

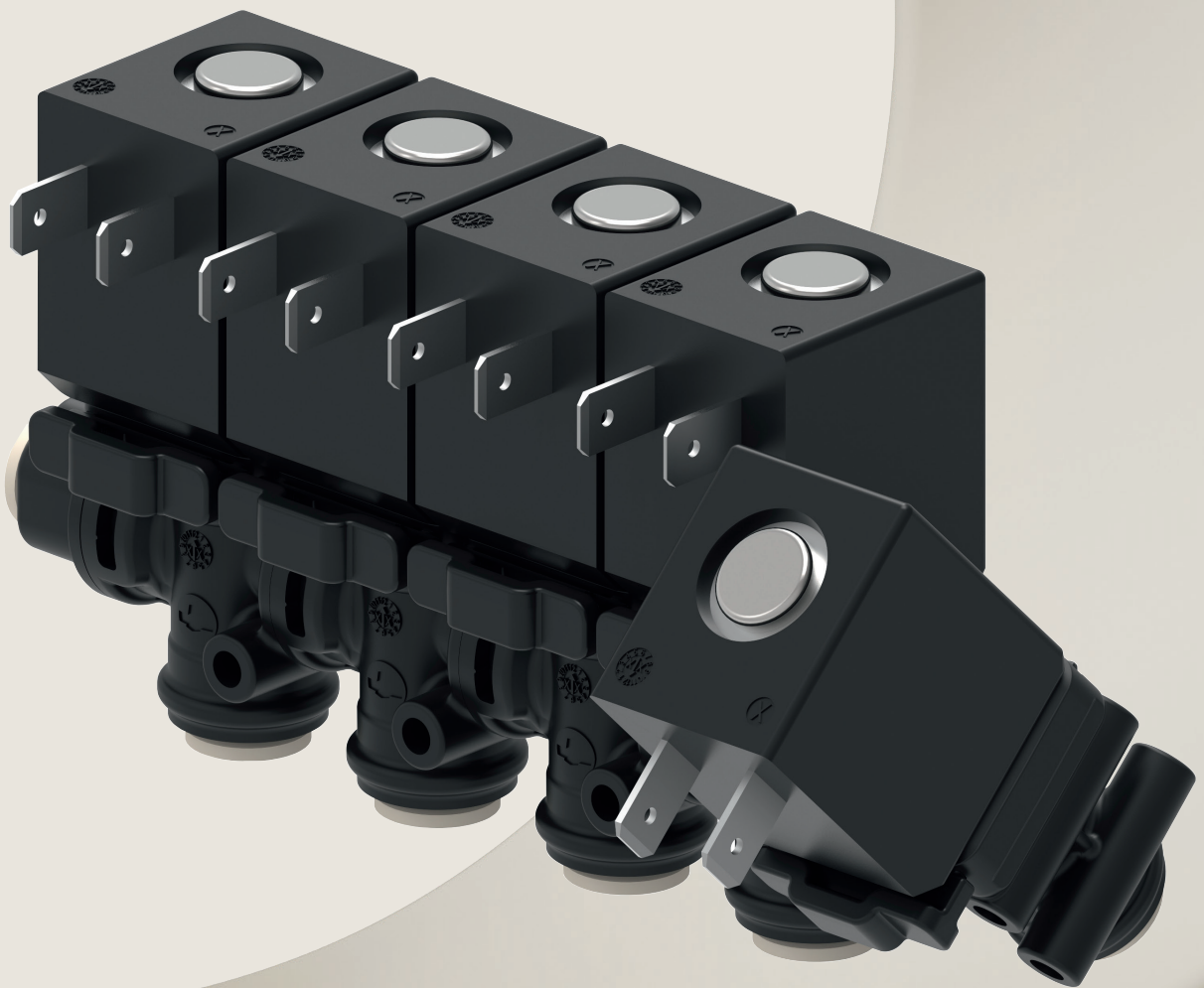


# Industrial Automation

IMI Buschjost

## TruControl MST™ Valve

The Media-Separated Valve that has it all



Breakthrough  
engineering for  
a better world

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# Breakthrough engineering for a better world

We create solutions for our customers which enable smarter, safer, more productive and sustainable factories, production lines and warehouse operations. Our pneumatic, electric motion and fluid control systems help machine builders and end users around the world automate and optimise manufacturing and warehousing processes.

