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Company Profile

Evolution is a **leader in the steel and fabrication industry**, offering industrial metal cutting products, metal drilling products and related accessories. With a **strong focus on customer service** and determination to achieve unmatched quality, Evolution offers the **highest product value** to a rapidly growing and changing market.

Evolution's **United States headquarters** is based out of Davenport, Iowa, allowing centralized distribution for the entire North American customer base. **Worldwide locations** offer distribution in Europe, Asia, South America, Australia and Africa.

"**Innovation Defined**" is the company motto and Evolution achieves this by continuously improving existing products and adding new products to **effectively complement** Evolution's current portfolio.

Quality Assurance & Warranty

All Evolution power tools are put through quality assurance testing and are **guaranteed to be free of defects in workmanship** or materials for three years from the date of purchase.

Refer to Evolution's instruction manuals for full details.

All warranty claims must be submitted by the owner/user of the product and can only be evaluated and authorized by Evolution's Service Department. **Claims can be made by calling 563-209-9173.**

Most warranty repairs are **shipped within two full business days** of receiving product, **dependent upon parts availability.**

Evaluation and warranty service is **guaranteed within two full business days** of receiving product. Saw blades, annular cutters, step drills and product accessories are not covered under the **three year limited warranty.**

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evOLUTION

evoSAW³⁸⁰





evoSAW³⁸⁰

15" CHOP SAW*



QUICKER, SAFER, MORE ACCURATE & ECONOMICAL THAN AN ABRASIVE SAW!

- Cuts mild steel cleanly **without excessive heat, burrs or the necessity of coolant.**
- **Longer lasting:** 1 steel cutting blade = 20 or more abrasive discs!
- **Cuts all types of materials;** mild steel, aluminum & stainless steel.
- **4 times faster cutting** than Abrasive Saws.
- **15" blade capacity for extended reach,** see page 9 for blade details.
- Supplied V-block for **securely clamping pipe.**
-  **approved.**



**ADVANCED
PERFORMANCE
TCT SAW BLADES**

Technical Specifications***

Motor (120v ~ 60Hz)	1800W
Amps	15
Horsepower	2.4
RPM (No Load)	1450
Recommended Maximum Duty Cycle	30mins
Sound Pressure Level (Under Load)	108dB(A)
Maximum Thickness Of Cut	1/2"
Maximum Cut 90° (Square)	5" x 5"
Maximum Cut 90° (Rectangle)	3-3/4" x 7-7/8"
Maximum Cut 90° (Round)	Ø 5-7/8"
Maximum Cut 45° (Square)	3-1/2" x 3-1/2"
Maximum Cut 45° (Rectangle)	3" x 4-3/8"
Maximum Cut 45° (Round)	Ø 5"
Tool Weight	55lbs
Tool Dimensions (H x W x L)	26" x 13-1/2" x 21"
Shipping Weight	62lbs
Shipping Dimensions (H x W x L)	20" x 17" x 26"
UPC	849713000149
Part Number	EVOSAW380

***Supplied with a 355mm (14") Steel blade. To achieve maximum capacities stated, fit with a 380mm (15") industrial saw blade.

Supplied With

14" Mild Steel Cutting Blade, V-Block, Speed Knob, Clamping Handle, Spare Carbon Brush Set, Hex Wrench, Safety Goggles, Ear Plugs & Manual.

Industrial Blades****

Type	Teeth	Arbor	Kerf	Part Number
15" Mild Steel	70	1"	.094"	15BLADEST
14" Thin Steel	90	1"	.094"	14BLADETS
14" Stainless Steel	90	1"	.094"	14BLADESS
14" Aluminum	80	1"	.094"	14BLADEAL



Heavy duty performance!

The mild steel blade can make up to 1000 cuts before a replacement blade is required.** Ideal for cutting steel plate, square tube, angle iron, pipe, tube and metal roofing.

Advanced technology; out-performs abrasive saws.

When cutting steel, the material has a workable finish. Virtually no heat, burrs or sparks are created, unlike inherently dangerous abrasive saws (shown left).

Fast action swivel clamp enables cuts to be made from 0-45°.

Hi-torque gearbox reduces motor load and improves performance. A pull-out collection tray makes it easy to dispose of metal chips.

*Important notice: Always use supplied safety equipment when operating.

CALL 866-EVO-TOOL OR VISIT EVOLUTIONSTEEL.COM

evoSAW^{180HD}

7-1/4" CIRCULAR SAW*



NEW & IMPROVED DESIGN! IDEAL FOR CUTTING STEEL PLATE, SQUARE TUBE, ANGLE IRON, PIPE, TUBE & METAL ROOFING.

- Rated for heavy duty and industrial applications with chip collection capability. **Cuts mild steel without excessive heat, burrs or the necessity of coolant.**
- With supplied mild steel blade, this saw's **maximum capacity is 5/16" plate****, with quick, clean cuts.
- **High quality construction** designed for portability.
- approved.



ADVANCED PERFORMANCE
TCT SAW BLADES



Advanced technology; out-performs angle grinders

When cutting steel, the material has a workable finish. Virtually no heat, burrs or sparks are created, unlike inherently dangerous angle grinders (shown left).



0-45° bevel tilt

Bevel tilt enhances the cutting versatility of the saw. Other features include a safety switch with overload protection and an integrated debris collection system.



