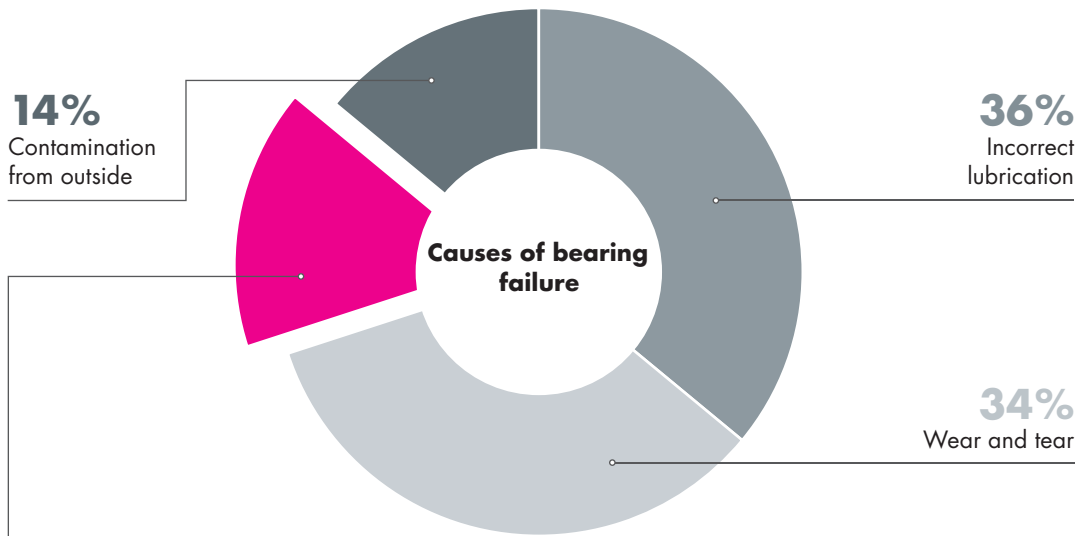


Prevent premature bearing failure

Over 60% of premature bearing failures are preventable. simatec supplies unique hardware solutions for the careful installation/removal, automatic lubrication, and contamination protection of rolling bearings.



16%

Improper installation

Over 16% of premature bearing failures are caused by improper installation. The lack of proper tooling and know-how often leads to new bearings being subjected to high levels of stress and sub-surface damage. This makes premature bearing failure inevitable. In order to prevent this, the correct procedure should be employed using professional, specialist tools throughout the installation process. Only in this way will the new bearings reach their expected service life.

The proper installation and removal of rolling bearings



The best way to avoid unwanted stresses when assembling interference-fit parts is to heat the outer part just enough to produce a temporary clearance. simatherm induction heaters allow this to be done precisely, evenly, quickly and efficiently. Other methods of heating are slower, less controlled and can cause more harm than good to bearings.

Advantages

- Precise, even, quick heating
- There is no risk of damage (from excessive mechanical stress, open flames, dirty oil baths, excessively hot ovens and plates)
- Automatic demagnetization
- User friendly
- Increased operational safety
- Selectable power reduction for heating up smaller parts



Consistent, professional assembly and removal of bearings and radial seals without specialized tooling is simply impossible. A comprehensive selection of high quality, proven tools enables these operations to be performed quickly and safely every time.

Advantages

- Reduction of costs through proper installation and removal
- Longer service life of the components
- No damage to adjacent components when defective parts are removed
- High-quality, specially developed tool sets
- Practical, in a robust plastic carrying case with shaped insert
- Quick instruction guide affixed directly onto case for convenience

simatherm induction heaters

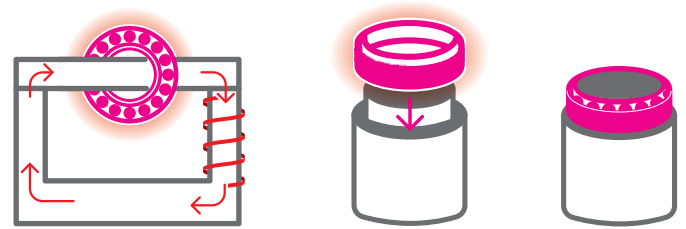


simatherm – perfect solutions for the clean, efficient installation of rolling bearings

With simatherm induction heaters, rolling bearings and other ring-shaped metal parts can be heated in a highly efficient manner. They allow quick, clean installation and replace conventional heating methods such as heating plates, hot oil baths, open flames and ovens. During the heating process, only the workpiece is heated while the device itself remains cool. simatherm induction heaters can be used for workpieces weighing up to 1200 kg (2646 lb).

