

# SMI multi-couplings

## Temperature control



### Application

- Compact solution for temperature control in plastics injection molding

### Summary

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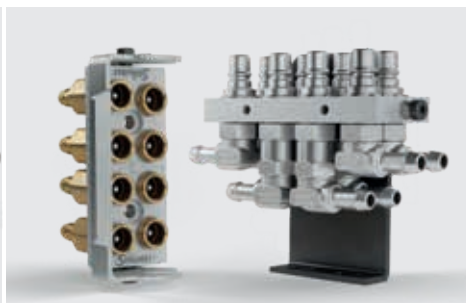
# Compact and ergonomic centralized connections



Patent pending



The SMI multi-connection system is the perfect solution for small injection molding machines.



This compact and ergonomic system offers outstanding flexibility, as it can be easily installed on both new and existing injection molding machines and molds.



Implementing the SMI multi-connection system guarantees correct mold set-ups reducing scrap, boosting production efficiency, and ensuring operator safety.

## Key advantages



### Fits on small machines and molds:

The compact layout, low-profile locking mechanism, and small mounting footprint are perfect for applications where space is limited.



### Easy to use:

The intuitive and ergonomic design ensures anyone can operate the system without special training, skills, or tools, making work easier, safer, and efficient for all employees.



### Eliminates mold set-up mistakes:

Mechanically designed to prevent any cross-connection of water circuits, eliminating set-up scrap and machine downtime for errors.



### Increases production time:

All circuits are connected and disconnected simultaneously, in a single action at a single location, significantly reducing downtime during mold changes.



### Brings standardization:

Connections and disconnections across all machines and molds become identical, reducing variability in the mold change and molding processes, creating a foundation for Lean Manufacturing.



### The opportunity to contribute to a sustainable

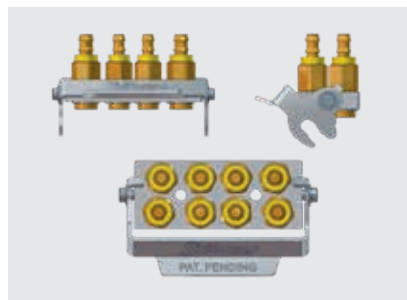
#### development programme

With Stäubli, you can rely on:

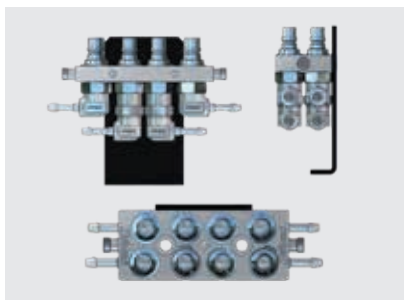
- the overall performance of your equipment (OEE)
- reliability of long-term investments
- no workplace pollution



# Technical characteristics



Machine side



Mold side

## Construction

- Couplings: brass / nickel-plated brass
- Aluminum plates

## Seals

- Fluorocarbon (FPM): JV

## SMI 209 features <sup>(1)</sup>

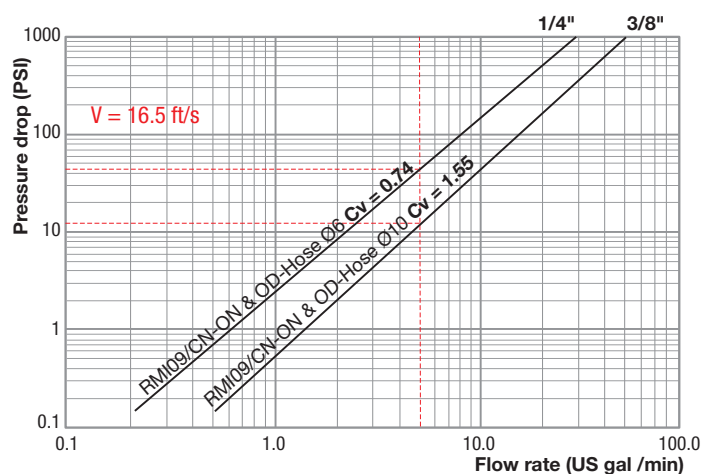
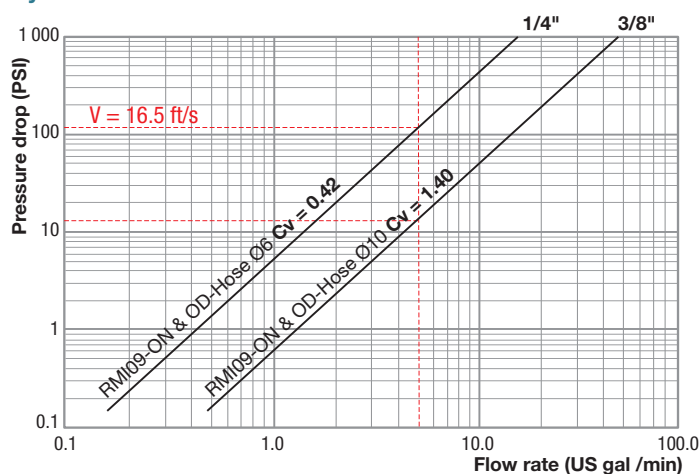
	1/4"	1/4" CN *	3/8"	3/8" CN *
Nominal diameter DN (in.)	1/4"	1/4"	3/8"	3/8"
Maximum allowable pressure PS (PSI) <sup>(1)</sup>	145	145	145	145
Minimum and maximum allowable <sup>(2)</sup> temperatures TS (°F)	+59 to +248	+59 to +194	+59 to +248	+59 to +194
Shut-off	Machine side	shut-off sockets		
	Mold side	full flow		
	Mold side	auto shut-off		

- (1) Check that max. pressure and min./max. working temperatures of hoses and of the connection are not exceeded.
- (2) Make sure to distribute the inlet/outlet circuits so as to balance the pressures on either side of the locking system.

