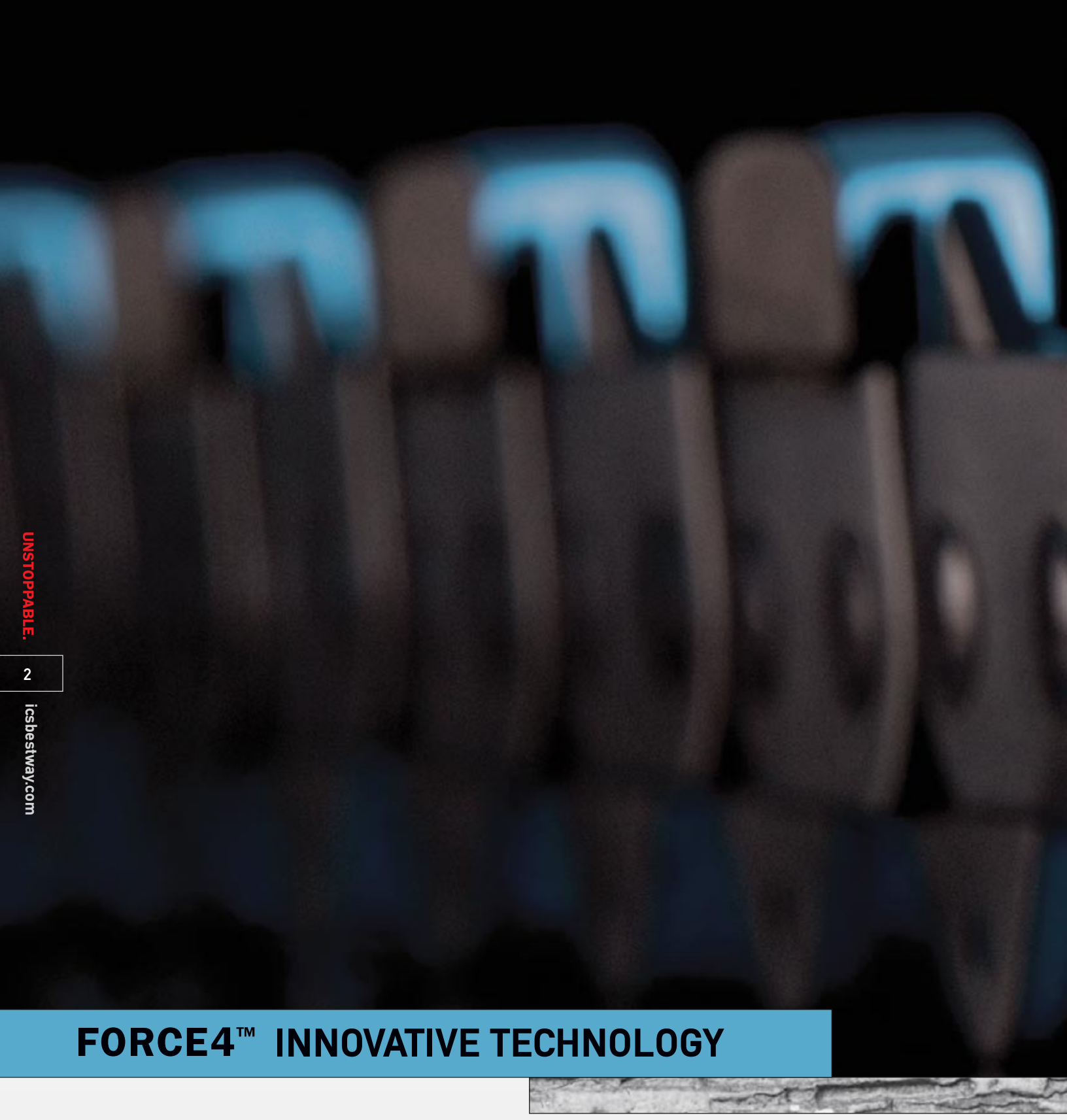
ICS®

CONCRETE. STONE. MASONRY. **UNSTOPPABLE.**

PRODUCT & APPLICATION HANDBOOK

icsbestway.com



FORCE4™ INNOVATIVE TECHNOLOGY

Bring together the hardest material known to man, the hottest fire outside of the sun, and the vast experience of a company dedicated to revolutionizing concrete cutting and you have FORCE4™. Not satisfied with being the inventors of Diamond Chain Technology™ or the first to introduce gas-powered concrete chain saws, a tool that forever changed the rules of concrete cutting, ICS® set out to build a diamond chain of unparalleled strength and durability. Four years in development and reflecting all of the technology, experience, and customer feedback that could be brought to bear, FORCE4™ is a leap ahead in concrete cutting. Based on the patent pending pitch design of the chain elements, it is an innovation-packed powerhouse.

FORCE4™ is more than just a new product: it represents a mindset, a way of looking at the world not through the eyes of an engineer or financial analyst, but through the eyes of the people actually at the jobsite, people whose livelihood depends on the tools in their truck. From the very beginning, the goal was to increase dependability, reduce downtime, and make ICS concrete chain saws the tool of choice for serious cutters across the globe. With FORCE4™, we will have moved much closer to that goal.

ICS®

ABOUT ICS®

As ICS® approaches the two decade mark, I look back with pride on a past that has had its share of setbacks, but even more successes. The setbacks include our inaugural World of Concrete trade show in Texas in the early 90's, where a diamond chain actually flew off of the first ever prototype saw into the stands of the Astrodome. Many industry insiders buried our company forever right then and there. They were wrong.

During the early gas saw years, multiple redesigns and recalls tested the patience of our customers. But a small and growing group of customers remained loyal and such pessimism only made us more determined.

The successes came from these same early customers and employees who frankly may have been a little crazy to believe a chain saw could cut concrete. Crazy or not, they certainly didn't believe the naysayers.

Since that time there have been countless product innovations, great field champions, and many close calls that come with building a successful global enterprise. Through it all, the loyalty of our customers and employees has kept us driving to advance and innovate, and I am very proud to say that we have solved many technical problems that the industry said could not be solved.

I am also very proud that a diamond chain today sells for as low as $200, compared to the $1500 price tag attached to our first chain. We have made this new category profitable for many around the world. Our culture of can-do has now put ICS and our customers in a great position to grow in the future. Together we are truly UNSTOPPABLE.

Jake VanderZanden
President, ICS

THE COMPANY

Founded in late 1991, in Portland, Oregon, ICS® is the world leader in Diamond Chain Technology™. ICS designs, manufactures, and sells concrete saws, diamond chain, and a full range of related products and accessories.

As the inventor and category pioneer of Diamond Chain Technology™ for cutting concrete, ICS has continually developed new patented designs and innovative products, rapidly growing from that first diamond chain into a multi-million dollar manufacturing, sales, and distribution company.

Headquartered in Portland, Oregon, as a part of Blount International, ICS also has a sales and distribution office in Belgium and a worldwide network covering more than 70 countries.

ICS concrete chain saws, diamond chains, and related products are sold and supported by a worldwide network of ICS Authorized Dealers and backed by a comprehensive network of factory trained personnel and service centers.

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PRODUCT HISTORY

THOSE WHO DON'T LEARN FROM HISTORY ARE CONDEMNED TO REPEAT IT. WE HATE REPEATS.

Whether it's pioneering new concrete cutting technology, launching the world's first gas-operated concrete chain saw, or leading the industry in online presence, ICS® has a long history of innovation, starting with an R&D exercise for Blount, Inc. that received its first patent for Diamond Chain Technology™ (DCT™) in 1991. A year later, the 801H hydraulic saw helped launch the ICS brand in the U.S. and Europe. Always on the prowl for improvements, in 1993 ICS received a patent for the WallWalker®, an ingenious device that builds leverage into the saw, reducing operator fatigue and extending chain life. It is the kind of customer-oriented thinking that helps ICS reach $1 million in revenues that same year.

