

ICS, Blount Inc.



1. Product Name

ICS Concrete Cutting Chainsaws

2. Manufacturer

ICS, Blount Inc.
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3. Product Description

BASIC USE

ICS, Blount Inc. invented Diamond Chain Technology DCT™ for cutting concrete, and is a leading designer, manufacturer and seller of concrete saws, diamond chains and a full range of construction related products and specialty accessories. ICS concrete cutting chainsaws are specifically designed for use in a variety of construction applications, including:

- General construction - Foundations; concrete pipe; electrical box openings; ventilation openings; expansion joints; vents; curb cut-outs; seismic retrofits
- Utility construction - Pipe taps; trimming manholes to grade; utility vaults; small openings; concrete removal

- Landscape construction - Miter, angle and arc cuts; natural stone water features and fountains; notching stones to create water channels; tight-fitting stone and rock walls; hardscapes and faux rocks; dry stack walls and features
- Masonry construction - Windows; door openings; expansion joints; masonry repairs; crawl space access; scupper holes; beam pockets; brick wall remodeling

ICS concrete cutting chainsaws cut joints cleanly and smoothly to a constant and equal depth and in a continuous consistent line without over-cutting. Over-cutting can weaken or compromise a structure, thereby requiring additional work and expense to correct. Use of ICS products can save time and expense while helping to meet a variety of specific application and building code requirements.

TYPES

The ICS concrete cutting chainsaw product line consists of 3 gas saw packages, 3 hydraulic saw packages and a variety of components and accessories. ICS saws can cut square corners without over-cutting and are versatile and easy to use, delivering safe, wet-cut operation without kickback or hazardous dust.

SIZES

Guidebar lengths are available from 10" - 30" (254 - 762 mm). See Table 1 for saw dimensions.

BENEFITS

- Deep cuts to 30" (762 mm) without over-cutting
- Fast-cutting, providing labor and time savings

- Cuts perfect square corners and small holes to 3.5" x 3.5" (89 x 89 mm) and deep cuts to 30" (762 mm)
- Lightweight for portability and easy operation in tight spaces
- Steerable, with multi-material chains to cut brick, block, concrete and synthetic materials and to cut arcs on stone and pavers
- No rotational kickback or inertia as with wood saws and circular cut-off saws
- Wet-cut process prevents dust or silica ingestion

LIMITATIONS

- Diamond chain can easily cut number 4 or 5 (12 or 16 mm) rebar, but cutting bar over number 8 (25 mm) is difficult. Rebar or steel must be surrounded by concrete or aggregate material
- Concrete cutting chainsaws are strictly wet-cut systems and cannot cut dry
- Project results are the sole responsibility of the contractor and are not warranted by ICS, Blount Inc. For a list of ICS approved contractors, see the ICS, Blount Inc. website

ACCESSORIES

The Total Slurry Solutions (TSS™) product line provides an easy way to contain and dispose of slurry produced when wet-sawing or drilling in concrete or other masonry or stone material. Tailored specifically for use on concrete slurry, the high-performance vacuum systems in the TSS product line provide the power and durability necessary to deal with the harsh environment and demands of the construction jobsite.



Score cut opening 1" (25.4 mm) deep.



Plunge saw directly into wall.



Finished 2' x 2' (0.61 x 0.61 m) opening in under 20 minutes

TABLE 1 BLADE/BAR SIZE AND OVER-CUT CHART

Bar Length	*Bar Cut Depth	Minimum Opening Size	Length of Over-Cut with Chainsaw	Concrete Thickness	Minimum Opening Size When Using Blade	Length of Over-Cut with Rotary Blade	**Number of core holes required for corner*
10" (254 mm)	10.8" (274 mm)	3.5" (89 mm)	0	9.25" (235 mm)	24" (610 mm)	9" (229 mm)	4
11" (279 mm)	10.6" (269 mm)	4" (102 mm)	0	12.25" (311 mm)	30" (762 mm)	12.25" (311 mm)	7
12" (305 mm)	12.4" (315 mm)	4" (102 mm)	0	15.25" (387 mm)	36" (914 mm)	13.25" (337 mm)	7
13" (330 mm)	12.4" (315 mm)	3.5" (89 mm)	0	18.25" (464 mm)	42" (1067 mm)	15.75" (400 mm)	9
14" (356 mm)	14.3" (363 mm)	4" (102 mm)	0	21.25" (540 mm)	48" (1219 mm)	18" (457 mm)	9
16" (406 mm)	16.4" (417 mm)	4" (102 mm)	0	24.25" (616 mm)	54" (1372 mm)	20.25" (514 mm)	11
19" (483 mm)	18.4" (467 mm)	4" (102 mm)	0	27.25" (692 mm)	60" (1524 mm)	22.5" (572 mm)	11
24" (610 mm)	24.4" (620 mm)	4" (102 mm)	0	33.25" (845 mm)	72" (1829 mm)	27" (686 mm)	15
30" (762 mm)	30" (762 mm)	4" (102 mm)	0	36.25" (921 mm)	80" (2032 mm)	30" (762 mm)	15

* New bar and chain cut depth.

**Based on 5" (127 mm) core hole with 0.25% overlap.

All measurements in inches. Does not include time and labor to remove scalloping from core drilling.

4. Technical Data

TECHNICAL PROPERTIES

See Tables 1 and 2.

