

# HASCO's cooling range offers an exceptional variety of combination possibilities

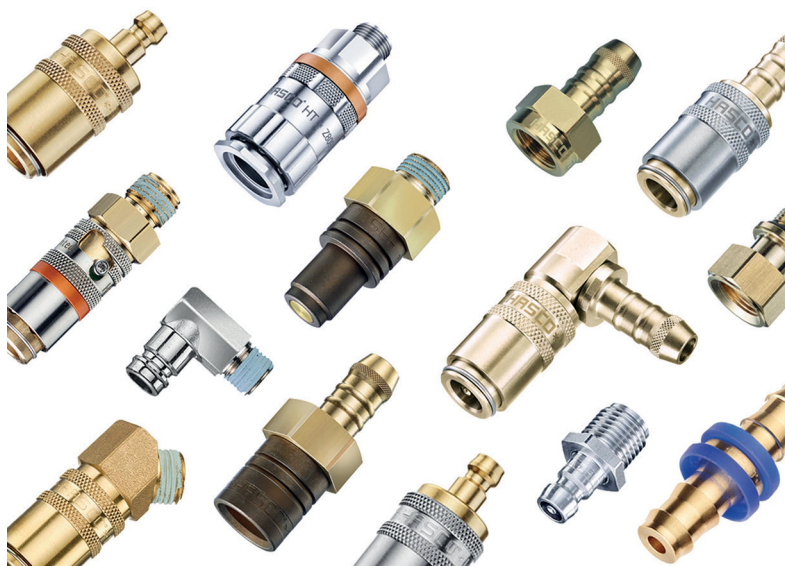


Fig. 1:  
HASCO  
cooling range  
offers many  
combination  
possibilities

Fig. 2:  
Multicoupling  
system for  
the central  
connection of  
cooling circuits

For over 50 years, standardised components from HASCO have been enabling mouldmakers throughout the world to ensure efficient cooling of injection moulding tools. From nipples and couplings, nozzles and hoses, through to complete systems, HASCO offers the most comprehensive cooling range for modern mouldmaking. Continuous new and further developments as well as the exceptional diversity of combination options offer future-oriented solutions for all challenges in cooling technology.



## Multicoupling system for the central connection of cooling circuits

The innovative HASCO multicoupling system enables the central connection of several cooling circuits in one single step and offers numerous advantages in process optimisation. Setting-up procedures can be carried out through a reliable and simple connection of the machine and mould side with only one lever movement and without any risk of mixing up the different cooling circuits and hoses.

## New: Multicoupling system USA, French and clean break system HT

In addition to the standard system, the new USA (ZI) and French (FRA) systems are now also available as open flow or closed versions with valve. In addition, HASCO offers the clean break multicoupling system exclusively also as a HT version with flat sealing front surfaces, which reliably prevents cooling fluid leaking when decoupling. The temperature resistance of the multicouplings has increased to 180 °C with water applications, creating considerable competitive advantage.

6, 12 and 20-point systems are available with individual assembly options, whereby the couplings can also be replaced without dismantling the hoses. The modular structure allows individual configuration as well as simple integration into all existing systems.

## Stainless steel range especially for clean-room conditions and medical technology

The significantly extended cooling range made of stainless steel allows the reliable cooling of injection moulding tools both when using hot or cold water and when using cooling oil. Manufactured entirely from the high-quality material 1.4305, the robust and safe system can be easily coupled and guarantees reliable, absolutely tight and long-lasting cooling applications in clean-room environments and medical technology.

The standard temperature components of stainless steel are equipped with optimised

FKM sealing quality and can be used at temperatures of up to 150 °C for water and 200 °C for oil. Even with wide temperature differences, the thread connections are absolutely tight. HASCO also offers stainless steel HT components especially for the high-temperature range. They allow maximum long-term service temperatures of 180 °C for water and up to 220 °C for oil. The low compression set of the FKM sealing rings guarantees safe use even with changing service temperatures, avoiding malfunctions and leaks.

### **Clean break cooling range prevents leakage of cooling media**

The clean break HASCO cooling range offers users maximum safety and reliability during uncoupling, and ensures outstanding durability. The system has flat end sealing surfaces and shuts off securely on both sides, ensuring clean break opening and closing under pressure without media leakage.

The quick-release couplings can be operated with one hand and, with a particularly long and precise guidance for the sealing nipple, guarantees safe and independent coupling with a maximum flow rate and only a low pressure drop. This ensures a reliable production process.