Adjustable depth of cut

Heavy-duty and extremely portable. Features an easily adjustable depth of cut, plus a clear visibility panel to help provide cutting accuracy.



Technical Specifications

Motor (120v ~ 60Hz)	1100W
Amps	9
Horsepower	1.5
RPM (No Load)	3950
Recommended Maximum Duty Cycle	30mins
Sound Pressure Level (Under Load)	98.5dB(A)
Vibration Level (Under Load)	2.3m/s ²
Maximum Thickness Of Cut	5/16"
Maximum Cutting Depth At 90°	2-1/4"
Maximum Cutting Depth At 45°	1-3/8"
Tool Weight	13lbs
Tool Dimensions (H x W x L)	8-1/2" x 10" x 17-1/2"
Shipping Weight	25lbs
Shipping Dimensions (H x W x L)	16" x 11-1/2" x 21-1/2"
UPC	849713000026
Part Number	EVOSAW180HD

Supplied With

Carrying Case, 7-1/4" Mild Steel Blade, Wrench, Fence Guide, Side Handle, Spare Carbon Brush Set, Safety Goggles, Ear Plugs & Manual.

7-1/4" & 7" Industrial Blades***

Type	Teeth	Arbor	Kerf	Part Number
7-1/4" Mild Steel	40	20mm	.078"	185BLADEST
7" Mild Steel	36	20mm	.078"	180BLADEST
7" Thin Steel	68	20mm	.063"	180BLADETS
7" Stainless Steel	48	20mm	.070"	180BLADESS
7" Aluminum	54	20mm	.078"	180BLADEAL



*Important notice: Always use supplied safety equipment when operating. **Evolution's internal test data.

***For full technical specifications, please see blades pages 8 and 9.

INDUSTRIAL SAW BLADES

QUALITY & PERFORMANCE

EVOLUTION SAW BLADES ARE DESIGNED TO DELIVER MAXIMUM PERFORMANCE BY USING THE HIGHEST GRADE CARBIDE, HARDENED BLADE BODIES & ULTRA HIGH-GRADE BRAZING TECHNIQUES. ALL OFFER PREMIUM QUALITY - DESIGNED TO INCREASE PERFORMANCE!

CUT COOLER: When cutting metals, Evolution blades leave an instantly workable finish and **produce virtually no heat, burrs or sparks.** This allows the material cut to be handled quickly instead of having to wait for the metal to cool down, as required with abrasives.

CUT FASTER: Evolution blades **cut faster than traditional abrasive blade methods.** An Evolution mild steel blade can cut through 6" of 1/4" thick mild steel plate, in as little as 12 seconds*.

CUT LONGER: **Abrasive blades wear down quickly.** This reduces both cut quality and cut capacity depth. It also increases the costly replacement of abrasives required to complete the job. **An Evolution mild steel blade can last as long as 20 or more abrasives*** and maintain its quality and capacity throughout, saving time and money!

CUT ACCURATELY: Abrasive blades tend to flex and "walk" during a cut. Evolution blades are **designed for accuracy and precision.**

CUT SAFETY: Abrasive blades can **create excessive dust, fumes, smoke, fire** and can even explode. Evolution blades produce very few sparks, create little heat and are **an overall safer alternative to abrasives!**

Blade Type & Color	Application
Mild Steel	Material applications include: square tube, angle iron, mild steel plate, pipe, tube and other ferrous metals.
Thin Steel	Ideal for cutting ferrous metal under 1/8" in thickness. Material applications include: sheet metal, metal roofing and electrical conduit.
Stainless Steel	Material applications include: square tube, angle iron, stainless steel plate, diamond plate, pipe and tube.
Aluminum	Ideal for aluminum and other non-ferrous metals. Material applications include: grating, extrusions, pipe and tube.
Multipurpose	Designed for cutting multiple material applications without switching blades. Material applications include: mild steel, aluminum, brass, copper, wood, wood with nails, plastics, PVC and plexiglass.

* Evolution's internal test data. Important notice: Always use supplied safety equipment when operating and follow cutting instructions provided in the operator's manuals.

Application	Color	Arbor	Kerf	Teeth	RPM	Part Number	UPC
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5-3/8" (136mm) Blade For use on: Makita BCS550, Milwaukee 2682-20.

Mild Steel	●	20mm	.063"	30	4200	5-3/8BLADEST	849713027818
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6-1/2" (165mm) Blade For use on: Bosch CCS180K/1617K, Dewalt DC310K/DC390K, Makita BSS610, Milwaukee 2630-20/0730-20, Ridgid R3203.

Mild Steel	●	5/8"	.078"	40	4000	6-1/2BLADEST	849713033161
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7" (180mm) Blades For use on: Evolution EVOSAW180HD | RAGE-B | RAGE4, Jancy MCSL07, Milwaukee 0740-20, MK Morse CSM7MB, Steelmax S7.

Mild Steel	●	20mm	.078"	36	4200	180BLADEST	849713000415
Thin Steel	●	20mm	.063"	68	4200	180BLADETS	849713021175
Stainless Steel	●	20mm	.070"	48	4200	180BLADESSN	849713030344
Aluminum	●	20mm	.078"	54	4200	180BLADEAL	849713000422
Wood	●	20mm	.063"	30	4200	180BLADEWD	849713000446

7-1/4" (185mm) Blades For use on: Evolution EVOSAW180HD | RAGE-B | EVOSAW185 | RAGE4 Saws, Steelmax S7, Standard Circular Saws*.

