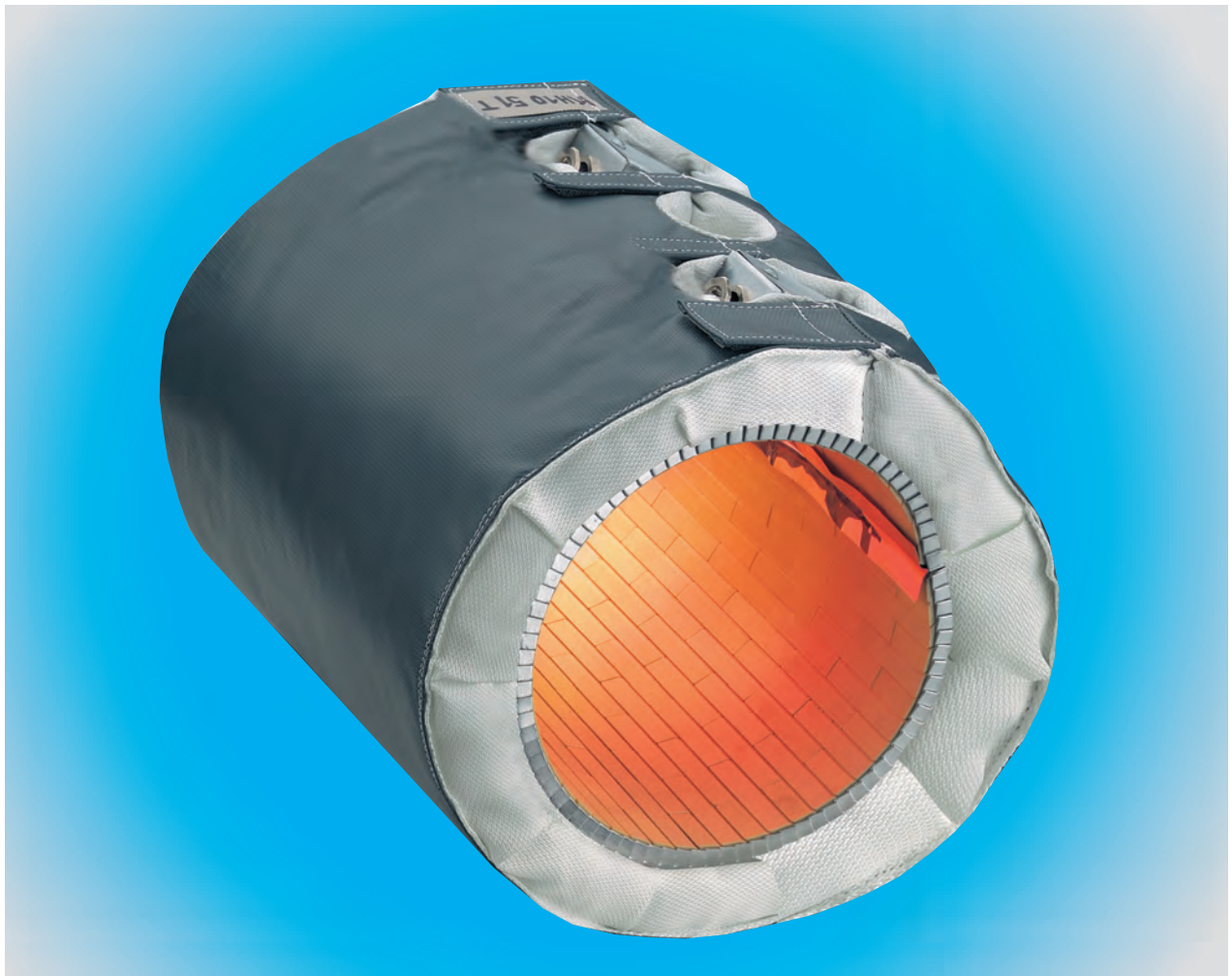


**Insulation covers for heated zones
in plastics processing machines**

**The original!
Made in Germany**

- Reduce your energy consumption and therefore energy costs
- Reduce Co² emissions



APPLICATION AREAS

ISOWEMA insulation covers can be individually manufactured for any heating zones irrespective of machine type. The electrical connection area is taken into account, as are the sensor inputs.

SETUP

Mechanically hardened glassfibre is sewn into an abrasion-resistant glass fabric. Both materials have a permanent temperature resistance of max. 500°C. (Also available for higher temperature ranges as special version). The outside of the insulation consists of a highly wear-resistant material whose surface repels dirt and excess injected plastic material. Thanks to the multi-layer construction in high temperature-resistant insulation textiles, the surface temperature and the energy losses around the heating zones can be considerably reduced. The insulation thickness is normally 25 mm, variations are also available. Closure takes place using belts and a buckle. All materials used for the manufacture of ISOWEMA insulation covers are non-flammable.