Over the next decade, ICS engineers continued to improve on design, rolling out a series of advances in both saws and DCT™. 1994 saw the birth of the first saw to be completely designed by ICS, the 823H hydraulic, a true milestone for the small company. It was during this period that ICS also unveiled the 623G, the first gasoline powered concrete chain saw.

1992: The 801H hydraulic, the first viable handheld concrete chain saw, is launched.

1994: The feature-loaded 823H hydraulic concrete chain saw hits the market. The first product to be completely designed by ICS© engineers, it's a true milestone for the young company.

1997: The world's first gas powered concrete chain saw, the 623G, is released to global markets, winning rave reviews for its portability and versatility.

2001: The 623G receives significant upgrades and becomes the 633GC, a 101 cc workhorse that is still a star in the company's product line.

2002: The launch of the 613GC, a sub-$1,500 80 cc gas saw makes the benefits of DCT™ affordable to a wider market and starts a period of unprecedented growth for ICS.

2005: ICS releases its line of 60 cc gas saws, sold under the Redzaw© brand. The line proves the ability of ICS to continue to drive the cost of DCT™ lower.

2007: ICS upgrades its work proven gas saw, the 633GC, with new starting and durability features that will eventually work into future models.

2008: A trio of flagship products is unveiled, including the 880F4.

Of course, the teeth in every ICS saw is diamond chain and it too has seen its share of improvements. In 1996 ICS used special diamonds and stronger chassis elements to create the first diamond chain engineered specifically for pro cutters. This was followed by the patented SealPro® o-ring technology in 2000, a major improvement that advanced DCT™ to a new level of durability.

In 2008, ICS is continuing its tradition of innovation by launching a trio of new flagship products, including FORCE4™, the toughest diamond chain ICS has ever created, the 880F4, a sleek hydraulic saw specially built to power FORCE4™, and the 680GC, a new 80 cc gas powered saw that represents a giant leap ahead in reliability and durability. Ingenuity and experience, combined with deep customer knowledge and a drive to bring the benefits of Diamond Chain Technology™ to a wider market, are the ingredients in what is guaranteed to be a recipe for future success.

GUIDED BY CUSTOMERS

HOW MANY ENGINEERS, ACCOUNTANTS, AND MBA'S DOES IT TAKE TO DEVELOP A LIGHT BULB?

Who cares? The fact is nothing happens without the knowledge and experience of ICS® customers. The best source of information for ICS engineers has always been the people whose livelihood depends on dependability, people who cannot afford downtime, people who expect engines to start, saws to cut, and have no patience whatsoever for apologies or excuses. If this sounds familiar, the new line of ICS products was built for you.

From the superior engineering of the 680GC, a lightweight and portable tool designed to be the most reliable gas saw ICS has ever produced, to the 880F4, a sleek, black hydraulic powerhouse built specifically to handle the raw cutting power of FORCE4™ chain, it took both your experience and that of ICS to make them happen. It turned out to be a great partnership.

POWERED BY INNOVATION

A WHOLE DIFFERENT ANIMAL

Innovation has always been the hallmark of ICS® and that tradition continues in 2008 with a trio of new flagship products, including FORCE4™, the toughest diamond chain ICS has ever created, the 880F4, a rugged hydraulic saw specially built to power FORCE4™, and the 680GC, a new 80cc gas powered saw that represents a giant leap ahead in reliability and durability.

Altitude-friendly carburetion for easy starting and maximum power at any elevation

Polyester filter is designed specifically for wet cutting

Large diameter (4 mm) rope and improved recoil spring engagement guarantee dependable starts

New airflow design increases surface area by 40%, helping to lower engine operating temperature

The sealed SMART Ignition System's computerized timing matches spark advance to engine load, which when combined with improved airflow lowers engine temperature by 100°F (40°C)

Advanced rear-ported multi-chamber air intake keeps airflow slurry-free

Decompression valve for easy starting

Improved fuel mixture screws make tuning easier

Distinctly black housing lets the world know this saw means business

Choose from the entire line of TwinMAX™ diamond chains to cut through concrete, stone, and masonry

Available with 12" (30 cm) and 14" (35 cm) guidebars

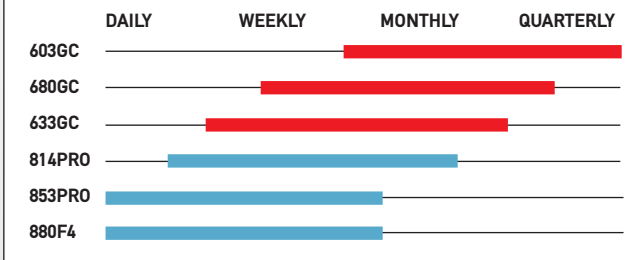
ICS® GAS POWERED SAWS

POWER AND PORTABILITY IN ONE TOOL

ICS® gas powered concrete chain saws are safe, versatile, and simple-to-operate tools that are valuable at any jobsite. Powerful and dependable two-stroke engines feature slurry-resistant crankshaft sealing and dust-proof air filtration, water-resistant electronic ignition, and a starter built to stand up to the extreme conditions of the concrete cutting environment. A wet-cutting system reduces dust and can be supplied by a standard garden hose. A built-in WallWalker® provides leverage to reduce fatigue and extend chain life. Able to plunge cut up to 16 inches (40 cm) or cut perfectly square small openings with no overcuts, ICS gas concrete chain saws should be in the back of every contractor's truck.

SAW SELECTION

In addition to cutting depth and power requirements, estimated frequency of use is important when selecting a saw. Use the chart below to determine the right saw for your cutting needs.



ICS® GAS POWERED SAWS

680GC

A WHOLE DIFFERENT ANIMAL

The 680GC is the much anticipated revolution in concrete chain saws. Built to be the most reliable gas saw ICS® has ever produced, it's packed with innovations. The distinctive black powerhead houses redesigned carburetion and ignition systems that work together to ensure easy starting, cooler operation, and dependable performance at just about any elevation. Improved airflow design keeps the engine much cooler, extending its life. Available with 12" (30 cm) and 14" (35 cm) guidebars and the entire line of TwinMAX™ diamond chain.

680GC PRODUCT SPECIFICATIONS	
WEIGHT	21 lbs (9.5 kg) with bar and chain
BAR LENGTH	Up to 14 inches (35 cm)
ENGINE SPEED	11500 +/- 500 rpm, 2800-3200 rpm idle
HORSEPOWER	5.7 hp (4.2 kW) @ 9000 rpm
ENGINE TYPE	2-stroke, single cylinder, air cooled
DISPLACEMENT	4.9 cu. Inch (80 cc)
CHAIN SPEED	5300 fpm (27 m/s), free running
POWERHEAD DIMENSIONS	18 inches (45 cm) length 11.5 inches (29 cm) height 10 inches (25 cm) width
NOISE LEVEL	100 dB @ 3 ft (1 m)
VIBRATION LEVEL	10.5 meters/second^2 (front handle)
WATER SUPPLY	Minimum 20 psi (1.5 bar)
FUEL MIX RATIO	25:1 (4%) fuel-to-oil
FUEL CAPACITY	0.23 gal (.88 liter), 15-18 minutes run time per tank

ICS® GAS POWERED SAWS

633GC

POWER AND FINESSE IN ONE PACKAGE

The 633GC is the most powerful gas saw in the ICS® product line. Redesigned to better meet the extreme demands of heavy users, the 633GC combines all of the advantages of Diamond Chain Technology™ with the power of a 101 cc engine. Available with a 14" (35 cm) or 16" (40 cm) guidebar, the 633GC is the saw for the big jobs.