Mild Steel	●	20mm & 5/8"	.078"	40	4200	185BLADEST	849713016447
Stainless Steel	●	20mm	.070"	48	4200	185BLADESSN	849713036421
Multipurpose	●	20mm	.067"	20	4200	RAGEBLADE	849713011282
Diamond Masonry	●	20mm	.098"	0	4200	185BLADEDM	849713011602
Wood	●	20mm	.063"	18	4200	185BLADEWD	849713016430
Thin Steel (Diamond K/O)*	●	5/8"	.063"	68	4200	7-1/4BLADETS	849713036551
Wood (Diamond K/O)*	●	5/8"	.063"	24	4200	7-1/4BLADEWD	849713027832

*Note: 20mm blade arbors can be reduced to fit 5/8" arbor on standard circular saws, using part number CSBUSH20M5/8.

Application	Color	Arbor	Kerf	Teeth	RPM	Part Number	UPC
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7-1/2" (190mm) Blade

Mild Steel	●	20mm	.078"	40	5800	7-1/2BLADEST	849713027856
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8" (200mm) Blades For use on: Milwaukee 6370-20.

Mild Steel	●	5/8"	.078"	50	4000	8BLADEMS	849713011510
Stainless Steel	●	5/8"	.070"	54	4000	8BLADESSN	849713034953
Aluminum	●	5/8"	.094"	60	4000	8BLADEAL	849713053480

8-1/4" (210mm) Blades For use on: Dewalt DW484, Makita 5008MGA.

Mild Steel	●	1"	.078"	50	4000	8-1/4BLADEST	849713028150
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9" (230mm) Blades For use on: Evolution EVOSAW230, MK Morse CSM9MB, Jancy MCSL09/MCSL09-2, Steelmax S9.

Mild Steel	●	1"	.078"	48	3000	230BLADEST	849713000453
Thin Steel	●	1"	.070"	68	3000	230BLADETS	849713027863
Stainless Steel	●	1"	.070"	60	3000	230BLADESSN	849713030351
Aluminum	●	1"	.094"	80	3000	230BLADEAL	849713000460
Multipurpose	●	1"	.078"	26	3000	RAGE230BLADE	849713044037
Wood	●	1"	.094"	40	3000	230BLADEWD	849713000484

10" (255mm) Blades For use on: Evolution RAGE3 | RAGE3-DB.

Mild Steel	●	1" & 5/8"	.078"	52	3000	10BLADEST	849713011541
Stainless Steel	●	1"	.078"	66	3000	10BLADESSN	849713034960
Aluminum	●	1"	.094"	80	3000	10BLADEAL	849713053497
Multipurpose	●	1"	.078"	28	2750	RAGE255BLADE	849713011381
Diamond Tile	●	1"	.078"	0	4400	10BLADEDM	849713011633
Wood	●	1"	.094"	40	5200	10BLADEWD	849713016454

Note: 1" blade arbors can be reduced to fit 5/8" arbor on standard miter saws, using part number CSBUSH15/8.

12" (305mm) Blades For use on: Makita LC1230. Evolution 12" Electric Disc Cutter (Diamond Masonry only).

Mild Steel	●	1"	.083"	60	1600	12BLADEST	849713000491
Stainless Steel	●	1"	.083"	80	1600	12BLADESSN	849713030276
Aluminum	●	1"	.083"	80	1600	12BLADEAL	849713025012
Diamond Masonry	●	1"	.118"	0	5000	12BLADEDM	849713028112

14" (355mm) Blades For use on: Evolution EVOSAW380 | RAGE2, Dewalt DW872, Jancy MCCS14/MCCS14-2, Milwaukee 6190-20, MK Morse CSM14MB, Ridgid 614, Steelmax S14.

Mild Steel	●	1"	.094"	66	1600	14BLADEST	849713011527
Thin Steel	●	1"	.094"	90	1600	14BLADETS	849713021182
Stainless Steel	●	1"	.094"	90	1600	14BLADESSN	849713030269
Aluminum	●	1"	.094"	80	1600	14BLADEAL	849713000514
Multipurpose	●	1"	.083"	36	1600	RAGE355BLADE	849713011329
Diamond Masonry	●	1"	.118"	0	4400	14BLADEDM	849713011664
Wood	●	1"	.109"	60	1800	14BLADEWD	849713016478

15" (380mm) Blade For use on: Evolution EVOSAW380.

Mild Steel	●	1"	.094"	70	1600	15BLADEST	849713016461
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Arbor Reducer Bushings

Converts arbor from 20mm to 5/8"						CSBUSH20M5/8	849713027948
Converts arbor from 1" to 5/8"						CSBUSH1"5/8	849713027931



EVOLUTION OFFERS A FULL RANGE OF ANNULAR CUTTERS FOR A WIDE VARIETY OF DRILLING APPLICATIONS

Annular cutters save time and energy when compared to other hole producing methods.

While cutting only the periphery of the hole, annular cutters produce a reamed quality, burr-free hole. No step drilling is required & holes are cut quickly and accurately.

