



**DIAMOND SYSTEMS INC.**  
www.dsidiamond.com



**WE MAKE IT!**

## THE CUTTING EDGE

Vol. 3

### Message from the President

Now that winter is behind us and spring has arrived, we have felt the optimism from our customers that 2011 will be a very good year. Already at DSI we have ramped up our production line to meet the increased demand of the seasonal restocking orders from our distributors and agents.

At DSI we have developed some new products that we are excited to bring to the market. We have developed a new bond series for our ring saw blades that have proven to be fast cutting without sacrificing life. These ring saw blades are manufactured and laser welded right here in our Brampton plant. Let us match the blade to any of your specific cutting conditions or aggregate types.



Also this month we are featuring the Cardi lines of coring and cutting equipment. There has been some amazing engineering put into this product line to meet the demands of the Pro Cutter. They are proven performers with the most user friendly and powerful drills on the market. We have many of the popular items in stock and displayed in our showroom. Ask for a demo or drop by to touch and feel.



At DSI we are in a unique position to manufacture a product to suit your specific cutting and drilling conditions. Odd sizes, long or continuous barrels, specific segment design are every day events at DSI. Our commitment is to earn your business by building a product and provide a service like no one else.

Thank you and welcome to spring.

Don Graff  
President

## HAND HELD - POWERHOUSE

ONLY 16 POUNDS

NO SPECIAL ADAPTORS

PISTOL OR "D" GRIP

3-SPEED

SOFT START



### The Cardi T9-450

Three speed hand held's are the most powerful portable core drills in the marketplace. Unique dual spindle design accepts 1-1/4"-7 and 5/8"-11 thread so no need for special adapters. Lightweight, mechanical clutch, and electrical soft start make



# TECH TALK - DID YOU KNOW?



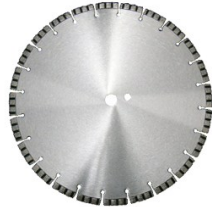
by Gord Jamieson

## BLADE TENSIONING - COMMON MISCONCEPTIONS

There is a misconception that only larger blades - 24" and up require tensioning. This is not true. Another misconception is there exists a machine that can tension blades to the accuracy required. Again untrue. Proper tensioning can only be done by an experienced "hammer man" technician.

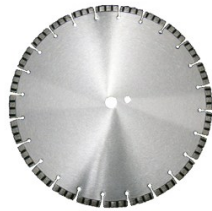
### BLANK ORIGIN

Our blade blanks are laser cut from sheet steel with a specific slot design and bore holes. They are ground to required thickness and heat treated to a predetermined hardness or Rockwell. They are then shipped to DSI. Since the amount of tension is determined by the spindle speed and diameter of the blade, they cannot be pre-tensioned without knowing



### OUT OF TENSION

Blades can lose their tension when twisted, exposed to excess heat (a common problem especially with flush cut assemblies) or simply run at an incorrect spindle speed. **What happens is the stiffening or tensioning of the blade blank will not be sufficient to project the centrifugal force from the center of the blade to the outer surface and therefore these outer reaches of the blade would be unsupported, creating a wobbling effect.** This wobble will not only produce cuts that are off line but also greatly reduce blade life and



### SFM FORMULA

For example the spindle speed for a stationary saw normally turns at 3000 RPM. The spindle speed on a cut quick saw normally runs at 5400 RPM. The blade must be tensioned to coincide with the "surface feet per minute" (sfm) which is the speed that the diamond segments are actually moving. **To determine sfm simply multiply the blade circumference x spindle speed.** A 12" blade at 3000 rpm would be tensioned for 9800 sfm. The same blade powered by a quick cut saw would require tensioning for almost 18000 sfm. - Quite a

### Conclusion

All blades must be tensioned to suit the machinery spindle speed. Blades that lose their tension can be re-tensioned by an experienced "hammer man". If you have blades that are out of tension. Bring them to DSI and let our experts put them right. DSI tensions all blades from 8" diameter and up to maximize performance and minimize wear and tear on

## ITS CARDI TIME



### The Cardi Flush Cut System...

The ultimate attachment for drilling small holes flush to a wall or between studding. The Cardi Flush Cut mounts on any of the Cardi Hand Held's and medium range service drills.



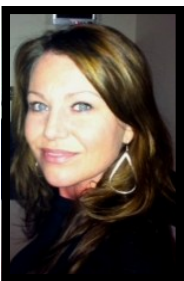
### The Cardi Dual BM 800...

This powerhouse 3 speed twin motor will drill any size or depth of hole. Replaces cumbersome hydraulics. At 61 pounds and equipped with the dove tail motor release system, heavy lifting is



### The T9 - 450...

The Cardi 4 speed - from 300 rpm to 1360 rpm - this motor does it all. Manufactured from aluminum alloy it weighs only 31 pounds making it the most powerful and versatile motor on the market. Equipped with an electronic clutch and the Cardi "soft



Shannon Nemis  
Inside Sales Co-ordinator



**WE MAKE IT!**

Suzanne Zemlickis  
Bilingual Customer Service Representative



PH: 905-796-0640 FAX: 905-457-9330 TOLL FREE: 800-387-2513

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