Heating with induction

The heating of rolling bearings and ring-shaped metal parts by induction has proved to be an excellent method for installing these parts with both speed and care. An alternating electro-magnetic field induces a high current directly in the workpiece and raises this precisely to the prescribed installation temperature in a controlled manner.



simatherm induction heaters



simatherm



Open flames



Oil baths



Ovens

Where induction heaters are used

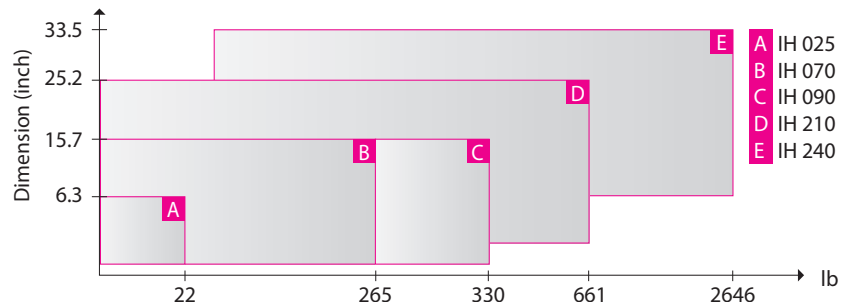
- Vehicle industry, cars and trucks
- Gear box manufacture
- Manufacture of electric motors
- Manufacturer of pumps
- General engineering
- Maintenance and repair workshops

Typical applications

- Bearings
- Gearwheels
- Sprockets
- Compression rings
- Labyrinth rings
- Sleeves
- Joints

Selection table for simatherm induction heaters

When choosing the simatherm heater to suit your needs, everything essentially depends on the dimensions and weight of the workpieces:



simatherm applications



The simatherm induction heaters VOLCANO IH 025 and IH 070 with two differently sized workpieces: the model IH 070 (at the front) heats a gearwheel sleeve to the specified installation temperature.



The induction heater IH 070 is the ideal choice for heating the return sprocket for the step chain of an escalator.



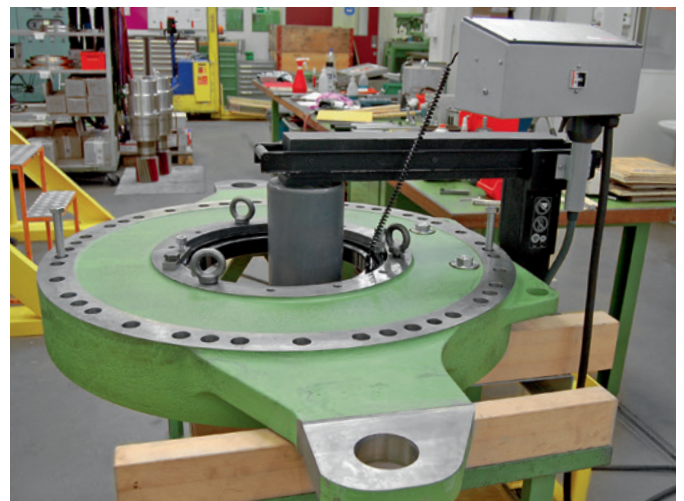
The very portable VOLCANO IH 025 weighs only 3.5 kg but can easily heat parts weighing up to 10 kg to 110°C.



The roller bearing placed around the coil of an IH 210 heater is heated by induction. A simatool Bearing Handling Tool is in place to simplify positioning the bearing on the shaft, once the specified mounting temperature is reached.



Working on a train wheel-set, the high-performance induction heater IH 210 heats a massive bearing housing to allow a bearing to be inserted.



The largest and most efficient simatherm induction heater IH 240 is used here to heat the gearbox flange of a wind turbine.