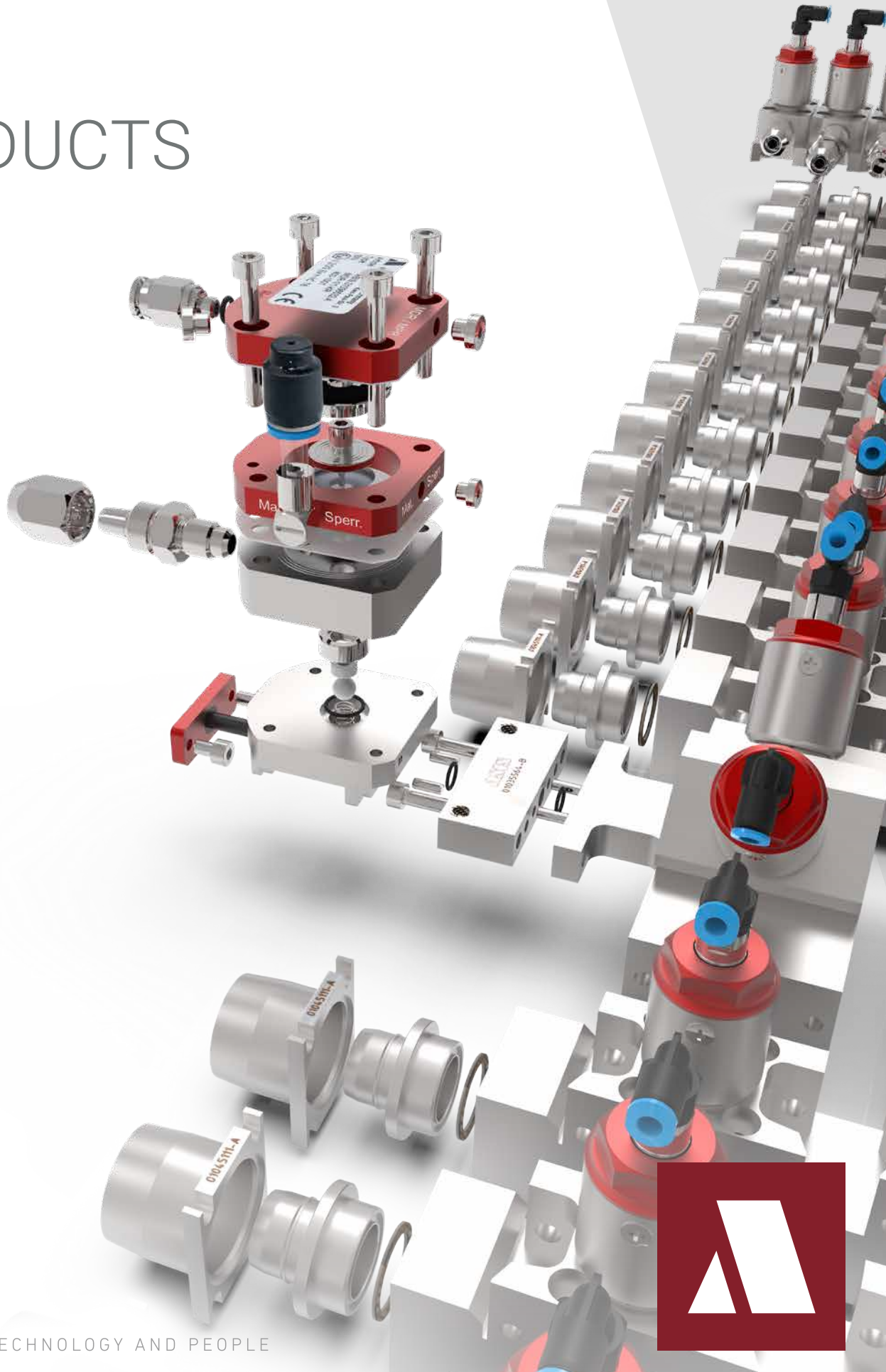


PRODUCTS



Automatic Finish

Automatic Finish

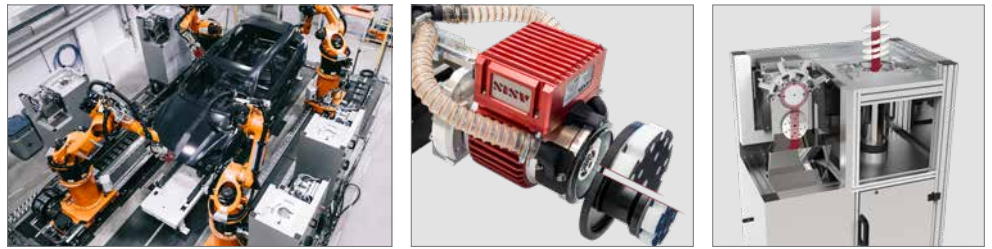
Detect and repair defects on reflective surfaces.
Used in topcoat or CDP finish for OEMs and suppliers in the automotive industry.



Automatic Sanding

Automatic Sanding

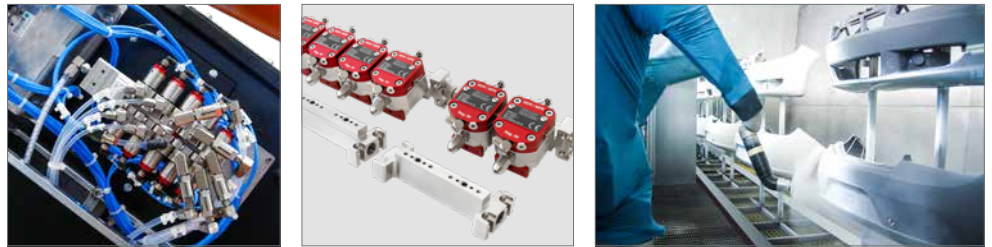
Sanding of surfaces or deburring edges.
Used in the automotive, plastics, metal or wood-processing industry.



Paint Application

Paint Application

Supply of media in the paint processing industry.



Paint Supply

Paint Supply

Systems for supplying media in the paint processing industry.



Atomizer Cleaning

Atomizer Cleaning

Automatic cleaning of high rotation or pneumatic atomizers in the paint processing industry.



Flaming

Flaming

Paint pretreatment of plastic parts in the paint processing industry.



Software

Software

Optimize processes in plant engineering with digital solutions. Used for any type of production facility.



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Automatic Sanding

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CONNECTING TECHNOLOGY AND PEOPLE

We believe in perfect cooperation between man and machine and in sustainable value created in harmony with economy and ecology. This is what we stand for with our claim "Connecting Technology and People".

ASIS solves challenging tasks in automated plant engineering worldwide. The result for our customers are perfect coatings with highest economic efficiency. As an internationally positioned company, we export from four locations in Germany and a subsidiary near Shanghai to over 30 countries worldwide.

We overlook technical progress across industries and manufacturers and apply it targeted and with high added value in our solutions. Our competence in control technology and the use of digital intelligence gives us the decisive lead over our competitors. Our employees with their corporate values - the ASIS DNA - are the foundation of our actions.

Portfolio

Coating Systems

- ↳ Wet Painting Systems
- ↳ Enamelling Systems
- ↳ Powder Coating Systems

Application Technology

- ↳ Flaming
- ↳ Atomizer Cleaning
- ↳ Paint Supply
- ↳ Paint Application

Quality Control Systems

- ↳ End of Line

Surface Treatment

- ↳ Automatic Sanding Systems
- ↳ Automatic Finish

Automation

- ↳ Factory Automation
- ↳ Robotics
- ↳ Control Technology

Analysis & Planning

- ↳ Virtual Factory
- ↳ 3D Scanning
- ↳ Software
- ↳ Plant Concepts

Service

- ↳ Operation
- ↳ Recurring Tests
- ↳ Trainings



Genuine Parts

ASIS products are built for the toughest 24/7 use. With all industrially used products, the extreme continuous stress in production leads to wear. We therefore recommend always replacing defective or worn parts with genuine ASIS parts. They are optimally matched to your application, deliver the highest quality and maximum safety.

Not sure which parts you need?

Contact us, our service team will be happy to advise you (page 95).



Sustainability is Safety

Progress is an integral part of our lives. For the perfect surface we push the technical development, it is a constant companion of our daily work.

We are absolutely sure that a solution will only be a success if it is intelligent. This means that it is perfectly suited to its goals, works extremely economically for the customer and is also designed to be future-proof for the coming challenges of digitalization. It delivers first-class quality in operation and meets our sustainability benchmarks:

For each ASIS product the design made sure that wear parts can be replaced in a maintenance-friendly way. We are also structurally organized with our spare parts sales that all ASIS customers can be supplied with the required genuine parts in the shortest time possible.

