



SYSTEMATIC SPRAYING TECHNOLOGY



PowerSpray

www.wollin.de

WOLLIN 
SYSTEMATIC SPRAYING TECHNOLOGY

YOUR TECHNOLOGY PARTNER FOR SPRAY APPLICATIONS



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AVAILABLE WORLDWIDE FOR YOU.

As a medium-sized family business, we offer you innovative and reliable products in the field of spray technology for die casting companies as well as automation technology and special machinery. Since its founding in 1973 by the graduate engineer, Rudolf Wollin, the Wollin Company stands for optimum solutions in the field of die casting of light metal parts worldwide.



WOLLIN 
SYSTEMATIC SPRAYING TECHNOLOGY

WOLLIN PRODUCT OVERVIEW

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MOULD SPRAY- MACHINES PSM

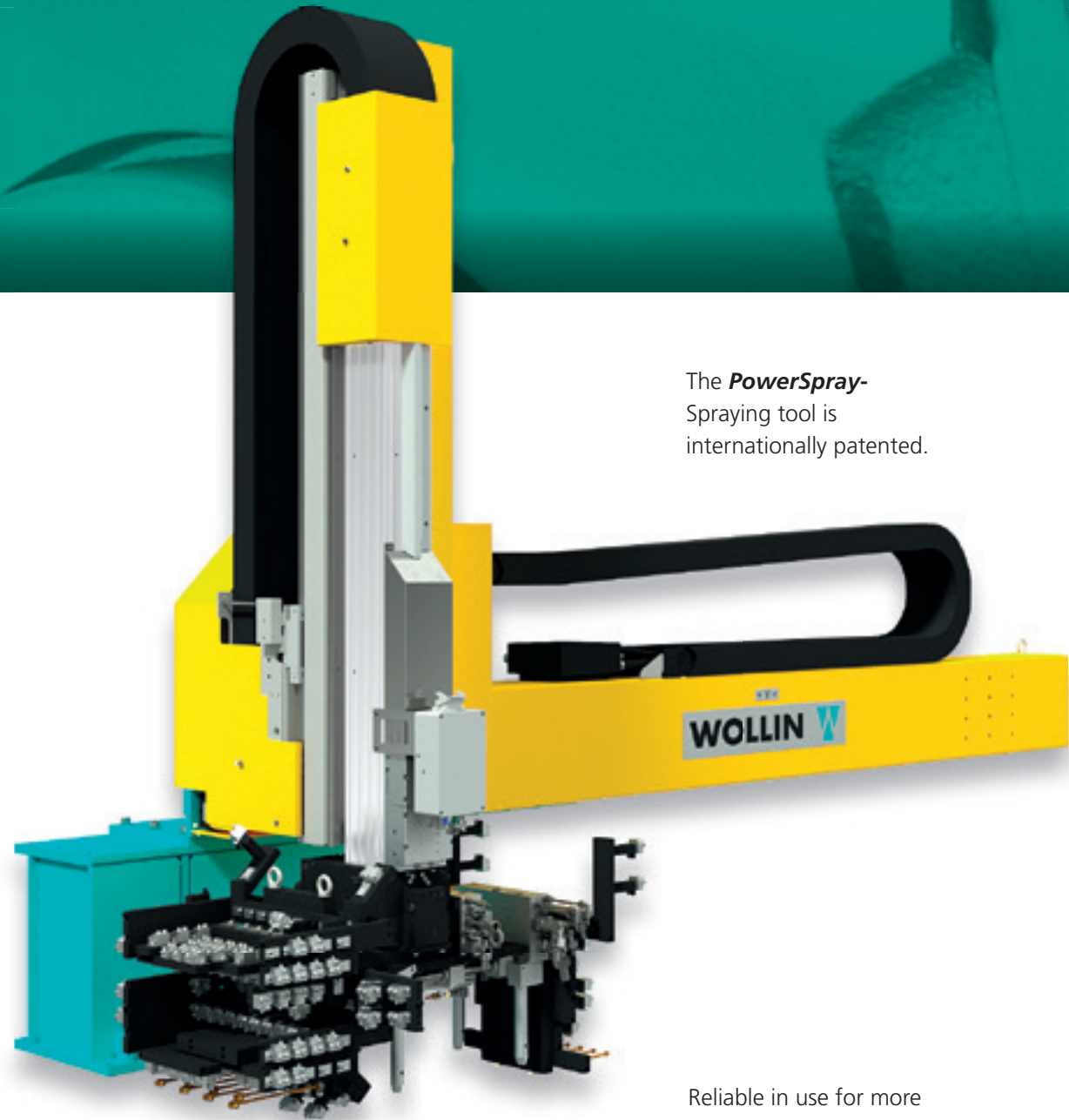
PowerSpray Machine



Makes process short







Arguments that pay off!

- Short process due to mask spraying tool
- Strong blowing and spraying air
- Corrosion-free guideways
- Constant spraying parameters
- Flexible for other spraying technologies
- Short set-up times and low maintenance
- PSM1 & 2 also available 1-axis without horizontal axis
- PSM3 & 4 available in telescopic version, for lower ceiling heights and higher load capacities



The **PowerSpray**-
Spraying tool is
internationally patented.

Reliable in use for more
than 15 years!

Technical data	PSM 1F	PSM 2F	PSM 3F	PSMT 3F	PSM 4F	PSMT 4F
DGM range (kN)	800 - 5600	1600 - 10000	5600 - 20000	5600 - 20000	20000 - 55000	20000 - 55000
Drive system	AC-Servo	AC-Servo	AC-Servo	AC-Servo	AC-Servo	AC-Servo
Vertical stroke (mm)	800/1000	800/1000/1300	1300/1600/2000	1300/1600/2000 (Teleskop)	2000/2500	2200/2800 (Teleskop)
Horizontal stroke (mm)	800/1000/Assembly stand	800/1000/1200/Assembly stand	1000/1200/1600/2000	1000/1200/1600/2000	2000/2500	2000/2500
Controllers	PC2 / SC1	PC2 / SC1	PC2 / PC84	PC2 / PC84	PC2 / SC84	PC2 / PC84
Spraying circles single & combined, can be switched on & off	2 spraying circuits	4 spraying circuits	6 spraying circuits	6 spraying circuits	8 spraying circuits	8 spraying circuits
Separating agent circuits	2 separating agent circuits for 2 different separating agents	2 separating agent circuits for 2 different separating agents	3 separating agent circuits for 3 different separating agents	3 separating agent circuits for 3 different separating agents	4 separating agent circuits for 4 different separating agents	4 separating agent circuits for 4 different separating agents
Afterblowing circuits single & combined, can be switched on & off	2 afterblowing circuits	4 afterblowing circuits	6 afterblowing circuits	6 afterblowing circuits	8 afterblowing circuits	8 afterblowing circuits
High-pressure	2 high-pressure blowing circuits	2 high-pressure blowing circuits	2 high-pressure blowing circuits	2 high-pressure blowing circuits	2 high-pressure blowing circuits	2 high-pressure blowing circuits
Compressed air connection	2 x 3/4" on PSM 1 x 1,5" at pressure control / air connection set	2 x 1" on PSM 1 x 2" at pressure control / air connection set	2 x 1" on PSM 1 x 2" at pressure control / air connection set	2 x 1" on PSM 1 x 2" at pressure control / air connection set	2 x 1,5" on PSM 1 x 2" at pressure control / air connection set	2 x 1,5" on PSM 1 x 2" at pressure control / air connection set
Separating agent connection	2 x 3/8"	2 x 1/2"	3 x 1/2"	3 x 1/2"	4 x 3/4"	4 x 3/4"
Separating agent supply	1 - 8 bar	1 - 8 bar	2 - 8 bar	2 - 8 bar	2 - 8 bar	2 - 8 bar
Spray & afterblow air	1 - 8 bar	1 - 8 bar	2 - 8 bar	2 - 8 bar	4 - 8 bar	2 - 8 bar
High-pressure blow circuit	4 - 8 bar	4 - 8 bar	4 - 8 bar	4 - 8 bar	4 - 8 bar	4 - 8 bar
Separating agent throughput	10 l/min at 6 bar	10 l/min at 6 bar	10 l/min at 6 bar	10 l/min at 6 bar	50 l/min at 6 bar (8 circuits)	50 l/min at 6 bar (8 circuits)
Air throughput	300 Nm³/h	700 Nm³/h	2000 Nm³/h	2000 Nm³/h	2500 Nm³/h	2500 Nm³/h
Spraying head weight	max. 20 kg	max. 40 kg	max. 80 kg	max. 120 kg (with mass balancing)	max. 160 kg	max. 240 kg (with mass balancing)
						

