

oerlikon
hrsflow

Driving solutions forward

Advanced Hot Runner Solutions for the Automotive Market



*Passion for
expertise*

Who we are

Oerlikon HRSflow designs and manufactures advanced hot runner systems that meet the demanding requirements of the Automotive market. Oerlikon HRSflow specializes in all kinds of hot runner solutions including design, engineering, rheological simulations, customer support and service.

OUR NUMBERS

- 50 sales service centers
- 24/7 technical support
- 3 manufacturing plants with identical standards
- 15,000 hot runner systems per year
- More than 400 patents developed in the last two decades
- 360° expertise in plastic injection



- Oerlikon HRSflow 360 Plastic Injection Know-how

Driving solutions forward

Our hot runner systems incorporate industry leading technology and are manufactured to exacting standards in order to tackle any automotive challenge. Our systems produce flawless automotive parts for every major OEM in the world.

Exterior Applications

First impressions mean everything. A flawless finish, a sleek design and crisp lines signal to onlookers a vehicle is worthy of desire and admiration. Oerlikon HRSflow hot runner systems are designed to:

- Provide flexibility, stability and durability
- Ensure mold stiffness
- Offer ease of assembly and maintenance

Interior Applications

Surrounding passengers in a well-constructed and visually appealing cabin is crucial for any automaker. Our hot runners enable suppliers to create parts that meet the automaker's demanding interior requirements. Our systems:

- Produce aesthetically flawless, high-quality parts that offer a rich “touch and feel” experience
- Are suitable for complex polymers and complex part geometries
- Provide accurate thermal management for the most aesthetical applications



Underhood

The spirit of a vehicle roars under the hood. Extreme operating conditions call for parts that are precise, robust, lightweight and durable. Oerlikon HRSflow hot runner systems:

- Mold high performance parts that meet engineering demands under the hood
- Can be used with high-performance materials including glass and carbon fiber

Lighting

Lighting is where a vehicle's personality shines. Head and rear lamps must be flawlessly produced both for safety and beauty reasons. Characterized by firm designed rules, our Oerlikon HRSflow hot runner systems:

- Provide excellent temperature control
- Are suitable for high quality applications
- Produce impeccable parts without flashes, or material degradation



Emergent Technologies

New technologies in Electric (EV) and Autonomous (AD) Vehicles continue to advance at a rapid pace, requiring suppliers to keep up by meeting new needs and developing advanced capabilities. New processes and materials will become increasingly prevalent and Oerlikon HRSflow is poised to offer solutions which meet these challenging demands. Some emerging technologies include:

- FIM- Film Insert Molding enables one-step fabrication of plastic components with a decorated or functional surface and eliminates the need for separate steps, such as coating or painting.
- IMD- In-Mold Decorating allows molders to permanently embed an image within the surface of a molded part, creating a dramatic and eye-catching effect while providing durability. This process is used extensively in automotive dashboards.



Driving the future

The future has arrived, and it is electric. FLEXflow Evo, our electrical servo-driven valve gate system, is designed for the independent adjustment of each valve pin with precise control of stroke and force during opening and closing phases. This solution assures accurate, easy to operate, flexible control of pressures and flow rates at each individual gate during the injection process.

Why is FLEXflow Evo ideal for Automotive Applications? Never have operators had this much precision, control and process repeatability available at their fingertips. Perfect for Automotive applications, benefits of FLEXflow Evo include:

Aesthetic

- Quality improvements for large Class "A", grained, cosmetic and chromed surfaces
- Part warpage reduction
- Optimal flow balancing
- Wall thickness reduction

Cost Advantages

- Clamp force optimization
- Scrap reduction
- High process repeatability
- Mold deflection reduction for a longer tool life
- Increased Family mold options
 - use family molds for projects that were previously thought unfeasible

Operational

- Clean and easy to use (no oil, no water)
- Faster mold changes
- Integration between rheological simulation results and FLEXflow Evo operating parameters
- Reduced maintenance (no seals, hoses, hydraulic fluids)



Aiming for the best quality and service

Driven by quality

Our global design, production and quality procedures - the same around the world - match perfectly with localized service in order to meet the needs of each country. Our production plants boast the same shared methods and processes worldwide according to the lean thinking approach:

- Optical, laser and touch control
- Data Analysis for statistical process control
- Digital data exchange
- Shared method worldwide



- ICIM (Italy)
- TUV (China)
- SGS (Brazil)