Evolution offers two grades of annular cutters to suit different metal cutting requirements; Cyclone Premium Grade M2AL and Carbide Tipped Premium Grade.

M2AL HIGH SPEED STEEL ANNULAR CUTTERS:

M2AL cutters have been developed as an alternative to the more common M2, M35 and M42 cutters. M2AL offers **many advantages** over these traditional cutter types. Tooth hardness is optimized and heat treated to 68HRC to **maximize cutter performance**. M2AL cutters also include a tapered hardness from the shank, through the cutter body and to the cutter teeth. This makes the cutters **more resistant** to the torque created while cutting and thus **prevent breakage**.

INCLUDED PILOT PIN:

Evolution recommends that all annular cutters be **cooled properly** throughout the cut to ensure **cutter life is optimized**. In order to accomplish this, an **included pilot pin** is required so coolant can be delivered directly to the cutting surface. The included pilot pin is yet another **value added feature** that makes Evolution annular cutters **the easy choice** for industrial drilling applications.

GUARANTEED QUALITY:

Evolution knows that project budgets are tight and you expect the **maximum results** from the products you purchase. When it comes to annular cutters, Evolution offers **an unmatched quality guarantee**. If for any reason your annular cutter breaks during a cut, send it to Evolution and it will be evaluated for replacement.



↓ EVOLUTION PILOT PINS PROVIDE 3 DISTINCT FUNCTIONS:

- 1) Ensures coolant is delivered directly to the cutting surface which **optimizes cutter life**.
- 2) **Automatic slug-ejection** from the annular cutter at the end of the drilling process.
- 3) Provides hole **drilling accuracy** by aiding center location.



Part Number	Diameter x Length	Cutter Sizes This Pin Fits
PN01	3/16" x 3.0"	CC437, CC27/64, CC29/64
PN02	1/4" x 3.0"	CC500-CC237, CC12MS-CC60MS
PN05	3/16" x 4.0"	CC437L, CC27/64L, CC29/64L
PN06	1/4" x 4.0"	CC500L-CC237L, CC12ML-CC60ML, CT687L-CT237L
PN08	1/4" x 5.0"	For use with Quick Change Adaptor (Part Number: QIANMD)
PN10	1/4" x 6.0"	For use with Quick Change Adaptor (Part Number: QIANMD)
PN2T	5/16" x 4.0"	For use with Quick Change Adaptor (Part Number: QIANMD)
PN3T	5/16" x 5.0"	CC687X-CC237X, CT687X-CT237X
PN4T	5/16" x 6.0"	CC812XL, CC937XL, CC106XL, CC118XL
PN6T (2 Piece Pin)		CC937XLX, CC106XLX, CC118XLX

↓ CYCLONE CUTTER SETS

Cyclone premium & carbide tipped annular cutters are available in cased 6 piece sets.

Premium Cutter Set - 1" Depth Of Cut

Includes six popular size cutters from the Cyclone Premium 1" cutter range containing CC562, CC625, CC687, CC812, CC937, CC100 & Pilot Pins.

Part Number: CC6SET-1

Premium Cutter Set - 1" Depth Of Cut

Includes six popular size cutters from the Cyclone Premium 1" cutter range containing CC500, CC562, CC625, CC750, CC875, CC100 & Pilot Pins.

Part Number: CC5S6SET-1

Premium Cutter Set - 2" Depth Of Cut

Includes six popular size cutters from the Cyclone Premium 2" cutter range containing CC562L, CC625L, CC687L, CC812L, CC937L, CC100L & Pilot Pins.

Part Number: CC6SET-2

Premium Carbide Tipped Cutter Set - 2" Depth Of Cut

Includes six popular size cutters from the Cyclone Premium Carbide Tipped 2" cutter range containing CT687L, CT750L, CT812L, CT875L, CT937L, CT100L & Pilot Pins.