MOULD SPRAY- MACHINES PSM

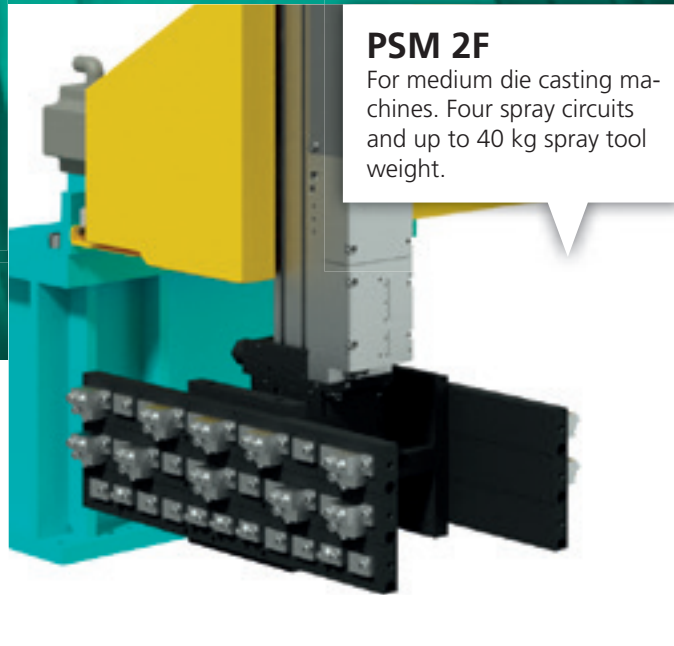
Technical version	PSM 1F	PSM 2F	PSM 3F	PSMT 3F	PSM 4F	PSMT 4F
Power transmission	Via pinion/rack for both axes. Robust low-maintenance planet gears with high drive torque and high efficiency. Maintenance-free Siemens AC servo drives guarantee highly dynamic motion sequences, short cycle times, high availability, low maintenance costs. For PSMT3 & PSMT 4 additionally chain and mass balancing cylinder.					
Guides	Stainless machine tool guides. Wipers on both sides and side seals on the LM block retain dirt and prevent lubricant from leaking. The guide elements are generously dimensioned to ensure a long service life at maximum stroke.					
Lubrication of bearings and guides	Central lubrication via grease cups for the drive and guide elements of both axes	Automatic progressive central lubrication with electric pump, reservoir and monitoring for the drive and guide elements of both axes	Automatic progressive central lubrication with electric pump, reservoir and monitoring for the drive and guide elements of both axes	Automatic progressive central lubrication with electric pump, reservoir and monitoring for the drive and guide elements of both axes	Automatic progressive central lubrication with electric pump, reservoir and monitoring for the drive and guide elements of both axes	Automatic progressive central lubrication with electric pump, reservoir and monitoring for the drive and guide elements of both axes
Pressure regulating unit	Spraying air pressures can be continuously programmed via the controller. Option: Air connection set - no setting possible, the maximum mains pressure is attained.					
Painting	Mould Spraying Machine: RAL 1004 golden yellow - aluminium parts silver / black anodized - console: RAL 5021 turquoise green - switch cabinet and accessories: RAL 7035 light grey					

Axis data	PSM 1F	PSM 2F	PSM 3F	PSMT 3F	PSM 4F	PSMT 4F
Speed	0,01 - 2,5 m/s freely programmable for both axes	0,01 - 2,0 m/s freely programmable for both axes	0,01 - 2,0 m/s freely programmable for both axes	0,01 - 2,5 m/s freely programmable for both axes	0,01 - 2,0 m/s freely programmable for both axes	0,01 - 2,0 m/s freely programmable
Positioning accuracy	< +/- 0,5 mm	< +/- 0,5 mm	< +/- 0,5 mm	< +/- 0,5 mm	< +/- 0,5 mm	< +/- 0,5 mm
Repetitive accuracy	< +/- 0,1 mm	< +/- 0,1 mm	< +/- 0,1 mm	< +/- 0,1 mm	< +/- 0,1 mm	< +/- 0,1 mm



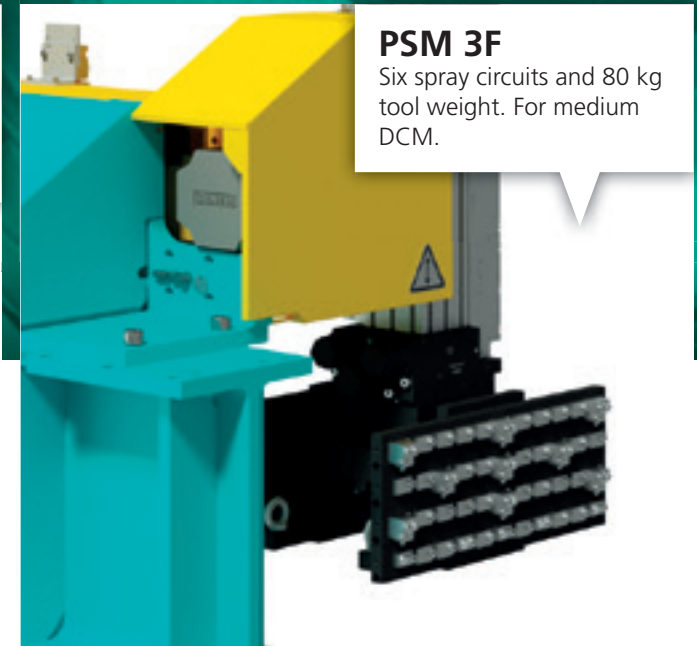
PSM 1F

The right one for small DCM. Spray tool weight up to 20 kg.



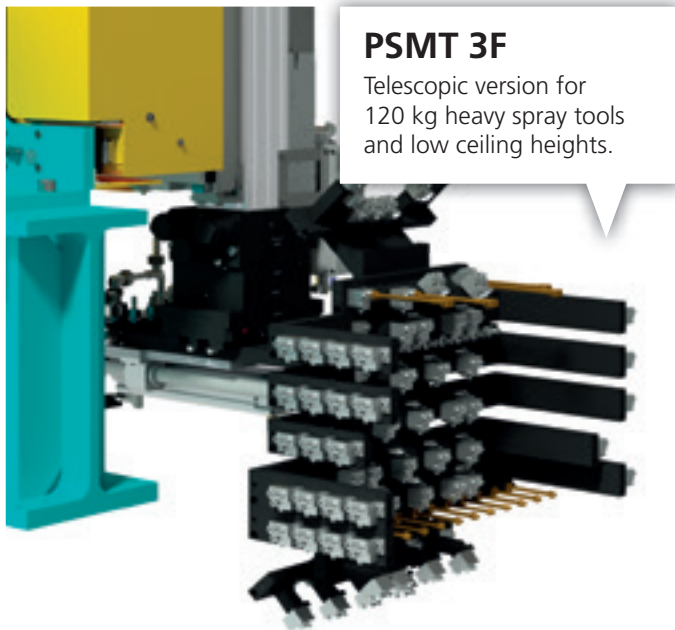
PSM 2F

For medium die casting machines. Four spray circuits and up to 40 kg spray tool weight.



PSM 3F

Six spray circuits and 80 kg tool weight. For medium DCM.