Service & Support

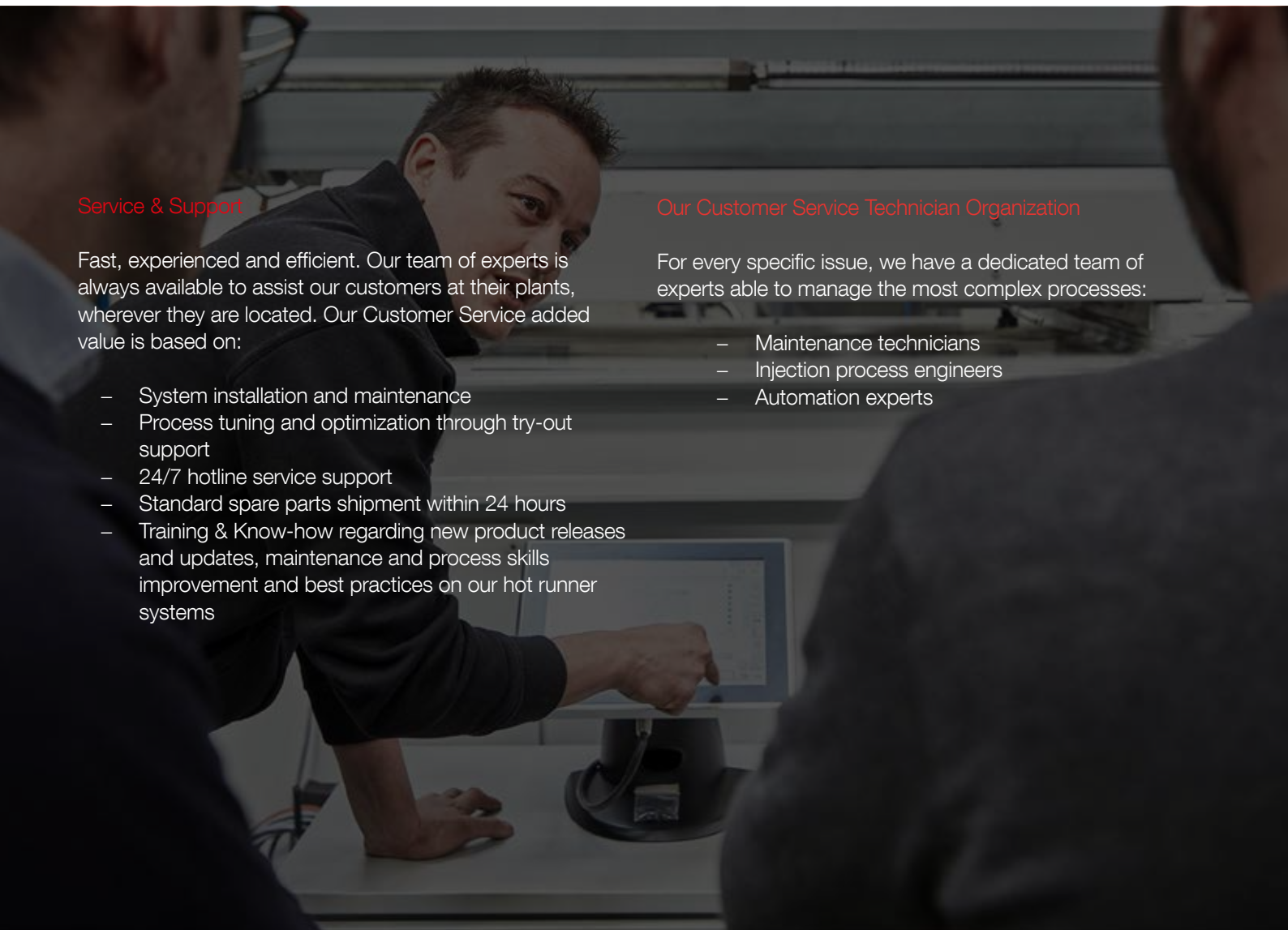
Fast, experienced and efficient. Our team of experts is always available to assist our customers at their plants, wherever they are located. Our Customer Service added value is based on:

- System installation and maintenance
- Process tuning and optimization through try-out support
- 24/7 hotline service support
- Standard spare parts shipment within 24 hours
- Training & Know-how regarding new product releases and updates, maintenance and process skills improvement and best practices on our hot runner systems

Our Customer Service Technician Organization

For every specific issue, we have a dedicated team of experts able to manage the most complex processes:

- Maintenance technicians
- Injection process engineers
- Automation experts



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