Miller® Induction Heating Tools Comparison Chart

ARCREACH® HEATER VS. PROHEAT™ 35

Induction is a simple, cost-effective process that delivers fast, consistent heat. This highly efficient technology uses non-contact heating to induce heat electromagnetically rather than with a heating element, like flame or resistance pads. Both ArcReach Heaters and the ProHeat 35 system use induction technology, but there are differences between the two.

ARCREACH® HEATER

- Up to 8 kW of heat output
- Portable: 43 lbs.
- Uses a Miller ArcReach welding machine/ engine drive as the power source
- Preheat and bake-out applications up to temperatures of 600°F (315°C)

PROHEAT™ 35

- Up to 35 kW of heat output
- Weighs 349 lbs. (with cooler)
- Stand-alone power source: 3-phase power (in shop) and generator (in field)
- Versatile tool for preheating, stress relieving, hydrogen bake out and post-weld heat treatment (PWHT) up to 1,450°F (789°C)

INDUCTION HEATING ADVANTAGES

TIME

Time to temperature is up to four times faster than flame or resistance heating

QUALITY

Exceptional joint temperature uniformity

EXPENSE

Lower operational cost: No significant expense of fuel gases or fire-watch personnel

SAFETY

Does not produce the exposure to burns associated with open flames and electrical resistance wires (only the workpiece becomes hot)

HEATING TOOLS FOR ARCREACH® HEATER AND PROHEAT™ 35

	AIR-COOLED QUICK WRAP	AIR-COOLED CABLES	AIR-COOLED BLANKETS	ROLLING INDUCTOR	LIQUID-COOLED CABLES
Max. Preheat Temperature	600°F (315°C)	600°F (315°C): ArcReach Heater 400°F (204°C): ProHeat 35	400°F (204°C)	600°F (315°C)	1,450°F (788°C)
Pipe Diameter*	1.5 in. (3.8 cm) to 10 in. (25.4 cm)	¾ in. (1.9 cm) and up	8–60 in. (20-152 cm)	Unlimited	¾ in. (1.9 cm) and up
Available Cable Lengths	N/A	30 ft. (9.1 m), 50 ft. (15.2 m), 80 ft. (24.4 m)	N/A	N/A	30 ft. (9.1 m), 50 ft. (15.2 m), 80 ft. (24.4 m), 140 ft. (42.7 m), 160 ft. (48.8 m)
Requires Coolant/ Cooler	No	No	No	Yes	Yes
Amperage Capability	165 A max./115 A continuous	250 A max./200 A continuous	250 A max./150 A continuous	300 A max.	350 A max.
Width	3.7 in. (9.4 cm)	N/A	Dependent on length of blanket	5 in. (12.7 cm) square heating area	N/A
Compatible With ProHeat™ 35		✓	✓	✓	✓
Compatible With ArcReach® Heater	✓	✓			

*All tools except for the air-cooled quick wrap can also be used on flat plates and various other applications.

APPLYING INSULATION (IF REQUIRED)

ARCREACH® HEATER*

PART TEMP	½ IN. PREHEAT INSULATION REQUIREMENTS*	
°F (°C)	AIR-COOLED QUICK WRAP	AIR-COOLED CABLES
122–302 (50–150)	–	–
302–392 (150–200)	–	1 layer
392-482 (200–250)	1 layer	1 layer
482–600 (250–315)	1 layer	2 layers

*To help avoid damage to heating tool, always protect it by applying insulation on the workpiece anywhere the tool will be placed. Note that in some instances, adding a layer of insulation may increase kW output; be sure to check the parameter screen to monitor kW output on setup.

PROHEAT™ 35

PART TEMP	½ IN. PREHEAT INSULATION REQUIREMENTS*	
°F (°C)	LIQUID-COOLED CABLES	AIR-COOLED CABLES
122–200 (50–93)	–	–
200–400 (93–204)	1 layer	1 layer
400–600 (204–315)	1 layer	**DO NOT USE** air-cooled cables to heat in this temperature range
600–1,450 (315–788)	2 layers or post-weld heat treatment blanket**	**DO NOT USE** air-cooled cables to heat in this temperature range

*To help avoid damage to heating tool, always protect it by applying insulation on the workpiece anywhere the tool will be placed. Note that in some instances, adding a layer of insulation may increase kW output; be sure to check the parameter screen to monitor kW output on setup.

**To avoid reducing the life of preheat insulation, use 1-in. thick PWHT pads when possible, especially if heating above 800°F.

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