This keeps production lines running and our products can do what they are best at: **creating long term value.**

*“We see sustainability not as an empty phrase for a green image,
but as a benchmark of our engineering skills that offers our customers safety.”*

Hans-Jürgen Multhammer, CEO

Automatic Finish

High precision & fully automatic reworking system in the paint finish

Automatic Finish

Automatic Sanding

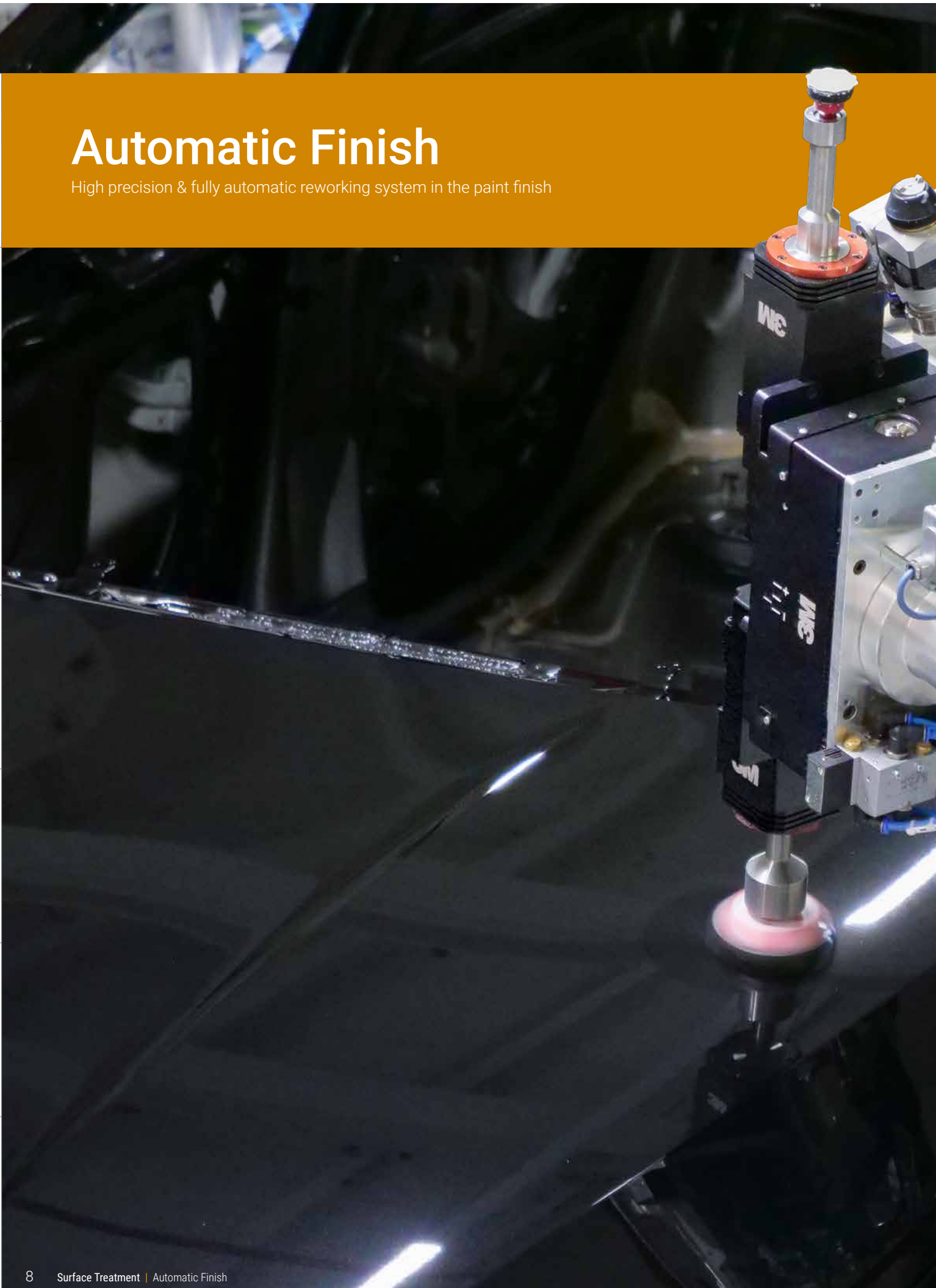
Paint Application

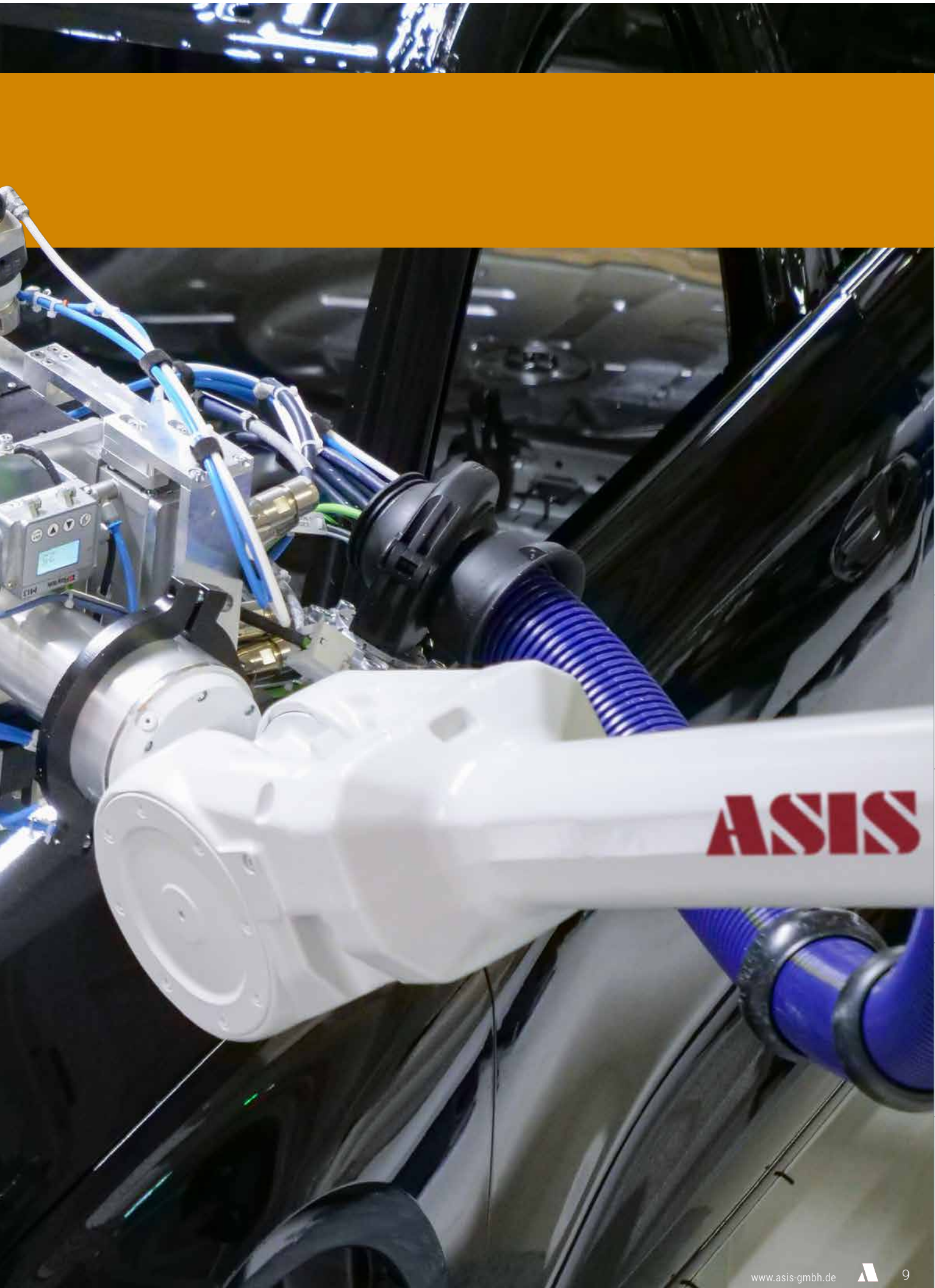
Paint Supply

Atomizer Cleaning

Flaming

Software





Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

Disc-X-Change

Sanding disc changing station for the automatic finish

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



Disc-X-Change (left: operating side | right: plant side)

Dimensions and performance data

Size / installation space	494 mm x 253,5 mm x 902 mm
Weight incl. accessories	40 kg
Sanding disc diameter	32 mm, 40 mm, customizable after test

Compressed Air Conexions

Pressure	5 to 8 bar
Particles	Class 2
Air humidity	Class 6
Oil grade	Class 2
Standard	According to ISO 8573-1:2001
Air connection	Push-in connector 10 mm



Four interchangeable magazines for quick abrasive change

Advantages and functions

- Fully automatic or manual change of the sanding disc
- Monitoring of the pick-up and tear-off process
- Quick change between different sanding discs
- Exchangeable magazines
- Filling of the magazines during operation possible
- Compact design
- Low maintenance

Fields of operation

Automatic repair of defects either on clearcoat surfaces in the finishing area or on CDP surfaces in the manufacturing process at OEMs and suppliers of the automotive industry.