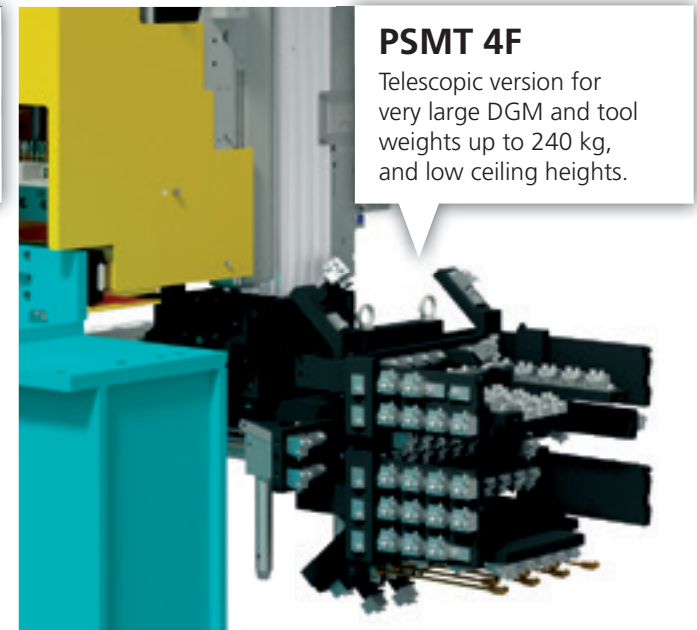
PSMT 3F

Telescopic version for 120 kg heavy spray tools and low ceiling heights.



PSM 4F

Eight spraying circuits for maximum Spray volume and 160 kg heavy spraying tools.



PSMT 4F

Telescopic version for very large DGM and tool weights up to 240 kg, and low ceiling heights.

EFFICIENCY INCREASE BY REDUCTION OF OPERATING COSTS

Eco Spray and Eco+

Spray solutions with
savings potential

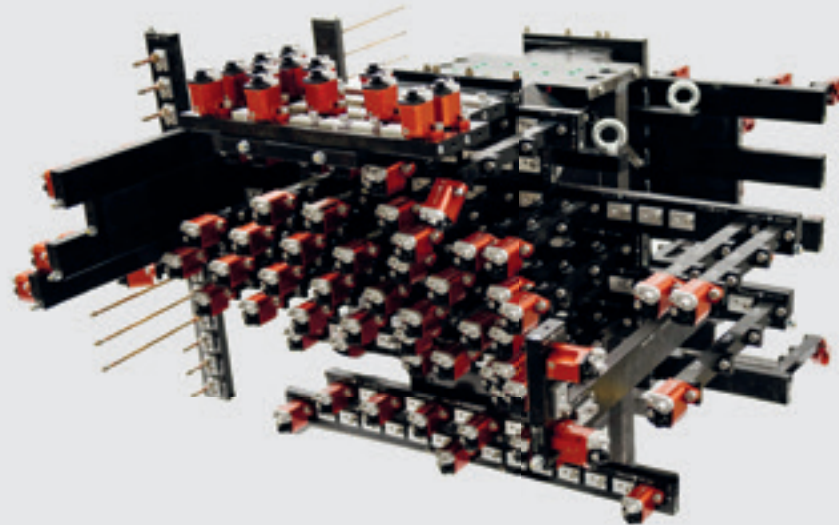
Possible savings:

- | | |
|--------------------------------------|-----------|
| • Cycle time | 20% |
| • Energy (mould temperature control) | 50 - 70% |
| • Compressed air (vol.) | 30 - 50% |
| • Fresh water | 99 - 100% |
| • Waste water | 100% |

Reduction of the reject rate, simpler post-processing,
lower maintenance costs, significant increase in die
life up to 300%.

Example: Pulse spraying with DDV Nozzles

- Mask tool for shock tower
- Number of nozzles: 127
- Consumption per cycle: ~ 8 ml



Eco

- The following are required for EcoSpray:
 - Spraying tool with FSD
 - Separating agent supply as for example OSA 1-50-2 or OSA 2-15
- Resource friendly* (when the suitable separating agents are used)
- Better part quality
- Longer mould service life
- Continuous spraying

All Eco components are marked with the following seal in the catalogue.



Eco+

- The following are required for Eco+ Spray:
 - Spraying tool with DD or DDV nozzles
 - Separating agent supply as for example OSA 1-50-2 or OSA 2-15
 - ECO-prepared mould spraying machine (ex works or retrofitted)
 - Booster station if air pressure network < 7 bar (only for DDV nozzles)
- Resource friendly* (when the suitable separating agents are used)
- Lower separating agent consumption
- + Better part quality
- + Longer mould service life
- + Volumetric spraying

All Eco+ components are marked with the following seal in the catalogue.



CONTROLLERS

Process Control

Simple operation,
Full control

You have the choice:

The user interface of the Wollin controls is tailored to the application spraying. The intuitive operating concept enables the creation of Spray programs with pre-defined commands without programming knowledge. The easy learnability and same user interfaces for spraying machines, metal dosing systems release agent supplies and spray gantrys enable the user to achieve better results in a short time.

The presentation of the process data, as well as the integrated Industry 4.0 capabilities enable the cross-linking with the die casting machine, as well as the external access via remote maintenance (as far as required by the customers).

Wollin controls and operator panels are developed for the rough everyday foundry conditions.



PC2 Process Control



The universal spraying process controllers

- Dynamic servo controller for up to 3 axes based on modern PC technology
- Absolute positioning
- Mobile operating device with touch screen enables convenient operation even in the mould area
- Self-explanatory operator guidance through plain text and graphical display in many languages
- Offline program creation possible on standard PC



SC1 Smart Control



Compact spraying machine controller

- 1 - 2 servo axes
- Absolute positioning
- Mobile operating device with plain text display
- Offline program creation possible on standard PC
- Data backup on standard storage medium



PC84 Process Control



SIEMENS CNC controller

- SINUMERIK 840D
- Configurability according to customer requirements
- Real path controller
- Absolute positioning
- DIN programming or dialog-supported programming switchable
- Data backup possible via network and USB



CONTROLLERS

Controller	PC2 Process Control	SC1 Smart Control	PC84 Process Control
Controller principle	PC controller with bus system (Beckhoff company) installed in the switch cabinet	SM Application Controller Module in Unidrive SP Servocontroller	SINUMERIK 840D SL CNC hardware NCU 710.3 PN with PLC 317-3PN/DP The Sinumerik 840D-sl controller unites CNC, PLC and communication tasks in one NCU component group. Power supply module and motor modules are connected to the NCU via Drive Cliq
Processor	Intel Celeron 1 GHz		
Memory	128 MB Compact Flash Program memory	9 spraying programs possible	User program memory CNC 3 MB, PLC 512 KB System software NCU on CF card Memory expansion and data exchange via USB stick.
Operating device	T55 6.5" VGA TFT with backlight (65536 colours) Colour VGA 640x480	Mobile operating device with plain text display, Graphic-Display (120x64 pixels) Membrane keypad with functional system keys and LED	Handheld Terminal HT8 round shape with an extremely robust IP 65 housing with fully graphic 7.5" TFT colour display 640 x 480 (VGA), touch screen, membrane keys, override rotary switch. Emergency-stop pushbutton and 2 enabling pushbuttons for left- and right-handed users. Simple insertion or removal during operation (Hot Plug and Play), without triggering an emergency stop in conjunction with the PN Plus connection box.
User interface	Microsoft WINDOWS-CE . Net, user interface, direct touchscreen operation on screen		
Option Operation in switch cabinet			OP010 with TCU and machine control panel MCP483 IE OP010: Membrane keyboard, screen fully graphics capable, 10.4", STN, colour display, 640x480 (VGA), USB port on front panel TCU: SINUMERIK 840Dsl TCU 30.3 (Thin Client Unit)
Programming	Operator guidance through plain text and graphic display, simple creation and management of spraying programs Teach function or value input, programming in automatic mode	Operator guidance through plain text and graphic display, simple creation and management of spraying programs, teach function or value input	
Option	Offline programming on office PC	Offline program creation possible on standard PC	
Programming functions	Integrated basic position program, Mould limitation: horizontal and vertical individually programmable, integrated function Axial approach with mould open or two separate start signals, graphical selection of spraying circles, help function via plain text	Integrated basic position program, Mould limitation: horizontal and vertical individually programmable, integrated function Axial approach with mould open or two separate start signals, graphical selection of the spraying circles.	Integrated basic position program, Mould limitation: horizontal and vertical individually programmable, integrated function Axial approach with mould open or two separate start signals, Graphical selection of spraying circles and auxiliary functions.