Part Number: CT6SET-2

Diameter	Decimal Equivalent	1" Depth	2" Depth	3" Depth	4" Depth	6" Depth
7/16"	0.4375"	CC437	CC437L	N/A	N/A	N/A
12mm	0.4724"	CC12MS	CC12ML	N/A	N/A	N/A
1/2"	0.5000"	CC500	CC500L	N/A	N/A	N/A
13mm	0.5118"	CC13MS	CC13ML	N/A	N/A	N/A
14mm	0.5511"	CC14MS	CC14ML	N/A	N/A	N/A
9/16"	0.5625"	CC562	CC562L	N/A	N/A	N/A
15mm	0.5905"	CC15MS	CC15ML	N/A	N/A	N/A
5/8"	0.6250"	CC625	CC625L	N/A	N/A	N/A
16mm	0.6299"	CC16MS	CC16ML	N/A	N/A	N/A
17mm	0.6692"	CC17MS	CC17ML	N/A	N/A	N/A
11/16"	0.6875"	CC687	CC687L	CC687X	N/A	N/A
18mm	0.7086"	CC18MS	CC18ML	N/A	N/A	N/A
19mm	0.7480"	CC19MS	CC19ML	N/A	N/A	N/A
3/4"	0.7500"	CC750	CC750L	CC750X	N/A	N/A
20mm	0.7874"	CC20MS	CC20ML	N/A	N/A	N/A
13/16"	0.8125"	CC812	CC812L	CC812X	CC812XL	N/A
21mm	0.8267"	CC21MS	CC21ML	N/A	N/A	N/A
22mm	0.8661"	CC22MS	CC22ML	N/A	N/A	N/A
7/8"	0.8750"	CC875	CC875L	CC875X	N/A	N/A
23mm	0.9055"	CC23MS	CC23ML	N/A	N/A	N/A
15/16"	0.9375"	CC937	CC937L	CC937X	CC937XL	CC937XLX*
24mm	0.9448"	CC24MS	CC24ML	N/A	N/A	N/A
25mm	0.9842"	CC25MS	CC25ML	N/A	N/A	N/A
1"	1.0000"	CC100	CC100L	CC100X	N/A	N/A
26mm	1.0236"	CC26MS	CC26ML	N/A	N/A	N/A
1-1/16"	1.0625"	CC106	CC106L	CC106X	CC106XL	CC106XLX*
27mm	1.0629"	CC27MS	CC27ML	N/A	N/A	N/A
28mm	1.1023"	CC28MS	CC28ML	N/A	N/A	N/A
1-1/8"	1.1250"	CC112	CC112L	CC112X	N/A	N/A
29mm	1.1417"	CC29MS	CC29ML	N/A	N/A	N/A
30mm	1.1811"	CC30MS	CC30ML	N/A	N/A	N/A
1-3/16"	1.1875"	CC118	CC118L	CC118X	CC118XL	CC118XLX*
31mm	1.2204"	CC31MS	CC31ML	N/A	N/A	N/A
1-1/4"	1.2500"	CC125	CC125L	CC125X	N/A	N/A
32mm	1.2598"	CC32MS	CC32ML	N/A	N/A	N/A
33mm	1.2992"	CC33MS	CC33ML	N/A	N/A	N/A
1-5/16"	1.3125"	CC131	CC131L	CC131X	N/A	N/A
34mm	1.3385"	CC34MS	CC34ML	N/A	N/A	N/A
1-3/8"	1.3750"	CC137	CC137L	CC137X	N/A	N/A
35mm	1.3779"	CC35MS	CC35ML	N/A	N/A	N/A
36mm	1.4173"	CC36MS	CC36ML	N/A	N/A	N/A
1-7/16"	1.4375"	CC143	CC143L	CC143X	N/A	N/A
37mm	1.4566"	CC37MS	CC37ML	N/A	N/A	N/A
38mm	1.4960"	CC38MS	CC38ML	N/A	N/A	N/A
1-1/2"	1.5000"	CC150	CC150L	CC150X	N/A	N/A
39mm	1.5354"	CC39MS	CC39ML	N/A	N/A	N/A
1-9/16"	1.5625"	CC156	CC156L	CC156X	N/A	N/A
40mm	1.5748"	CC40MS	CC40ML	N/A	N/A	N/A
41mm	1.6141"	CC41MS	CC41ML	N/A	N/A	N/A
1-5/8"	1.6250"	CC162	CC162L	CC162X	N/A	N/A
42mm	1.6535"	CC42MS	CC42ML	N/A	N/A	N/A
1-11/16"	1.6875"	CC168	CC168L	CC168X	N/A	N/A
43mm	1.6929"	CC43MS	CC43ML	N/A	N/A	N/A
44mm	1.7322"	CC44MS	CC44ML	N/A	N/A	N/A
1-3/4"	1.7500"	CC175	CC175L	CC175X	N/A	N/A
45mm	1.7716"	CC45MS	CC45ML	N/A	N/A	N/A
46mm	1.8110"	CC46MS	CC46ML	N/A	N/A	N/A
1-13/16"	1.8125"	CC181	CC181L	CC181X	N/A	N/A
47mm	1.8503"	CC47MS	CC47ML	N/A	N/A	N/A
1-7/8"	1.8750"	CC187	CC187L	CC187X	N/A	N/A
48mm	1.8897"	CC48MS	CC48ML	N/A	N/A	N/A
49mm	1.9291"	CC49MS	CC49ML	N/A	N/A	N/A
1-15/16"	1.9375"	CC193	CC193L	CC193X	N/A	N/A
50mm	1.9685"	CC50MS	CC50ML	N/A	N/A	N/A
2"	2.0000"	CC200	CC200L	CC200X	N/A	N/A
51mm	2.0078"	CC51MS	CC51ML	N/A	N/A	N/A
52mm	2.0472"	CC52MS	CC52ML	N/A	N/A	N/A
2-1/16"	2.0625"	CC206	CC206L	CC206X	N/A	N/A
53mm	2.0866"	CC53MS	CC53ML	N/A	N/A	N/A
2-1/8"	2.1250"	CC212	CC212L	CC212X	N/A	N/A
54mm	2.1259"	CC54MS	CC54ML	N/A	N/A	N/A
55mm	2.1653"	CC55MS	CC55ML	N/A	N/A	N/A
2-3/16"	2.1875"	CC218	CC218L	CC218X	N/A	N/A
56mm	2.2047"	CC56MS	CC56ML	N/A	N/A	N/A
57mm	2.2440"	CC57MS	CC57ML	N/A	N/A	N/A
2-1/4"	2.2500"	CC225	CC225L	CC225X	N/A	N/A
58mm	2.2834"	CC58MS	CC58ML	N/A	N/A	N/A
2-5/16"	2.3125"	CC231	CC231L	CC231X	N/A	N/A
59mm	2.3228"	CC59MS	CC59ML	N/A	N/A	N/A
60mm	2.3622"	CC60MS	CC60ML	N/A	N/A	N/A
2-3/8"	2.3750"	CC237	CC237L	CC237X	N/A	N/A
2-1/2"	2.5000"	N/A	CC250L	N/A	N/A	N/A
2-9/16"	2.5600"	N/A	CC256L	N/A	N/A	N/A
2-5/8"	2.6200"	N/A	CC262L	N/A	N/A	N/A
2-3/4"	2.7500"	N/A	CC275L	N/A	N/A	N/A
3"	3.0000"	N/A	CC300L	N/A	N/A	N/A



