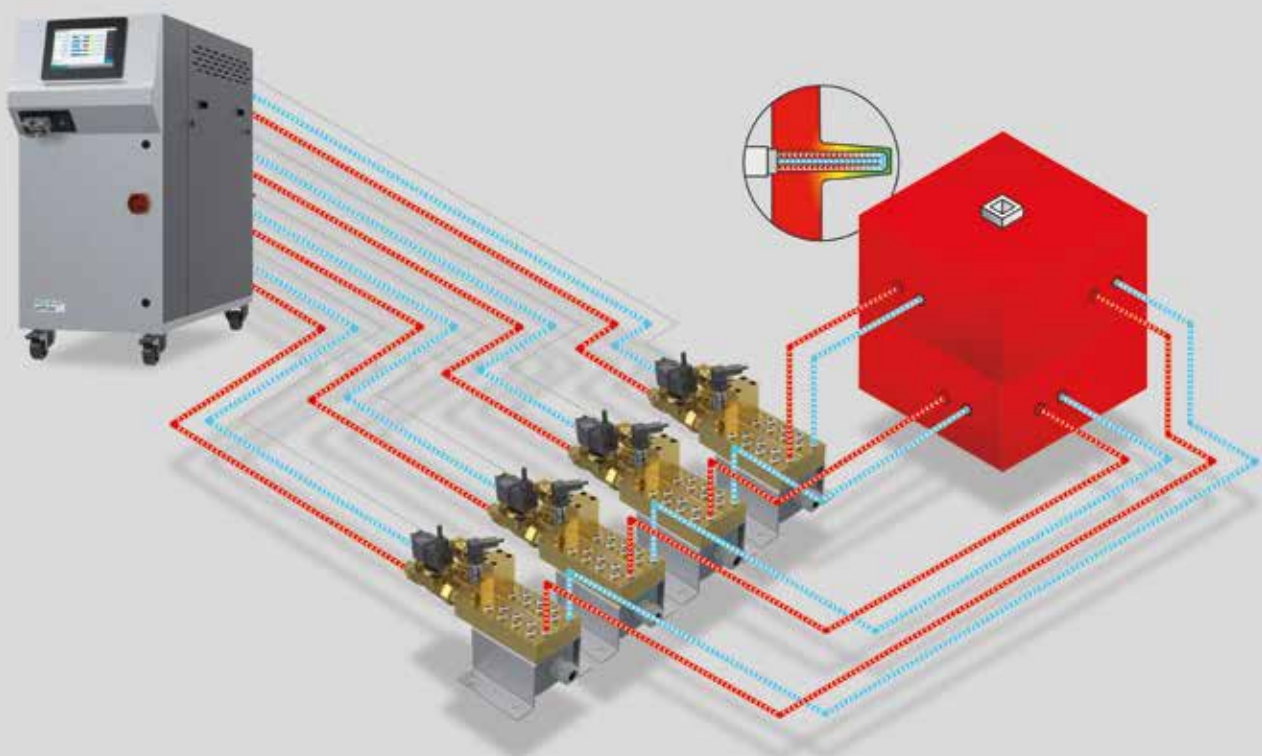


REGLOPLAS⁺

jetPulse spot cooling for die casting

Precise temperature control solutions
for demanding applications



Precise and cycle-accurate temperature control of hot-spots

For die cast temperature control, Regloplas offers the jetPulse, a versatile and individually-adjustable cycle-precise solution, which can offer efficient cooling of tools in areas where conventional temperature control is inadequate. The jetPulse provides pinpoint accuracy and intelligence for the cooling process in die casting.

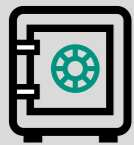
REGLOPLAS jetPulse temperature control solutions enable you to achieve faster cycle times, more reliable process control and more flexible temperature control with your tools, with up to 6 distributors each with 8 channels. The flow rate can be monitored on each channel using the jetFlow. The jetPulse cycle has an integrated automatic core break monitoring step.

AT A GLANCE

jetPulse features

- Water distribution system with up to 6 zones (multiJet-distributor) and 8 channels per zone
- Up to 100 l/min flow rate at a max. pressure of 30 bar
- System pressure can be adjusted up to 30 bar
- Adjustable leak differential pressure
- Core break monitoring integrated into cycle
- Integrated temperature measurement
- Air/water cooling time adjustable
- Leakage monitoring time adjustable
- Blow-out time adjustable
- Automatic water refill
- Siemens PLC-controlled control system with touch screen
- Wait times between the actions can be adjusted
- Energy-saving pump, only active when cooling is running
- Interface to die casting machine

Sustainable use with REGLOPLAS



Cost saving

You save thanks to lower investment and quality cost and lower power consumption.