Standard references/approvals

The partly completed machine (in the sense of the EC Machinery Directive 2006/42/EC, Annex II 1.B for partly completed machines) complies with all relevant provisions of the following EC Directives or Regulations:

- 2006/42/EG
- 2014/35/EU
- 2014/30/EU

Whitepaper Automatic Finish



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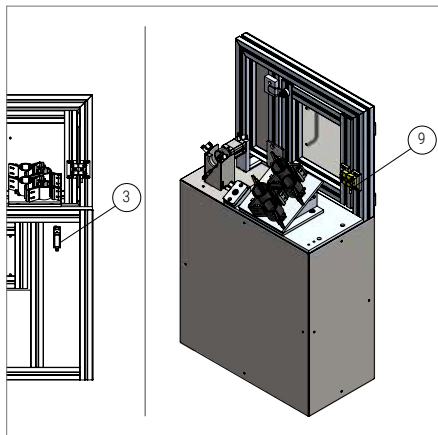


Fig. 1: Disc-X-Change changing station



Fig. 2: Magazine holder

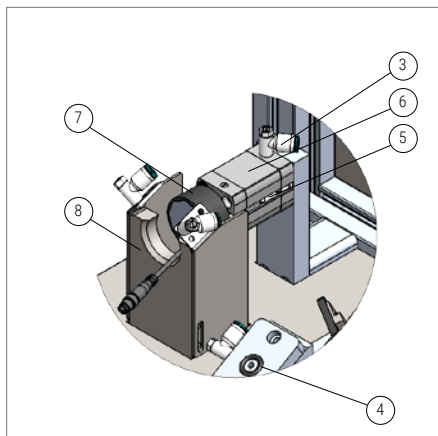


Fig. 3: Tear-off unit

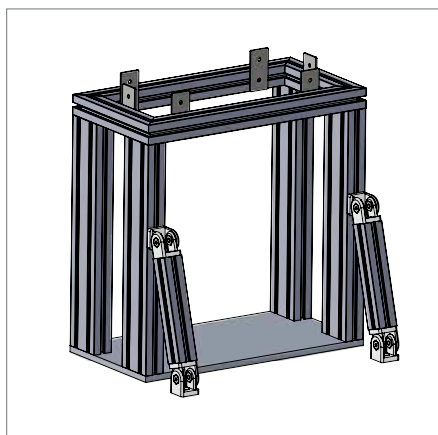


Fig. 4: Floor mounting

Disc-X-Change

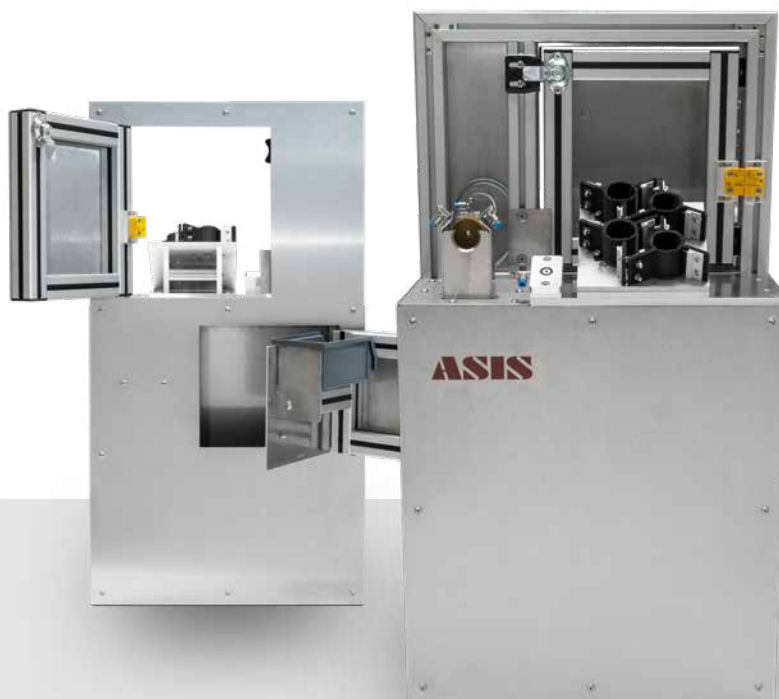
Fig.	No.	Name	Qty.	Order Number
1	/	Disc-X-Change sanding disc changing station	1	ASIS.01043218-0

Spare parts

Fig.	No.	Name	Qty.	Order Number
1	3	Pressure sensor SDE3	1	ASIS.01034095-0
2	/	Magazine holder	1	ASIS.01043276-0
2	2.1	L Grundplatte	1	L ASIS.01043279-0
2	2.2	L Basplate	2	L ASIS.01043277-0
2	2.3	L Angle plate	4	L ASIS.01037317-A
2	2.4	L Magazine with brushes	1	L ASIS.01043405-A
2	2.5	L Magazine mounting	2	L ASIS.01038754-0
2	2.6	L Handle	1	L ASIS.01039139-0
3	3	One-way flow control valve	1	ASIS.01005004-0
3	4	O-ring	1	ASIS.01042888-0
3	5	Proximity sensor	1	ASIS.01012950-0
3	6	Pneumatic cylinder	1	ASIS.01032378-0
3	7	Support sanding flower	1	ASIS.01036686-0
3	8	Tear-off finger	1	ASIS.01043225-0
1	9	Door switch	1	ASIS.01008946-0

Accessories (optional)

Fig.	No.	Name	Qty.	Order Number
4	/	Floor mounting	1	ASIS.01043499-0



Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

Pad-X-Change

Polishing pad changing station for the automatic finish

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



Disc-X-Change (left: operating side | right: plant side)

Dimensions and performance data

Size / installation space	454 mm x 387 mm x 902 mm
Weight incl. accessories	33 kg
Sanding disc diameter	82 mm, customizable after test

Compressed Air Connections

Pressure	5 to 8 bar
Particle	Class 2
Air humidity	Class 6
Oil grade	Class 2
Norm	According to ISO 8573-1:2001
Air connection	Push-in connector 10 mm



Eight polishing pad magazines for quick change, refillable during operation.

Advantages and functions

- Fully automatic or manual change of the polishing pad
- Monitoring of the pick-up and tear-off process
- Quick change between different polishing pads
- Exchangeable magazines
- Filling of the magazines during operation possible
- Compact design
- Low maintenance

Fields of operation

Automatic repair of defects either on clearcoat surfaces in the finishing area or on CDP surfaces in the manufacturing process at OEMs and suppliers of the automotive industry.

Standard references/approvals

The partly completed machine (in the sense of the EC Machinery Directive 2006/42/EC, Annex II 1.B for partly completed machines) complies with all relevant provisions of the following EC Directives or Regulations:

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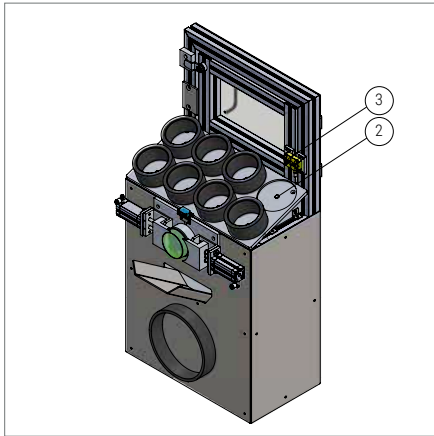


Fig. 1: Pad-X-Change

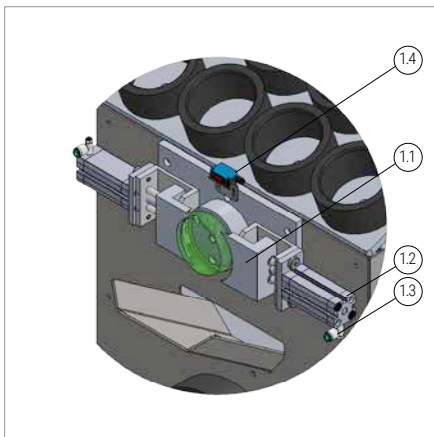


Fig. 2: Tear-off unit

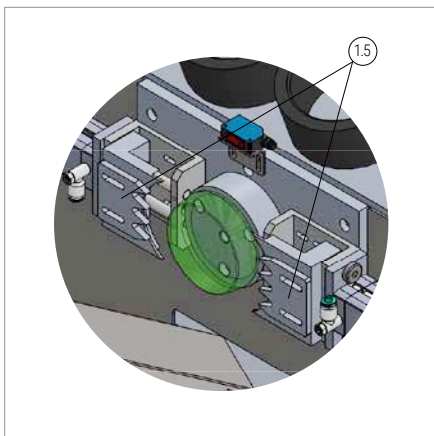


Fig. 3: Tear-off helper

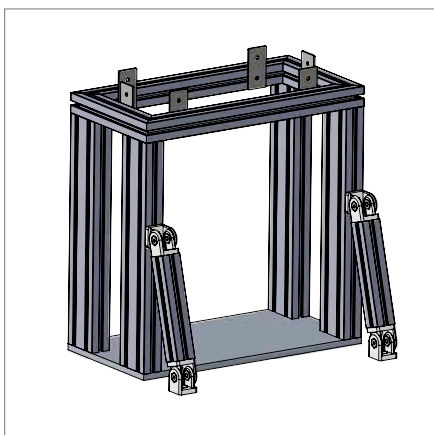


Fig. 4: Floor mounting

Pad-X-Change

Fig.	No.	Name	Qty.	Order Number
1	/	Pad-X-Change polishing pad changing station	1	ASIS.01043235-0

Spare parts

Fig.	No.	Name	Qty.	Order Number
1	2	Reflex light switch	8	ASIS.01043270-0
1	3	Door switch	1	ASIS.01008946-0
2	/	Tear-off unit	1	ASIS.01043240-0
2	1.1	Clamping finger	2	ASIS.01032955-C
2	1.2	Pneumatic cylinder	2	ASIS.01035378-0
2	1.3	One-way flow control valve	2	ASIS.01005004-0
2	1.4	W8 sensor	1	ASIS.01033936-0

Accessories (optional)

Fig.	No.	Name	Qty.	Order Number
3	1.5	Tear-off helper	2	ASIS.01048362-0
4	/	Floor mounting	1	ASIS.01043499-0



Polish-Sup

Polishing medium dosing for the automatic finish

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



Polish-Sup polish dosing

Dimensions and performance data

Size / installation space	Cylinder ca. Ø100 x 300 mm
Weight incl. accessories	ca. 7 kg
Max. air feed pressure	6 bar
Material volume	ca. 500ml
Materials	Stainless steel, PTFE, NBR

Connections

Connection sensor	Connector M12, 4-pin
Media connection	4 x 6 mm

Connections compressed air

Pressure	Depending on the desired material pressure
Particle	Class 2
Air humidity	Class 6
Oil content	Class 2
Norm	Acc. ISO 8573-1:2001
Air connection	Push-in connector 6 mm

Advantages and functions

- Precise dosing of the sanding and polishing medium
- Application directly to the processing point with pneumatic atomizer
- Warning message before filling level „empty“
- Very easy handling
- Low maintenance
- Dosing quantities can be variably adjusted
- Easy and fast refilling
- Three different Positions for the level sensor and air connection

Fields of operation

Automatic repair of defects either on clearcoat surfaces in the finishing area or on CDP surfaces in the manufacturing process at OEMs and suppliers of the automotive industry.