← CYCLONE HSS PREMIUM GRADE ANNULAR CUTTERS

EVOLUTION STANDARD GEOMETRY:

Evolution standard geometry is sufficient for most drilling applications. Manufactured specifically to **maximize hole accuracy** while minimizing cutter vibration and **extending annular cutter life**.

EVOLUTION ID STYLE GEOMETRY:

When drilling through multiple layers of material, Evolution's ID style cutters are recommended. Using this custom geometry **enhances accuracy** and saves time when compared to the alternative method of stopping after each layer and removing the residual slug. This allows for a **single ejection of slugs** when drilling through stacked material.

Evolution stocks ID style annular cutters in many sizes, with all others quickly available upon request.



**3/4" SHANK
2 FLATS**





→ CYCLONE PREMIUM GRADE CARBIDE TIPPED ANNULAR CUTTERS

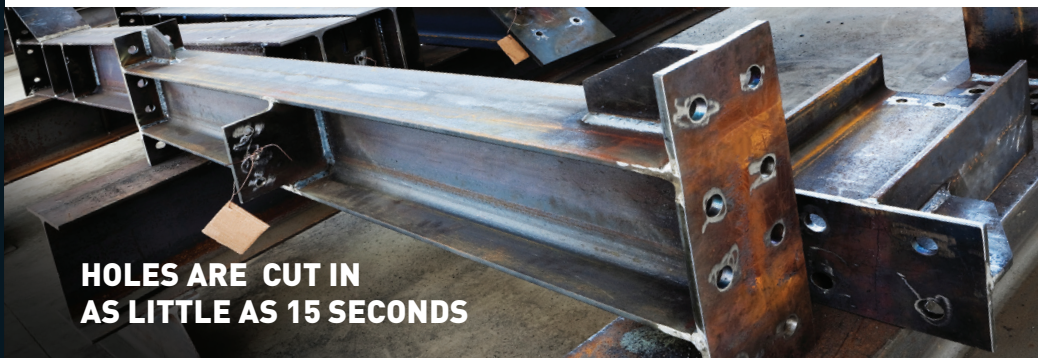
For applications that require drilling in tougher alloys and materials, Evolution recommends using Premium Grade Carbide Tipped Cutters.

Cutter Sizes - Pilot Pin
CT687L-CT237L
CT687X-CT237X

Part Number
PN06
PN3T



3/4" SHANK
2 FLATS



HOLES ARE CUT IN AS LITTLE AS 15 SECONDS

Diameter	Decimal Equivalent	2" Depth	3" Depth
11/16"	0.6875"	CT687L	CT687X
3/4"	0.7500"	CT750L	CT750X
13/16"	0.8125"	CT812L	CT812X
7/8"	0.8750"	CT875L	CT875X
15/16"	0.9375"	CT937L	CT937X
1"	1.0000"	CT100L	CT100X
1-1/16"	1.0625"	CT106L	CT106X
1-1/8"	1.1250"	CT112L	CT112X
1-3/16"	1.1875"	CT118L	CT118X
1-1/4"	1.2500"	CT125L	CT125X
1-5/16"	1.3125"	CT131L	CT131X
1-3/8"	1.3750"	CT137L	CT137X
1-7/16"	1.4375"	CT143L	CT143X
1-1/2"	1.5000"	CT150L	CT150X
1-9/16"	1.5625"	CT156L	CT156X
1-5/8"	1.6250"	CT162L	CT162X
1-11/16"	1.6875"	CT168L	CT168X
1-3/4"	1.7500"	CT175L	CT175X
1-13/16"	1.8125"	CT181L	CT181X
1-7/8"	1.8750"	CT187L	CT187X
1-15/16"	1.9375"	CT193L	CT193X
2"	2.0000"	CT200L	CT200X
2-1/16"	2.0625"	CT206L	CT206X
2-1/8"	2.1250"	CT212L	CT212X
2-3/16"	2.1875"	CT218L	CT218X
2-1/4"	2.2500"	CT225L	CT225X
2-5/16"	2.3125"	CT231L	CT231X
2-3/8"	2.3750"	CT237L	CT237X
2-3/4"	2.7500"	CT275L*	N/A
3"	3.0000"	CT300L*	N/A

*Product shown without permanent safety guard and strap for marketing purposes only.