We have partnered with customers in industrial automation for over a century, applying our experience and innovation to create lasting value for their businesses. Our solutions support critical industries such as automotive, food and beverage, pharmaceuticals and even the space industry. We support the automation of precision manufacturing, product assembly, testing and packaging.

We use the latest digital technologies in our automation products and constantly innovate in close partnership with our customers. By applying our deep expertise, we can solve their toughest automation challenges, today and tomorrow. Through increased productivity, efficiency and safety, our customers can serve their own customers better, creating sustainable competitive advantage and delivering growth.

Our world-class product portfolio includes IMI Norgren, IMI Bimba, IMI Bahr and IMI Buschjost.

# Great Performance within a Space

Renowned for innovation, exceptional performance, and high quality, IMI Buschjost process and all-media valves set the standard in valve technology. For decades, we have been at the forefront of designing and manufacturing high-quality valves, proudly supporting industries across the board, including leading manufacturers of professional coffee machines.

Over 20 years ago, as one of the first suppliers of compact polymer valves, we identified emerging trends in the food and beverage industry. The results speak for themselves. High-performance plastic valves have now largely replaced their metal counterparts, proving their reliability and efficiency over time. True to our purpose "Breakthrough Engineering for a better world", our team is continually enhancing our portfolio, drawing on extensive technical expertise and always considering the unique requirements of our customers – your requirements.

How can the lifespan of a coffee machine be extended while ensuring the most cost-efficient operation? How can cleaning requirements be minimised to further enhance the machine's availability? And how can a compact design be paired with the widest range of coffee specialities and beverage options?

The answer lies in IMI Buschjost valves. They enable professional coffee machines to operate efficiently, cost-effectively, and reliably. Try them and see the difference for yourself!

## NEW: Media-separated solenoid valves for professional coffee machines

The 83154 series is the latest generation of compact polymer valves, enabling both cost-effective and efficient operation of professional coffee machines and setting completely new standards compared to the technology commonly available on the market:

- The new valve generation delivers with its **media-separated design**: since the chamber of the plunger is not flushed by the media used, lime deposits and other residues are a thing of the past.
- As simple as it is unique: an **innovative interlinking technology** enables customised configurations, tailored to your individual application.
- **Globally valid certifications** according to NSF 169, UL 429, EC No. 1935/2004 and IEC 60335-1 ensure smooth approval processes.



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# TruControl MST™

The media-separated valve that has it all.



## Media-separated

- Food grade separation membrane
- Ease of rinsibility
- No metals in contact with media



## Interlinkable

- Enables customizable configurations
- Quick and easy linking mechanism
- No need for hoses or accessories



## Powerful

- High operating pressures up to 15 bar
- Back pressure proof up to 4 bar
- Withstands media temperatures 1-130° C



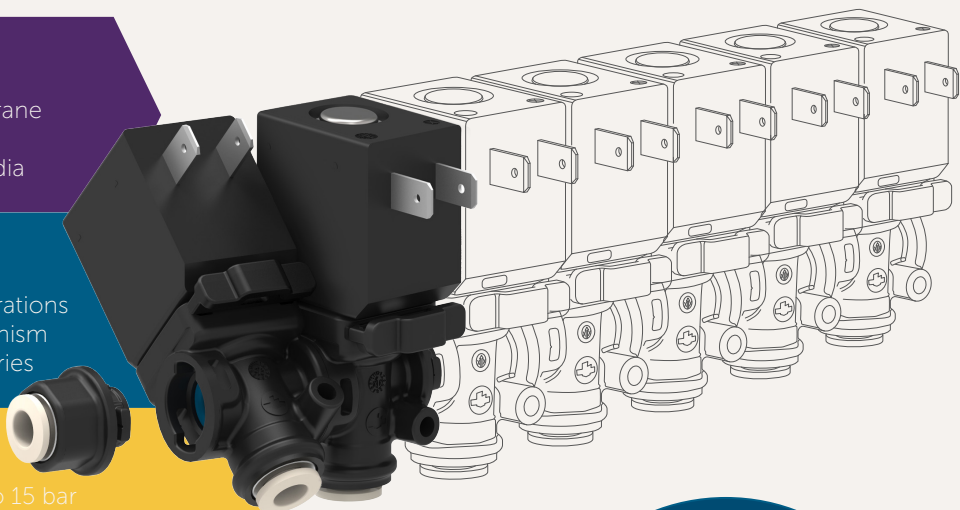
## Durable

- Long-lasting polymer material
- Limescale and corrosion resistant
- Low service and maintenance



## Compact

- Small footprint for diverse applications
- Seat orifice: 2.5mm (up to 15 bar)
- Seat orifice: 3.0mm (up to 6 bar)



Flexibility  
to connect  
up to  
7 valves

We supply our customers with the best-possible valve technology – both for their existing as well as their future designs.



