



## **xCore Induction Heating Work Coil**

### **xCore features & Benefits:**

- ✘ Greatly improve gauge control;
- ✘ Increase Mill speed;
- ✘ Reduce edge cracking and strip breaks significantly (Metal);
- ✘ Up to 98% power efficiency;
- ✘ Reduce bending force allowing less Work Roll wear;
- ✘ Important reduction in cost compare to conventional hot lubricant sprays;
- ✘ Industry leading resolution at 60mm;
- ✘ Industry leading power density at 100kW/m;
- ✘ Universal: one design fits all roll diameters;
- ✘ Patented heat channel design achieving unsurpassed reliability;
- ✘ Tailored solutions, including 60, 75 and 120mm heating width;
- ✘ Uniform heat distribution;
- ✘ Higher temperature solutions with liquid-cooled designs;
- ✘ Encapsulated in highly resistant epoxy;
- ✘ Standard mounting studs pattern compatible with Opticoil;
- ✘ Balanced magnetic flux design;
- ✘ Lower operating resonant current;

### **Typical Applications:**

- ✘ Calendering

- ✘ Roll heating
- ✘ Roll edge heaters

xCore work coils are robust, highly-efficient induction heating coils designed for universal roll heating applications.

The xCore design offers industry-leading power density of 66 to 100kW per meter of roll width, improving process reaction speed and allowing for greater temperature elevations.

Liquid cooled option: xCore LC is available for roll temperature exceeding 130°C, up to 250°C.

At the heart of this new design are patented heat channels which lower the thermal impedance of the work coil, increasing its cooling capacity and attenuating internal hotspots.

The new xCore family of work coils has a balanced magnetic design, providing an even heating pattern across its entire width and reducing risks associated with stray fluxes (bearing problems).

Lower operating resonant current compared to older generation work coils, reducing losses in power module and extension cables

### **Selection table**

	Heating width (mm)	Maximum power (kW) <sup>1</sup>	Roll operating temperature (°C)	Product number	Notes
xCore 60	60	4	130	V0089 V0103	94mm Reference Standard 86mm Reference
xCore 75	75	5	130	V0090 V0101	94mm Reference Standard 86mm Reference
xCore 120	120	6	130	V0091	
xCore 120s	120	5	130	V0102	Reduced footprint version
xCore 120n	120	5	130	V0086	Alternate Packaging
xCore 60 LC	60	6	250 <sup>2</sup>	V0098	Liquid Cooled work coil
xCore 75 LC	75	6/8 <sup>3</sup>	250 <sup>2</sup>	V0099	Liquid Cooled work coil
xCore 120 LC	120	6/12 <sup>3</sup>	250 <sup>2</sup>	V0100	Liquid Cooled work coil

Additional technical information available:

- Electrical Properties
- Mechanical Properties
- Mechanical Drawings

Contact us for additional information at [info@comaintel.com](mailto:info@comaintel.com) or 819-538-6583 (Canada)

<sup>1</sup> Maximum power can be limited for certain applications, such as gap and roll material.

<sup>2</sup> Some options could allow certain applications to go beyond this value. Contact Comaintel for further information.

<sup>3</sup> Higher power limit requires a specific power module