

- 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 $\varnothing 3$ to $\varnothing 32$ mm.
- Automatic vertical movement of the inductor using a pneumatic cylinder and pressure control system.

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 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 tool holder 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, focused on high speed machining.
- Best strength transmission.
- Symmetrical external profile: ideal for high speed machining applications.

Advantages



- Fast: High frequency inductor of 11 KW power assures a quick 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, and automatic cooling using turbulent air fluid.
- Safe operation: No need to handle hot tool holders.
- Flexible and versatile: Independent of material or tool holder profile. Large capacity: up to 500-mm length tool holders. Power selector with two positions.
- Hands-free compact unit: One body containing electronic device, inductor, and cooling system.
- Economic: Increased productivity, longer tool life, and better surface finish.

Specifications

- Induction shrink fit device with high frequency inductor.
- Time for heating < 6 seconds.
- Time for cooling 20, 30, or 40 seconds, with fluid and 60 or 120 seconds with air.
- Tool diameter Ø 3 to Ø 32.
- For all types of tools: HHS, Cermet Cabide with H4/H6. Tolerance and toolholders: HSK, DIN 69871, MAS-BT, etc.
- For any size of toolholder (HSK-50/63, SK-30/40, BT-35/40...).

Design

- Compact unit containing electronic device, high frequency inductor and cooling system.
- Heating and cooling integrated.
- Automatic cooling by means of the turbulent air fluid.
- Just one induction coil for any tool diameter Ø 3 to Ø 32 mm.
- Vertical movement of the inductor by pneumatic cylinder and pressure control device.

Induction Shrink Fit Device

Complete inductive-shrink fit with:

- Just one induction coil for any tool diameter Ø 3 to Ø 32 mm.
- Electronic device integrated.
- Cooling unit integrated.

Flange Adapters

According to customer needs, one of the following:

- BT-30 and HSK-32/40
- BT-35/40, HSK-50/63, and Steep Taper (DIN 69871) 30/40
- BT-45/50, HSK-80/100, and Steep Taper (DIN 69871) 45/50

Tool Adapters

Complete set containing:

- Tool adapter for Ø 6-8-10-12
- Tool adapter for Ø 14-16-18-20
- Tool adapter for Ø 25-32



- On request tool adapters Ø 3-4-5 and toolholders not in accordance with DIN 69882-8 standard

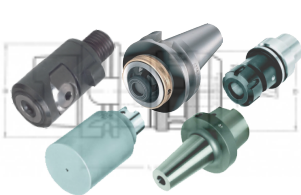
Applications

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

TAC Rockford Product Line

Machine Tool Gauges, Tool Changer Alignment, Runout Test Arbors, Workholding Systems, Tool Holders, Adapters and Extensions, Tool Holder Blanks, Machine Tool Accessories, Coolant Tubes and Gauges, Heat Shrink Systems, Rapid Prototyping

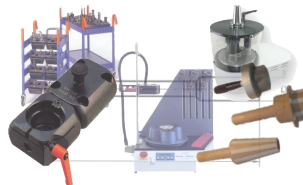
Tool Holders



Gauges



Accessories



Rapid Prototyping