	91163060	2	Fahren	X:1000 Y:1000 V:100
(I)	0.000	3	Fahren	X:0 Y:1000 V:100
(I)	0.000	4	Fahren	in Grundstellung V:100 X-



Die Steuerung		PC2 Process Control	SC1 Smart Control	PC84 Process Control
Prozesstechnik Option		Programming of air and medium pressures, separating agent flow measurement with diagnosis	Programming of air and medium pressures separating agent flow measurement with diagnosis	Programming of air and medium pressures separating agent flow measurement with diagnosis
Visualization		Detailed status data of the machine and interlinking signals with plain text and graphics Detailed display of all current processes Fault and warning messages with description of cause and troubleshooting	Detailed status display of machine and interlinking signals with plain text and graphics Display of the current processes Fault and warning message with message history	Detailed status display of machine and interlinking signals with plain text and graphics Display of the current processes Fault and warning message with description of cause and troubleshooting as well as message history
Safety		Personnel and machine protection concept according to CE / UL Monitoring by two-channel hardware functions, 3-stage enabling switch Machine stop button		Personnel and machine protection concept according to CE, monitoring by two-channel hardware functions and ergonomically arranged enabling switches, EMERGENCY STOP button two-channel, programming interlock by password
Axis controller		2-axis controller with infinitely variable programmable speeds Interpolation of axis movements	1 - 2 servo axes	Multi-axis path controller for interpolation of axis movements, infinitely variable programmable speeds.
Interfaces to DGM		DISPO 20 (Hardware) DISPO 25 (Profibus or ProfiNet)	DISPO 20 (Hardware)	DISPO20 (hardware) or DISPO25 (Profibus or Profinet)
Profibus/ProfiNet (option)		For partial integration with DGM and for extended controller function		
Data backup		Data storage on CF card in the controller Data exchange via USB stick	Chip-Card (9 Programme)	Via USB stick to HT8 or OP10
Switch cabinet size		600 x 500 x 2000 mm (B x T x H) 800 x 600 x 2000 mm (B x T x H) for PSM 4	600 x 1400 x 400 mm (LxBxT)	800 x 500 x 2000 mm (B x T x H) inkl. 200 mm socket
Switch cabinet weight		170 kg		220 kg
Protection class		IP 54	IP 55	IP 54
Operating device dimensions: Weight: Protection class Length of connecting cable:		portable D = 250 mm 1250 g IP 65 10 m	portable LxBxT 239 x max.116 x 102 mm 500 g IP 65 Optional 5 m or 10 m	portable D = 290 mm 1.9 kg IP 54 10 m highly flexible

ROBOTER- SPRAY SYSTEMS PSR

PowerSpray Robot

The right solution
for every task

PSR 1/2 FS 
Flexible spray

- Flexible robotic system
- Individual spraying of the mould by „propelled spraying“
- 1 spraying tool for several moulds
- Only the spraying programme must be changed
- Hose package protected in the protective hose for supplying the spraying tool



Fig.: PSR2 FS-B

Maximum
flexibility
in spraying.

Model	Cycles	Separating agent	Blowing circles	Spraying nozzles max.	Blow nozzles	Length	DGM range (kN)
PSR1 FS	2	1	2	8	4	180	80 - 560
PSR2 FS-A	4	2	2	32	8	280	160 - 2000
PSR2 FS-B (Spraying cycles vertical)	4	2	2	32	8	330	160 - 2000

- Media transfer station with valve unit to control the spraying and blowing circles
- Air connection set
- Optional: The pressure controller for the spraying air pressure is programmable via the robot control
- Combination with removal module is possible for removal of the cast part
- Option: Automatic rinsing cycle



Fig.: PSR3 MS

PSR 2/3/4 MS

For mask spraying tools

- Assembly of universal spraying tools and mask spraying tools individually adapted to the mould
- Short process when using mask spraying tools
- Strong spraying and blow air
- Short set-up times
- Size of PSR depends on application and size of die casting machine
- All spraying tools equipped with 2 additional high-pressure blowing circles to blow the mould dry and clean in the shortest possible time
- Large hose package in protective hose for supply to mask spraying tools
- Adapter with connecting flange for robot hand

Model	Cycles	Separating agent	Blowing circles	Spraying system	DGM range (kN)
PSR2 MS	4	1	2	PS16	160 - 1000
PSR3 MS	6	2	2	PS16	560 - 2000
PSR4 MS	8	4	2	PS25	1600 - 5500
PSR4 MS-II	8	4	2	PS25	2500 - 5500 (for large moulds)

* depending on robot type/size

- Dirt filter system for the separating agent fuel line
- Pressure controller for spraying air is programmable via the robot control
- Robot user interface with WOLLIN spraying software

MODULAR SPRAYING TOOLS

PowerSpray

Makes process short -
worldwide

Powerspray spraying tools

- Easy to assemble due to modular design
- Flexible use due to modular design
- Adaptable to your mould with standard modules
- Process cable by permanently setting all mould-specific values
- Cost-effective thanks to the use of standard components