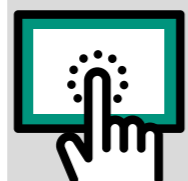
Measurement and documentation

Process parameters such as flow rate and temperature are measured and displayed for each temperature control channel.



Space saving

Temperature control system with compact components.



User-friendliness

User-friendly and easy to operate HMI panel to control the temperature control system.



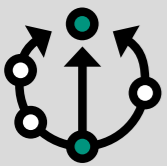
Monitoring

The system monitors individual channels, checking their function, as well as blockages or contamination.



Quality assurance

With process monitoring and alarm messages in the event of deviations, you ensure your product quality over the long term.



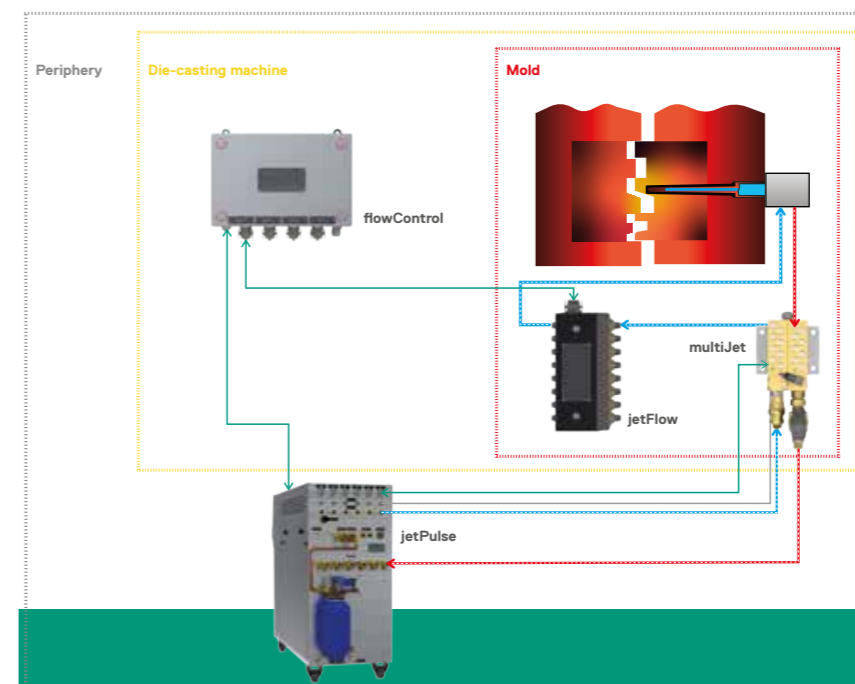
Flexibility

The temperature control can be individually and flexibly adapted to your needs and parameters..



Lower unit costs

With optimised process parameters you increase the throughput. With process monitoring you avoid rejects.



Versions and features jetPulse

multiJet - Distributor

- Distributor with 8 channels
- Up to 80 °C outlet temperature, water/air
- Interface with jetPulse
- Installation close to the tool
- Core breakage monitoring per zone
- Pressure monitoring
- Dimensions 280/122/150 mm
- Compressed air outlet connection G 1/4" BSP 60°
- Connections 60° outlet/inlet G 1/2" BSP 60°
- Connections outlet/inlet core d6 / G 1/8" IG

Control

- Via jetPulse



jetFlow - Flow measurement

- Individual flow monitoring per channel
- Up to 95 °C outlet temperature, water/air
- Flow measurement of 0.7 – 30 l/min
- Interface with flowControl
- Up to 8 channels
- Dimensions 130/230/96 mm
- Connections outlet/inlet with d6 / G 1/4" IG
- Control via flowControl



flowControl - Monitoring

- PLC control system for monitoring the flow on the jetFlow
- Monitoring of 4 or 6 zones
- Interface with jetPulse (Profinet) and jetFlow
- Dimensions 300/200/130 mm
- Control via jetPulse



