

AlphaForm™ Moldable Flux Concentrators

Increase your profits, productivity and efficiency while reducing energy costs, cycle times and waste. That's the key to any successful business. AlphaForm™ moldable flux concentrator will help you do just that with your induction heat treating and brazing applications. AlphaForm™ is easy to use. Form it around the work coil, bake to harden and it's ready to use. It forms a monolithic type of magnetic flux field concentrator that is both mechanically and thermally bonded to the work coil.



What does concentrator do?



The induction heating process is a method of heating where a magnetic flux field is generated around an inductor. Wherever the part intersects the flux field heating will occur. The diagram at the left shows the field without and then with concentrator. By trapping and focusing the flux field we can intensify the energy supplied to the area to be heated.

How does buying AlphaForm™ brand concentrator save you money?

Because the energy field is focused it allows several options:

1. Since more energy is going where it's needed, the power settings can be reduced.
2. You could keep the power setting higher and decrease your cycle times.
3. It could allow larger parts to be produced on existing equipment.
4. It will reduce heating any tooling near the work area caused by the stray field.
5. You can achieve tighter heating patterns, especially with flanged parts.
6. AlphaForm™ has NO machining waste.



Patented AlphaForm™ - Data Table		
AlphaForm™ Grades	LF (Low Frequency)	1 kHz – 50 kHz
	MF (Medium Frequency)	20 kHz – 450 kHz
	HF (High Frequency)	450 kHz +
Energy Rating	A thickness of 0.25" (6.4 mm) will support an electromagnetic field density of 40 kW/in ² (62 mW/M ²)	
Forming Temperature	104° F / (40° C)	
Baking / Curing Temperature	375° F / (190° C)	
Continuous Operating Temperature	400° F / (204° C) Maximum	

For more information on using AlphaForm™ brand concentrators see BULLETIN Concentrator04
AlphaForm™ is a trademark of Alpha 1 Induction Service Center, Inc.

For more information, call 614-253-8900 or visit us at www.alpha1induction.com

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**INDUCTOTHERM
GROUP**

Leading Manufacturers of Melting, Thermal Processing & Production Systems for the Metals & Materials Industry Worldwide.