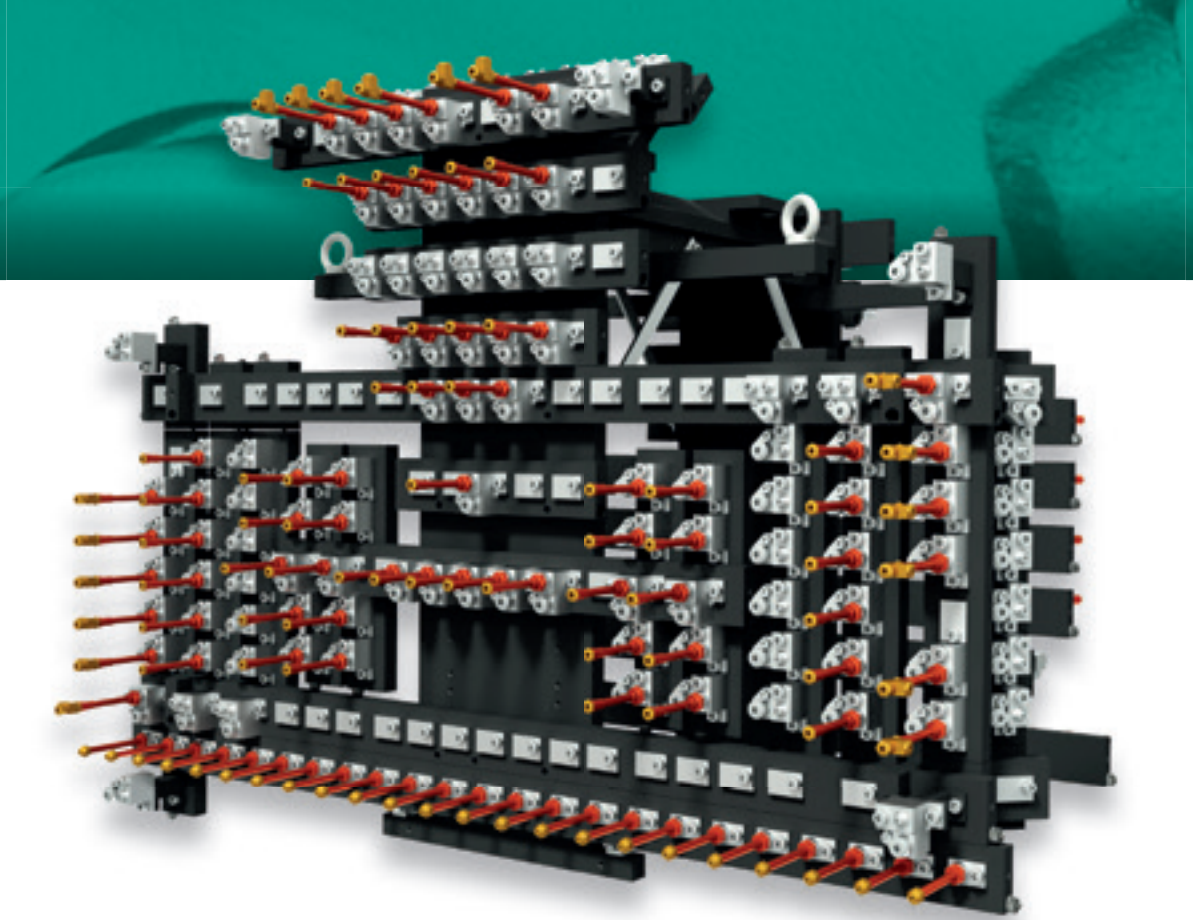


Fig.: PS16

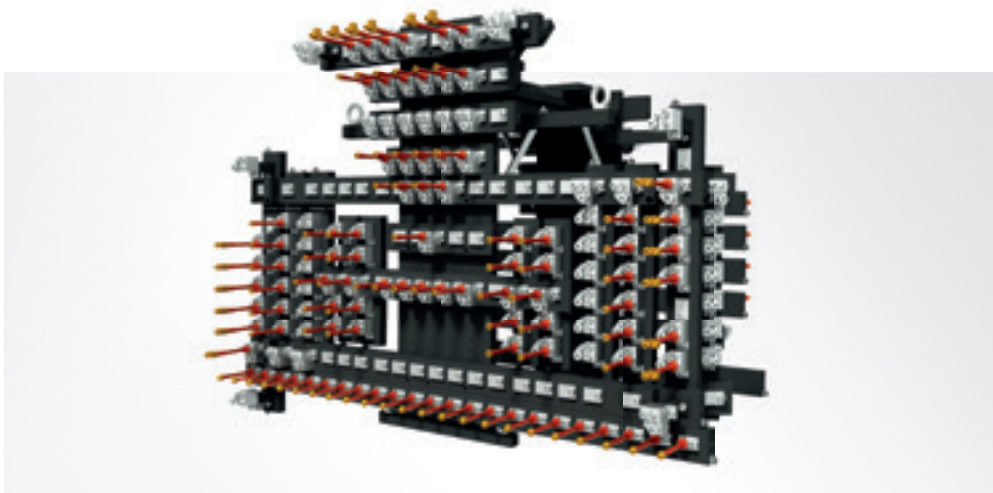
Highest cooling and
separating effect

Wollin – THE PROBLEM SOLVER FOR THE SPRAYING PROCESS

PS16



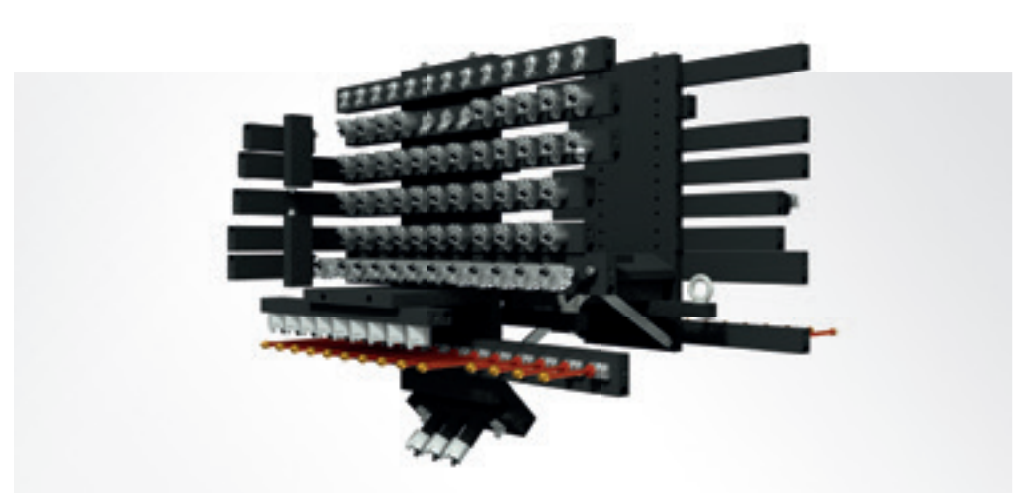
- Simple assembly due to proven, modular construction system
- Flexible due to large parts catalogue, individually adaptable to any shape
- High performance due to high media throughput
- High process reliability and reproducibility due to mask spraying tools without tubes
- Cost-effective due to the use of standard modules



PS16c



- Simple assembly due to proven, modular construction system
- Reduced weight due to compact design
- Higher spraying density due to double & combination bars
- Combinable with PS16 Standard
- High process reliability and reproducibility due to mask spraying tools



MODULAR SPRAYING TOOLS

PS16 XL

- Proven PS16 system with pneumatic traversing carriage
- Simultaneous spraying of both mould halves
- High process reliability and reproducibility due to mask spraying tools without tubes
- High throughput of separating agent and exhaust air
- Simple assembly due to proven, modular construction system



PS25

- Very high blow-out and spraying performance due to increased line cross-section
- Suitable for medium and large die casting moulds
- Can be used on PSM3 and PSM4
- Can be combined with PS16 and PS16c
- High process reliability and reproducibility due to mask spraying tools
- Simple assembly due to proven, modular construction system



FULL FLEXIBILITY

Matrix

Individual spraying of the mould parts by switching individual nozzles or nozzle groups on and off

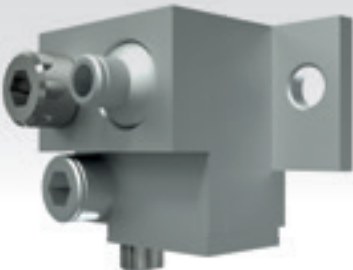
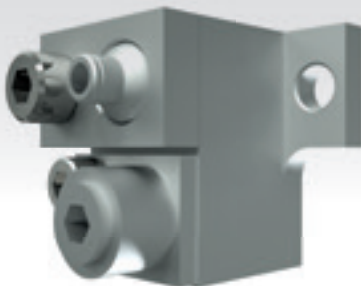
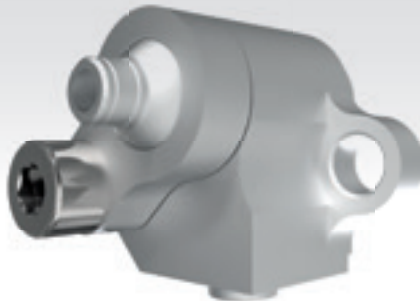
- Individually controllable nozzles
- Suitable for small batches with many mould changes
- Individually programmable without modification
- Designed for small to medium die casting moulds



Each nozzle individually switchable via the spraying machine controller PC 2

- Separating agent reduction
- Gentle on shape
- Individual spraying of the mould parts by switching individual nozzles or nozzle groups on and off
- When changing moulds, only the spraying program for the clamped mould is selected
- Single nozzle controller with freely programmable single nozzles or nozzle groups
- One spraying tool for several moulds
- Only the spraying nozzles adjusted to the mould are controlled
- Designed for small to medium die casting moulds
- Suitable for small as well as large series

MODULAR SPRAYING TOOLS

	SD12	SD13	SD14
Quantity regulation	Exchangeable dosing orifice	fixed dosing screw	-
Spherical nozzle	freely selectable	freely selectable	freely selectable
for PS16	x	x	x
for PS16c			x
for PS16XL	x	x	x
for PS25	x	x	x
for ECO			
Weight per nozzle	0,114	0,177	0,08
			



FSD

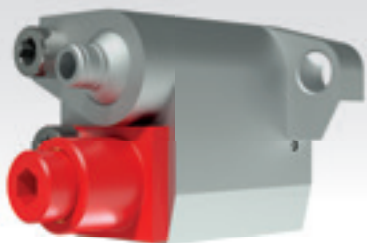


DD



DDV

Quantity regulation	permanently installed fine dosing screw	fixed filling quantity per cycle, manual deaeration	fixed filling quantity per cycle, self deaeration
Spherical nozzle	freely selectable	freely selectable	freely selectable
Application	continuous spraying	mask spraying	mask spraying
for PS16	x	x	x
for PS16c	x	x	x
for PS16XL	x	x	x
for PS25	x	x	x
for ECO	x	x	x
Weight per nozzle	0,194	0,189	0,202



SEPARATING AGENT SUPPLIES

LubTec

Always perfectly dosed

Arguments that pay off!

