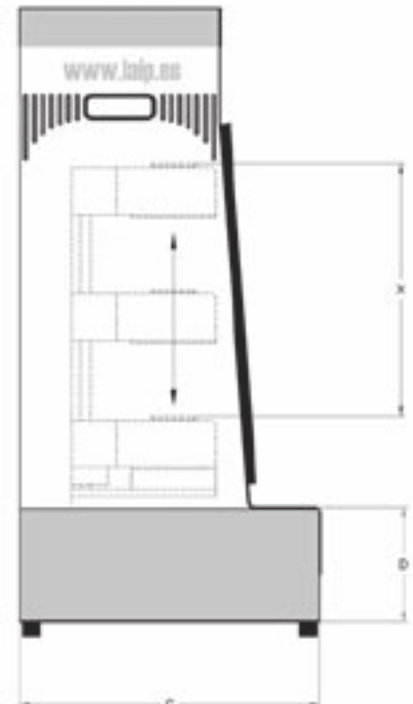
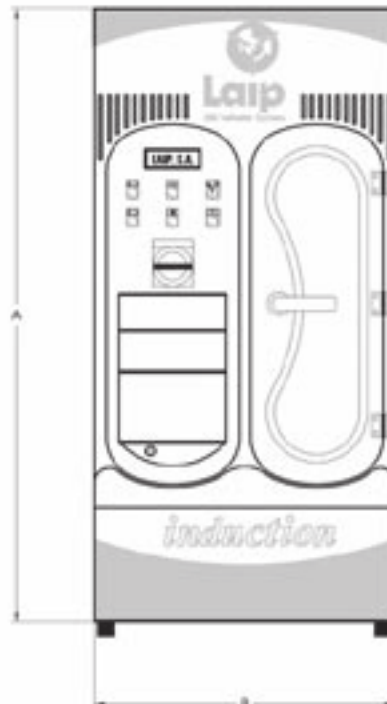


Induction Heat Shrink System with Integrated Cooling



- Compact heat shrink system with fully integrated control, high frequency inductor, and cooling system.
- Automatic cooling by means of the turbulent air fluid.
- Only one induction coil for any tool diameter Ø 3 to Ø 32 mm.
- Automatic vertical movement of the inductor using a pneumatic cylinder and pressure control system.



Height (A)	Width (B)	Depth (C)	Height (D)	Power	Range (X)	Weight
42.3 in	20.7 in	20.7 in	7.9 in	480V60Hz	19.7 in	220 lbs
1075 mm	525 mm	525 mm	200 mm	3Ph, 11kW	500 mm	100 kg

Ordering Information

Part

Laip Inductive Heat Shrink System with Integrated Cooling

01281010101

Includes:

One flange adapter: 0129981010100, 0129981010300, or 0129981010500 (specify when ordering).

Set of tool adapters: 0129981010303, 129981010305, and 0129981010306.

Concentrated coolant, 1 liter: 01299810601.

Optional: air hose and nozzle kit 01299810501.

Shrink Fit Principles

Based on the laws of physics — expansion and contraction due to heating — a shrink fit system is the latest technology in cutter holding technology.

The inside bore diameter of a heat shrink tool holder is slightly smaller than the shank diameter of the tool. The induction heat shrink system is used to quickly heat the tool holder, expanding the inside diameter and allowing the cutter to easily fit into the tool holder.

Once cooled, the tool holder and cutter behave as if they were made out of a single piece. Incredible concentricity and rigidity are achieved by the uniform pressure around the entire surface of the tool shank.

To remove the cutter, the process is reversed: the tool holder is again heated and expands to allow easy replacement of the cutter.

When the tool and toolholder are assembled, shrink fitting results in a very solid construction — without any extra parts, and with uniform pressure around the complete tool shank. This guarantees:

- Highest concentricity: Less than 3 microns.
- Safety: Highest torque transmission: 2-4 times more than a conventional collet chuck.
- Reliability.
- Repeatability.
- Excellent rigidity and less vibration.
- Smaller unit outside diameter – Easier access to difficult working areas.
- Reduced bulk, focussed on high speed machining.
- Best strength transmission.
- Symmetrical external profile: ideal for high speed machining applications.

Specifications

- Induction shrink fit unit with high frequency inductor
- Heating time <6 seconds.
- Cooling time 20, 30 or 40 sec. with fluid and 60 or 120 sec. with air
- Tool diameter 0.125 to 1.250 in / 3 to 32 mm
- For all types of tools: HSS, Cermet, Carbide with h4/h6 tolerance
- Tool holders per HSK, CAT/ANSI, DIN 69871, MAS-BT, etc.
- For all tool holder sizes (ref. HSK-50/63, SK-30/40, BT-35/40, ...)



Applications

- Finish cutting
- Heavy duty power machining
- High speed cutting
- Contour cutting in mould making
- Thread milling cutting
- Drilling
- Reaming
- Internal grinding
- Aluminium machining
- Wood processing
- Plastic machining

Advantages

FAST

- High frequency inductor of 11 KW power assures a quick tool change.
- Heating time < 6 seconds, cooling time < 60 seconds.

ONE INDUCTION COIL

- Only one coil for any tool diameter 0.125 to 1.250 in / 3 to 32 mm.

EASY TO USE

- Automatic stop on tool holder contact.
- One button for heating without selecting material or diameter of the tool.
- Automatic cooling using turbulent air fluid.

SAFE OPERATION

- No need to handle hot tool holders.

FLEXIBLE & VERSATILE

- Independent of material or toolholder profile.
- Large capacity: up to 500-mm length toolholders.
- Power selector with two positions.

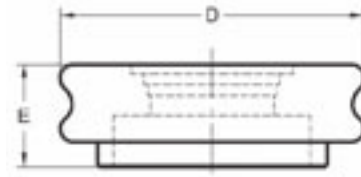
HANDS-FREE COMPACT UNIT:

- One body containing electronic device, inductor and cooling system.

ECONOMIC

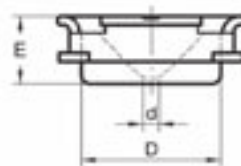
- Increased productivity.
- Longer tool life.
- Better surface finish.

Flange Adapters



HSK-A/C/E	HSK-B/D/F	Steep CAT/DIN	JIS/BT	D mm	E mm	Order Number
25				40	10	01299810100
32 / 40	40 / 50		30	120	40	01299810101
50 / 63	63 / 80	30 / 40	35 / 40	120	40	01299810103
80 / 100	100 / 125	45 / 50	45 / 50	120	40	01299810105

Tool Adapters



Tool Shank Diameter	D mm	d mm	E mm	Order Number
0.24-0.47 in / 6-8-10-12 mm	49	13	28	01299810303**
0.55-0.79 in / 14-16-18-20 mm	49	21	22	01299810305**
0.98-1.26 in / 25-32 mm	49	33	18	01299810306**
0.12-0.20 in / 3-4-5 mm	49	6	28	01299810301*
0.24-0.31 in / 6-8 mm	49	9	28	01299810302*
0.55-0.63 in / 14-16 mm	49	17	22	01299810304*

**Adapters for DIN 69882-8 heat shrink holders
* Adapters for fine geometry heat shrink holders



Accessories	Order Number
Air Hose and Nozzle Kit	01299810501
Coolant Concentrate, 1 liter	01299810601