Standard references/approvals

The partly completed machine (in the sense of the EC Machinery Directive 2006/42/EC, Annex II 1.B for partly completed machines) complies with all relevant provisions of the following EC Directives or Regulations:

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- 2014/35/EU
- 2014/30/EU

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Fig. 1: Polish-Sup

Polish-Sup

Fig.	No.	Name	Qty.	Order Number
1	/	Polish-Sup polishing medium dosage 2.0	1	ASIS.01051078-A

Spare parts

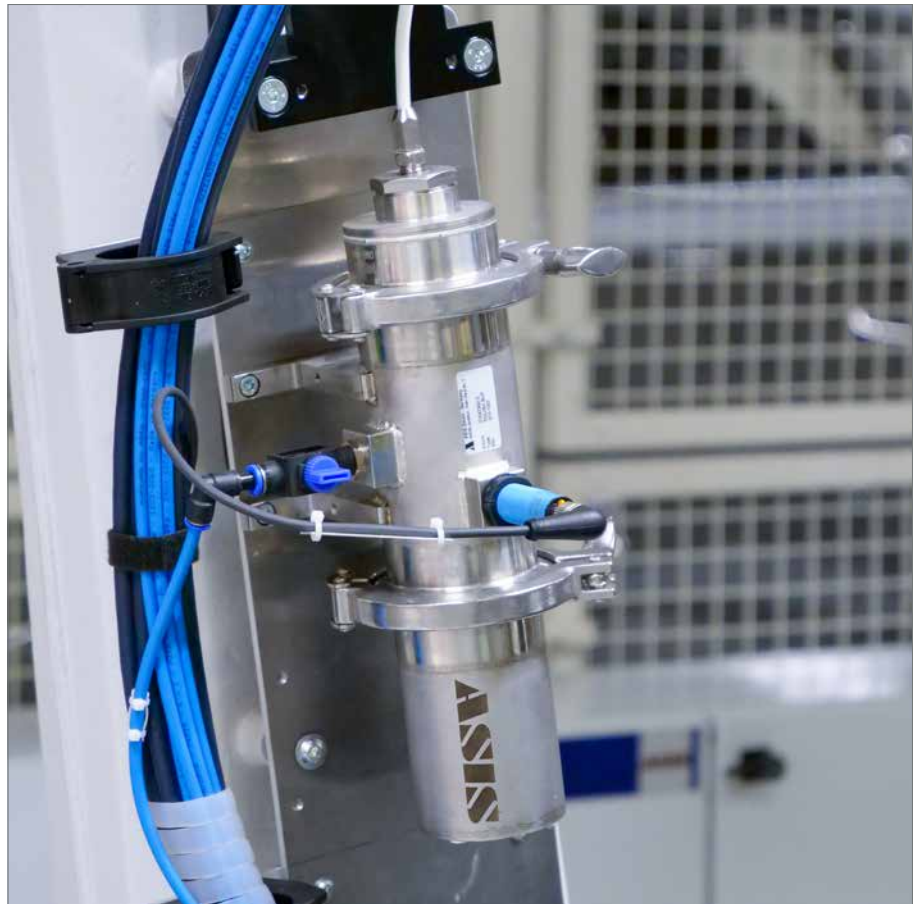
Fig.	No.	Name	Qty.	Order Number
/	/	Atomizer with connectors	1	ASIS.01051077-0
/	/	Change cartridge (empty)	1	ASIS.01047993-0
/	/	Flange sealing	2	ASIS.01048149-0
/	/	Double-pin clamps	2	ASIS.01048157-0
/	/	Capacitive proximity sensor	1	ASIS.01049458-0
/	/	FEP-Tube 4x6mm (ca. 3m)	1	ASIS.01048157-0

Accessories (optional)

Fig.	No.	Name	Qty.	Order Number
2	/	Filling system for cartridges (manual)	1	ASIS.01054988-0
/	/	Filling system for cartridges (pneumatic)	1	on request



Fig. 2: Filling system for cartridges (manual)



ASIS Polish-Sup

Automatic Finish

Automatic Sanding

Automatic Sanding

Perfectly uniform surface structure in record time

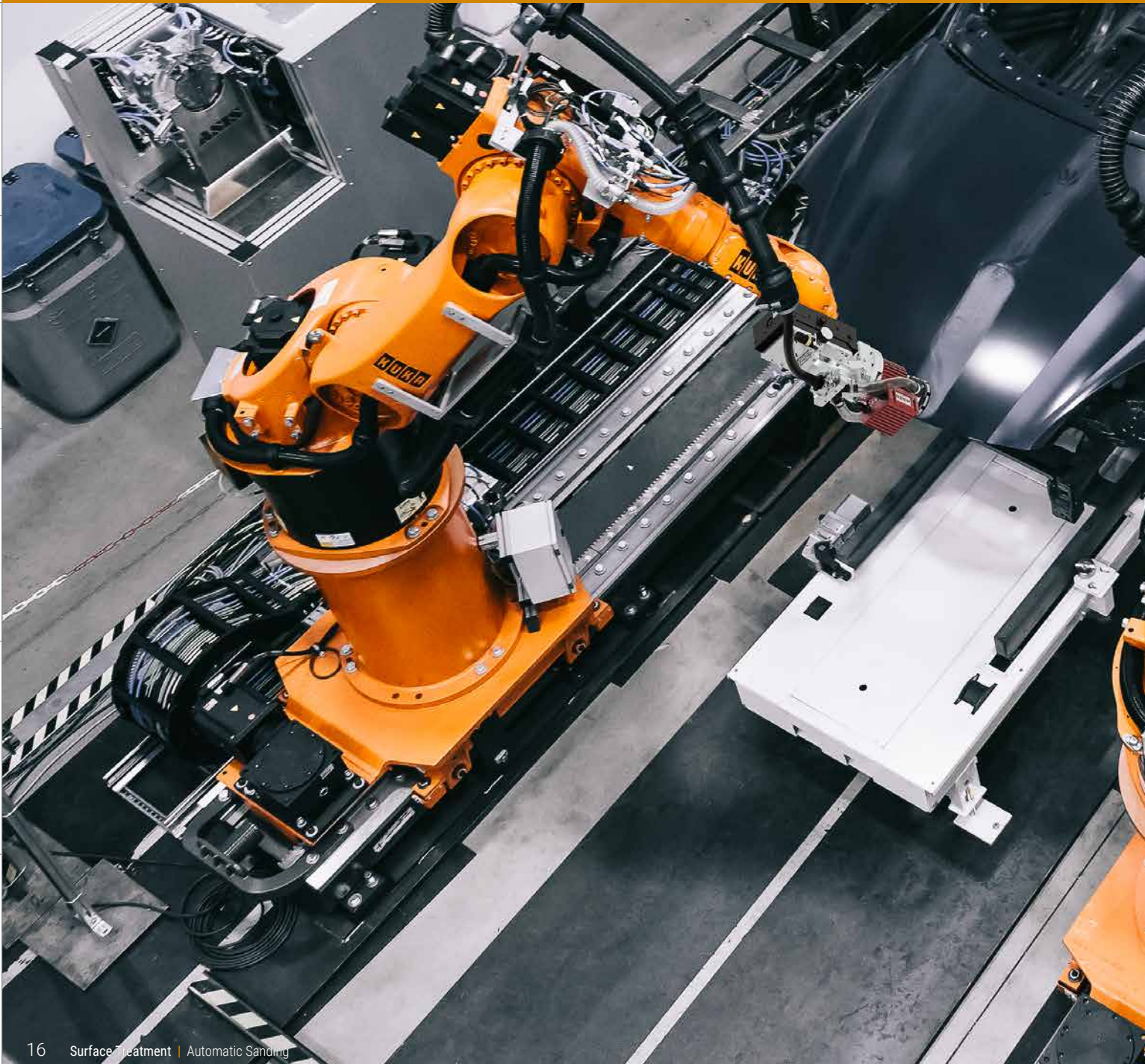
Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software





Automatic Finish



Automatic Sanding



Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

X-Change

Sanding disc changing station

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



X-Change

Dimensions and performance data

Dimensions (L x W x H)	700 mm x 300 mm x 1250 mm
Weight	ca. 60 kg
Control	Touch panel, higher-level control
Change time abrasive	under 15 s
Magazine capacity	approx. 400 pcs. abrasives

Connections

Compressed air connection	6-10 bar
Electrical connection	Profinet, Ethernet I/P

Advantages and functions

- Modular design, use of several magazines possible, mirroring possible
- Abrasive with D150 mm and 75 mm possible, commercially available abrasive can be used
- Process-safe change of the abrasive material
- Filling of the magazine in the running process possible
- Evenly sanded surface structure
- Reproducible sanding result
- Presetting and recording of process data

Fields of operation

Surface treatment in the automotive, plastics or wood-processing industry.