- Comprehensive range of separating agent supplies
- Wollin has the right solution for every budget and every application
- From the version with pressure stage to the high-end version for several DCMs
- Constant spraying parameters
- Special solutions for central supplies available



The appropriate separating agent supply for your application.

	MDA20	MDA25	MDA40	MDA60	MDA65
Air connection	1/2"	1/2"	1/2"	1/2"	1/2"
Air pressure / bar max.	8	8	8	8	8
Water connection	1/2"	1/2"	1/2"	1/2"	1/2"
Water pressure / bar	2 - 8	2 - 8	2 - 8	2 - 8	2 - 8
Output separating agent	1/2"	3/4"	3/4"	3/4"	3/4"
Pressure separating agent / bar max.	8	8	8	8	6
Flow rate / l max.	10	10	60	70	70
Fill level concentrate / l min. - max.	20 - 100	30 - 125	20 - 100	20 - 100	30 - 125
Fill level mixture / l min. - max.	30 - 50	38 - 71	32 - 50	32 - 50	38 - 71
Mixing ratio / %	0.5 - 2.5	0.5 - 16	0.5 - 2.5	0.5 - 2.5	0.5 - 16
Separating agent consumption / l max. / cycle	10/ cycle	10/ cycle	60 l/min	70 l/min	70 l/min
Power connection / V	24 (chaining)	24 (chaining)	24 (chaining)	400	400



Separating agent mixing-dosing-installation with downstream pressure stage.

- Proportional dosing pump, fine dosing, accuracy $\pm 5\%$
- Separating agent mixture supply by means of downstream pressure stage
- Medium pressure individually adjustable
- Automatically fresh mixture



Separating agent mixing and dosing system with electric hose dosing pump and downstream pressure stage.

- Electric hose dosing pump, fine dosing, accuracy $\pm 1\%$
- Separating agent mixture supply by means of downstream pressure stage
- Economical due to reliable compliance with the chosen mixing ratio and thereby reduced consumption of release agent concentrate



Separating agent mixing and dosing system with downstream double diaphragm pump.

- Proportional dosing pump, fine dosing, accuracy $\pm 5\%$
- Separating agent mixture delivery by means of double-membrane pump and downstream pulse damper
- Medium pressure individually adjustable



Separating agent mixing and dosing system with downstream submersible pump.

- Proportional dosing pump, fine dosing, accuracy $\pm 5\%$
- Separating agent-mixture delivery by submersible pump with pump drive
- Medium pressure individually adjustable
- Automatically fresh mixture
- Independent of existing air pressure



Separating agent mixing and dosing system with downstream submersible pump and electric hose dosing pump.

- Electric hose dosing pump, fine dosing, accuracy $\pm 1\%$
- Separating agent-mixture delivery by submersible pump with pump drive
- Medium pressure individually adjustable
- mixture is only produced when required, a fresh emulsion is continuously available.

SEPARATING AGENT SUPPLIES

MDA100-CE/UL

Separating agent mixing-dosing-installation with electronic concentrate dosing

The mixing & dosing system generates the mixture of water and concentrate. A user-friendly touch interface allows mixing and pressure ratios to be adjusted as required.

- Mixture stored in storage tank
- Fresh mixture, when needed; Segregation is avoided by stirring
- Mixing ratio and pressure are programmable
- Visualization of the operating parameters
- Can be used for several machines
- Measurement of flow rate and pressure
- Electronic dosing pump
- High-pressure inline pump with pressure control for mixture supply
- Optional: Turbidity sensor, indicator light, level column, purging cycle, double-membrane pump (concentrate)

Operating pressure / bar adjustable	3 - 8
Mixing ratio	1:20 - 1:200
Flow rate max. l / min	100
Dosing accuracy / %	1 - 2
Output separating agent	G 1"
Water connection	G 1"
Concentrate connection	G 1"
Controller	Siemens S7-1500
Connection power / kW	7,5
Weight / kg (unfilled)	290



OSA1-50-2

Concentrate spraying unit for ECO SPRAY spraying technology.

- Pneumatically pressurized
- 50 litres capacity
- Stainless steel
- Incl. 10m air hose NW6,3
- Incl. 10m Cable 2W1.4
- Medium pressure adjustable between 0.15-7bar
- Continuous fill level detection
- Fine pressure regulator for separating agent pressure
- Pressure relief valve to protect against inadmissible excessive pressures
- Mobile
- Manual filling
- Strainer in center duct, mesh size = 0.25mm
- Leakage monitoring
- Siemens small controller with indicator light
- Button for error acknowledgment
- Interface with fault message and cycle stop
- Connection for flushing line to PSM/PSR/tool

Container capacity / l	50
Container capacity effective / l	35
Operating pressure / bar max.	3
Compressed air connection	1/4"
Output separating agent	1/2"
Water connection (flushing line)	1/2"
Power connection / V	24
Weight / kg (unfilled)	30

OSA2-15

Concentrate spraying unit for ECO SPRAY spraying technology.

- Pneumatically pressurized
- Container with 2x15 litre capacity
- Stainless steel
- Incl. 10m air hose NW6,3
- Incl. 10m Cable 2W1.4
- Fine pressure regulator for separating agent pressure 0.15-3 bar
- Double-membrane pump for alternating filling of the containers, thus uninterrupted production
- Electrical sensor for level monitoring
- Indicator light lack of separating agent
- Leakage monitoring

Tank capacity / l per container	15
Fill level min.- max. / l	2 - 15
Compressed air supply / bar max.	3
Compressed air connection	1/8"
Output separating agent	3/8"
Power connection / V	24
Weight / kg (unfilled)	30



FLOW-MEASURING SYSTEMS

FlowControl

Makes process safe - worldwide

Flow measurement of the separating agent quantity

- Automatic flow measurement per cycle
- Target / actual comparison of flow rate values
- Message in case of deviation above permissible value
- Signal Cycle stop in case of deviation
- Visualization of process data with storage for quality statistics
- Non-contact flow sensors (magnetic inductive)