Sample calculation	
Injection moulding machine with 13000 KN mould clamping force	
Nominal heating band rating	6 each at 16 KW 2 each at 8 KW
8 heating bands overall:	112 KW
Measured current consumption of heating bands:	
working temperature:	220°C
Power consumption/day without insulation	322 KWh
with insulation:	270 KWh
Savings/day:	52KWh = 16%
Power costs without insulation per year:	7.728,00 €
with insulation per year:	6.480,00 €
At 240 working days and a power price of 0.10 Euro / KWh this results in a:	
savings potential of:	1.248,00 €
Cost of insulation:	1.073,00 €
Payback period:	approx. 10 months

The benefits

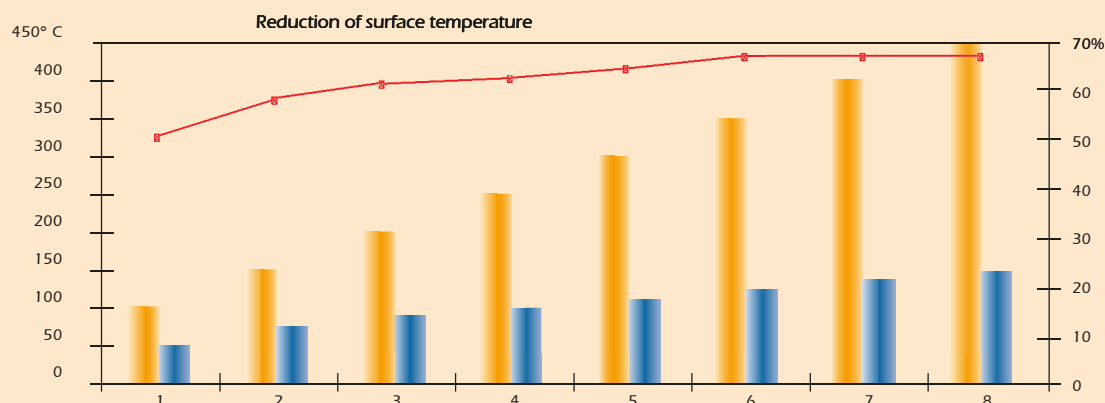
- Reduction of machine heating energy consumption by 20 to 40%
- Extension of heater unit service life through reduction of switching cycles
- Increase in working safety due to reduction of surface contact temperatures by 60 - 70 %
- Reduces injury hazards caused by burns
- Can be retrofitted at any time - rapid installation and dismantling
- Long service life of insulation thanks to the use of high temperature-resistant, abrasion-resistant materials
- Physiologically harmless insulation materials
- ISOWEMA insulation units usually have a payback time of less than 1 year
- Reduction of heating time
- Optimisation of internal climate in production halls
- Individual, customer-based production
- Uniform temperature profile at machine cylinder
- Manufacture of insulation units on the basis of 3-D data (Step/IGES formats) possible
- Measurement-taking on site possible
- Insulation units can be fitted by our staff if required
- Can also be used on extruder cylinders in connection with the ECOWEMA valve system (see photos 9 and 10)

NOTE

In the case of machines whose screw geometry creates a high level of frictional heat, use of an insulation unit can result in heat accumulation and therefore exceedance of the required operating temperature. In this case, use of insulation is not recommended. Areas which frequently come into contact with liquid plastics should not be insulated.

Insulation covers for injection moulding machines, insulation thickness 25 mm

Temperature underneath insulation material in °C
Temp. of insulation on outside in °C
Reduction of surface temperature in %

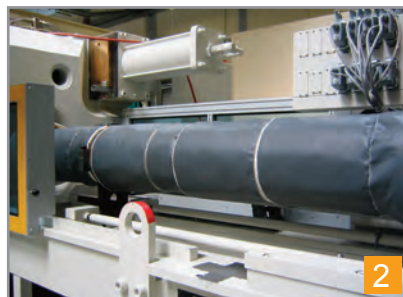


Insulation covers for heated zones in plastics processing machines

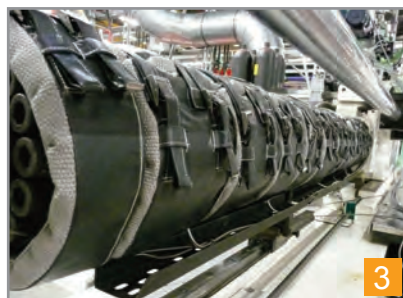
Injection moulding



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Various applications



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6



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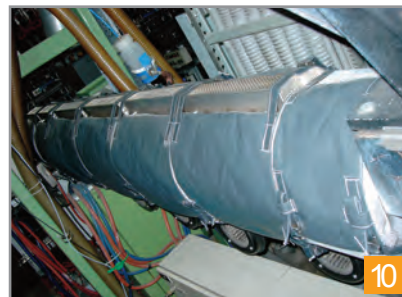