Standard references/approvals

The partly completed machine (in the sense of the EC Machinery Directive 2006/42/EC, Annex II 1.B for partly completed machines) complies with all relevant provisions of the following EC Directives or Regulations:

- 2006/42/EG
- 2014/35/EU
- 2014/30/EU





Fig. 1: X-Change

X-Change

Fig.	No.	Name	Qty.	Order Number
1	/	X-Change abrasive changing station	1	ASIS.01046940-0

Spare parts

Fig.	No.	Name	Qty.	Order Number
2	1	Magazine cplt.	1	ASIS.01046799-0
2	2	L Scraper	1	L ASIS.01010533-B
3	/	Tear-off unit SMWS 3.0	1	ASIS.01046983-0
4	1	Ultrasonic sensor UC4	1	ASIS.01025414-0
4	2	Inductive proximity sensor M12 - 6mm	1	ASIS.01032305-0
5	/	Standard cylinder 500	1	ASIS.01049351-0

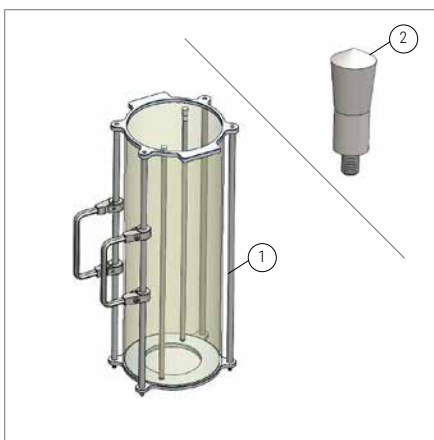


Fig. 2: Magazine cplt. / scraper

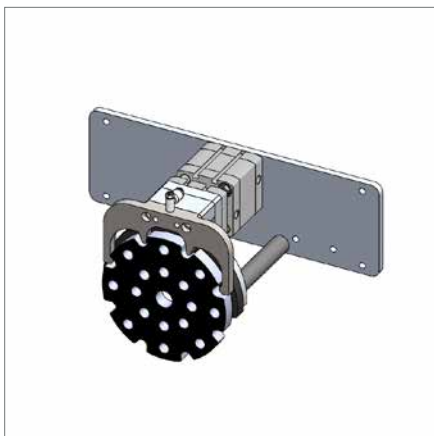


Fig. 3: Tear-off unit

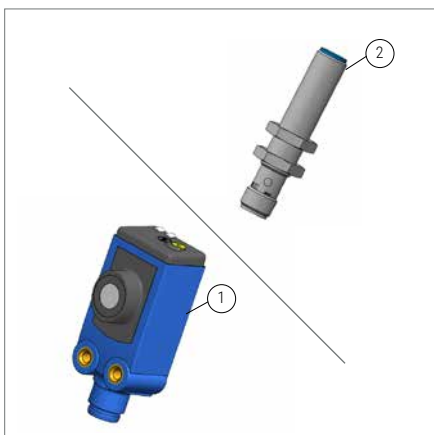


Fig. 4: Sensors

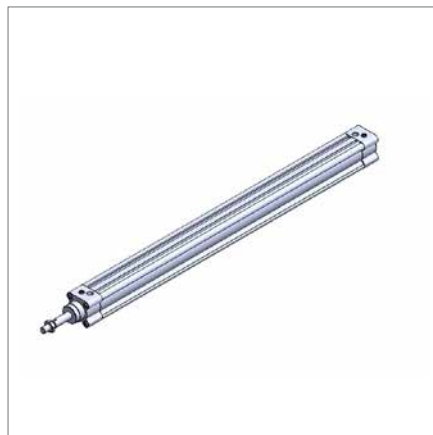


Fig. 5: Standard cylinder

Rob-E-Unit

Electric industrial orbital sander for robot-assisted use in the automated sanding process



Rob-E-Unit

Dimensions and performance data

Size / installation space	200 mm x 200 mm x 200 mm
Weight incl. accessories	7 kg
Drive	Brushless electric motor
Power consumption	500 W
Mains voltage	48 V DC
Speed	1.000 – 10.000 rpm
Sanding disc diameter	125 mm
Sanding stroke	5 mm
Protection class	IP 60
Inner diameter suction hose adapter	25 mm
Max. Pressure (only for Ex-version)	0,3 bar

Connections

Control electronics	Female connector, straight style, integrated strain relief, 3+PE, M 22x2
Communication	Profinet support connection / Harting PushPull
Suction	Y-pipe suction socket with clamp gasket (Clamp) DIN 3266676, receptacle D 50.5

Certifications



Advantages and functions

- Fully automatic or manual change of abrasive material
- Variable speed control
- Preselectable direction of rotation
- Angularly accurate holding position of the sanding plate
- Prepared for adaptation to a robot or a portal axis system
- Robot program creation with an active/compensation flange
- Precise calibration
- Parking function
- Dust extraction
- Teach-Robot Assistant System
- Temperature and power monitoring
- Status display via LEDs
- For 150 or 75 mm sanding discs

Fields of operation

Surface treatment in the automotive, plastics or wood-processing industry.

Standard references/approvals

The partly completed machine (in the sense of the EC Machinery Directive 2006/42/EC, Annex II 1.B for partly completed machines) complies with all relevant provisions of the following EC Directives or Regulations:

- 2014/35/EU
- 2014/30/EU
- 2011/65/EU
- 2006/42/EG

Notes

- To be used preferably with ASIS sanding disc changing station
- Operation without dust extraction not intended

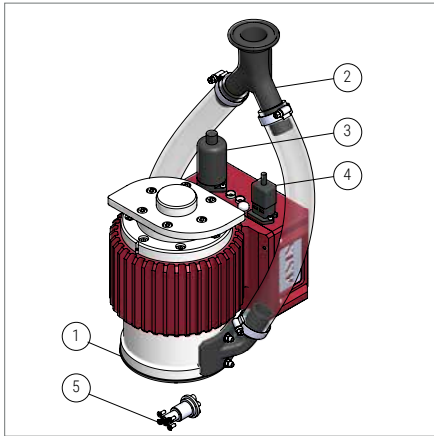


Fig. 1: ASIS E-Unit V 2 M10

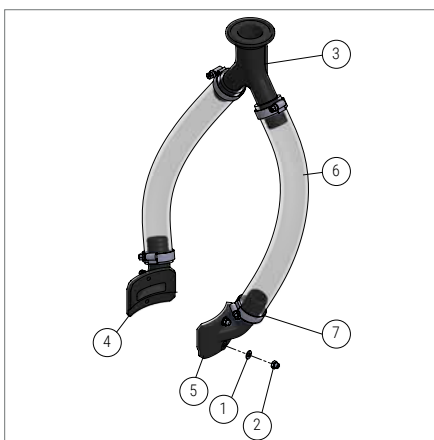


Fig. 2: Suction set

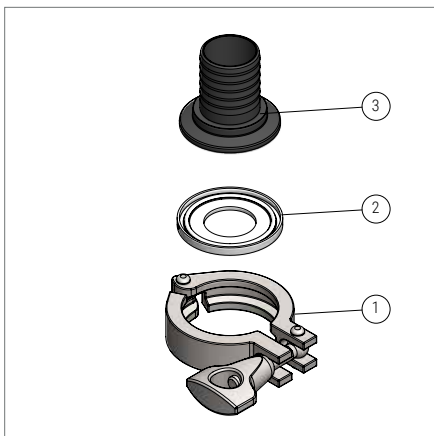


Fig. 3: Suction connection set

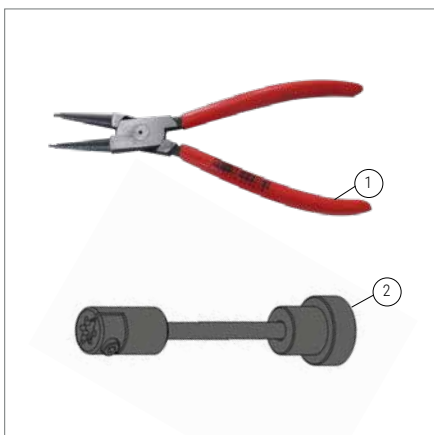


Fig. 4: Tools

Rob-E-Unit

Fig.	No.	Name	Qty.	Order Number
1	1-5	ASIS E-Unit V 2 M10 Profinet	1	ASIS.01033747-0
1	1-5	ASIS E-Unit V 2 M10 Ethernet	1	ASIS.01034021-0

Spare parts

Fig.	No.	Name	Qty.	Order Number
1	1	Brake gasket	1	ASIS.01033739-0
1	3	Connector power supply	1	ASIS.01033740-0
1	4	Plug data connector	1	ASIS.01033741-0
1	5	Disk shaft complete M10, V2	1	ASIS.01033743-0
2	1-7	Suction set	1	ASIS.01033742-0
2	1	L Washer	4	L ASIS.01033734-0
2	2	L Lock nut	4	L ASIS.01033733-0
2	3	L Y-pipe	1	L ASIS.01033732-0
2	4	L Suction socket right	1	L ASIS.01033735-0
2	5	L Suction socket left	1	L ASIS.01033736-0
2	6	L Suction hose D29 x 250 mm (1 m)	1	L ASIS.01033737-0
2	7	L Hose clamp	4	L ASIS.01033738-0

Accessories (optional)

Fig.	No.	Name	Qty.	Order Number
3	1-3	Suction connection set	1	ASIS.01039143-0
3	1	L One-piece clamp D50.5	1	L ASIS.01040538-0
3	2	L Clamp gasket covered DN25 - EPDM	1	L ASIS.01040537-0
3	3	L Clamp hose connector for E-Grinder Di30mm	1	L ASIS.01020637-0

Tools (optional)