633GC PRODUCT SPECIFICATIONS	
WEIGHT	27.5 lbs (12.5 kg) with bar and chain
BAR LENGTH	Up to 16 inches (40 cm)
ENGINE SPEED	11500 +/- 500 rpm, 2500-2800 rpm idle
HORSEPOWER	6.5 hp (4.8 kW) @ 8700 rpm
ENGINE TYPE	2-stroke, single cylinder, air cooled
DISPLACEMENT	6.2 cu. Inch (101 cc)
CHAIN SPEED	4950 fpm (25 m/s), free running
POWERHEAD DIMENSIONS	23 inches (58 cm) length 14 inches (35 cm) height 12 inches (30 cm) width
NOISE LEVEL	102 dB @ 3 ft (1 m)
VIBRATION LEVEL	8 meters/second^2 (front handle)
WATER SUPPLY	Minimum 20 psi (1.5 bar)
FUEL MIX RATIO	25:1 (4%) fuel-to-oil
FUEL CAPACITY	0.26 gallon (1 liter), 12-15 minutes run time per tank

ICS® CUSTOMER SERVICE

Trust the experience and product knowledge of the ICS Customer Service team to help you make the most of your investment in ICS products. Proud of their quick response time, our helpful representatives are available by phone or email to answer questions about maintenance and repair, to place orders for products and parts, direct you to a local dealer, and to make sure you are delighted with your ICS experience.

603GC

PORTABLE AND AFFORDABLE VERSATILITY

The 603GC is designed to be an affordable, light-duty workhorse. The sturdy 64 cc engine, with its advanced rear-ported, multi-chamber air filtration cranks out more than enough power to make plunge cuts up to 10 inches (25 cm) deep. An expert tool at an entry level price and weighing in at less than 18 lbs (8 kg), the 603GC is a handy member of any crew.

603GC PRODUCT SPECIFICATIONS

WEIGHT	17.6 lbs (8.0 kg) with bar and chain
BAR LENGTH	10 inches (25 cm)
ENGINE SPEED	11500 +/- 500 rpm, 2800-3200 rpm idle
HORSEPOWER	4.2 hp (3.1 kW) @ 9500 rpm
ENGINE TYPE	2-stroke, single cylinder, air cooled
DISPLACEMENT	3.9 cu. Inch (64 cc)
CHAIN SPEED	5100 fpm (25.9 m/s), free running
POWERHEAD DIMENSIONS	17 inches (44 cm) length 10 inches (25.5 cm) height 11.6 inches (29.5 cm) width
NOISE LEVEL	101 dB @ 3 ft (1 m)
VIBRATION LEVEL	10.1 meters/second² (front handle)
WATER SUPPLY	Minimum 20 psi (1.5 bar)
FUEL MIX RATIO	25:1 (4%) fuel-to-oil
FUEL CAPACITY	0.26 gallons (1 liter), 12-15 minutes run time per tank

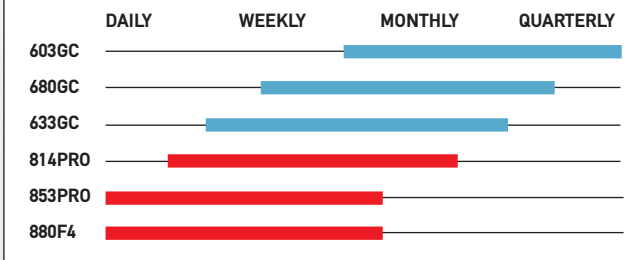
ICS® HYDRAULIC SAWS

FOR THE SERIOUS CUTTER

Quiet and smooth, powerful and rugged, ICS® hydraulic concrete chain saws are built for the professional concrete cutter. With features that include a built-in WallWalker® for easier cutting, trigger-activated valve for on-demand water, and a modular design for easier servicing, these saws are designed specifically for those who make a living cutting concrete. From the powerful 880F4 to the compact 814PRO, there is an ICS hydraulic saw for every application, whether it's cutting a small mechanical opening or taking down an entire wall. Square corners and no overcuts mean less time is needed to complete projects.

SAW SELECTION

In addition to cutting depth and power requirements, estimated frequency of use is important when selecting a saw. Use the chart below to determine the right saw for your cutting needs.



ICS® HYDRAULIC SAWS

880F4

A GREAT SAW WITH A BAD ATTITUDE

The new 880F4 cutting system offers the superior strength of FORCE4™ technology in a package that meets industry standards of design and ergonomics. Built for the hardcore cutter, this sleek powerhouse is packed with features designed to make it the hardest working saw ICS® has ever made.

880F4 PRODUCT SPECIFICATIONS	
WEIGHT	27.3 lbs (12.4 kg) with 15-inch (38 cm) bar and chain
BAR LENGTH	Up to 25 inches (63 cm)
MOTOR SPEED	7500 rpm
CHAIN SPEED	6400 fpm (32 m/s), free running
POWERHEAD DIMENSIONS	23 inches (58.5 cm) length 10.5 inches (26.5 cm) height 9.5 inches (24 cm) width
TORQUE	122 in-lbs
HORSEPOWER	15 hp
HYDRAULIC SUPPLY	12 gpm (45 lpm), 2500 psi (172.5 bar)
NOISE LEVEL	88 dB @ 3 ft (1 m)
VIBRATION LEVEL	4 meters/second^2 (front handle)
WATER SUPPLY	Minimum 20 psi (1.5 bar)

853PRO SERIES

HIGH PERFORMANCE FOR THE PRO CUTTER

The rugged and reliable 853PRO and the 853 PRO PLUS are large-frame hydraulic saws designed for the serious cutter. With more horsepower and torque than gas-operated saws and the ability to cut to a depth of 24 inches (60 cm), they are ready to power through any concrete, stone, and masonry.

853PRO PRODUCT SPECIFICATIONS	
WEIGHT	27.3 lbs (12.4 kg) with 15-inch (38 cm) bar and chain
BAR LENGTH	Up to 24 inches (60 cm)
MOTOR SPEED	5700 rpm
CHAIN SPEED	4900 fpm (29 m/s), free running
POWERHEAD DIMENSIONS	23 inches (58.5 cm) length 10.5 inches (26.5 cm) height 9.5 inches (24 cm) width
TORQUE	95 in-lbs
HORSEPOWER	11 hp
HYDRAULIC SUPPLY	8 gpm (30 lpm), 2500 psi (172.5 bar)
NOISE LEVEL	88 dB @ 3 ft (1 m)
VIBRATION LEVEL	4 meters/second^2 (front handle)
WATER SUPPLY	Minimum 20 psi (1.5 bar)

853PRO FL

MAKE FLUSH CUTS WITH THIS RUGGED PERFORMER

In a tight spot? Choose the 853PRO FL or 853PRO Plus FL. Based on the popular 853PRO, the unique flush-cut design of these saws allows them to cut within 3/16" (4.8 mm) from walls or floors, bringing the precision of Diamond Chain Technology™ to a new level.