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## Media-separated, space-saving, low-maintenance: the new generation of IMI Buschjost solenoid valves

Developing professional coffee machines is all about durability, availability and efficiency. As a supplier of high-quality valve technology for professional coffee machines, we understand our customers' needs and know exactly what questions you ask when developing your machines: How can the lifespan of a coffee machine be extended while ensuring the most cost-efficient operation?

How can cleaning requirements be minimised to further enhance the machine's availability? And how can a compact design be paired with the widest range of coffee specialities and beverage options?

Our latest generation of media-separated solenoid valves, the TruControl MST™ valve, provides the answer to these

questions. Based on extensive know-how, many years of experience in the food and beverage business and awareness of current industry trends, our new valves facilitate the efficient and cost-effective operation of professional coffee machines and set completely new standards compared to standard market technology – see for yourself!

## Impressive benefits – compared with standard market technology

	Media-separated design	Optimised availability	Global certifications	Linking mechanism	Small footprint	15 bar operating pressure
New valve generation	✓	✓	✓	✓	✓	✓
Standard market technology	✗	✗	✗	✗	✓	✓

# Options

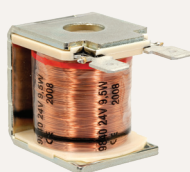
## Solenoids



9830



9837



9840



9827

## Performance



2/2-way valve



3/2-way valve



Aggregating &  
dispensing function

## Connections



Compression  
fitting



Hose  
connectors

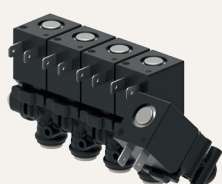


Push-in  
fitting



Interface

## Option



Interlinkable



Single valve

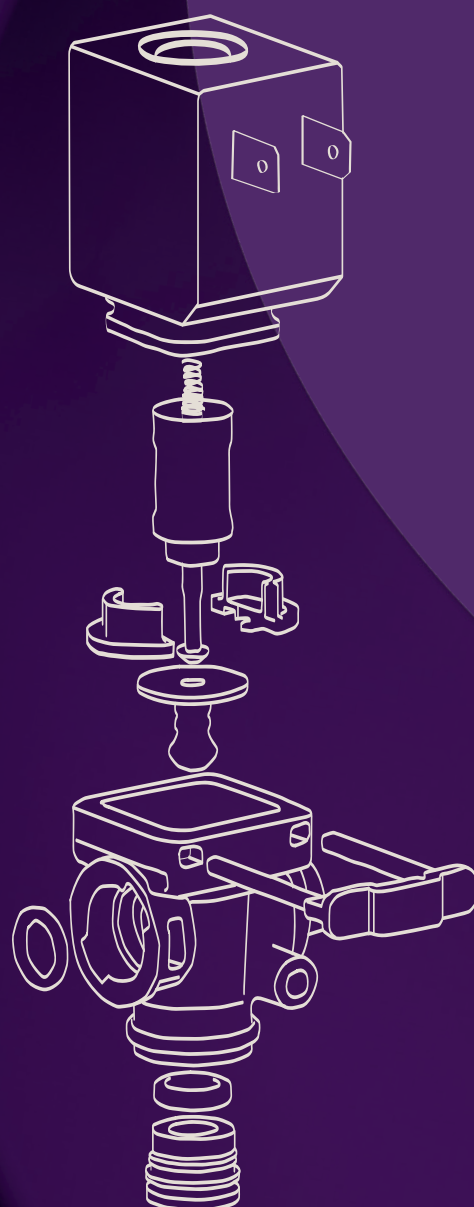


Interface



Pressure gauges

## Accessories







# Innovative Valve Technology for your Dispense Application

Numerous valves are installed in professional coffee machines. Individually or interlinked, they form various paths via which the media used are controlled.