Application data

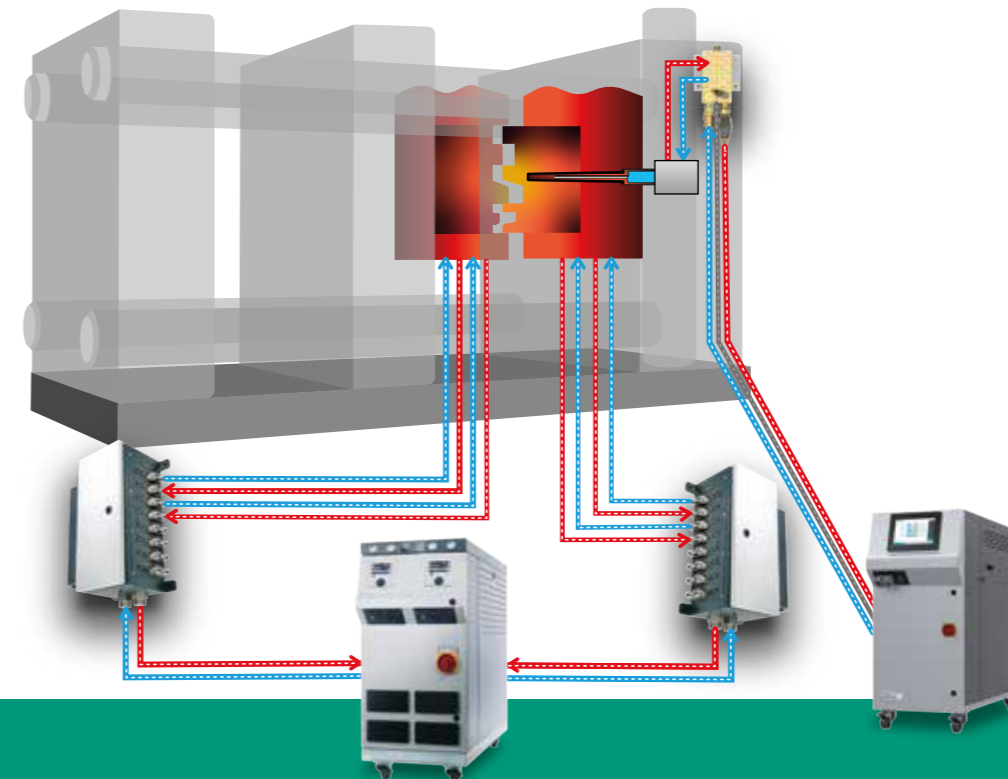
Tool	2 t
Channels	2 x 6
Molded part weight	4.7 kg
Cycle time	56 s
Temperature control unit	1 x P160LD
Multi distributor	2 x multiFlow modular, 6-way automatic
Temperature control sol.	jetPulse 100L, multiJet

Benefits with jetPulse core temperature control from Regloplas

- Optimisation of the compression of the alloy
- Less blowhole formation
- Reduce cycle time by means of centrifugal pump with integrated frequency converter for high pressures
- Permanent magnet synchronous motor with IE5
- Compact overall dimensions of jetPulse 30L and jetPulse 100L
- Efficient cooling