Tap Size	Cutter	Decimal Equivalent	1" Depth	2" Depth
1/2"-13 NC	27/64"	0.4219"	CC27/64	CC27/64L
1/2"-20 NF	29/64"	0.4531"	CC29/64	CC29/64L
9/16"-12 NC	31/64"	0.4843"	CC31/64	CC31/64L
9/16"-18 NF	1/2"	0.5000"	CC500	CC500L
5/8"-11 NC	17/32"	0.5312"	CC17/32	CC17/32L
5/8"-18 NF	9/16"	0.5625"	CC562	CC562L
11/16"-11 NS	19/32"	0.5938"	CC19/32	CC19/32L
11/16"-16 NS	5/8"	0.6250"	CC625	CC625L
3/4"-10 NC	21/32"	0.6562"	CC21/32	CC21/32L
3/4"-16 NF	11/16"	0.6875"	CC687	CC687L
7/8"-9 NC	49/64"	0.7656"	CC49/64	CC49/64L
7/8"-14 NF	51/64"	0.7969"	CC51/64	CC51/64L
1"-8 NC	7/8"	0.8750"	CC875	CC875L
1"-12 NF	59/64"	0.9219"	CC59/64	CC59/64L
1"-14 NS	15/16"	0.9375"	CC937	CC937L



CYCLONE PREMIUM TAP SIZE CUTTERS

For tapping applications, Evolution offers annular cutters which correspond to most standard tap sizes.

Refer to chart to find correct size.

Cutter Sizes - Pilot Pin
CC27/64, CC29/64
CC31/64-CC937
CC27/64L, CC29/64L
CC31/64L-CC937L

Part Number
PN01
PN02
PN05
PN06



CUTTING SPEED SURFACE FEET PER MINUTE

Refer to material chart to find recommended cutter surface feet per minute.



HARDNESS CONVERSION TABLE

Rockwell C	Brinell
50	481
45	421
40	371
35	327
30	286
25	253
20	222
15	205
10	190
5	169
0	153

Material	M2AL Cutter (SFPM)	
Carbon Steel	Less than 8 Rockwell	80 - 110
	8 - 30 Rockwell	45 - 70
	30 - 40 Rockwell	30 - 45
	40 - 50 Rockwell	15 - 25
Stainless	Softer Grades	40 - 60
	304/316	30 - 40
	320/320W/Tougher Grades	20 - 30
Other Alloys (Hard)	Inconel	25 - 40
	Hastelloy	25 - 40
	Titanium	30 - 40
	Malleable Iron	70
	Manganese	15 - 20
	Aluminum	300
	Magnesium	Up to 300
	Brass	150 - 200
	Bronze	70 - 100
Cast Iron	Soft	100
	Medium	80
	Hard	50
	Chilled	25
Copper	Standard Copper	100

Material	Carbide Cutters (SFPM)
Steel Plate	164
Stainless Steel	115
Cast Iron	131



SFPM TO RPM CONVERSION TABLE

Refer to SFPM chart to match annular cutter diameter with recommended RPM.

Cutting Speed Surface Feet Per Minute (SFPM)	Cutter Diameter																		
	7/16" (.4375")	1/2" (.5000")	9/16" (.5625")	5/8" (.6250")	11/16" (.6875")	3/4" (.7500")	13/16" (.8125")	7/8" (.8750")	15/16" (.9375")	1" (1.000")	1-1/8" (1.125")	1-1/4" (1.25")	1-3/8" (1.375")	1-1/2" (1.50")	2" (2.0")	2-1/2" (2.5")	3" (3.0")	3-1/2" (3.5")	4" (4.0")
10	87	76	68	61	55	51	47	44	41	38	34	30	28	25	19	15	13	11	9
20	175	153	137	123	111	103	95	82	76	68	60	56	56	50	38	30	26	22	18
30	262	229	205	184	166	154	142	133	123	114	102	90	84	75	57	45	39	33	27
40	349	305	273	245	221	205	189	177	164	153	136	120	112	100	76	60	52	44	36
50	437	382	342	306	276	256	236	221	206	191	171	151	141	126	95	75	65	55	45
60	524	458	410	367	331	307	283	265	247	229	205	181	169	151	114	90	78	66	54
70	611	534	478	428	386	358	330	309	288	268	239	211	197	176	133	105	91	77	63
80	699	611	546	490	442	410	378	354	329	305	273	241	225	201	153	121	104	88	72
90	786	687	614	551	497	461	425	398	370	344	307	271	253	226	172	136	117	99	81
100	873	763	682	612	552	512	472	442	411	382	341	301	281	251	191	151	130	110	90
120	1048	915	819	735	663	614	566	530	494	458	410	361	337	301	229	181	157	133	108
140	1223	1068	956	858	773	717	661	619	576	534	478	422	394	351	267	211	183	155	127
160	1398	1221	1093	980	884	820	755	707	659	611	546	482	450	402	305	241	209	177	145
180	1572	1373	1229	1102	994	922	849	795	741	687	614	542	506	452	343	271	235	199	163
200	1747	1526	1365	1225	1104	1024	944	884	823	764	683	602	562	502	382	301	261	221	181
220	1922	1679	1502	1348	1215	1127	1038	972	906	840	751	663	619	552	420	331	287	243	199
240	2096	1831	1638	1470	1325	1229	1132	1060	988	916	819	723	675	602	458	361	313	265	217
260	2271	1984	1775	1592	1436	1331	1227	1149	1070	993	888	783	731	653	496	392	339	287	235
280	2446	2137	1912	1715	1546	1434	1321	1237	1153	1069	956	843	787	703	534	422	365	309	253
300	2620	2289	2048	1837	1656	1536	1415	1325	1235	1145	1024	903	843	753	572	452	391	331	271

→ 7 PIECE MINI CUTTER SET

Mini cutters are specially designed to deliver maximum performance for use on hand drills. Offering enhanced performance in speed, quality and durability, Mini cutters will outperform any twist drill or holesaw.