ENVIRONMENTAL CONSIDERATIONS

Slurry Containment

When Total Slurry Solutions (TSS™) products are used as a complete system along with an ICS 853 Pro Series saw, the amount of slurry captured is 70% of the water input.

5. Installation

PREPARATORY WORK

Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected



70% slurry containment using (TSS™) products as a system with an ICS 853 Pro Series saw

from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Clean and inspect the saw, bar and diamond chain for damage before mounting. Never use a saw with a missing, modified or broken side cover.

Side cover and guard flap must be properly fastened to the saw per saw manufacturer's specifications.

Inspect air, hydraulic or water hoses or electric cords attached to the saw for proper condition and fit. Repair or replace as required.

Confirm that chain is of the proper specification for the material being cut.

Ensure that the chain is mounted properly. Bumpers provide frontal protection for diamond segments and should lead the segment into the cut.

When sawing interior walls or slabs with internal combustion powered saws, precautions must be taken by the owner or contracting agency to provide adequate ventilation, air circulation and/or oxygen replacement meeting OSHA standards.

Create rigging holes into concrete structure if necessary in accordance with work plan.

In order to prevent the workpiece from settling on and causing damage to the saw, bar or chain, plan cutting sequence so that the bottom horizontal cut is not the last to be completed.

METHODS

Outline the cut with a permanent marker. Start the saw and allow it to warm up briefly. Rev and hold the trigger on full throttle. Carefully align the guidebar nose with the cut line. Slowly touch the surface to be cut with

the chain and then plunge the saw straight into the cut. Push hard enough so that the engine rpm drops 20 - 30%. Using the WallWalker® for leverage, keep steady, firm pressure on the saw as the chain is cutting to prevent chain bounce and chattering and to help extend diamond life.

When cutting heavy rebar, slowly "rock" the saw over the rebar, maintaining gray slurry water, so that concrete, as well as steel, is always being cut. This will help to keep the diamonds exposed.

PRECAUTIONS

- Ensure that chain tension is not bowstring tight and can be pulled around by hand with ease
- Use 20 psi minimum water pressure
- Use a 25:1 gas/oil mix ratio with gas-operated chainsaws
- Always use full throttle when cutting

6. Availability & Cost

AVAILABILITY

ICS concrete cutting saws, diamond chains and related products are sold and supported by a worldwide network of ICS Authorized Dealers and are backed by a comprehensive network of factory trained service centers. Contact ICS, Blount Inc. for information on local availability, or visit the online dealer locator at www.icsbestway.com.

COST

ICS offers downloadable price lists and parts breakdowns online at www.icsbestway.com.

7. Warranty

Product registration is required before any warranty service can be performed. Complete warranty terms and conditions are available from the manufacturer. For details, consult ICS, Blount Inc.

8. Maintenance

Daily

- Inspect fasteners and sprocket
- Inspect starter rope and air filter for wear, dirt and slurry (gas saws only)
- Oil the guide bar, diamond chain and bar nose sprocket
- Grease the chain tensioner
- Lubricate the bar and chain with a thin film of WD-40® or equivalent

After Each Use

- Rinse the saw, bar and chain with water
- Inspect and tighten all fasteners
- Inspect the drive sprocket for tooth wear and replace if tooth tips are pointed
- Inspect the starter cord and replace if frayed (gas saws only)
- Clean and inspect the air filter and replace regularly after every 2 - 3 chains (gas saws only)
- Lubricate the bar and chain with a thin film of WD-40® or equivalent
- Grease the chain tensioner

After 10 Hours of Use (Gas Saws)

- Remove the starter cover and lubricate the starter recoil spring
- Clean the flywheel fins and the starter pawls with a wire brush
- Grease the starter pawls
- Remove the spark plug and clean with a wire brush
- Check the electrode gap and ensure that it is set to 0.02" (0.5 mm)

After 40 Hours of Use (Gas Saws)

- Change the spark plug
- Adjust the electrode gap to 0.02" (0.5 mm)
- Check the fuel filter located inside the fuel tank and clean or replace if clogged

9. Technical Services

ICS, Blount Inc. offers a variety of technical services and information, including:

- Referral to ICS approved Diamond Chain Technology DCT™ contractors
- Online service center locator
- Replacement parts lists and drawings
- List of frequently asked questions (online)
- Downloadable datasheets for specific ICS products (PDF)

- Downloadable operator manuals and shop manuals (PDF)
- Downloadable technical tips guide (PDF)
- Downloadable chain tensioning guide (PDF)
- Downloadable cutting tips guide (PDF)
- Downloadable maintenance tips guide (PDF)
- Downloadable field troubleshooting guide (PDF)
- Downloadable chain life calculator (PDF)

Technical assistance, including assistance in preparing project specifications and arrangements for application supervision, is available by contacting ICS, Blount Inc.

10. Filing Systems

- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.

TABLE 2 CUTTING TIME FOR MECHANICAL OPENING IN STANDARD 8" (203 mm) CONCRETE

4" x 4" (102 x 102 mm)	2 minutes
1' x 1' (0.3 x 0.3 m)	15 minutes
2' x 2' (0.6 x 0.6 m)	30 minutes
3' x 3' (0.9 x 0.9 m)	45 minutes

Note - Add 1 minute for every piece of #6 rebar.



ICS concrete cutting chainsaw vs. diamond blade