10P/OEZ10PR

We have recently introduced a new high speed wet core bit. These new bits are the same price as the OE30P and OEZ30PR but offer significantly faster cutting speeds. Outside diameter sizes range from 5/8" to 14" with 14" barrel lengths and 8mm segment heights. OEZ10PR bits have turbo style segments and a unique patented zig zag crown profile. OE30P and OEZ30PR will give you longer life, but the new bits give you the speed to finish the job more quickly.



### ZOE10UT

Zenesis core bits offers **pattern diamond technology** for the fastest cutting speeds available, especially in hard materials. Outside diameter sizes range from 1 1/2" to 14" with 14" barrel lengths and 10mm segment heights.

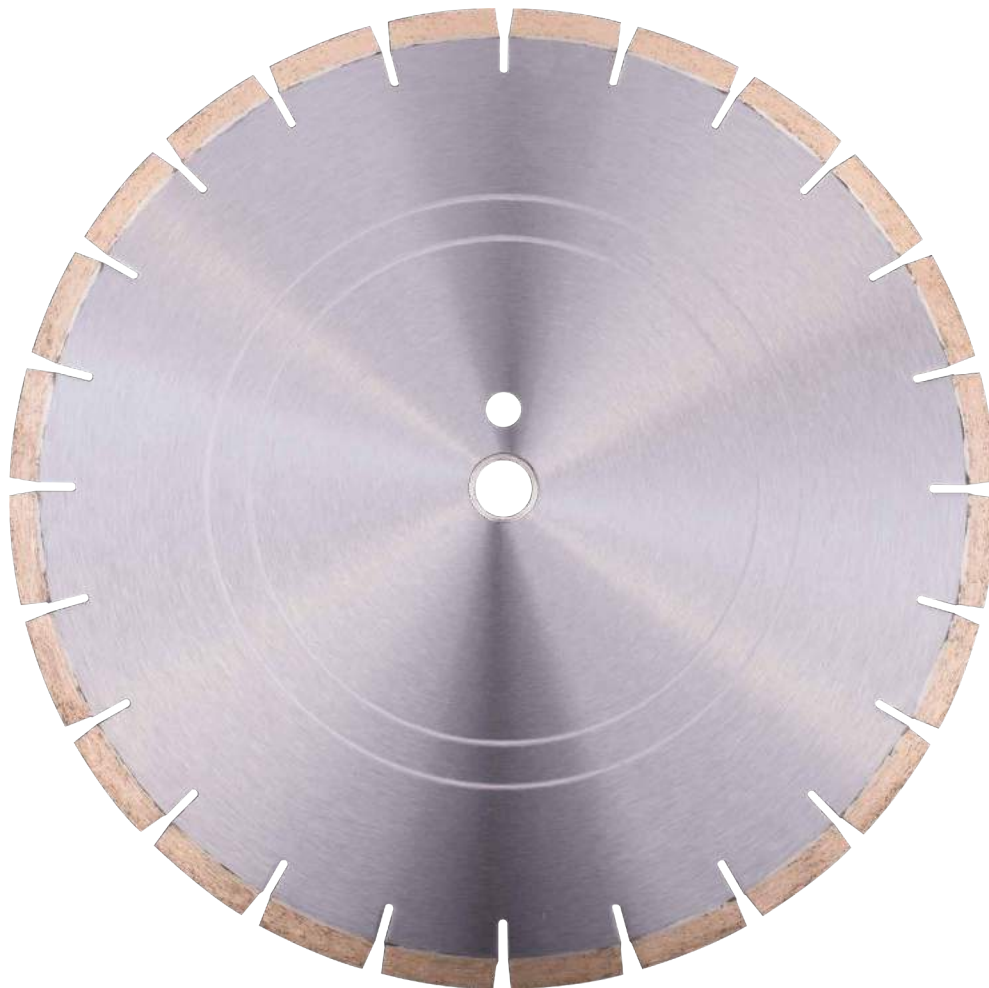


### OD30P/ODZ30PR

Specialty applications can call for dry core bits. We offer a complete line of these products. Outside diameter sizes range from 1" to 6" with 10" barrel lengths and 7mm segment heights. ODZ30PR bits have turbo style segments and a unique patented zig zag crown profile.







### CORE SAMPLE PREMIUM BLADE (WET)

Application : Core Samples  
 Equipment : Table Saw, Bridge Saw

PART NUMBER	DESCRIPTION (INCHES)	SEG HEIGHT	APPLICATION
SB10UT1409EN	14 X .090 X 1	10mm D	Hard, Nonabrasive Core
SB20U1412EN	14 X .125 X 1	7mm D	Medium Hard, Abrasive Core
SB30UT1409EN	14 X .090 X 1	10mm D	Medium Hard, Very Abrasive Core
SB10UT1812EN	18 X .125 X 1	10mm D	Hard, Nonabrasive Core
SB10UT2012EN	20 X .125 X 1	10mm D	Hard, Nonabrasive Core

# core bits charts

## CORE BIT RPM & WATER FLOW CHART

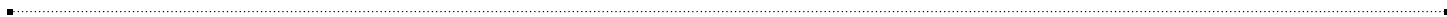
CORE BIT SIZE	RPM RANGE	OPTIMUM RPM	SUGGESTED WATER FLOW (GPM)
A	1500 - 1700	1600	4 -5
B	1200 - 1450	1350	8 -10
N	900 - 1200	1100	10 -12
H	750 - 950	850	13 -16
P	600 - 750	650	20 - 22

## IMPREGNATED CORE BIT DIMENSION CHART STANDARD & RSG GAUGE

BIT DESCRIPTION	SET BIT DIMENSIONS (+ / -.005 )				REAMING SHELL DIMENSIONS (+ / - .005 )	
	OUTSIDE DIAMETER		INSIDE DIAMETER		OUTSIDE DIAMETER	
	Inches	mm	Inches	mm	Inches	mm
AO	1.875	47.6	1.062	27.0	1.890	48.0
AWG, AWM	1.875	47.6	1.185	30.1	1.890	48.0
AWG, AWM	1.875	47.6	1.193	30.3	1.890	48.0
BO	2.345	59.6	1.433	36.4	2.360	59.9
BO-3	2.345	59.6	1.320	33.5	2.360	59.9
BWG, BWM	2.345	59.6	1.655	42.0	2.360	59.9
NO - 3	2.965	75.3	1.775	45.1	2.980	75.7
NO	2.965	75.3	1.785	47.6	2.980	75.7
NO - 2	2.965	75.3	1.995	50.7	2.980	75.7
NWD - 4	2.980	75.7	2.060	52.3	2.980	75.7
NWG, NWM	2.965	75.3	2.155	54.7	2.980	75.7
NO - 2 Oversize	3.032	77.0	1.995	50.7	3.032	77.0
HO - 3	3.763	95.6	2.406	61.1	3.783	96.1
HOTT	3.763	95.6	2.406	61.1	3.783	96.1
HO - 3 Oversize	3.830	97.3	2.406	61.1	3.830	97.3
HO	3.763	95.6	2.500	63.5	3.783	96.1
HO - Oversize	3.830	97.3	2.500	63.5	3.830	97.3
HO - Oversize	3.850	97.3	2.500	63.5	3.850	97.8
PO - 3	4.805	122.0	3.270	83.1	4.828	122.6
PO	4.805	122.0	3.345	85.0	4.828	122.6
PO - Oversize	4.900	124.5	3.345	85.0	4.900	124.5



Use approved safety guards and protective goggles.







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