

Peace of mind

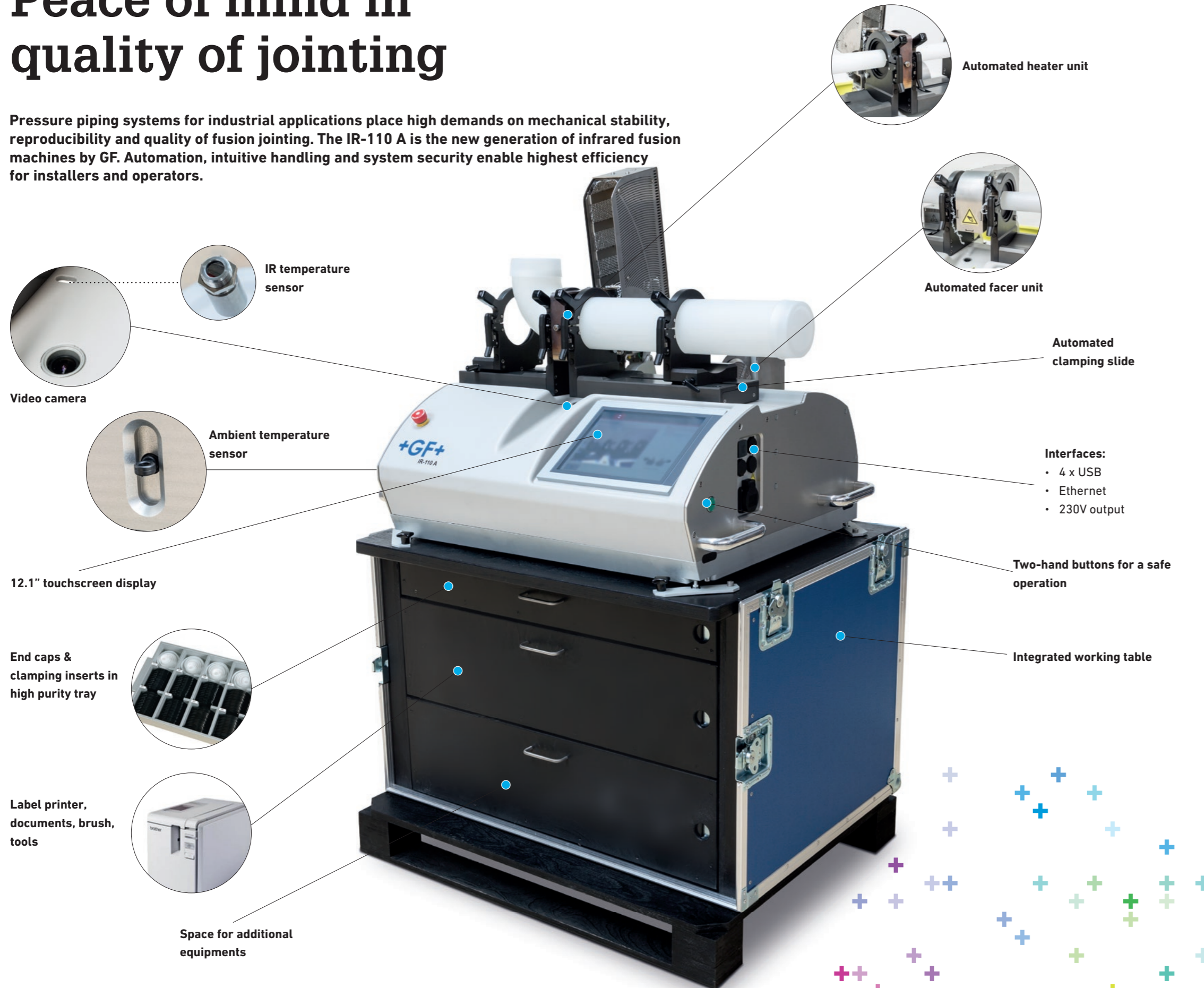
Automated infrared fusion machine
IR-110 A



IR-110 A

Peace of mind in quality of jointing

Pressure piping systems for industrial applications place high demands on mechanical stability, reproducibility and quality of fusion jointing. The IR-110 A is the new generation of infrared fusion machines by GF. Automation, intuitive handling and system security enable highest efficiency for installers and operators.