853PRO PLUS PRODUCT SPECIFICATIONS	
WEIGHT	27.3 lbs (12.4 kg) with 15-inch (38 cm) bar and chain
BAR LENGTH	Up to 24 inches (60 cm)
MOTOR SPEED	5500 rpm
CHAIN SPEED	4600 fpm (23.4 m/s), free running
POWERHEAD DIMENSIONS	23 inches (58.5 cm) length 10.5 inches (26.5 cm) height 9.5 inches (24 cm) width
TORQUE	150 in-lbs
HORSEPOWER	15 hp
HYDRAULIC SUPPLY	12 gpm (45 lpm), 2500 psi (172.5 bar)
NOISE LEVEL	88 dB @ 3 ft (1 m)
VIBRATION LEVEL	4 meters/second^2 (front handle)
WATER SUPPLY	Minimum 20 psi (1.5 bar)

ICS® HYDRAULIC SAWS

814PRO PRK™

BIG PERFORMANCE IN A SMALL PACKAGE

It may be small, but with as much power as its big brother the 853PRO, the 814PRO is ready for the big jobs. Lighter than other hydraulic saws with the ability to cut perfectly square openings as small as 3 ½ inches (9 cm), the 814PRO is a natural for utility work and other applications where a mix of portability and power are required.

814PRO PRK™ PRODUCT SPECIFICATIONS	
WEIGHT	15 lbs (6.8 kg) with 13-inch (32 cm) bar and chain
BAR LENGTH	13 inches (32 cm)
MOTOR SPEED	8900 rpm
CHAIN SPEED	4400 fpm (25 m/s), free running
POWERHEAD DIMENSIONS	14.3 inches (36.3 cm) length 11.3 inches (28.7 cm) height 9.2 inches (23.4 cm) width
TORQUE	95 in-lbs
HORSEPOWER	11 hp
HYDRAULIC SUPPLY	8 gpm (30 lpm), 2500 psi (172.5 bar)
NOISE LEVEL	88 dB @ 3 ft (1 m)
VIBRATION LEVEL	3.5 m/sec² (front handle)
WATER SUPPLY	Minimum 20 psi (1.5 bar)

PRK™ CUTTING SYSTEM

PRK™ DELIVERS SPEED AND ECONOMY

For more speed and economy, pair the ICS® 814PRO hydraulic saw with PRK™ diamond chain. PRK™ cuts faster than standard diamond chain and is one of the lowest priced professional chains from ICS.

FREE PROFESSIONAL TRAINING DELIVERED TO THE JOBSITE

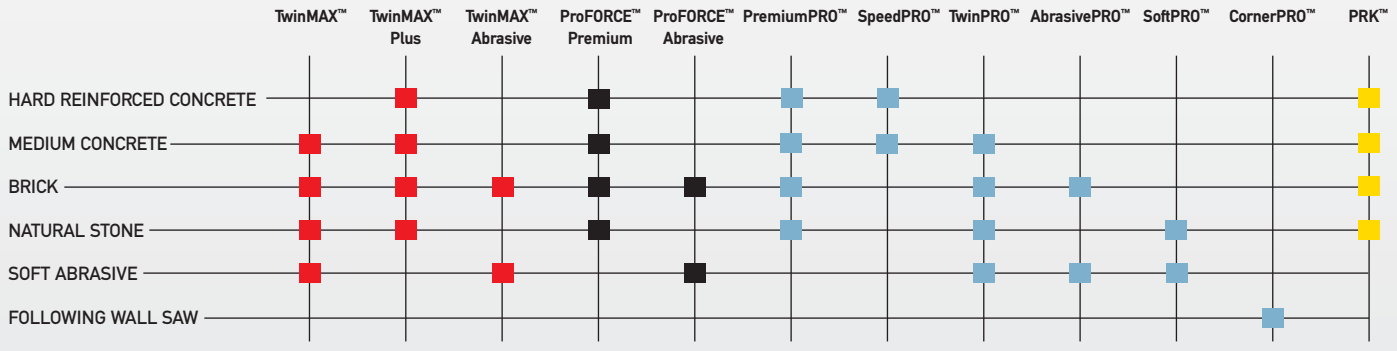
Professional cutters can now learn the tips, tricks, and techniques to cutting safely and efficiently by the makers of the world's most versatile concrete cutting technology. Seasoned professional trainers are ready to pass on their knowledge and experience to your crew. Learn the best practices to tackle difficult jobs, proper hook-up and set-up, field maintenance, and many other tactics that will make your job easier, safer, and more profitable.

ICS® DIAMOND CHAINS

DIAMOND CHAIN TECHNOLOGY™

Diamond Chain Technology™ is a revolution in concrete cutting. Diamond segments laser-welded to a steel chassis grind through concrete and other aggregate material, eliminating kickback and the damage that percussive methods can cause. This remarkable property allows ICS® saws to plunge cut up to 25 inches (63 cm) into the hardest concrete or make perfectly square corners with no overcuts. The patent pending SealPro® design reduces wear and extends chain life. Available in a variety of configurations to match specific applications, there is an ICS diamond chain ready to meet any cutting challenge. As the inventors of Diamond Chain Technology™, ICS is committed to continually improving the quality and versatility of this important advance in concrete cutting.

DIAMOND CHAIN SELECTION CHART

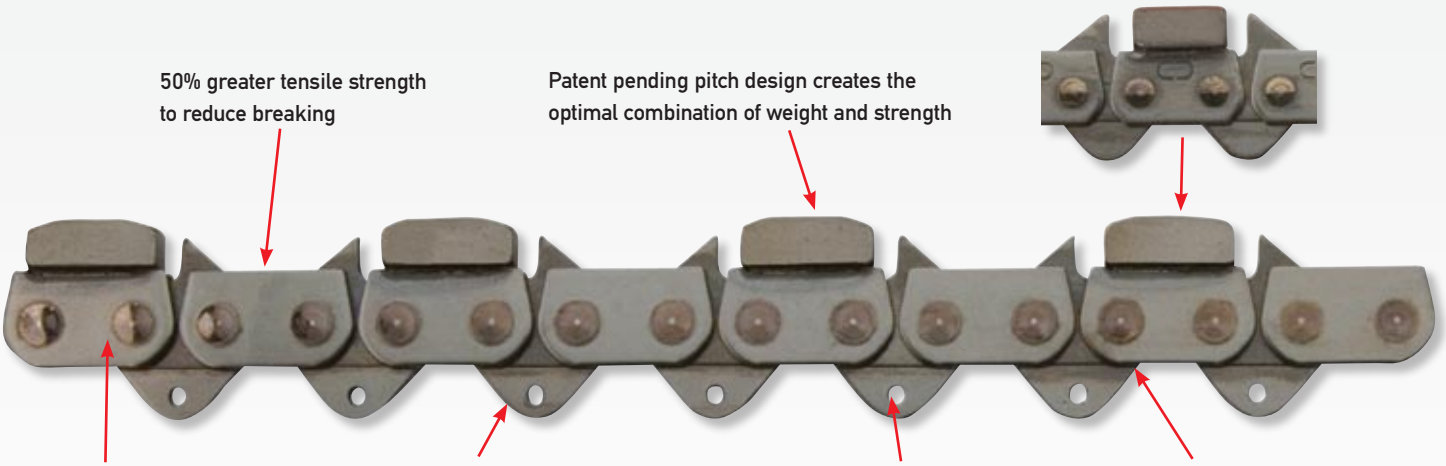


ICS® DIAMOND CHAINS

MEET THE NEW FORCE IN CONCRETE CUTTING TECHNOLOGY: FORCE4™

Designed to be the strongest, longest lasting diamond chain ever made, FORCE4™ is on the cutting edge of Diamond Chain Technology™.

Compare the size of FORCE4™ against standard chain (Both chains shown actual size)



FORCE4™ DIAMOND CHAIN REQUIRES UNIQUE FORCE4™ COMPONENTS

FORCE4™ DRIVE SPROCKET
Upgraded guide ring design distributes load for greater durability

Tool steel alloy guarantees exceptional strength, life, and abrasion resistance

FORCE4™ GUIDEBAR
Laser-cut internal water channels keep the nose sprocket lubricated

Deep groove stabilizes FORCE4's chassis for straighter, cleaner cuts

FORCE4™ DIAMOND CHAIN TECHNOLOGY

From the company that revolutionized concrete saws comes a revolution in diamond chains: FORCE4™. Designed to be the strongest, longest lasting diamond chains ever made, the FORCE series delivers unrivaled performance in professional cutting applications.