Thanks to their robust construction and the use of high-quality materials such as PPSU and PPS, IMI Buschjost valves are particularly durable. In addition, they are corrosion-resistant and insensitive to limescale and other contamination – properties that significantly reduce the effort required for service and maintenance.

Depending on the design, IMI Buschjost valves control a wide variety of media, ranging from steam and water – often underestimated because the different degrees of hardness can place great stress on the components – to milk, syrup and flavours.

Thanks to an innovative interlinking technology that is as simple as it is unique, several individual valves can be connected directly to each other without the need for additional accessories – the space required inside the machine is reduced and potential leakage points are kept to a minimum. Positive side effect: without additional fittings, hoses or sealing materials, both costs and storage space are saved.

Product	Description	Media separation	Connection			ND (mm)*											Voltage		Material
			Compression fitting	Push-in fitting	Hose connectors	Interface	1.2	1.5	1.8	2.2	2.5	3.0	3.5	4.5	6.0	a.c.**	d.c.		
	Series 83150 2/2-way single valve		•	•				•	•		•		•	•		•	•	PPSU (polyphenyl sulphone)	
	Series 83153 2/2-way valve (interlinkable)				•			•		•		•	•		•	•			
	Special design 8591352 1/2-way single valve		•	•	•		•	•		•					•	•			
	Special design 8590440 2/2-way valve (interlinkable)				•				•						•	•			
	Series 8590820 3/2-way valve (interlinkable)				•		•								•	•			
	Special design 8591410 3/2-way valve					•	•								•	•			
	TruControl™ 2/2-way valve (interlinkable)	•		•						•	•					•	PPS (poly-phenylene sulphide)		
Customised solutions																			
	4-fold manifold		on request														Lead-free brass / stainless steel		
Valves for water treatment																			
	Series 84070/84080 2/2-way valves		G1/2, G3/4, 1/2 NPT, 3/4 NPT				12 mm, 20 mm									•	•	PA12-GF50 (polyamide)	

