



# DIAMOND CHAIN LIFE

## FIT THE CHAIN TO THE JOB

Understanding the many job-related variables that can affect chain life will help you choose the ICS® diamond chain that best matches your application. This knowledge, combined with accurate performance expectations, is key to employing the unique abilities of Diamond Chain Technology® profitably.



The Job, and the many variables involved, is a key determinant of chain life.

CHAIN LIFE FACTORS	
LESS LIFE	MORE LIFE
<b>AGGREGATE HARDNESS</b>	
Hard Flint	Soft Limestone
<b>STEEL REINFORCING</b>	
Heavy	Light
<b>OPERATOR EXPERIENCE</b>	
Beginner	Expert
<b>CONCRETE AGE</b>	
Green	Hardened
<b>CUTTING DIRECTION</b>	
Horizontal	Vertical

Match the chain to the application and material to ensure optimum chain life.

CHAIN SELECTION CHART	Soft Stone/ Abrasive/Brick	Natural Stone	Medium Concrete/ Light Reinforcement	Hard Concrete/ Heavy Reinforcement
<b>TwinMAX™</b> - For everyday use		◊	◊	
<b>TwinMAX™ Plus</b> - For harder materials		◊	◊	◊
<b>TwinMAX™ Abrasive</b> - Abrasive materials	◊			
<b>ProFORCE™</b> - All purpose		◊	◊	◊
<b>ProFORCE™ L</b> - Longer life		◊	◊	◊
<b>ProFORCE™ S</b> - Faster cutting speed			◊	◊
<b>ProFORCE™ Abrasive</b> - Perfect for brick	◊			



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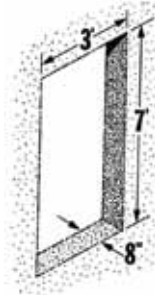
## ESTIMATED CHAIN LIFE

Chain life is sometimes measured in inch-feet and can vary widely depending on the type of chain employed and the many variables related to the job. Depending on the type you select, the right ICS® diamond chain used under optimum conditions by a trained operator should deliver the performance shown in the charts below.

*For comparison purposes only. Do not use to bid jobs.*

## INCH-FOOT DEFINITION

- An in-ft is defined as DEPTH of cut in inches multiplied by LENGTH of cut in feet.



$$3 + 7 + 3 + 7 = 20 \text{ feet}$$

$$8 \text{ in} \times 20 \text{ ft} = 160 \text{ in-ft}$$

*Outside of the U.S., square meters is used instead of in-feet.*

$$0.91 \text{ m} + 2.13 \text{ m} + 0.91 \text{ m} + 2.13 \text{ m} = 5.8 \text{ m}$$

$$20 \text{ cm} \times 6.08 \text{ m} = 1.22 \text{ m}^2$$

## Gas Saws

Chain Type	0 in-ft (0 m <sup>2</sup> )	200 in-ft (1.55 m <sup>2</sup> )	400 in-ft (3.10 m <sup>2</sup> )	600 in-ft (4.65 m <sup>2</sup> )	800 in-ft (6.19 m <sup>2</sup> )	1000 in-ft (7.74 m <sup>2</sup> )
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MAX™ SERIES

## Hydraulic Saws

Chain Type	0 in-ft (0 m <sup>2</sup> )	200 in-ft (1.55 m <sup>2</sup> )	400 in-ft (3.10 m <sup>2</sup> )	600 in-ft (4.65 m <sup>2</sup> )	800 in-ft (6.19 m <sup>2</sup> )	1000 in-ft (7.74 m <sup>2</sup> )
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FORCE4®

*Chain wear is normal*, but excessive wear can result from factors that usually can be corrected. Examining the chain can help pinpoint the source of trouble.



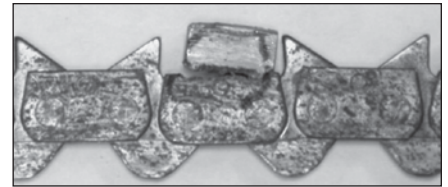
### NORMAL WEAR

Example of a worn out chain under normal usage. No damage to the chassis, drive links or segments. Segments have been worn down to the weld pad.



### NO WATER

Heat generated by running a chain "dry" can disintegrate o-rings and degrade the diamonds. Drive links are dark blue and connecting links have burred edge on the bottom.



### IMPACT DAMAGE

Broken segment caused by attempting to insert the chain into a slot narrower than the diamond segments.



### WORN SPROCKET / IMPROPER TENSION

Chain has been run with improper tension (too loose) or drive sprocket is worn out. Sprocket was turning when the chain was stationary, causing damage to the drive links.



### WORN BAR

Chain has been run on a bar that has excessive rail wear causing the drive links to be worn flat.



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