Filter plate lateral

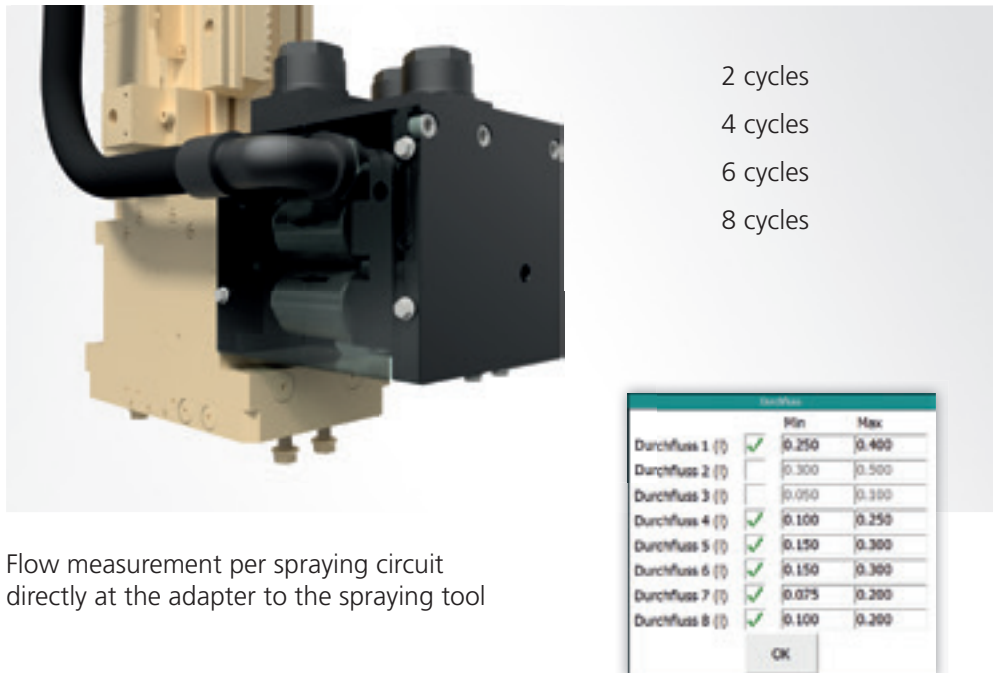
Flow measurement PSM per spraying circle (V-axis)

- Each spraying circle can be measured individually
- Illustration can be transferred to all PSM (vertical) as an example

Fig. PSM 3 - 6 circles

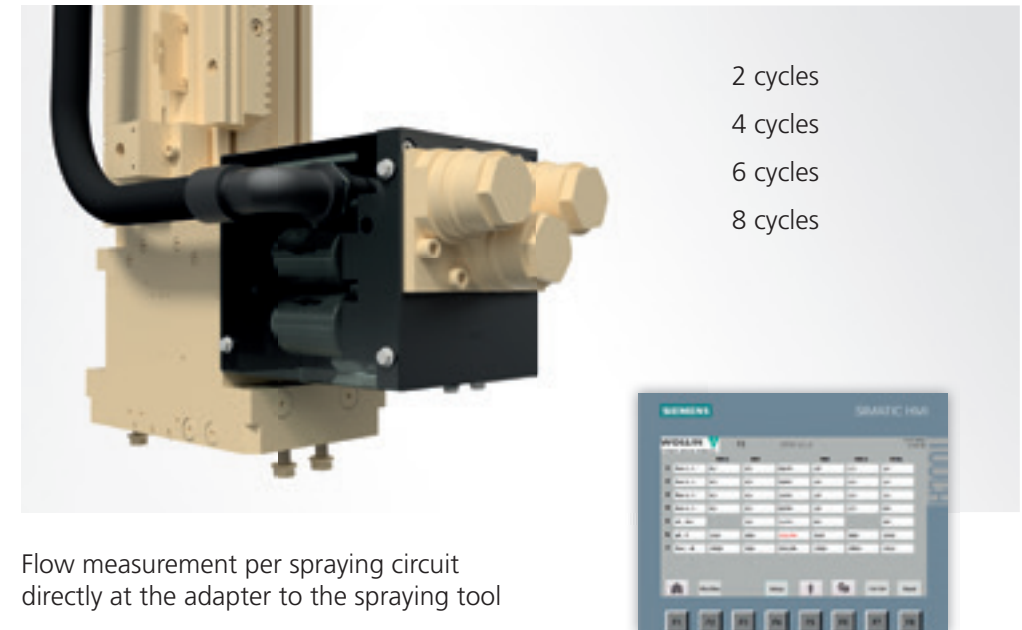
Flow measurement per spraying circle with PC2/PC84 controller

Flow Control 2



Flow measurement per spraying circuit with separate Siemens S7-1200 controller

Flow Control 2 - FS



FLOW-MEASURING SYSTEMS

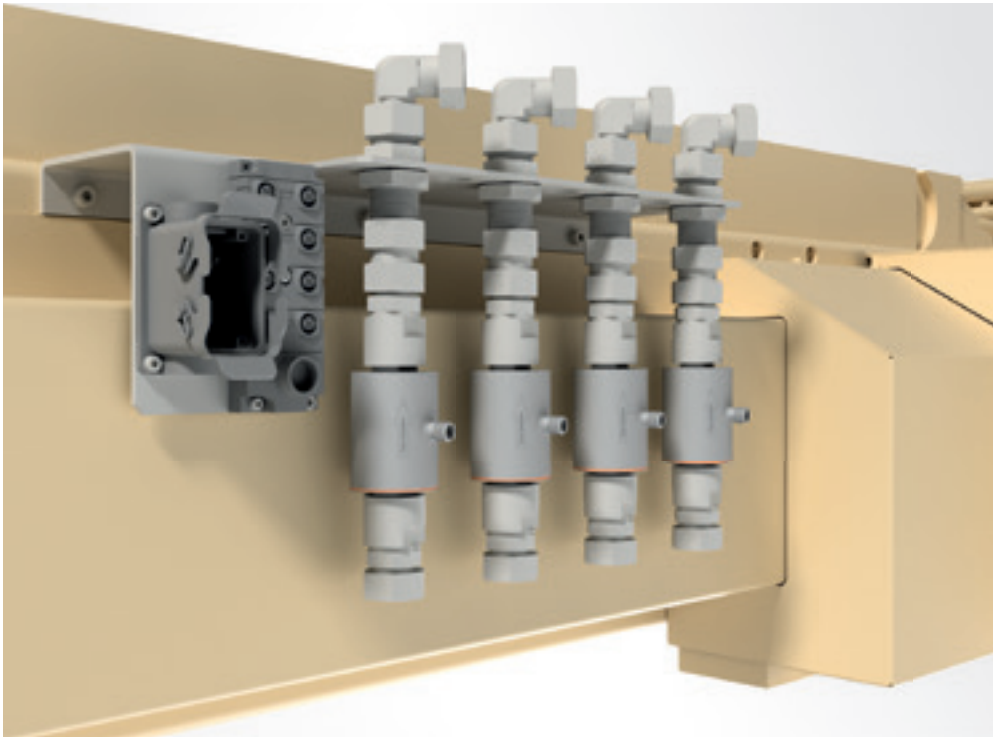


Fig. PSM 4 - 4 sensors

Flow measurement PSM per separator line (H-axis)

Only the main line can be measured.

Illustration can be transferred to all PSM (vertical) as an example.

Flow sensor in the release agent supply line

Flow measurement per separating agent line with PC2/PC84 controller

Flow Control 1

- 1 Separating agent line
- 2 Separating agent line
- 3 Separating agent line
- 4 Separating agent line

Durchfluss		
	Min	Max
Durchfluss 1 (l)	0.250	0.400
Durchfluss 2 (l)	0.300	0.500
Durchfluss 3 (l)	0.050	0.300
Durchfluss 4 (l)	0.100	0.250

OK

Flow measurement per separating agent line with separate Siemens S7 controller

Flow Control 1 - FS



- 1 Separating agent line
- 2 Separating agent line
- 3 Separating agent line
- 4 Separating agent line



Flow sensor in the separating agent supply line

Tripod with flow measurement

4 sensors with controller S7

- Used for monitoring measuring points
- Minimum and maximum limits are adjustable
- Flow rate display
- 2000 values can be stored per channel
- N2on-contact flow sensors (magnetic inductive)
- Visualization of process data with storage for quality statistics
- Optional:
 - Flow meter with reducing piece
 - With pressure switch for the display of the current pressure