Easy to clean and safe to use



Safety bar and removable shavings tray

Smart transportation



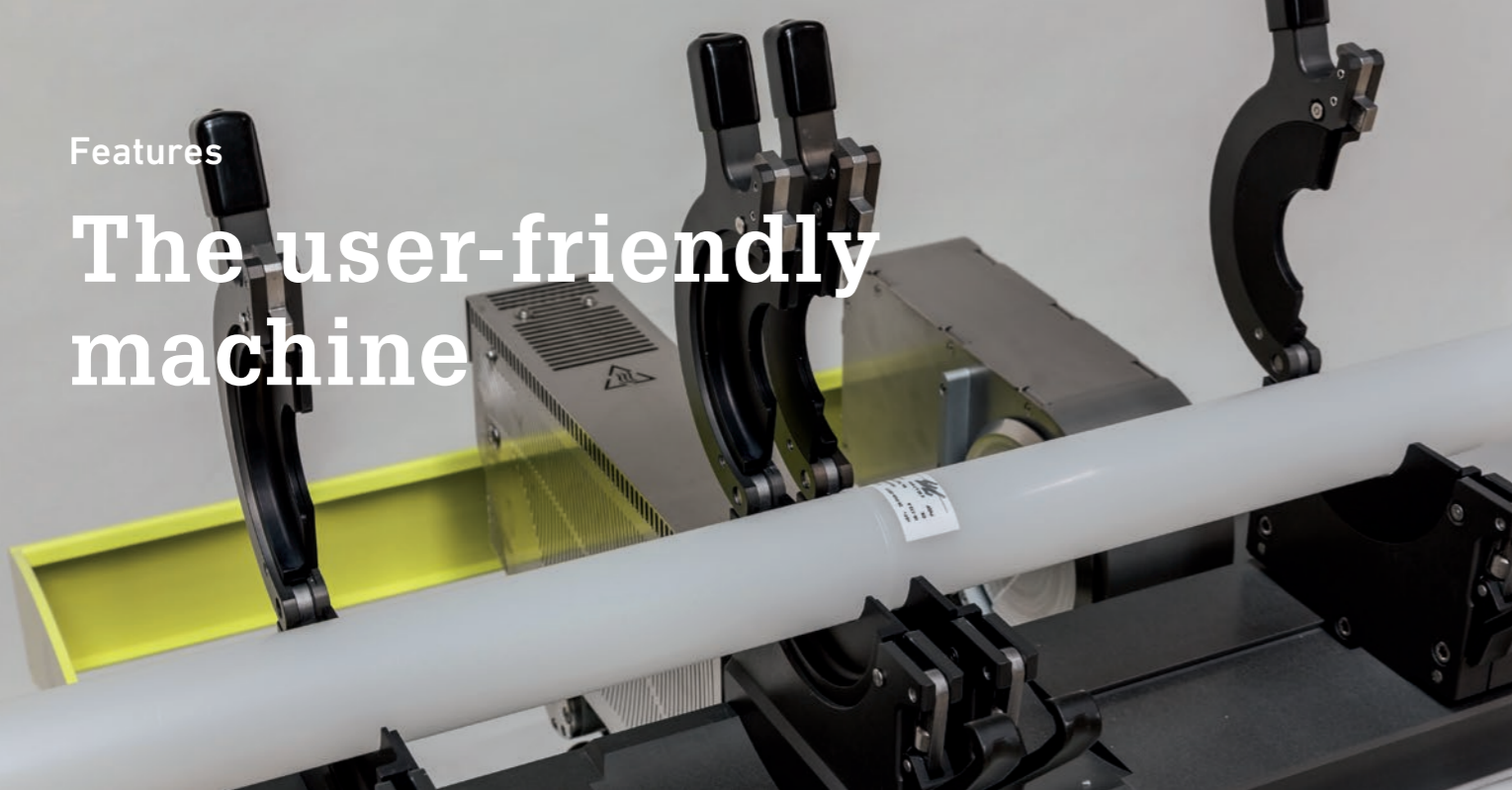
Transport case with integrated pallet

Specifications IR-110 A

Dimensions	d20 – d110 mm (½" – 4")
Materials	PVDF SYGEF PP grey PROGEF PE100 ecoFIT PP-n PROGEF Natural
Languages	English, German, Korean
Power supply	230V 50/60Hz, max. 2000W, integrated UPS (uninterruptible power supply)
Machine control	PLC (programmable logical controller)
Working temperature range	+5°C to +40°C
Fusion factor f_s	≥ 0.80
Fusion data storage	min. 2500 fusions (protocol, label and video files)
Weight machine/ incl. transport case	130kg / 250kg
Dimensions transport case L x W x H	1.0 x 0.8 x 1.35 m
Conformance/ standards	DVS 2007-6, DVS 2203-1
Compliance to	2006/42/EC (MD) + 2004/108/EC (EMC)
Applications	Fusion machine designed for industrial applications and clean room conditions
Purchase order number for fully equipped machine (with working table)	790.164.001