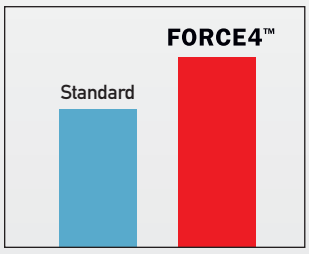
ProFORCE™ PREMIUM

Designed for longer life in hard aggregate, this will be the professional cutter's choice when faced with the most demanding jobs.

ProFORCE™ ABRASIVE

A heavy duty diamond chain built to perform in the harshest cutting environments.

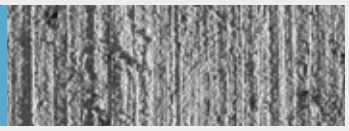
FORCE4™ has been proven to have 1.5 times the tensile strength of standard chains.



USER TIP

A new user can experience up to 50% less chain life with the first chain than a second chain. This is because the learning curve for breaking-in a chain, learning how to cut properly and cutting straight greatly improves after the first few hours of cutting. For this reason, a second chain is recommended with saw purchase. Operators will not only experience greater chain life on the second chain but also faster and straighter cuts.

ICS® DIAMOND CHAINS



TwinMAX™ SERIES

Designed to be used with the full line of ICS® gas powered chain saws, these chains offer the ultimate combination of versatility and affordability. Named for the patented double-bumper design, TwinMAX™ chains feature smooth cutting performance and easy installation.

TwinMAX™

A good general purpose chain that will handle 80% of cutting jobs, this diamond chain is designed to be affordable and user-friendly.

TwinMAX™ PLUS

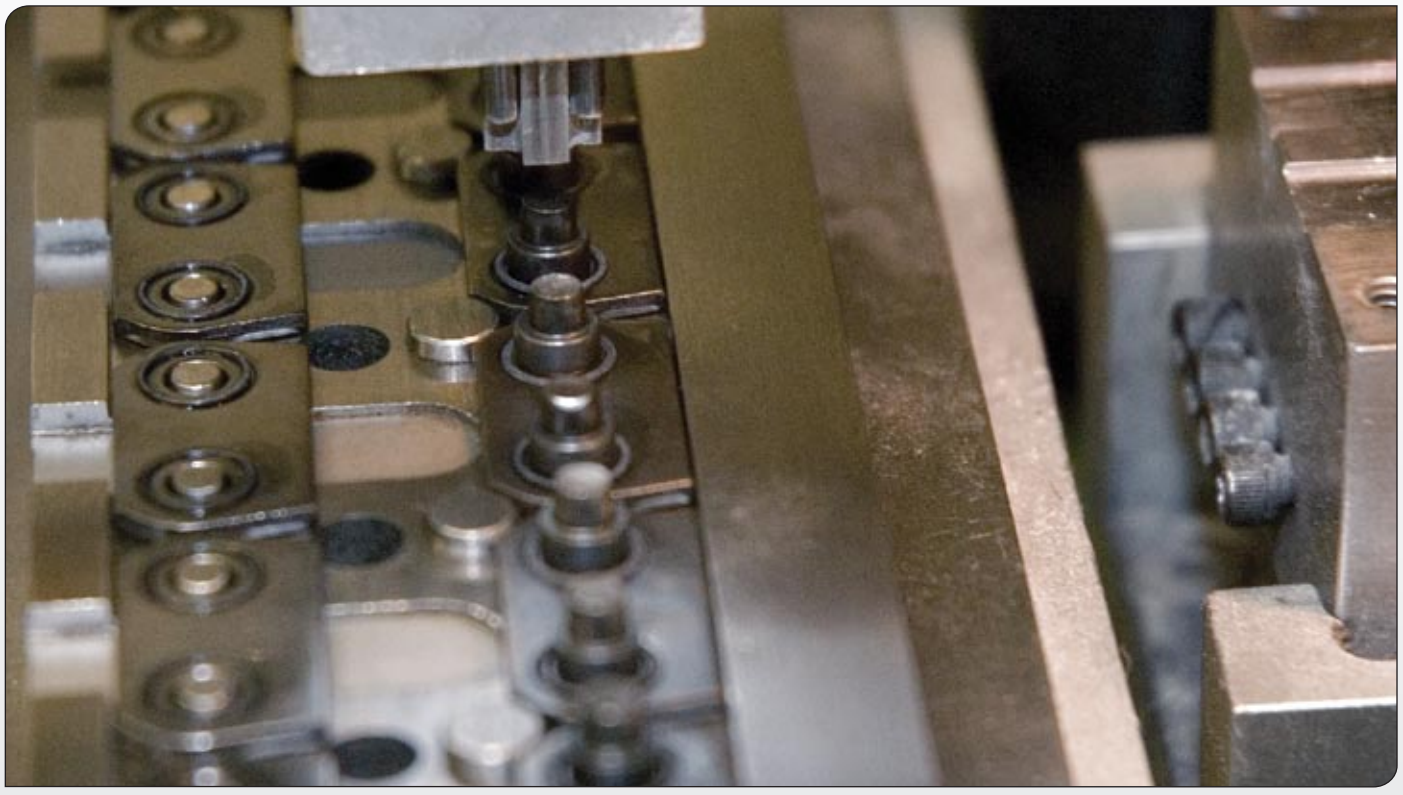
Built to tackle harder materials and more steel, TwinMAX™ Plus is a long-lasting general purpose diamond chain.

TwinMAX™ ABRASIVE

A special diamond concentration and harder bond make this diamond chain perfect for cutting through highly abrasive aggregate like brick and sandstone.

INSIST ON GENUINE ICS® DIAMOND CHAINS WITH SEALPRO®

SealPro® diamond chain technology



PRO SERIES DIAMOND CHAIN

Engineered to the highest standards, PRO Series chains are the choice of serious cutters. Designed to cut faster and last longer, the PRO Series includes the revolutionary PRK™ cutting system, a leap ahead in pure cutting speed.

PremiumPRO™

Designed specifically for applications involving hard aggregate or heavy steel, this chain offers longer life and the best overall value.

TwinPRO™

A great general purpose chain that offers the same easy installation as the TwinMAX™ series, but upgraded for serious professional cutting.

AbrasivePRO™

A special segment recipe and single bumper design allows this chain to slice through brick, sandstone and other abrasive materials.

SoftPRO™

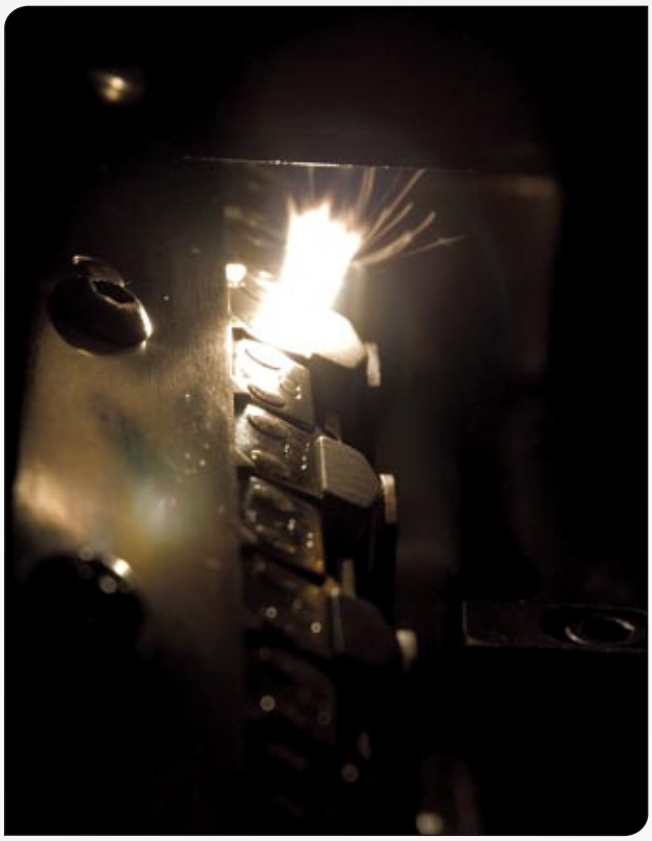
A fast cutting, economical chain for everyday use in non-abrasive aggregate material, such as some types of natural stone.