### **High-temperature range guarantees lasting process reliability**

With its high-temperature product portfolio, HASCO is the only supplier to offer a cooling system that guarantees long-term operating temperatures of up to 220 °C, depending on the medium used. This is achieved through special seals for maximum load, which have permanent high-temperature resistance. The seals consist of a special FKM material (fluorinated rubber copolymer) and are therefore ideal for applications with hot water or cooling oil.



**Fig. 3:**  
Flowmeter  
guarantees  
accurate  
measurement  
and regulation

A low residual deformation also allows optimum and safer use. On top of this, the sealing rings have high chemical resistance and outstanding ageing properties. As a result, production stoppages due to leakage are reduced to a minimum. The components of the HT range are easily recognised by the unmistakable labelling in the form of an orange-coloured circular marking.

### **Push-Lok system enables repairs to be carried out directly on the mould**

Through the patented HASCO Push-Lok system, the connection of moulds to the media supply has been made even easier and faster. The Push-Lok system also allows repairs to be carried out directly on the workbench, which means that supplementary accessories such as hose clips and crimping sleeves are no longer needed.

The Push-Lok system with hoses and shut-off couplings with and without lock-off valve, either straight or with angles of 45° or 90°, is perfectly coordinated to the proven standard cooling range. An end-point marking, guarantees safe assembly of the hose on the coupling. The special geometry on the coupling and specially developed hoses guarantees a reliable connection. This means that a change of systems is possible at any time without problem. With Push-Lok, the assembly times and the costs can be reduced significantly.

### **Flowmeter ensures precise measurement and regulation**

The new flowmeter enables accurate measurement and regulation of the required volumes of water in cooling systems. It can be used at temperatures of up to 100 °C and operating pressures of up to 10 bar and is suitable for both water and water/glycol mixtures.

The volume flow can be read off directly and easily in l/min at the bottom edge of the float and can be regulated with equal precision and speed using a screwdriver. If necessary, the flow can be shut off completely. The flowmeter can be installed anywhere in the direction of flow.

### **Plug baffles for efficient temperature control of the core cooling**

New plug baffles for core cooling offer optimum conditions for efficient cooling, especially with high-temperature applications with water and oil up to 180 °C. The baffles are noted for their high chemical resistance, and can be easily cut to the relevant length. They also feature

optical recognition of the baffle alignment and, through an internal thread, can be easily and quickly dismantled.

### **CoolCross enables the cross-over of different cooling channels on one plane**

The HASCO CoolCross system makes it possible to have cooling channels cross each other on the same plane flexibly and inexpensively and without any major production cost. A homogeneous temperature distribution at the core or insert, as well as constant cavity cooling on all four sides for the full duration of the injection moulding cycle is possible. It also prevents hot spots. In addition, 100 % protection against rotation through a locking mechanism prevents unintended closure of the cooling channels. Because different independent cooling circuits can cross each other on the same plane, it is possible to incorporate small plate thicknesses and inexpensive accessory components in the mould design. By reducing the plate thickness, use can be made, for example, of shorter nozzles, guidance and attachment elements.

### **TempFlex hose can be flexibly adapted for optimum redirection of the cooling**

The TempFlex metal-braided hose supplied exclusively by HASCO offers optimum conditions for the cooling of mould plates or spacer plates with simultaneous conformal cooling. Complex deep-hole bores and high pressure losses due to 90° deflections are a thing of the past. The flexible metal-braided hose allows fast and simple assembly, interchangeability, and is adaptable to any groove pattern. Existing moulds with inadequate cooling performance can be easily optimised.

Through the deflection of the cooling via bends and not 90° corners, pressure losses are significantly reduced while the flow rates remain the same. High temperature resistance is also guaranteed.

### **Cooling poster helps with the choice of the right products**

Users can obtain a compact overview with detailed technical information on all applications in the new cooling poster, which also provides optimum assistance in choosing the right products.

**Fig. 5:**  
CoolCross permits homogeneous temperature distribution



**Fig. 4:**  
Plug baffles for efficient temperature control of the core cooling

### **Highest quality standards enable global compatibility**

As a DIN ISO 9001 certified company, HASCO attaches major importance to maximum raw material quality and constant quality controls. Very tight production tolerances allow world-wide compatibility, while an unambiguous product labelling system guarantees 100 % traceability.

Hand in hand with high-grade products comes top-class service. This starts at HASCO with competent and individual advisory services. With over 50 years of experience, HASCO, as a leading competence partner in the field of cooling technology, is on hand at all times to help its customers around the world.

(Pictures:  
HASCO Hasenclever GmbH + Co KG,  
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