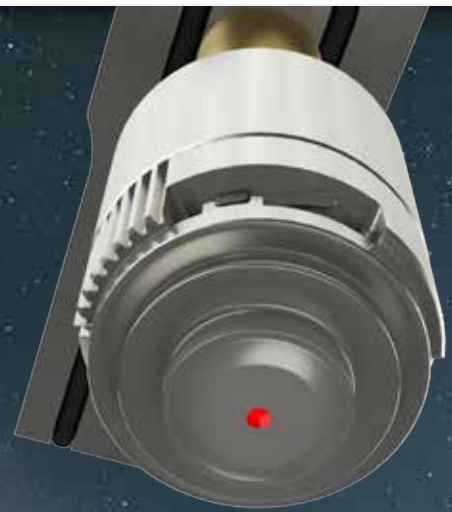


**oerlikon**  
hrsflow

# STARgate HRS™

It was always in front of us.  
We just had to see it differently.  
New eyes. Same world.

**Radical change.**



# UNLOCKING A NEW ERA IN VALVE GATE SOLUTIONS

STARgate HRS™ is a disruptive **pin-less solution** that manages the flow rate through a revolutionary **diaphragmatic design and movement**.

## Key Benefits

- **Significant cycle time reduction** thanks to the optimal cooling performance of the diaphragmatic concept
- **Pin-less design** ensures smoother plastic flow at a consistent melt speed, enabling faster color changes
- **Optimized circular flow** minimizes pressure loss for more efficient injection
- **Quick color changes** and minimized plastic waste
- **Smaller nozzle size and mold pocket** made possible by the innovative pin-less configuration
- **Simplified maintenance** with easy-to-replace gate inserts
- **Energy-saving design** with external actuator. No cooling required



Fig.1 Injection through diaphragmatic movement and design

## INSIDE TECHNOLOGY

### 1. COMPACT SOLUTION

The radical change in the actuator's position enables a **space-saving design**.

Its pin-less configuration allows for a **smaller nozzle size and mold pocket** compared to standard valve gate systems.

**STANDARD**  
Valve Gate Solution



**STARgate HRS™**



Fig.2 Actuator's position change

**STANDARD**  
Valve Gate Solution



**STARgate HRS™**



**2. PIN-LESS DESIGN**

The valve gate's position changes radically, paving the way for a pin-less design.

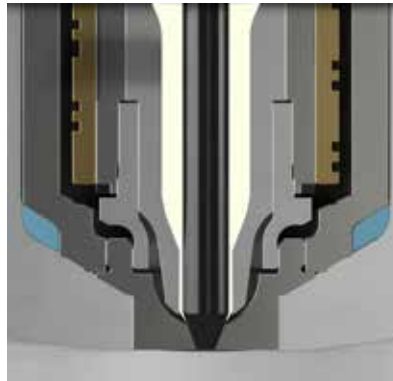
This ensures smoother plastic flow at a consistent melt speed, enabling **faster color changes**.

Fig.3 Valve gate's position change

**3. OPTIMAL COOLING PERFORMANCE**

The revolutionary **diaphragmatic concept** delivers optimal cooling performance. This results in a significant reduction in cycle time.

**STANDARD**  
Valve Gate Solution



**STARgate HRS™**

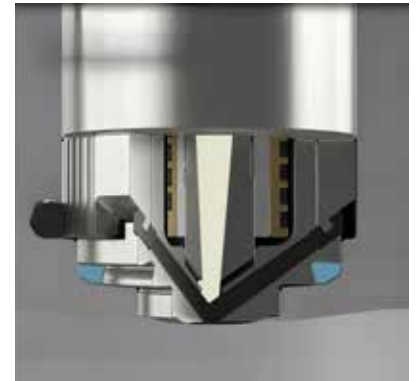


Fig.4 Cooling system's position change

# >> Best Practice

## Turning innovation into results

### HOT RUNNER SYSTEM FEATURES

Molding material:	PP (Post-Consumer Recycled, MFR40)
Cavities N°:	2
System type:	STARgate HRS™ Technology, 2 drops, M series



### PART DESCRIPTION

Application:	Bucket
Sector:	Thin Wall Packaging
Part dimensions:	6.6 liter
Part weight:	200 g
Part thickness:	1.1 mm
Cycle time	6.2 s

### HIGHLIGHTS

- Significant cycle time reduction
- Pin-less design
- Space saving solution
- Lower pressure loss
- Faster colour change

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