Features

The user-friendly machine



+ Automated fusion process

Minimizes operator errors and immediately picks up any operator issue

- Facing is fully automated
- Heating is fully automated
- Jointing process is automated



+ More free space

Ideal for complex installations

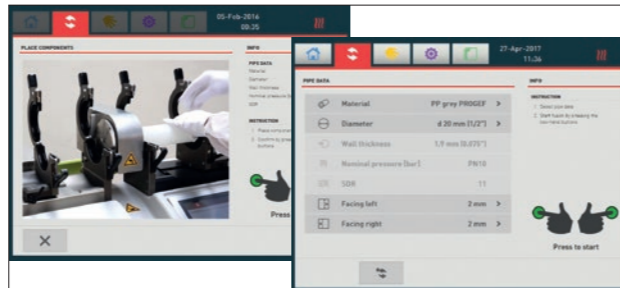
- Facer and heater do not interfere with the components
- Clamping slides designed for flange connections



+ Interactive handling

Easy to use

- 12.1" touchscreen display
- Graphical user interface (GUI)
- Video guided process steps
- Multilingual instructions



+ Adjustable facing

Flexibility in design and installation

- Length options up to 5mm (default: 2mm)
- Individual facing values on both sides
- Refacing on one side possible



Quality control

No compromise in quality

The demand for quality control is constantly increasing. End customers frequently require unequivocal proof and documentation of the fusion process. Fusion joint documentation must be easy, safe and economical to obtain. The IR-110 A creates peace of mind.



+ Integrated process and quality control

Permanent data alignment

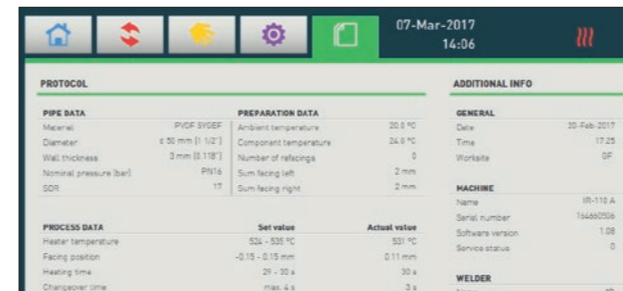
- Jointing distance and jointing pressure are controlled and monitored by the machine



+ Measures all temperatures

Increased efficiency and time saving

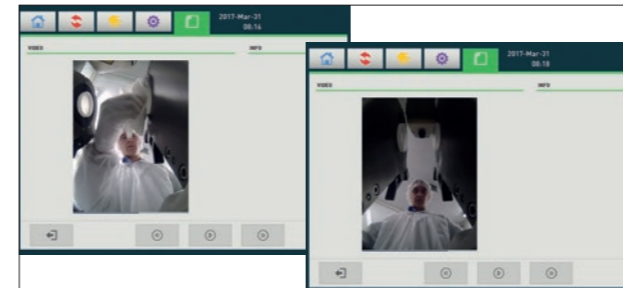
- Ambient temperature sensor
- Component temperature measured by IR sensor
- Heating and cooling processes are adjusted according to the ambient temperature



+ Integrated video camera

Enhanced quality control

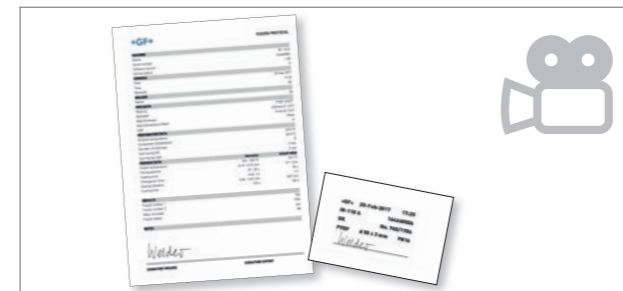
- Records handling and preparation
- Enables traceability
- Exportable video files