\* NPT/imperial size ports available on request

\*\* With rectifier

# Applications

## Food Industry

1 Soft drinks



4 Baking oven



2 Drinking water



5 Dishwasher



3 Steam oven



Tea

6



Coffee

7

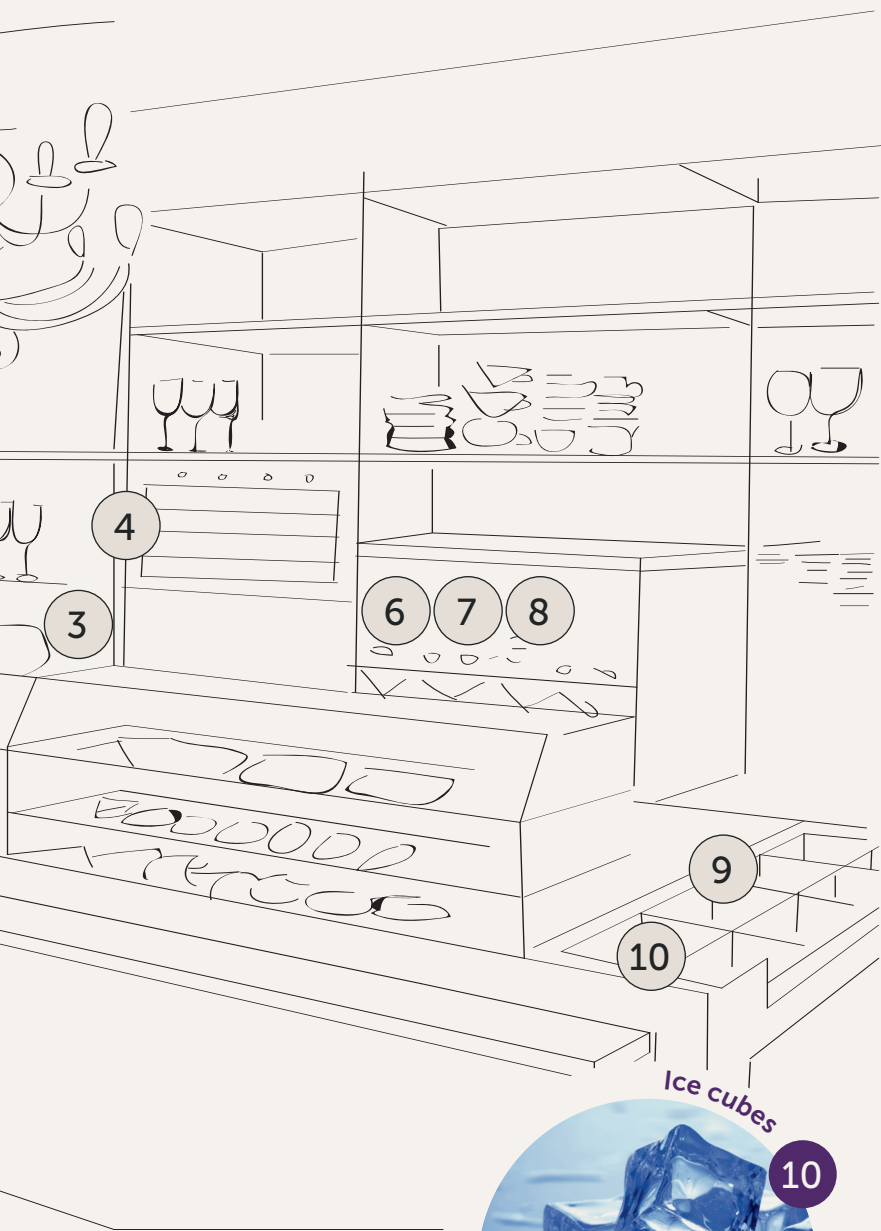


Milk

8







Professional coffee machines



Vending machines



Soft drink machines



Drinking water dispenser



Cold & hot water devices



Cream- & ice machines



Cream & ice cream



Ice cubes

# Sector Applications at a Glance

Coffee & Hot Drinks



Ice cream



Agriculture



Beverage Dispensing



Vertical Farming



Dental & Medical



Paints & Chemicals



Wellbeing & Sanitation



Inkjet Printing



# Overview

## Innovated, media-separated design

While the chamber of the plunger of standard solenoid valves is flushed by the media used, the TruControl MST™ Valve features a media-separated design based on an innovative and patent pending diaphragm.

### Benefits

- **One fits all – a standard solution for all applications**  
Whether water or steam, milk, syrup or flavouring: the new valve generation is suitable for many different media, which significantly reduces parts complexity – both within the coffee machine as well as for storage.
- **Low degree of contamination:**  
The media-separated design ensures efficient valve cleaning: the media used do not enter the chamber of the plunger, so it remains free of limescale

caused by water and steam as well as sticky residues caused by milk or syrup, which significantly increases the service life. In addition, the low amount of dead space in the valve design also ensures a reduction in the degree of contamination.

- **Suitable for high operating pressures:**  
The valve works with operating pressures up to 15 bar, covering all applications in professional coffee machines.

## Interlinking technology offers many benefits

The new valve generation features a low dead space connection mechanism that is as simple as it is unique: the interlinking of individual valves reduces potential leakage points to a minimum and at the same time makes installation and maintenance much quicker.

### Benefits

- **No connecting elements required between valves:**  
The individual valves are simply inserted into each other, so there is no need to install hoses, fittings and other accessories and leakages are prevented. Positive side effect: reducing additional equipment not only saves costs, but also storage space.
- **Individual design and easy handling:**  
The linking mechanism is individually configured and tailored to the specific application – up to seven individual valves can be connected. Interlinking does not require any tools, nor does the maintenance of wear parts.

- **Small footprint:**  
Coffee machines are becoming increasingly compact, so the TruControl MST™ Valve generation is also designed to save space.
- **Optimised coffee machine availability:**  
The media-separated solenoid valves are both robust and durable, so they require significantly less service and maintenance than their standard market counterparts. This greatly reduces downtime.

## Globally valid approvals and certifications

Tried and tested – delivering safety and the highest quality. That's why the media-separated solenoid valves are subjected to numerous checks and tests; various certifications are being prepared.

### Benefits

- **Globally valid certifications ensure smooth approval processes:**  
The new valve generation will be certified according to the following guidelines:



NSF 169



UL 429



EG No. 1935/2004



IEC 60335-1

In the future, the new valve generation can be used in a wide variety of regional markets around the world. For original equipment manufacturers, approval processes of their own machines will therefore become much easier.

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# Industrial Automation

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