SpeedPRO™

A unique "sandwich" design segment combines fast cutting in professional applications involving heavy steel.

CornerPRO™

Featuring a narrow kerf, this chain was developed for a single purpose: finishing corners only. *Important: CornerPRO™ has a unique configuration that restricts its application to finishing corners only and should only be used by trained professional cutters.*



PRK™ SERIES

Up to 40% faster and two-thirds the price of standard chains, PRK™ diamond chains are an exceptional value. Combining PRK™ with a special guidebar and sprocket creates a system that not only cuts faster, but straighter as well.

PRK™ SS

Fast and affordable, PRK™ SS is designed to be used with the revolutionary PRK™ cutting system and is the fastest cutting ICS diamond chain.

PRK™ LL

Fast like its SS brother, this diamond chain also provides extra life.

PRK™ CUTTING SYSTEM

ICS® ACCESSORIES

WORK-PROVEN ACCESSORIES FOR EVERY JOB

Whether it's making cuts straighter or jobsites cleaner, there is an ICS® accessory that gets the job done. 15 years of experience and a whole lot of ingenuity has gone into making these work-proven products an indispensible complement to your ICS concrete chain saw.

PORTABLE POWER FOR THE PROFESSIONAL CUTTER

ICS® gas operated power packs are a dependable, self-contained source of hydraulic power that offer superior cooling capacity. The functional, ergonomic design makes them easily transportable to any job site.

P95 18 HP (13.5 KW) POWERPACK

Affordable hydraulic power with exceptional cooling capability in an easy to carry package. Adjustable for 5 gpm or 8 gpm (20 lpm or 30 lpm) operation.

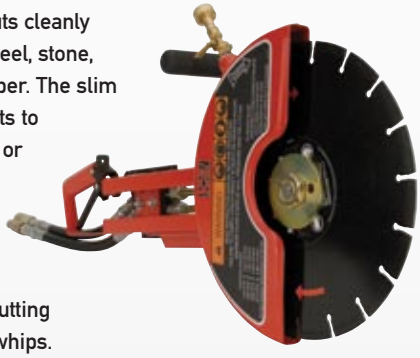
P110 23 HP (17 KW) POWERPACK

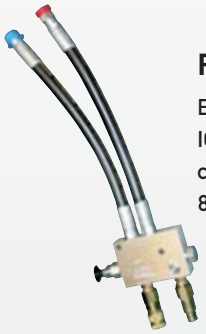
Step up to the power of the newest addition to the ICS® line of reliable powerpacks. Adjustable to 8 gpm or 12 gpm (30 lpm or 40 lpm) operation.

ICS® hydraulic powerpacks are also available in electric models.

14H CIRCULAR SAW EXTRAORDINARY PERFORMANCE FOR ORDINARY TASKS

The 14H hydraulic direct-drive saw is a rugged and versatile tool that cuts cleanly and quickly through concrete, steel, stone, composition material, or hard fiber. The slim line design of the saw allows cuts to be made within inches of a wall or an obstruction and hydraulic power means less vibration. The saw is equipped with an adjustable blade guard, water hose connection for wet cutting and 12-inch (30 cm) long hose whips.





FLOW ADAPTER VALVE

Enjoy the convenience and efficiency of powering your ICS® hydraulic saw from skid steers, backhoes, and other common construction equipment. Available for both 8 gpm and 12 gpm (30 lpm and 45 lpm) saws.

THE PARTS YOU NEED TO STAY ON THE JOB

Whether you need an air filter or a complete motor, ICS® carries a wide selection of replacement parts, shipped fast!

REDUCE FATIGUE AND EXTEND CHAIN LIFE WITH SPEEDHOOK®

SpeedHook® is an ingenious accessory designed to support the weight of ICS® saws, dramatically reducing operator fatigue, ensuring straight cuts, and extending chain life. Attaching quickly and easily, SpeedHook® is convertible to left-hand or right-hand operation, and expandable with 42" (107 cm) sections. SpeedHook® has been redesigned to include a new plastic cam to ensure even straighter cuts with less operator know-how.

CONTAIN SLURRY WITH TSS™

The Total Slurry Solutions Hi-Lift Performance vacuum systems provide an easy way to contain and dispose of slurry produced when wet-sawing or drilling in concrete, stone, or masonry. All TSS™ systems come with 15' (4.6 m) of heavy duty professional grade vacuum hose.

TSS™-15

The TSS™-15 features an extremely durable electric powerhead mounted on a dent and corrosion resistant polyethylene tank. An oversize "boat-plug" style drain plug makes emptying the 15-gallon (55 liter) tank fast and easy and heavy-duty wheels and casters make moving the TSS™-15 effortless.

TSS™ 15/55

Turn any standard 55-gallon drum into a slurry containment system. The TSS™ 15/55 seals to the top with external fasteners or modification, providing 105 inches (267 cm) of water lift.

ICS® OIL
PROTECT YOUR INVESTMENT

Intensive laboratory and field testing have resulted in an oil formula that is cleaner burning, provides better thermal protection and an improved film barrier reducing piston ring wear. Protect your investment with work-proven ICS 2-stroke oil. *Important: Failure to use ICS Oil and a 25:1 (4%) fuel to oil ratio could result in premature engine failure and/or up to a 90% reduction in engine life.*

ICS® LARGE CARRY CASE

Fits 880F4 and 853PRO series.

APPLICATIONS

U.S. to Australia, Europe to Japan, ICS® products are used across the world. The unrivaled versatility of Diamond Chain Technology™ makes ICS products indispensible for a wide variety of applications. Fire and rescue crews depended on ICS saws at the scene of the Oklahoma City bombing. ICS had a hand in the renovation of the Notre Dame Cathedral. When precision demolition needed to be done at the Louvre in Paris, cutters chose ICS concrete chain saws. Contractors at key nuclear facilities, universities, hospitals, dams, bridges and stadiums around the world have relied on the portability, versatility, and precision of the patented Diamond Chain Technology™.

Carve perfect corners, cut small openings, or take out entire walls, it can all be done safely and efficiently with ICS concrete chain saws. Whether the need is rescue, precision demolition, remodeling, landscaping, even sculpture, the unique capabilities of Diamond Chain Technology™ and ICS concrete chain saws are unmatched. The following section shows a variety of applications that lend themselves to the unique benefits of ICS products and is meant to open your eyes to the possibilities of Diamond Chain Technology™ and its unmatched versatility. With a little imagination and an ICS concrete chain saw, you too can be **UNSTOPPABLE.**

APPLICATIONS

SMALL OPENINGS

ICS® VS. CORE DRILL AND HAMMER STITCH DRILLING

Not all small openings need to be round. While many small holes are core or stitch drilled, the time saved with a square hole may reduce costs. A small opening can be made in as little as 5 minutes with ICS® concrete chain saws.