+ Data traceability

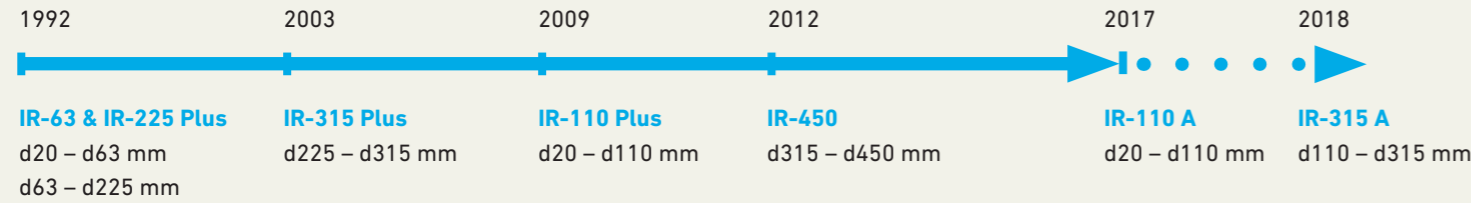
Simplifies QA / QC

- Soft copies via USB connection
- No additional software needed
- Clear OK or NOK (Not OK) message
- Up to 5 printouts for protocol and label



The pioneer in IR fusion

In 1992, GF Piping Systems introduced the first IR fusion machines. Since then GF Piping Systems became a leader for innovative fusion technology. We have been working strongly together with customers and kept in touch with their needs. As a result we developed the new automated IR-110 A: user friendly, bigger screen, enhanced QA/QC and high reproducibility.

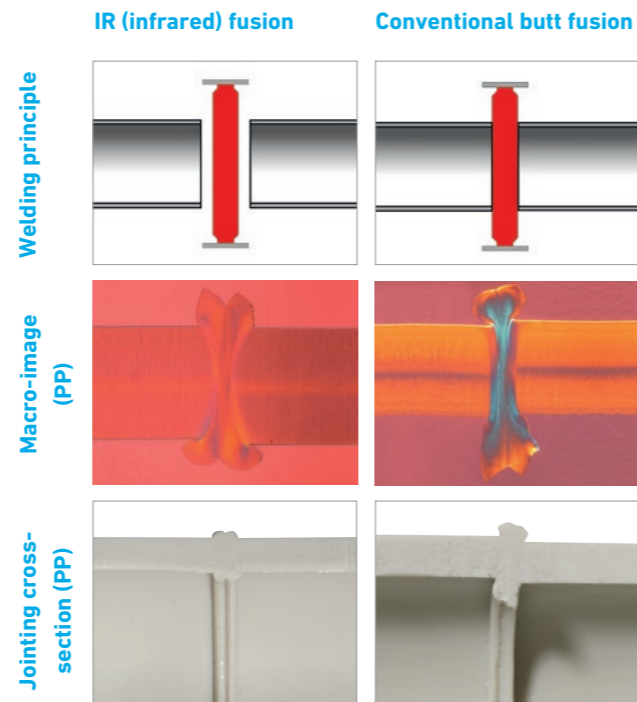


+ Advantages of IR fusion

- Short welding time
- Minimal defined bead
- High reproducibility
- High reliability
- Less thermo-stress
- Best for high purity applications

+ The optimized heating process

Non-contact heating (IR) cuts the heating time by more than 30% compared to conventional butt fusion. The entire equalization process is no longer necessary, what ends the problems with varying bead formations. The tendency for melted material to stick at the heating element (especially for PVDF) is eliminated.



+ Applications



Microelectronics

Ultrapure water (UPW) is the lifeblood of semiconductor wet processing. SYGEF Plus system manufactured out of PVDF high purity material added with latest IR fusion technology offers an industrial benchmark solution with excellent leach-out values and no rouging.



Chemical process industry

SYGEF is uniquely equipped to provide a broad and versatile solution for the safe conveyance of aggressive chemicals in extreme conditions. The excellent life span for temperatures up to 140°C including UV-resistance even allows outside installations.



Clean water applications

Wherever defined water qualities and controlled processes are required PROGEF Plus offers reliable and economical system solutions. With PROGEF Plus high purity water specifications and quality standards are dependably met.



Energy

For secure processing in water and chemical applications the PROGEF Standard system combines high performance utilization with outstanding material properties. This leads to a beneficial gain in conditions of safety and health.

The one-stop-shop solution

GF Piping Systems is a solution provider in the piping systems market. This includes, in addition to the core products (pipes, fittings, valves, and fusion machines) service and customer training, such as certified welding courses and maintenance courses. The correct installation of our products is just as important as the quality of the products themselves.



Worldwide at home

Our sales companies and representatives ensure local customer support in more than 100 countries

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