Fig.	No.	Name	Qty.	Order Number
4	1	Circlip pliers	1	ASIS.01032739-0
4	2	Disc shaft puller with impact weight	1	ASIS.01032815-0



ASIS Rob-E-Unit on force compliance (contains additional equipment)

Interface Pad Holder

For electric random orbital sander Rob-E-Unit



Interface pad holder 72 mm and 139 mm for Rob-E-Unit

Interface pad holder

Fig.	No.	Name	Qty.	Order Number
1	1-4	Interface pad holder hood 72 mm M10	1	ASIS.01033369-0
2	1-5	Interface pad holder hood 139 mm M10	1	ASIS.01033550-0
3	1-3	Interface pad holder cover 6+0 M10	5	ASIS.01034112-0
4	1-3	Interface pad holder cover 6+1 M10	5	ASIS.01034304-0
5	1-3	Interface pad holder cover 14+1 M10	5	ASIS.01033753-0
6	1-3	Interface pad holder cover 16+1 M10	5	ASIS.01033553-A

Spare parts

Fig.	No.	Name	Qty.	Order Number
7	1-3	Screw set 72 mm M10	1	ASIS.01032577-0
8	1-3	Screw set 139 mm M10	1	ASIS.01033554-0

Tools (optional)

Fig.	No.	Name	Qty.	Order Number
9	1-5	Mounting tool set 72 mm M10	1	ASIS.01032572-0
9	1	L Mountingtool interface pad holder 72 mm	1	L ASIS.01031533-A
9	2	L Torque wrench with ratchet and adjustment scale 50 Nm	1	L ASIS.01032571-0
9	3	L 8740 B HF Zyklop bit socket with holding function, 3/8" drive, 7 x 100 mm	1	L ASIS.01032914-0
9	4	L Torque screwdriver, fixed setting 1,8 Nm	1	L ASIS.01032573-0
9	5	L Precision bit, hexagon, 1/4 inch 2,5 mm	1	L ASIS.01032912-0
10	1-5	Mounting tool set 139 mm M10	1	ASIS.01032575-0
10	1	L Mountingtool interface pad holder 139 mm	1	L ASIS.01030673-A
10	2	L Torque wrench with ratchet and adjustment scale 50 Nm	1	L ASIS.01032571-0
10	3	L Hexagon screwdriver bit 3/8 inch 7 mm	1	L ASIS.01032928-0
10	4	L Torque screwdriver, fixed setting 1,8 Nm	1	L ASIS.01032573-0
10	5	L Precision bit, hexagon, 1/4 inch 2,5 mm	1	L ASIS.01032912-0
11	/	Interface pad press-on tool 72 mm	1	ASIS.01032320-A
12	/	Interface pad press-on tool 139 mm	1	ASIS.01031524-0

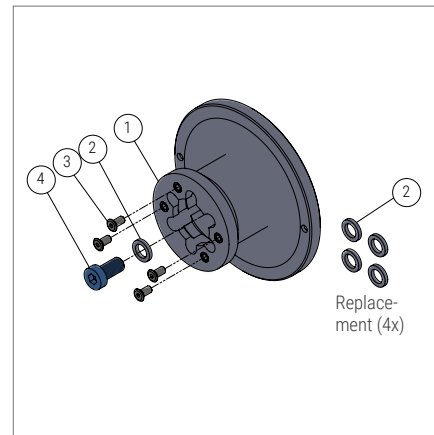


Fig. 1: Interface pad holder hood 72 mm M10

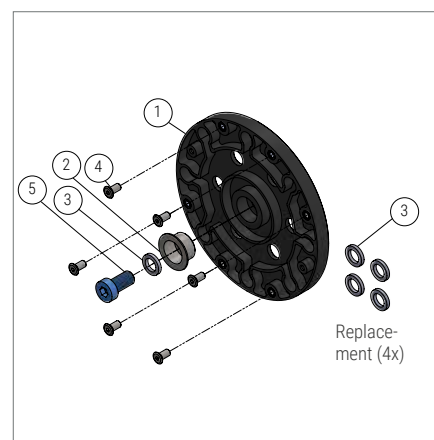


Fig. 2: Interface pad holder hood 139 mm M10

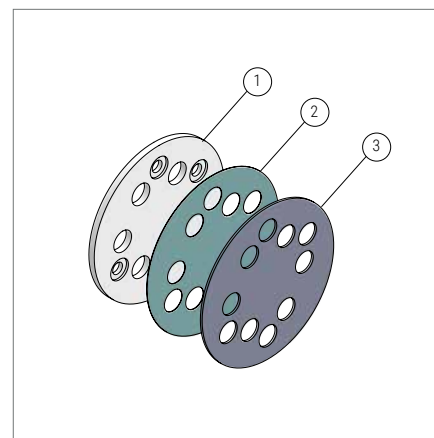


Fig. 3: Interface pad holder cover 6+0 M10

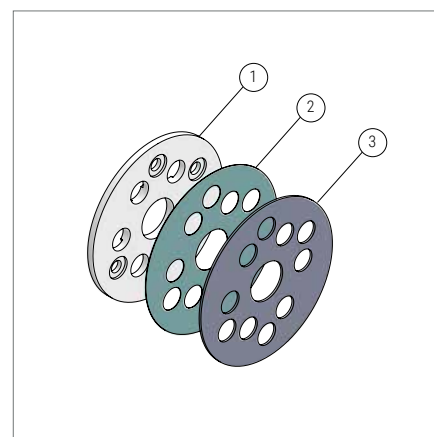


Fig. 4: Interface pad holder cover 6+1 M10

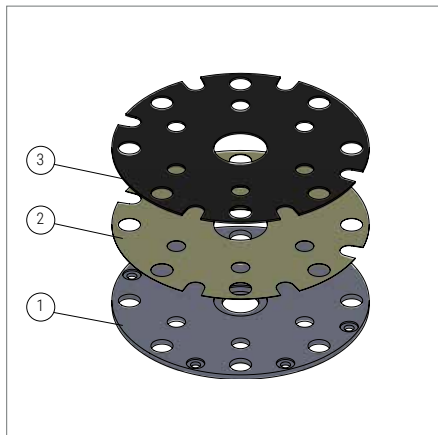


Fig. 5: Interface pad holder cover 14+1 M10



Fig. 9: Mounting tool set 72 mm M10

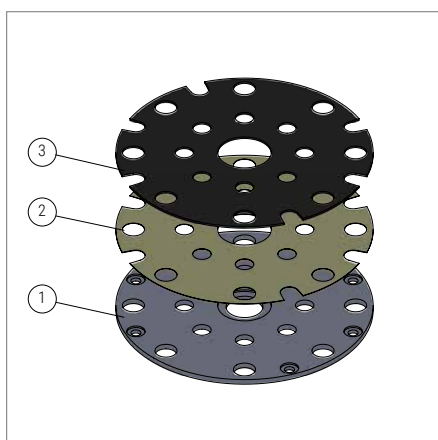


Fig. 6: Interface pad holder cover 16+1 M10



Fig. 10: Mounting tool set 139 mm M10

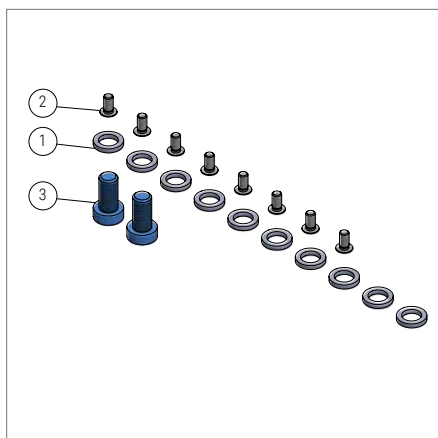


Fig. 7: Screw set 72 mm M10



Fig. 11: Interface pad press-on tool 72 mm

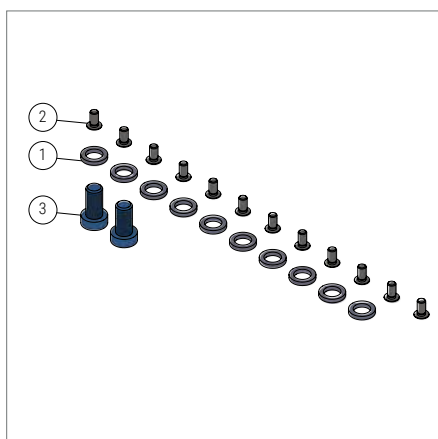


Fig. 8: Screw set 139 mm M10

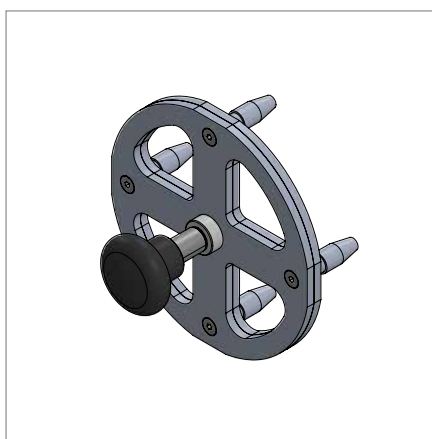


Fig. 12: Interface pad press-on tool 139 mm

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

Robotic Servo Spindles

Electric servo motors for sanding, grinding, polishing and deburring



Fig. 1: PushCorp SM1202

Robotic servo spindles

Fig.	No.	Name	Qty.	Order Number
1	/	PushCorp SM1202	1	on request
2	/	PushCorp STC0605-BT30	1	on request
3	/	PushCorp STC1503-BT30	1	on request
4	/	PushCorp STC0605	1	on request
5	/	PushCorp STC1503	1	on request

SM1202

Power	1,49 kW
Continuous stall torque	2,66 Nm liquid cooled 1,33 Nm air cooled
Speed range	60 – 12.000 rpm
Speed regulation	± 5 % (reversible)
Tool weight	7,2 kg dry
Cooling	Liquid or air cooled (duty cycle dependant)
Required toolholder	Standard ER-20 collet

Ø Orbit	Ø Sanding disc 76 mm	Ø Sanding disc 127 mm	Ø Sanding disc 152 mm
9,5 mm	ASM03520	ASM03523	ASM03526
4,6 mm	ASM03521	ASM03524	ASM03527
2,4 mm	ASM03522	ASM03525	ASM03528

Advantages and functions

- Extremely rugged, powerful and efficient
- Servo technology for constant speed
- Liquid cooled, permanent magnet and brushless technology
- Highest power-to-weight ratio and power efficiency in the industry
- Designed for 100% duty cycle
- Continuously variable speed control and constant maximum torque
- Versatile mounting positions on sensitive compliant tools
- Industry standard BT toolholder or manual collet

Fields of operation

Material removal applications such as robotic grinding, deburring, polishing, milling, drilling or weld clean-up in the general, woodworking or automotive industries.