\* self-locking hose

## Flow rate / pressure drop

### Hydraulic charts






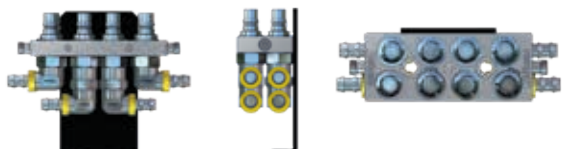
### Test conditions:

- Fluid: water
- Direction of flow: socket → plug




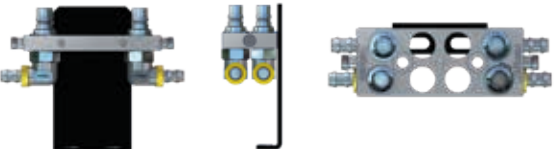
# Part-numbers

## SMI 209.08

Machine-side plates with 8 sockets		End connection	Part-numbers
For flexible hose with auto shut-off socket		1/4" int. Ø	SMI209.08.1806/JV
		3/8" int. Ø	SMI209.08.1810/JV
			
For self-clamping flexible hose with auto shut-off socket		End connection	Part-numbers
		1/4" int. Ø	SMI209.08.1806/CN/JV
		3/8" int. Ø	SMI209.08.1810/CN/JV
			
Mold-side plates with 8 plugs		End connection	Part-numbers
For flexible hose	with full flow plugs	1/4" int. Ø	SMI209.08.6806/RE
		3/8" int. Ø	SMI209.08.6810/RE
	with auto shut-off plugs	1/4" int. Ø	SMI209.08.7806/JV/RE
		3/8" int. Ø	SMI209.08.7810/JV/RE
			
For self-clamping flexible hose		End connection	Part-numbers
	with full flow plugs	1/4" int. Ø	SMI209.08.6806/CN/RE
		3/8" int. Ø	SMI209.08.6810/CN/RE
	with auto shut-off plugs	1/4" int. Ø	SMI209.08.7806/CN/JV/RE
		3/8" int. Ø	SMI209.08.7810/CN/JV/RE
			

# Part-numbers

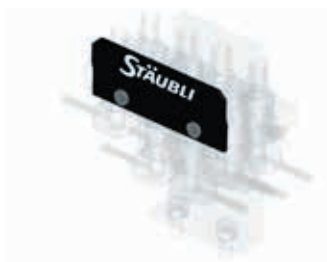
## SMI 209.04

Mold-side plates with 4 plugs		End connection	Part-numbers
<b>For flexible hose</b>  	with full flow plugs	1/4" int. Ø	SMI209.04.6806/RE
		3/8"» int. Ø	SMI209.04.6810/RE
	with auto shut-off plugs	1/4" int. Ø	SMI209.04.7806/JV/RE
		3/8" int. Ø	SMI209.04.7810/JV/RE
<b>For self-clamping flexible hose</b>  	with full flow plugs	1/4" int. Ø	SMI209.04.6806/CN/RE
		3/8" int. Ø	SMI209.04.6810/CN/RE
	with auto shut-off plugs	1/4" int. Ø	SMI209.04.7806/CN/JV/RE
		3/8" int. Ø	SMI209.04.7810/CN/JV/RE



# Additional equipment

## Side shield

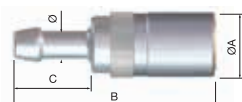


Model	Part-number
SMI 209	100091384

Protective piece for the mold-side plate to prevent impacts from damaging the plugs.

## Socket for purging individual lines

### Socket with shut-off valve for flexible hoses




	Dimensions (in.)					Part-numbers
	Models	Ø	Ø A	B	C	
for flexible hose	RMI 09	0.39	0.98	2.60	0.91	<b>RMI 09.1810/JV</b>
for self-clamping flexible hose	RMI 09	0.39	0.98	2.60	0.91	<b>RMI 09.1810/CN/JV</b>




# Spare parts


## For flexible hoses

Models		End connection	Part-numbers
	Full flow	1/4" int. Ø	<b>RMI09.4806/RE1</b>
		3/8" int. Ø	<b>RMI09.4810/RE1</b>
	Auto shut off	1/4" int. Ø	<b>RMI09.5806/JV/RE1</b>
		3/8" int. Ø	<b>RMI09.5810/JV/RE1</b>


## For self clamping hoses

Models		End connection	Part-numbers
	Full flow	1/4" int. Ø	<b>RMI09.4806/CN/RE1</b>
		3/8" int. Ø	<b>RMI09.4810/CN/RE1</b>
	Auto shut off	1/4" int. Ø	<b>RMI09.5806/CN/JV/RE1</b>
		3/8" int. Ø	<b>RMI09.5810/CN/JV/RE1</b>

## For flexible hoses

Models		End connection	Part-numbers
	Full flow	1/4" int. Ø	<b>RMI09.4806/RE2</b>
		3/8" int. Ø	<b>RMI09.4810/RE2</b>
	Auto shut off	1/4" int. Ø	<b>RMI09.5806/JV/RE2</b>
		3/8" int. Ø	<b>RMI09.5810/JV/RE2</b>

## For self clamping hoses

Models		End connection	Part-numbers
	Full flow	1/4" int. Ø	<b>RMI09.4806/CN/RE2</b>
		3/8" int. Ø	<b>RMI09.4810/CN/RE2</b>
	Auto shut off	1/4" int. Ø	<b>RMI09.5806/CN/JV/RE2</b>
		3/8" int. Ø	<b>RMI09.5810/CN/JV/RE2</b>



● Stäubli Units    ○ Agents

# Global presence of the Stäubli Group

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