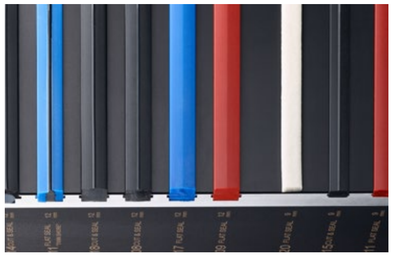
How it works

ROPEX temperature controllers are specially designed to enable precise temperature generation and control when using CIRUS heat sealing tools. These controllers allow you to generate heat impulses of just a few hundred milliseconds with temperature dynamics of up to 6000 K/s. They measure the active temperature of the heating line using the resistance layer of the sealing tool.

Controller types

	Type	Temperature Adjustment	Temperature Display	Diag-nostics	Terminals Alarm	Terminals Booster	Features/ Applications
	**UPT-640**	Display / 0...10 V_{DC}	○ LCD ● VFD 0...10 V_{DC}	●	●	●	Timer functions, cooling system monitoring, PLC interface
	**UPT-606**	PROFIBUS	PROFIBUS	●	●	●	PROFIBUS interface, cooling system moni-toring
	**UPT-6010**	PROFINET	PROFINET	●	●	●	PROFINET interface, cooling system moni-toring
	**UPT-6011**	EtherNet/IP	EtherNet/IP	●	●	●	EtherNet/IP interface, cooling system moni-toring

● Standard ○ Option ◆ Accessory LCD Liquid crystal display (green) VFD Vacuum flourescent display (blue)



Silicone profiles and silicone retainers

A wide range of silicone profile geometries in different degrees of hardness can be used to achieve a sealed seam. Simple flat or trim seals are possible, depending on the cross section of the silicone profile. A matching silicone retainer, which is equally suitable for both flat and trim seals, can be supplied for each silicone profile. It is therefore possible to change from a simple flat seal process to a trim seal process by changing the silicone profile only. The width of the sealed seam is defined by the combination of the heating line width of the sealing tool and the width of the silicone profile.

New technical possibilities.

Individual solutions.

As your requirements are unique.

Know-how & added value

We unlock new technological potential for our customers and generate added value with groundbreaking products and highly efficient solutions.

Quality & Reliability

Our customers know they can count on us for support – with everyday tasks or highly specialized applications.

Customized solutions

No two heat sealing applications are the same, and our customers can be certain of getting a made-to-measure solution.

Security & success

With well-engineered solutions and dependable quality, we provide you with the security you need to make your project a success.

Speed & accuracy

Our customers value our ability to respond promptly but precisely to their inquiries.

Partnership & service

Comprehensive consulting, short lines of communication and tailored system solutions add up to maximum customer focus.