ICS METHOD

1. Score cut the opening on all 4 sides – 2 minutes.

2. Plunge cut each side starting at the center of each cut and working toward the corners – 3 minutes.

The result: A small opening, with perfect corners and no overcuts.
TOTAL ELAPSED TIME: 5 MINUTES.

CORE DRILL METHOD

1. Drill a hole to mount the core drill – 2 minutes.

2. Mount the drill stand - 1 minutes.

3. Attach and tighten a core bit – 1 minute.

4. Drill the hole – 8 minutes.

5. Remove the core bit and stand - 2 minutes.

TOTAL ELAPSED TIME: 14 MINUTES.

STITCH DRILL METHOD

1. Drill initial holes on 4 sides of the circle – 8 minutes.

2 Continue drilling holes around the circumference of the circle, as close together as possible – 28 minutes.

3. Use a chipping hammer to remove core - 10 minutes.

4. Use a chipping hammer with a chisel bit to clean the hole – 5 minutes.
Note: As seen in the photo, use of percussive tools can crack openings.

TOTAL ELAPSED TIME: 51 MINUTES.

APPLICATIONS

CONCRETE PIPE TAP

ICS® VS. CUT-OFF SAW AND CHIPPING HAMMER

While ICS® concrete chain saws won't cut round circles, they can easily make 8-sided cuts, providing quick, tight fitting joints for concrete pipe taps. With proper technique, gaps of less than 1" (2.5 cm) are easily achievable, requiring very little patchwork. The same job with a cut-off saw takes longer, results in overcuts, and requires the use of potentially damaging percussive tools to finish the work.

ICS METHOD

1. Carefully score cut all 8 cuts - 3 minutes.

2. Plunge straight into all 8 sides in a stitching method working from the center to both ends of each cut - 12 minutes.

3. The result: A pipe tap with less than one inch gap installed, no over-cutting or cracking from percussive tools.
   Note: Proper attention to layout and keeping the bar perpendicular to the pipe are important for tight joints.

TOTAL ELAPSED TIME: 15 MINUTES.

CUT-OFF SAW AND CHIPPING HAMMER METHOD

1. Score a square cut on the first 4 sides of the layout - 3 minutes.

2. Score a second square cut offset by 45 degrees - 3 minutes.

3. Chip out the concrete inside the layout, exposing the steel reinforcement - 10 minutes.

4. Cut out the exposed steel with a cut-off saw - 6 minutes.

5. Chip out remaining concrete in opening for proper pipe fit - 7 minutes.

6. Install the pipe in the opening and patch the over-cuts - 20 minutes.

TOTAL ELAPSED TIME: 49 MINUTES.

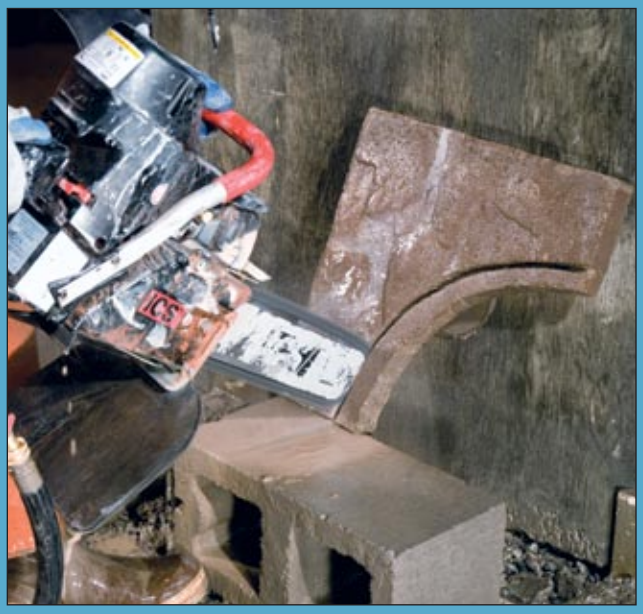
APPLICATIONS

LANDSCAPE

ICS® VS. GRINDER WITH DIAMOND BLADE

ICS® concrete chain saws are capable of making mitered cuts and small openings in natural and synthetic stone. Custom cuts can be made in pavers, water features, and many other landscaping elements. Portable and lightweight, ICS concrete chain saws are easy to move around the jobsite. Safe and simple to operate, they can be used by any member of the crew.

ICS METHOD - CURVES IN PAVERS



1. Score cut about 1" deep, following the intended curve – 1 minute.

2. Continue step cutting following the curve - 4 minutes.

   The result: A perfect curve with an exposed surface that is smooth and clean. No snapping or breaking of the core minimizes breakage.

   TOTAL ELAPSED TIME: 5 MINUTES.

GRINDER METHOD - CURVES IN PAVERS

1. Score cut the curve, using a stitch cut with a diamond blade - 4 minutes.

2. Continue stitch cutting the curve to full depth - 4 minutes.

3. Snap the piece to remove the core. Grind the surface smooth, if required – 2 minutes.

TOTAL ELAPSED TIME: 10 MINUTES.

APPLICATIONS

POOL SKIMMER

ICS® VS. HAMMER STITCH DRILLING AND CHIPPING GUN

When repairing or installing new pools, ICS® concrete chain saws provide fast and accurate cutting on installations such as skimmers, lights, and drains. Many of these applications require deep, mitered openings, a job perfectly matched to the unique capabilities of Diamond Chain Technology™.

ICS METHOD

1. Score cut the opening, including the mitered sides - 3 minutes.

2. Plunge cut all sides of the opening, starting with the bottom cut - 10 minutes.

3. Carefully finish corners starting in the center and working to the edge - 14 minutes.

The result: a mitered opening with little or no patching required.

TOTAL ELAPSED TIME: 27 MINUTES.

STITCHING HAMMER METHOD

1. Score cut the opening with a skill saw and grinder with diamond blades - 8 minutes.

2. Hammer drill the mitered corners - 8 minutes.

3. Stitch drill the opening - 90 minutes.

4. Chip the edges of the opening - 14 minutes.

5. Continue chipping the opening with hammer drill - 10 minutes.

6. Clean out the opening to fit the skimmer - 20 minutes.

7. Grind all surfaces smooth to finish.

Note: It is difficult to maintain accurate opening dimensions when using percussive techniques and patching may be required.

TOTAL ELAPSED TIME: 150 MINUTES.

APPLICATIONS

AC UNIT INSTALL

ICS® VS. RING SAW

Diamond Chain Technology™ allows ICS® concrete chain saws to create openings less than 2' (60 cm) square in less than 20 minutes, with square corners and no finish work required. Ring saws, on the other hand, come with several limitations. Unlike ICS concrete chain saws, plunging is not possible and the smallest opening is 14" (35 cm). In addition, square corners are only possible to 6" (15 cm) deep without grinding or chipping.

The following sequence of photos compares an ICS concrete chain saw with a standard ring saw performing a typical AC unit installation.

ICS METHOD

1. Score the entire cut, plunging the bar 1" (2.5 cm) into the concrete - 3 minutes.

2. Plunge the saw all the way into the cut, starting on the bottom first. Use the same technique to finish the remaining three sides, ending with the top - 12 minutes.

3. The AC Unit is installed with less than 1/4" (.64 cm) gap on all sides, with perfectly square corners, a clean finish, and no chance for leaks.

Note: Pay attention to the sequence of cutting to avoid pinching the bar in the cut. Always start with the bottom cut first. Proper alignment of the score cut will help ensure straight cutting when at full depth.

IMPORTANT - concrete weighs as much as 150 lbs per cubic foot (2371 kg/cu. meter). Pay attention when removing cores larger that 1'/sq (.3m/sq) in diameter. When working from elevated location, it may be necessary to strap core when cutting to avoid losing core prematurely.