Service partner

ASIS is official service partner for PushCorp products, more information on page 95.

Certifications





Fig. 2: STC0605-BT30 | STC1503-BT30



Fig. 3: STC0605 | STC1503

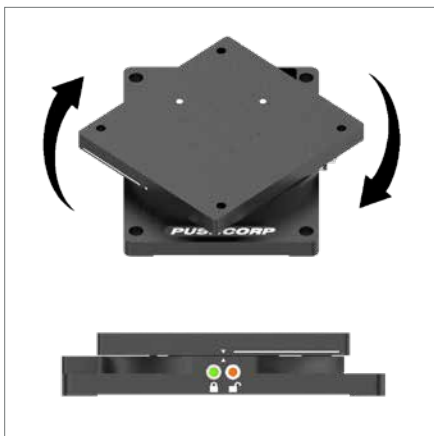


Fig. 4: RI90



Fig. 5: RI90 with servo spindle and force compliance

STC0605-BT30

Power	3,8 kW
Continuous stall torque	7,6 Nm
Speed range	60 – 6.000 rpm
Speed regulation	± 5 % (reversible)
Tool weight	13,6 kg dry
Cooling	Liquid cooled
Required toolholder	BT30
Retention knob	Parlec 3003TRK or equiv.
Clamping supply air	Dry, non-lubricated; 6,2 bar min; 6,9 bar max

STC1503-BT30

Power	2,2 kW
Continuous stall torque	3,5 Nm
Speed range	60 – 15.000 rpm
Speed regulation	± 5 % (reversible)
Tool weight	12,7 kg dry
Cooling	Liquid cooled
Required toolholder	BT30
Retention knob	Parlec 3003TRK or equiv.
Clamping supply air	Dry, non-lubricated; 6,2 bar min; 6,9 bar max

STC0605

Power	3,8 kW
Continuous stall torque	7,6 Nm
Speed range	60 – 6.000 rpm
Speed regulation	± 5 % (reversible)
Tool weight	7,2 kg dry
Cooling	Liquid cooled
Required toolholder	Standard ER-20 collet

STC1503

Power	2,2 kW
Continuous stall torque	3,5 Nm
Speed range	60 – 15.000 rpm
Speed regulation	± 5 % (reversible)
Tool weight	7,2 kg dry
Cooling	Liquid cooled
Required toolholder	Standard ER-20 collet

RI90 Rotary Interface

The RI90 allows both radial and axial forces to be applied with one simple setup. The robot rotates the RI90 by 90 degrees at any time during the machining process.

Range of motion	90 Degrees
Power	24V +/- 10% 1 Amp Max
Tool weight	4.4 lbs (2 kg)

Robotic Force Compliance

Sensitive aktive oder passive Kraftregelung zum Materialabtrag



PushCorp AFD310

Difference between active and passive force compliance

Active force compliance	Passive force compliance
The required contact pressure is set once on the force compliance unit. The unit now regulates it independently in any position.	The required contact pressure is set on the force compliant unit using external compressed air. The pressure is programmed for each position.
For complex, three-dimensional workpieces and maximum precision.	For polygonal or flat workpieces and for simpler applications (e.g. weld shaving).
Feedback control; internal force, acceleration and position sensors	Simpler and low cost
Closed-loop	Open-loop

Advantages and functions

- Force compliance independent of robot arm
- Single or double acting force compliance
- Suitable for double tool mounting
- Easy to use
- Active or passive technology
- Parallel or perpendicular mounting of the tool, tabletop mounting

Active force compliance

- Constant force regardless of orientation
- High precision
- Fast installation
- Automatic acceleration compensation
- Automatic payload weight measurement
- Force can be varied based on slide position

Passive force compliance

- Carriage Position Sensor included
- Integral cartridge air filter
- Low cost
- Simpler construction

Fields of operation

Material removal applications such as robotic grinding, deburring, polishing, milling, drilling or weld clean-up in the general, woodworking or automotive industries.

Service partner

ASIS is official service partner for PushCorp products, more information on page 95.



AFD72 mounting options: parallel, perpendicular, tabletop



Fig. 1: AFD310



Fig. 2: AFD620



Fig. 2: AFD1240



Fig. 4: FCUFlex

Active robotic force compliant tools

Fig.	No.	Name	Qty.	Order Number
1	/	PushCorp AFD310	1	on request
2	/	PushCorp AFD620	1	on request
3	/	PushCorp AFD1240	1	on request
4	/	PushCorp FCUFlex	1	on request

AFD310

Type	Active force compliance
Max. force	267 N
Force resolution	± 1 N
Max. payload weight	27,2 kg
Weight	5,5 kg
Compliant stroke	20 mm
Supply air	Dry, 5 µm filtered, non-lubricated, 5,5 bar

AFD620

Type	Active force compliance
Max. force	511 N
Force resolution	± 2 N
Max. payload weight	52,2 kg
Weight	12,2 kg
Compliant stroke	40 mm
Supply air	Dry, 5 µm filtered, non-lubricated, 5,5 bar

AFD1240

Type	Active force compliance
Max. force	956 N
Force resolution	± 4 N
Max. payload weight	97,5 kg
Weight	20,4 kg
Compliant stroke	36 mm
Supply air	Dry, 5 µm filtered, non-lubricated, 5,5 bar

FCUFlex

Type	Controller for active force compliance
Electrical supply	24 V DC ±10%, max. 2 A
Digital inputs	5-24 V DC, nicht polarisiert
Digital outputs	5-24 V DC, nicht polarisiert
USB	Typ-B
Ethernet	RJ-45
Operating environment	Room temperature 10 - 50 °C, relative humidity 5-95 %
Standard control interfaces	TCP, UDP, HTTP, JSON, 24V digital
Optional control interfaces	DeviceNet, Ethernet/IP, ProfiNet
Enclosure size	70 mm x 350 mm x 182 mm (W x H x D)
Compatible tools	AFD310, AFD620, AFD1240

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



Fig. 1: AFD72



Fig. 2: AFD82



Fig. 2: AFD92

Passive robotic force compliant tools

Fig.	No.	Name	Qty.	Order Number
1	/	PushCorp AFD72	1	on request
2	/	PushCorp AFD82	1	on request
3	/	PushCorp AFD92	1	on request

AFD72

Type	Passive force compliance
Max. force	222 N
Force resolution	± 45,2 N/bar
Max. payload weight	18,2 kg
Weight	5,5 kg
Compliant stroke	20 mm
Supply air	Dry, 5 µm filtered, non-lubricated, 5,5 bar

AFD82

Type	Passive force compliance
Max. force	444 N
Force resolution	± 90,4 N/bar
Max. payload weight	45 kg
Weight	11 kg
Compliant stroke	40 mm
Supply air	Dry, 5 µm filtered, non-lubricated, 5,5 bar

AFD92

Type	Passive force compliance
Max. force	1112 N
Force resolution	± 116 N/bar
Max. payload weight	90 kg
Weight	15 kg
Compliant stroke	36 mm
Supply air	Dry, 5 µm filtered, non-lubricated, 5,5 bar



Parallel mounting



Perpendicular mounting



YASKAWA

PUSHCORP, Inc.
DALLAS, TEXAS

METRIC
ALL POINTS, SYSTEMS
AND THREADS HOLD
400 IN. (10.16)