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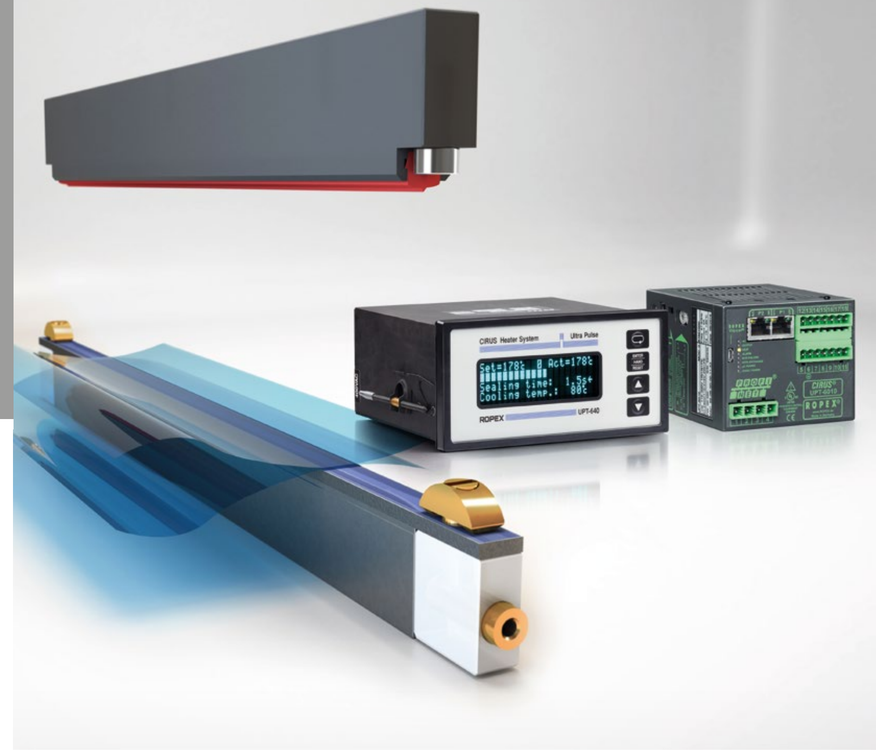
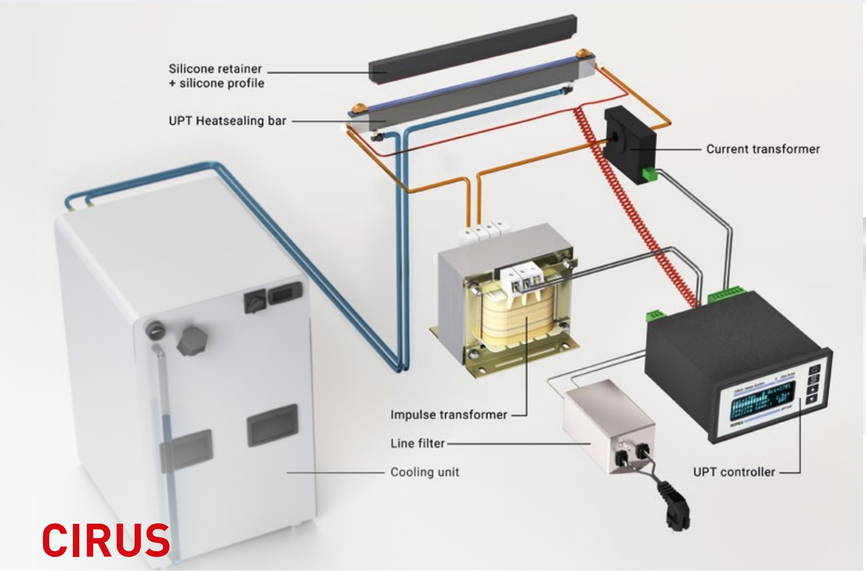


CIRUS –

Highly dynamic impulse sealing systems for thermoplastics



CIRUS heat sealing system for thermoplastics

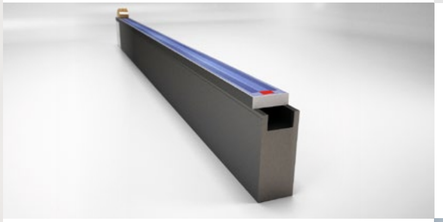
Machines with a high product output, special packaging applications or packaged goods requirements and film materials under cost pressure – all these factors result in film types that have high demands on the sealing system.

Users are increasingly shifting their attention towards issues such as seam quality and consistent repeatability, shorter sealing times and minimal heat stress for the packaged goods (not to mention demands for less downtime due to maintenance, the replacement of wearing parts or retooling). ROPEX has the ideal solution to these problems: the technology of CIRUS sealing systems with its corresponding system components.

The highly dynamic CIRUS heat sealing system is the ideal solution for the increasingly challenging requirements of packaged goods when it comes to temperature dynamics, contours and heat stress.
The short changeover time and minimum maintenance effort are an immense advantage of this heat sealing system.

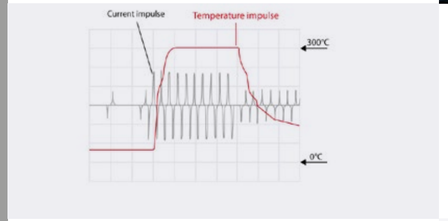
System configuration

You always acquire a complete system, ready to use in your application: by observing our technical recommendations, you can profit from the optimized functionality of this technology, which reduces the effort for installation, startup and maintenance to a minimum.