AUTOMATION AND MISCELLANEOUS

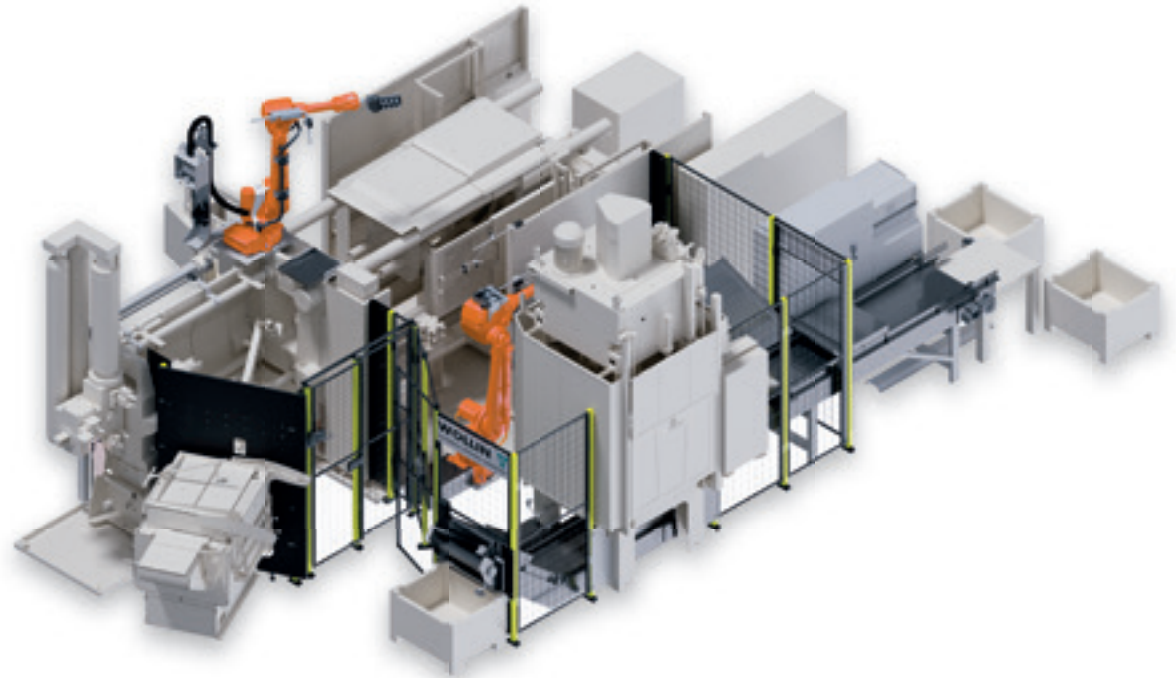
Special solutions

The right solution for every need.

From a single unit to a complete cell.

Arguments that pay off!

- Increase in productivity
- Process security
- Individually tailored to customer requirements



PERFECT COOPERATION

Metal dosing unit

The Wollin metal dosing units **WL 1 - 4** were specially developed for automatic metal feeding of die casting machines and for gravity die casting machines up to 80 kg scoop weight. The space-saving design of the devices is achieved through an assembly stand, thereby eliminating the need for modifications to the die casting and mould spraying machine.

- The vertical axis is tiltable, providing easier access to the filler opening in the machine plate
- Maintenance free ladling system
- Universal flange for all common ladling devices

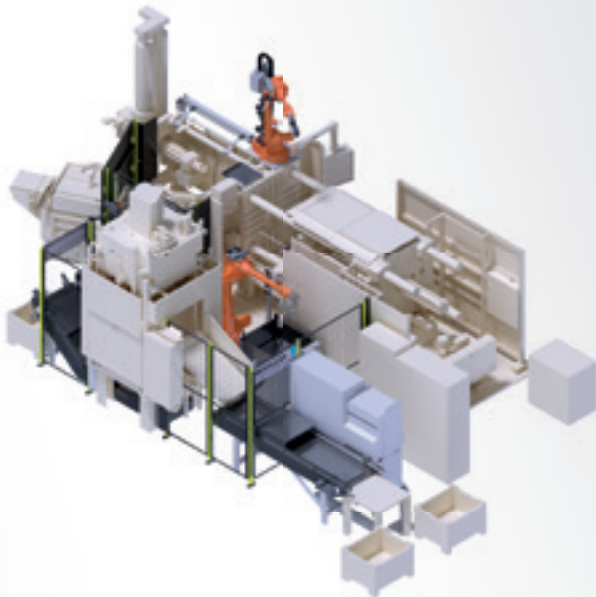
Type	Vertical lift	Maximum scoop weight
WL1	1200 mm	5 kg
WL2	1500 mm	15 kg
WL3	1800 mm	35 kg
WL4	2200 mm	80 kg



AUTOMATION AND MISCELLANEOUS

Removal automation

- Removal
- Insert - part feeding
- Check for completeness/preliminary check
- Cooling - water/air/spray cooling
- Preliminary deburring
- Deburring
- Marking
- Discharging - chute/conveyor belt
- Palletising
- Safety guard
- Engineering
- Scribe-/Stylus- and Laser marking



Spray cooling

- Cooling of the castings by finely sprayed water, thus homogeneous cooling
- Water evaporates on the casting and is not carried with the part
- Targeted cooling of hotspots/heat pockets/biscuit



You have not yet discovered the perfect machine to meet your needs in our portfolio?

No problem. We offer special-purpose machines allowing us to design and manufacture the PSM machine that is specifically tailored to meet your application requirements. Our special solution for your special requirements. With additional horizontal/vertical stroke. Your request, our motivation.

Spraying and removal



Assembly on DCM



Spraying and removal



Stand-alone gantry for vibration-independent assembly



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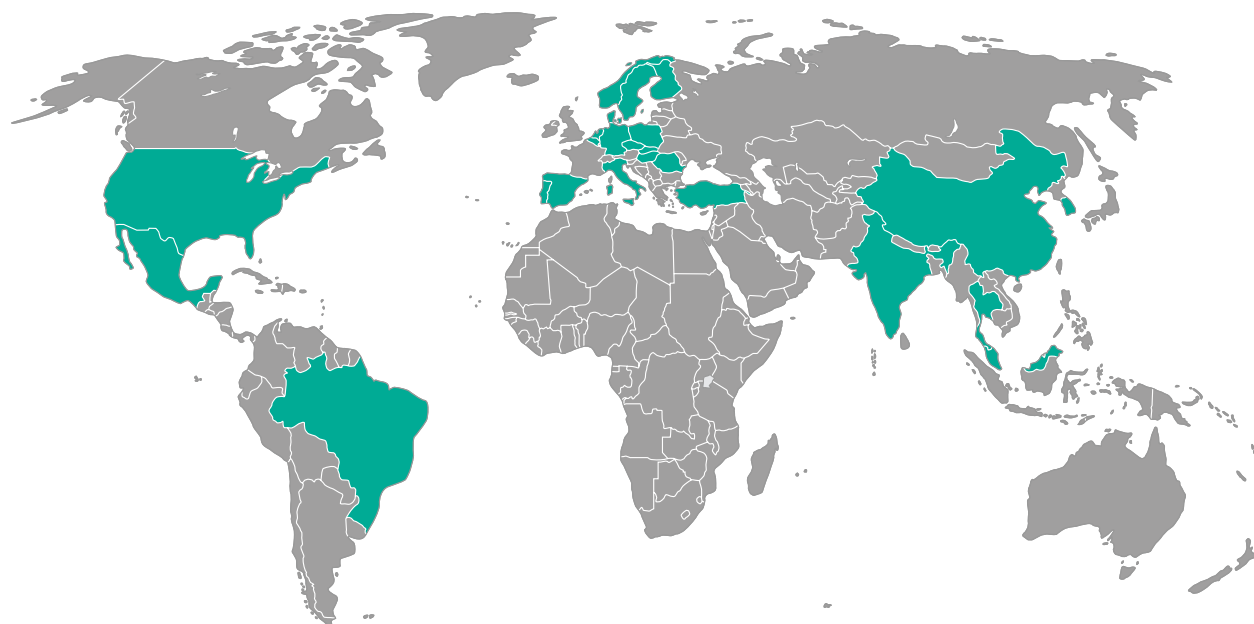
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