Part Number: EV0MCS-7



Designed for use on hand drills and ideal for sheet metal, mild steel, stainless steel, aluminum, plastics, HVAC, light piping, conduit, copper and brass.

Set includes 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4" mini cutters with 1/4" depth of cut capacity, 3/8" chuck arbor, 2 pilot pins, center punch, washers, stop washer & wrench.



↓ MAGNETIC CHIP COLLECTOR

Simply wave the magnetic stick over the metal shavings to pick them up, carry them over to the trash, pull the plunger and the shavings are neatly deposited.

Part Number:
WANDMAG



Part Number:
WANDMAG-MAX



↓ STEP DRILLS PREMIUM QUALITY & VALUE

Evolution Premium Step Drills are made from the same high quality M2AL as Cyclone Premium Annular Cutters. These tools are heat treated to 68RC, giving them more durability during tough applications.

Evolution Premium Step Drills are used to produce a range of hole sizes in steel up to 1/8" thick using only one tool. The twin flute design allows for a smoother cutting action with no pre-drilling necessary. Evolution Premium Step Drills have 3 chucking flats on the driving shank to ensure no slipping in the chuck.

Step Drills

Hole Sizes

Part Number & UPC

	Creates 6 Hole Sizes From 3/16" - 1/2" Two Flutes 1/4" Shank Diameters: 3/16", 1/4", 5/16", 3/8", 7/16", 1/2"	SD-6 849713027887
	Creates 9 Hole Sizes From 1/4" - 3/4" Two Flutes 3/8" Shank Diameters: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"	SD-9 849713027894
	Creates 10 Hole Sizes From 1/4" - 1" Two Flutes 3/8" Shank Diameters: 1/4", 13/32", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"	SD-10 849713027900
	Creates 11 Hole Sizes From 1/4" - 1-3/8" Two Flutes 3/8" Shank Diameters: 1/4", 25/64", 35/64", 11/16", 13/16", 7/8", 1", 1-1/8", 1-7/32", 1-1/4", 1-3/8"	SD-11 849713027917
	Creates 12 Hole Sizes From 3/16" - 7/8" Two Flutes 3/8" Shank Diameters: 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8"	SD-12 849713027924



↓ EVOLUTION COUNTERSINKS

Provide the ability to create precision chamfer holes using our magnetic drilling machines. These come standard with a 3/4" shank with two flats.

Size	Countersink	Flute	Degrees	Shank Size
1"	CS823F	3	82	3/4"
1-1/2"	CS823F-15	3	82	3/4"
2"	CS823F-2	3	82	3/4"

→ EVOLUTION INDUSTRIAL ARBOR

Evolution's Three Morse Taper Arbor increases the versatility and capacity of many machines. It can quickly and easily adapt Evolution cutters to any machine with a Three Morse Taper Gearbox.

Evolution Arbor Extensions

Evolution Arbor Extensions extend the reach of Evolution Drills & Cutters, and are available in 2", 3" and 4".

#3 Morse Taper Arbor, 2" DOC, accepts 3/4" shank, EVMT2-2-2MT Arbor for 3/4" Straight Shank equipped with coolant ring.

PART NUMBER EVMT3-2



↓ CUTTING FLUID EXTEND THE LIFE OF YOUR ANNULAR CUTTERS

Evolution offers high quality water soluble semi-synthetic cutting fluid. When mixing, the recommended ratio is one part coolant to 8 parts water (recommendations vary based on application).

Cutting Fluid Size	Part Number
1 Pint	COOLPT
1 Quart	COOLQT
1 Gallon	COOLGAL
5 Gallons	COOL5GAL

Use the cooling paste option below with Evolution Magnetic Drilling Systems when coolant cannot be gravity fed.

10oz Cooling Paste LPS43100



↓ CHUCK & ADAPTOR DRILLING ACCESSORIES

Chucks and adaptors enable twist drills to be used with Evolution Magnetic Drills.

FOR EVOMAG28

& EVOMAG42:

1/2" Chuck & Key
Part Number: HTA153



FOR EVOMAG42:

Chuck Adaptor*

*Required to fit the HTA153 1/2" chuck.
Part Number: HTA47



FOR EVOMAG50:

Chuck, Key, and Adaptor
Part Number: HTA51 & HTA127



FOR EVOMAG75:

Chuck, Key, and Adaptor
Part Number: HTA51 & HTA53TD

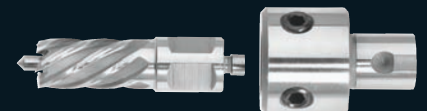


Quick Change Adaptor

Fits competitor's quick change arbors to enable high performance Cyclone Premium Grade Cutters to be used.

Requires extended length pilot pin.

Part Number: QIANMD





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