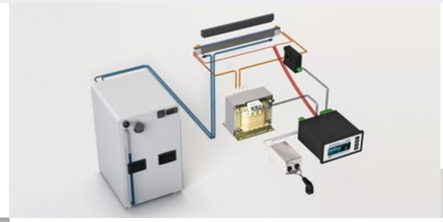
Heat transfer

The sealed seam cools down very fast and very efficiently because the printed layers are very thin. The combination of the very high temperature dynamics and water cooling of the CIRUS tool results in a significant reduction of the process time and a higher product output.



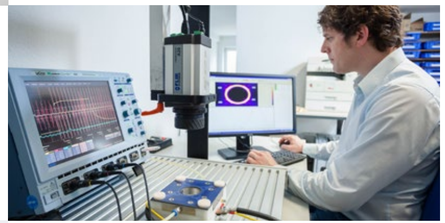
Individual heating line contours

Due to the special production process for CIRUS tools, the heating line contour can be tailored to your individual requirements. Curved or elliptical sealing geometries are possible as well as overlapping or several individually operable heating lines on a basic body next to one another.



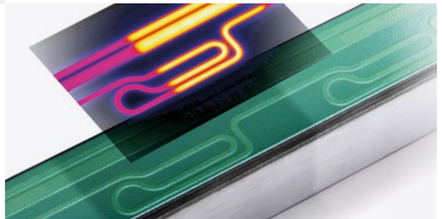
Heating up & cooling down in a few milliseconds

In order to generate the extremely high temperature dynamics of the CIRUS tool, a planar stainless steel substrate is printed with several insulating layers before the actual heating line is printed as a power resistance.



Heating impulse

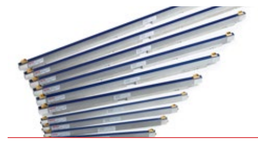
The special tool design permits new sealing tool characteristics. As the heating line is only a few µm thick, and the resulting heat capacity is also low, extremely high temperature dynamics of 6000 K/s are possible.



Standard or customized – anything is possible!

In addition to a wide range of standard bars in numerous different versions, we also manufacture customized tools tailored to the specific requirements of your heat sealing application. ROPEX offers sealing tools protected against cleaning agents respectively corrosive or aggressive liquids (IP65 protection class) (FS technology), especially for sectors in the packaging technology, where the cleaning and hygiene of the sealing tool/machine plays an important role.

Standard UPT bars

Type	Features/Applications
	**FS bars** are heat sealing bars for operation under humid or corrosive conditions, for instance if the machine has to be regularly cleaned with water or a liquid detergent. These bars are also suitable if the product to be packed is itself corrosive (e.g. saline solutions, fruit juices etc.). A special coating and the hermetically protected contact area ensure compliance with the IP65 protection rating. According to the design, FS bars are available with heating line lengths from 100 mm to 500 mm in 50 mm steps. They can also be supplied with heating line lengths from 500 mm to a maximum of 1000 mm in 100 mm steps. Heating line widths of 2.8 mm, 4.8 mm and 6.0 mm are available as standard. FS bars have 1.5 m long cables at the contact area. According to the design, all of the above-mentioned heating line length and width combinations are offered with three different cable outlets for an easy integration into the machine: ▪ D: The cable exits vertically downward ▪ S: The cable exits perpendicularly at the side ▪ L: The cable exits as an extension of the heating line
	**Standard GW bars** are UPT heat sealing bars for operation under normal conditions (neither humid nor corrosive). These bars are available with heating line lengths from 100 mm to 500 mm in 50 mm steps. They can also be supplied with heating line lengths from 500 mm to a maximum of 1000 mm in 100 mm steps. Heating line widths of 2.8 mm, 4.8 mm and 6.0 mm are available as standard.

Customized tools

Type	Features/Applications
	Our sealing tools can also be manufactured as **customized solutions** tailored to the individual requirements of your sealing application. Close cooperation and coordination with our customers are very important for us: your tools are designed on our CAD system according to the specific parameters of your heat sealing process and the available space in the machine. Special temperature profiles as well as overlapping and/or individually operable heating lines are possible, and we can also realize desired heating line geometries.