TOTAL ELAPSED TIME: 15 MINUTES.

RINGSAW METHOD

With a ring saw, plunging is not possible. In addition, the smallest opening possible is 14" (35 cm). Furthermore, square corners are only possible to 6" (15 cm) deep without grinding or chipping.

1. Score cut the entire opening (note that dust is created until the blade is more than 4 inches (10 cm) into the cut on horizontal cuts) - 3 minutes.

2. Step cut the bottom - 3 minutes.

3. Next, step cut the sides – 8 minutes.

4. Finally, step cut the top – 4 minutes.

5. The final opening shows the overcuts that are required when using a ring saw to create openings of less than 14" (35 cm).

TOTAL ELAPSED TIME: 20 MINUTES (not including the required finish work).

APPLICATIONS

MECHANICAL OPENINGS

Mechanical openings smaller than 2' x 2' (60 cm X 60 cm) can be created in under 20 minutes with ICS® concrete chain saws. Even new operators can achieve great results with minimal experience. Note: A core can weigh as much as 150 lbs per cubic foot (2371 kg/cu. meter). Pay special attention to shifting materials and proper cutting sequence when making larger openings.

1. After laying out the opening, score cut to 1" (2.5 cm) deep (Use a small level when making horizontal cuts to ensure a straight cut) - 4 minutes.

2. Plunge cut all sides of the opening, starting with the bottom cut - 10 minutes.

3. Carefully finish each corner.

TOTAL ELAPSED TIME: 14 MINUTES.

EGRESS WINDOWS

Diamond Chain Technology™ allows remodelers to easily add windows and egress windows to additions and basement remodels. Because there are no overcuts, water proofing issues around the windows are reduced.

1. Layout and score cut the entire opening to 1" (2.5 cm) deep - 6 minutes.

2. Cut the bottom first to avoid pinching the bar in cut. Plunge saw into cut and cut to the corners on each side - 12 minutes.

3. Use wedges on the bottom of the cut to keep the core in place and avoid cracking while cutting the top - 12 minutes.

TOTAL ELAPSED TIME: 30 MINUTES.

HVAC & ELECTRICAL

With an ICS® concrete chain saw, electrical and HVAC contractors can install small openings in minutes without any additional setup time or stand mounting. In addition, channels and slots can be added with the same tool for access to the installation from pipes and conduit. Note: An ICS saw with shorter height bar, like the 814PRO or 603GC, is easier to use when cutting small openings.

1. Carefully layout the electrical box to be installed - 1 minute.

2. Carefully score cut the entire opening, working slowly to each corner. Use a small level on horizontal cuts - 2 minutes.

3. Plunge into the center of each cut avoiding the corners when pushing the saw in. Then slowly work the saw to the corners - 2 minutes.

TOTAL ELAPSED TIME: 5 MINUTES.

FREQUENTLY ASKED QUESTIONS

CAN A DIAMOND CHAIN CUT REBAR?

Yes, Number 4 or 5 (12 mm or 16 mm) bar is not a problem. Anything over number 8 (25 mm) is difficult. Large amounts of rebar will reduce chain life. Caution: Rebar or steel must be surrounded by concrete or aggregate material.

HOW LONG WILL A DIAMOND CHAIN LAST?

This depends on the material being cut, chain type, experience of the operator and how much rebar is present. For example, diamond chain on gas saws will typically cut 40 to 80 linear feet (12 to 24 meters) in 6-inch (15 cm) concrete. On hydraulic saws, this range is most often doubled

HOW LONG DOES A GUIDE BAR LAST?

Normally two or three chains. Heavy rebar can shorten bar life. The bar can be flipped over to extend life.

CAN A CONCRETE CHAIN SAW CUT DRY?

No. It is a wet cut system. 20 psi (1.5 bar) minimum is required.

IS "KICKBACK" A SAFETY PROBLEM?

No. There is no rotational kickback. Wood cutting chain has sharp hooked teeth that can grab the wood causing kickback. Diamond chain grinds through concrete with very small teeth (diamonds) without hooks. The preferred method of starting a cut is to plunge straight into the wall. A firm footing and a two-handed grip is required and important for safety.

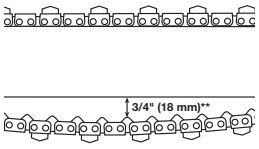
HOW FAST WILL A CONCRETE CHAIN SAW CUT?

This also depends on the material being cut, chain type, experience of the operator and how much rebar is present. Gas saws will typically saw 1 foot x 6 inches deep (30 cm x 15 cm) in 2 minutes. Hydraulic saws are even faster.

WHEN DOES THE CHAIN NEED TIGHTENING?

All chains have a tendency to stretch when used. Diamond chains stretch more than wood cutting chains because of the abrasive materials they are cutting. When a chain stretches to a point where the drive links are hanging approximately 1/2"- 3/4" (12 mm - 18 mm) below the bar, it's time to tension the chain.

** As measured without pulling downward (eg. hanging by gravity)

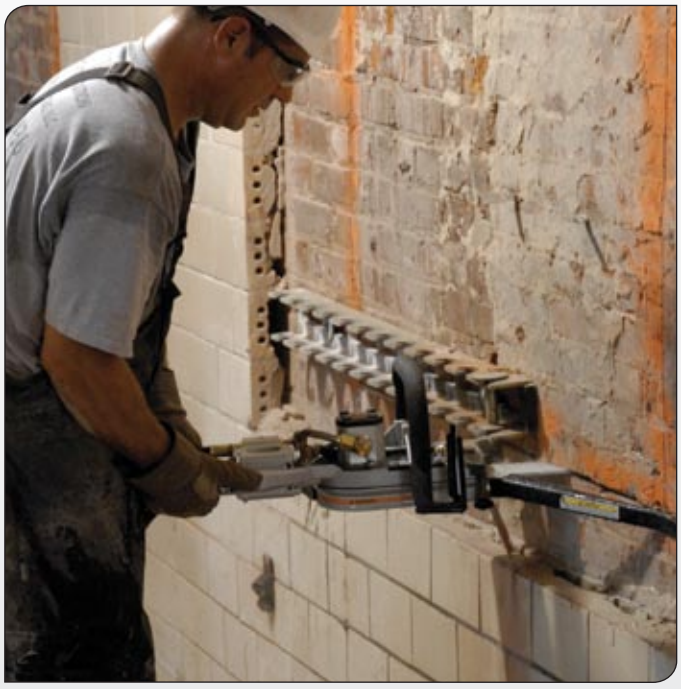


WHAT IS THE MIXTURE RATIO OF FUEL TO OIL?

25:1 (4%) fuel to oil mixture. It is best to use a separate gas container marked: ICS® 25:1 (4%). Use ICS formulated oil to provide maximum protection for the engine. ICS saws have a heavy duty cycle of up to 15 minutes of extended loading. 25:1 (4%) adds extra protection to your investment.

HOW OFTEN SHOULD THE KEY GAS SAW PARTS BE REPLACED?

Replace the air filter, rim sprocket, and guide bar every 2 to three chains.



TIPS FOR CUTTING SUCCESS

- Do not over-tension chain. Chain must move freely around guide bar when pulled by hand.
- 25:1 (4%) fuel to oil mixture. Use a separate gas container marked: ICS® 25:1 (4%). Use ICS formulated oil to provide maximum protection for the engine.
- Wet cut only. 20 psi (1.5 bar) minimum water pressure.
- Rinse with water and spray first with penetrant and then lightweight oil on saw, bar & chain, especially inside the recoil starter area. Start the saw after rinsing.

ICS® IS AVAILABLE AROUND THE GLOBE.

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