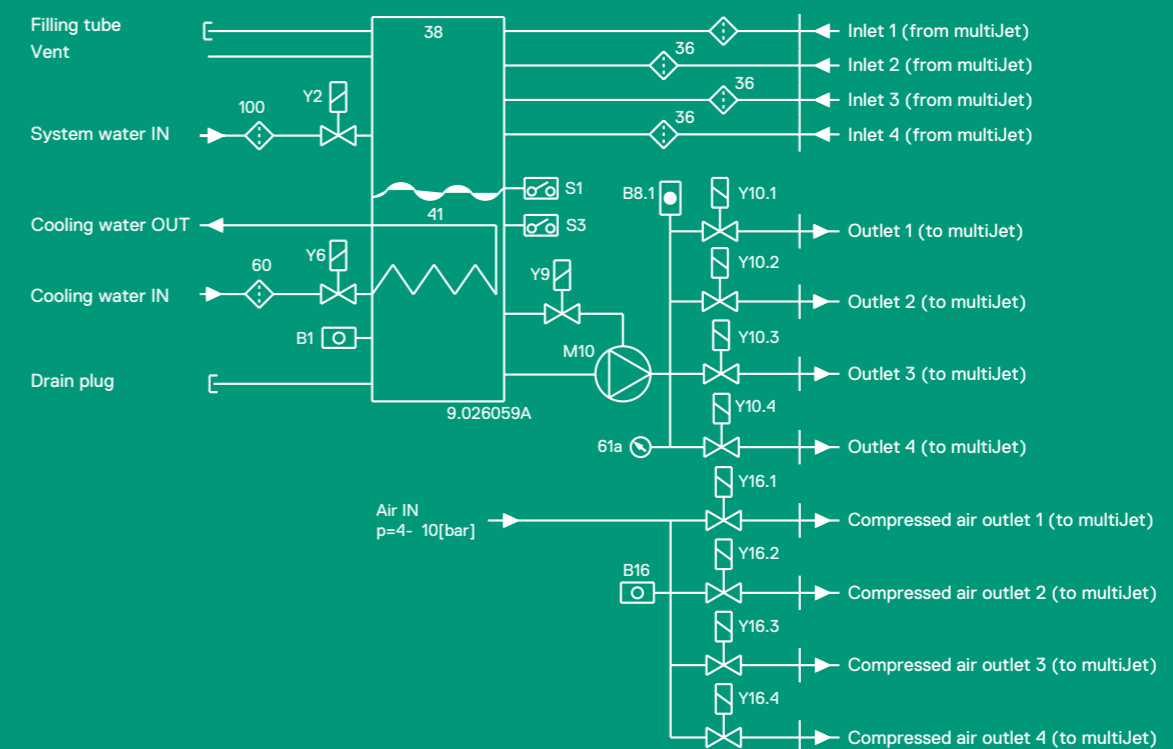
Application example

Predominant application in die casting for local temperature control of larger solid domes (hot-spots), with high-pressure water cooling.



Principle of jetPulse 100L

36	Circuit filter
38	Tank
41	Refrigerator
60	Cooling water filter ON
61a	Outlet manometer
100	System water filter
B1	Internal probe
B8.1	Outlet pressure sensor
B16	Distributor pressure sensor, internal
M10	Pump motor
S1	Float switch (top level)
S3	Float switch (bottom level)
Y2	Solenoid valve autom. water top-up
Y6	Solenoid valve cooling
Y9	Solenoid valve bypass
Y10	Solenoid valve outlet
Y16	Solenoid valve compressed air



Technical data jetPulse



jetPulse 30L



jetPulse 100L

Technical data		jetPulse 30L	jetPulse 100L
Outlet temperature max.	°C	80	80
Heat transfer medium Filling quantity	l	Water 30	Water 100
Number of zones	Stk	4	6
Cooling capacity at flow rate	kW l/min	20 20	60 2x30
at tank temperature	°C	70	70
at cooling water temperature	°C	20	20
Pump capacity/type Power consumption	kW	CRNE1-15 4.0	CRNE3-15 7.5
Flow rate max.	l/min	50	100
At pump pressure	bar	27.5	27.5
Pressure max.	bar	30	30
Control		SPS	SPS
Supply voltage	V Hz	380-500 50/60	380-500 50/60
Ext. control voltage	V	24 VDC	24 VDC
Connections Compressed air		G 1/4" (IG)	G 1/4" (IG)
Compressed air outlet		G 1/4" BSP 60°	G 1/4" BSP 60°
Cooling water		G 1/2"	G 1/2"
Outlet/Inlet		G 1/2" BSP 60°	G 1/2" BSP 60°
System water IN		G 3/8"	G 3/8"
Interface Interface with machine		HAN 10E/ Digital	HAN 10E/ Digital
Interface with multiJet		HAN 4A	HAN 4A
Interface with flowControl (opt.)		M12/ Profinet	M12/ Profinet
Degree of protection		IP54	IP54
Dimensions W/H/D	mm	350/1013/1314	503/1140/1373
Weight	kg	150	250
Colour	RAL	9006/7016	9006/7016
Ambient temperature max.	°C	40	40

Water conditioning and temperature control units

Water conditioning with REGLOPLAS waterCare

For applications at higher water temperatures, above 140 °C, water conditioning is essential. In addition, the use of conditioned water with additives is absolutely necessary, depending on the existing water conditioning. Soiling and calcification of the tool and temperature control unit lead to poorer performance due to the reduction in the heat transfer between tool, heating and the temperature control medium. It also shortens the service life of the components and leads to more maintenance costs. The REGLOPLAS waterCare is a mobile water conditioning system which provides suitable conditioned system water in a space-saving manner. It prevents corrosion, soiling and calcification and reduces maintenance and cleaning costs for temperature control units.

- Energy efficiency thanks to pressure accumulation
- Minimum pump switch-on duration
- Controlled system water temperature
- Capacity 23 liters / 80 liters
- Siemens PLC control

REGLOPLAS cleaning agents

- REM93 Descaling agent
- SR80 System cleaner

REGLOPLAS additives

- RK93 Corrosion inhibitor
- RK100 Corrosion inhibitor, especially for aluminum
- RK-HT Corrosion protection from 160 °C



Temperature control units for die casting

Thanks to the wide range of REGLOPLAS temperature control units, there are suitable custom solutions for multi-zone temperature control application. Talk to our specialists!

Pressurized water units
P160LD-P200LD

High temperature oil units
300MD, 300L(D)

Multi distributor
multiFlow, multiPulse



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