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Extrusion



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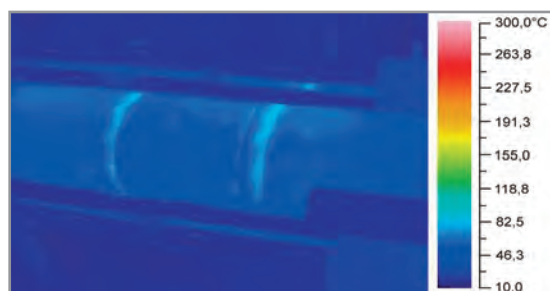
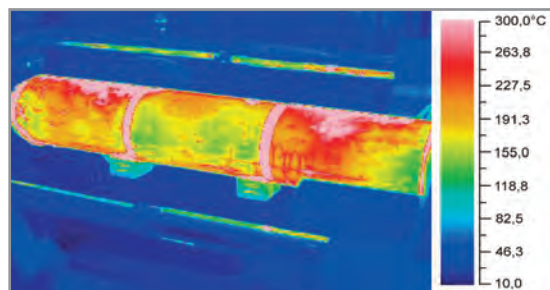
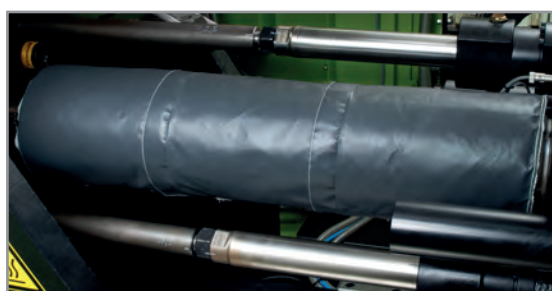
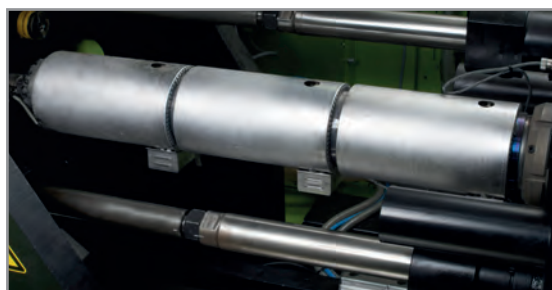
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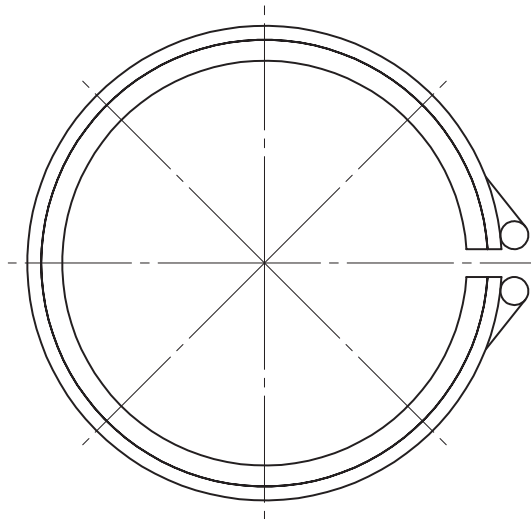
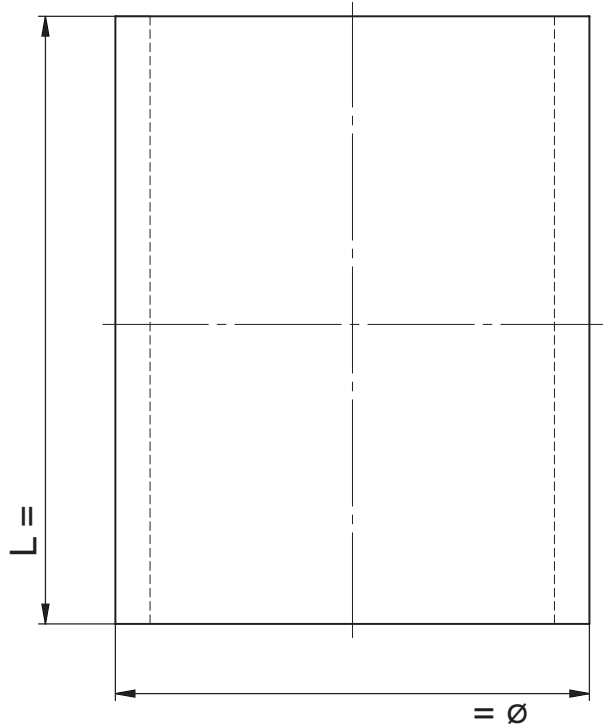
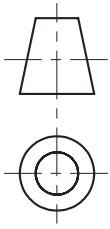
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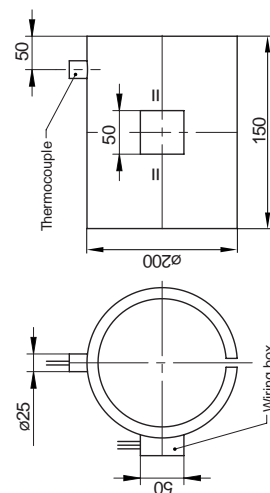
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* All dimensions in mm

Order no.:	Type: ISOWEMA
Customer:	Drawing no.:
Dimensions:	max. insulation thickness:
Drillhole: Ø	opening/gap:

Example:



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Kalver Straße 28
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