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

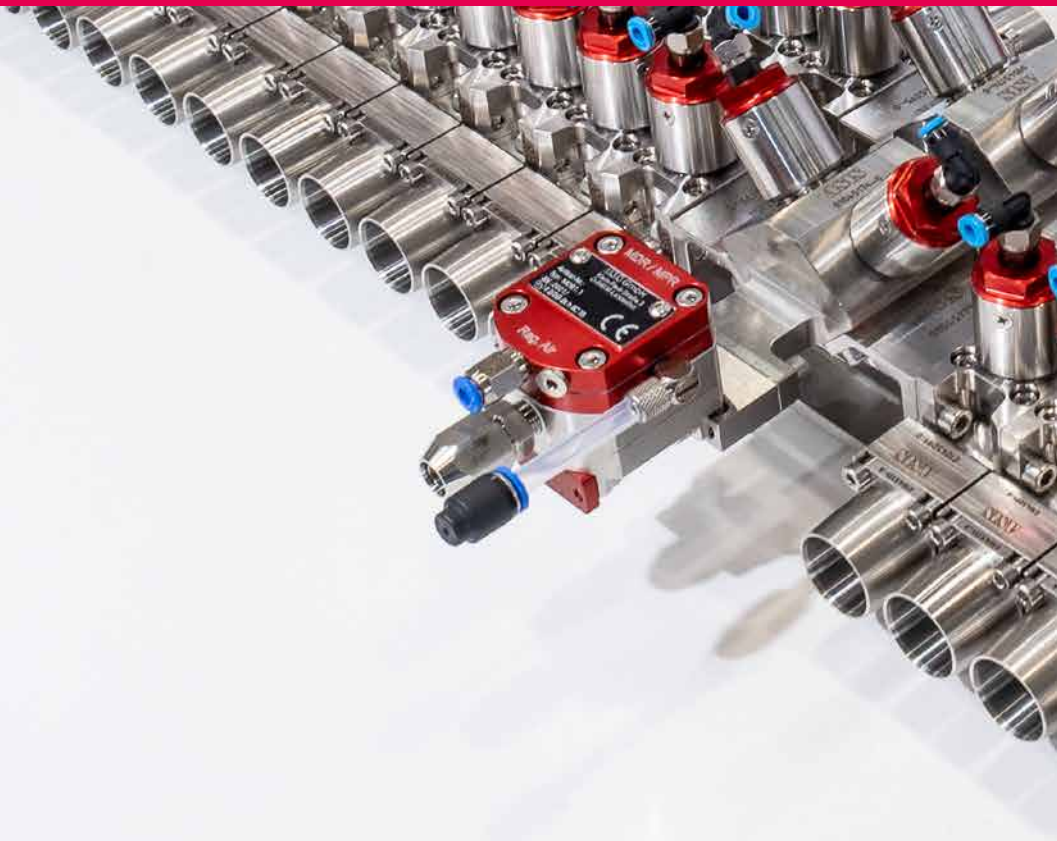
Flaming

Software



Paint Application

Modular coating technology for paints and solvents in top quality



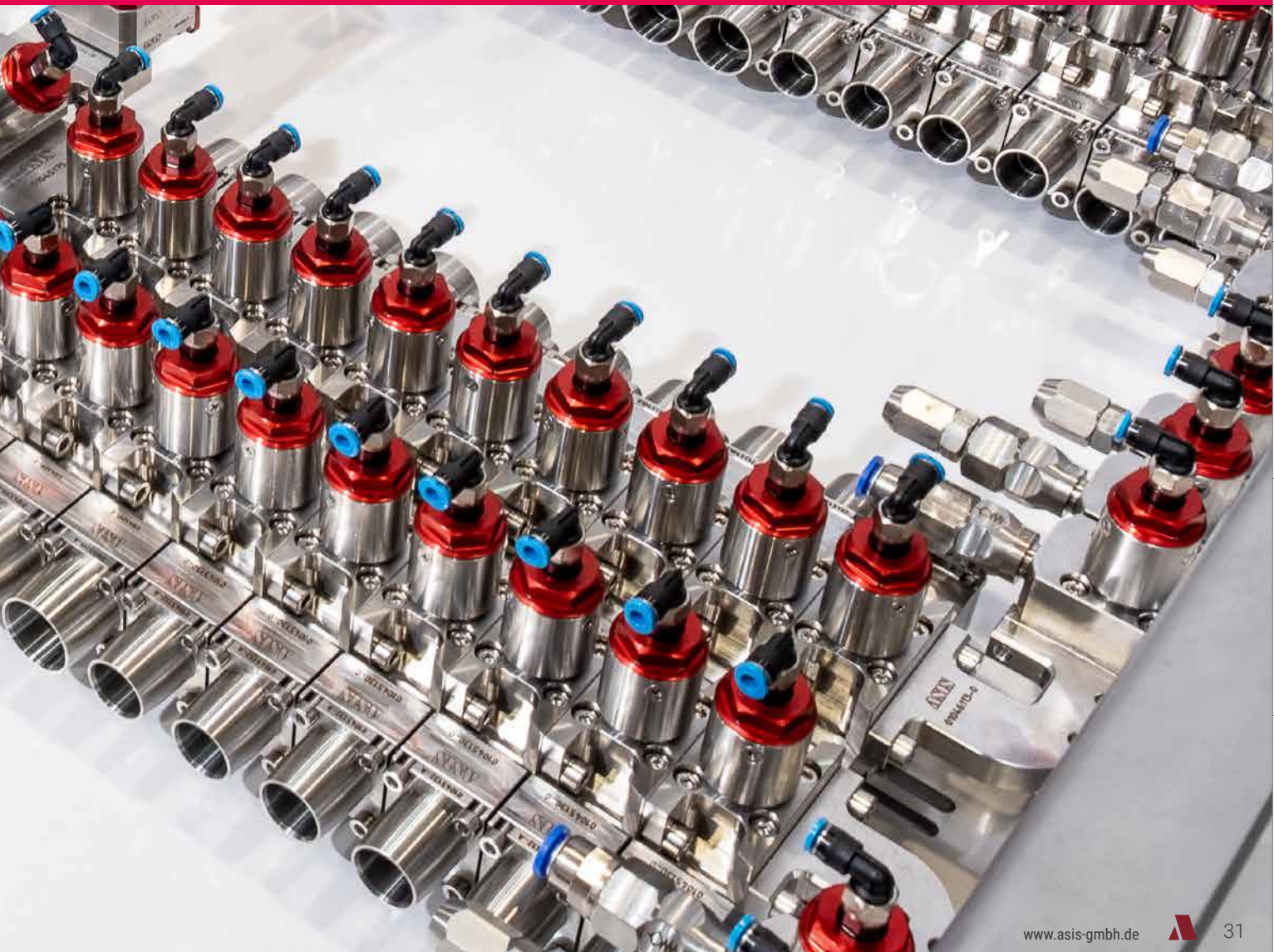


Automatic Finish

Automatic Sanding



Paint Application



Paint Supply

Atomizer Cleaning

Flaming

Software



Needle Valve

Pneumatically actuated 2/2 directional control valve for color application

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



Fig. 1: ASIS Needle valve

Dimensions and performance data

Nominal size	5 mm
Screw-in thread size	M20 x 1
Largest diameter	25 mm
Air connection size	4 mm
Pneumatic minimum operating pressure	5,5 bar
Length over all	73 mm
Tightening torque	5,5 - 6 Nm
Max. media pressure input side	22 bar
Pressure limit output side (color channel side)	22 bar

Connections

Pneum. connection	4 mm
-------------------	------

Certifications



Needle valve

Fig.	No.	Name	Qty.	Order Number
1	/	ASIS Needle valve NW5	1	ASIS.01006012-E

Tools (optional)

Fig.	No.	Name	Qty.	Order Number
2	1	Torque wrench with setting scale	1	ASIS.01042342-0
2	2	Open ring socket	1	ASIS.01042343-0

Advantages and functions

- Very easy to rinse
- Solvent and dishwashing detergent resistant
- Rust-free
- Intercut free
- High media pressures possible from both sides (22 bar)
- Only small installation space required
- No high pressure required for actuation

Fields of operation

Flow supply of paints and solvents in the paint processing industry.

Standard references/approvals

The device is approved for use in hazardous areas in accordance with ATEX Directive 2014/34/EU:

- 2014/34/EU
- EN ISO 80079-36
- EN ISO 80079-37

Notes

Use only possible in combination with ASIS Modular Color Changer or gear pump.



Fig. 2: Tools

Modular Color Changer

Modular components for the flexible setup of painting applications



Modular Color Changer

Advantages and functions

- Very easy to rinse
- Undercut-free structure
- Very large application variety possible due to different alignments
- No special blocks necessary
- Configurations are made with basic components
- Mixer components have same hole patterns as modular components

Fields of operation

Undercut-free supply of media such as paints, solvents, compressed air in the paint processing industry.

Dimensions and performance data

Grid dimension when lining up starting and center plates	32 mm
Outer dimensions of starting and middle plates	32 x 48 x 10 mm
Outer dimensions of line-up blocks	30 x 48 x 10 mm
External dimensions of pig and circular pipeline blocks, single channel	29 x 30 x 81 mm
External dimensions of pig and circular pipeline blocks, double channel	29 x 30 x 149 mm

Connections

Connection hole valve blocks (end and ring)	G1/4
Bore hole direction of color channel (valve and line-up blocks)	NW5
Connection hole pig and circular pipeline blocks	G1/4, G1/2, G3/4, M24x1,5

Tools (optional)

Fig.	No.	Name	Qty.	Order Number
1	1	Mounting tool fittings NW15	1	ASIS.01055872-0
1	2	Mounting tool piggable fittings NW12	1	ASIS.01055710-0
/	/	Allen wrench, hexagonal, 90°- 100° long	1	ASIS.01042344-0
/	/	Allen wrench, hexagonal, with ball clamp	1	ASIS.01042351-0

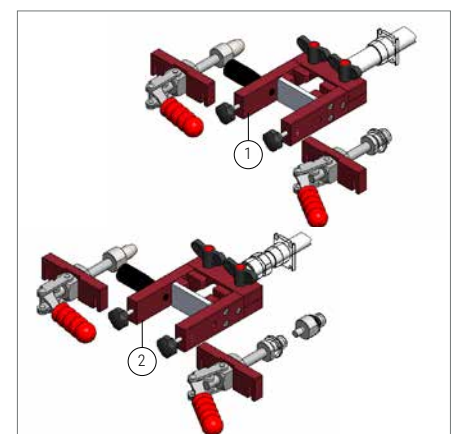


Fig. 1: Mounting tools

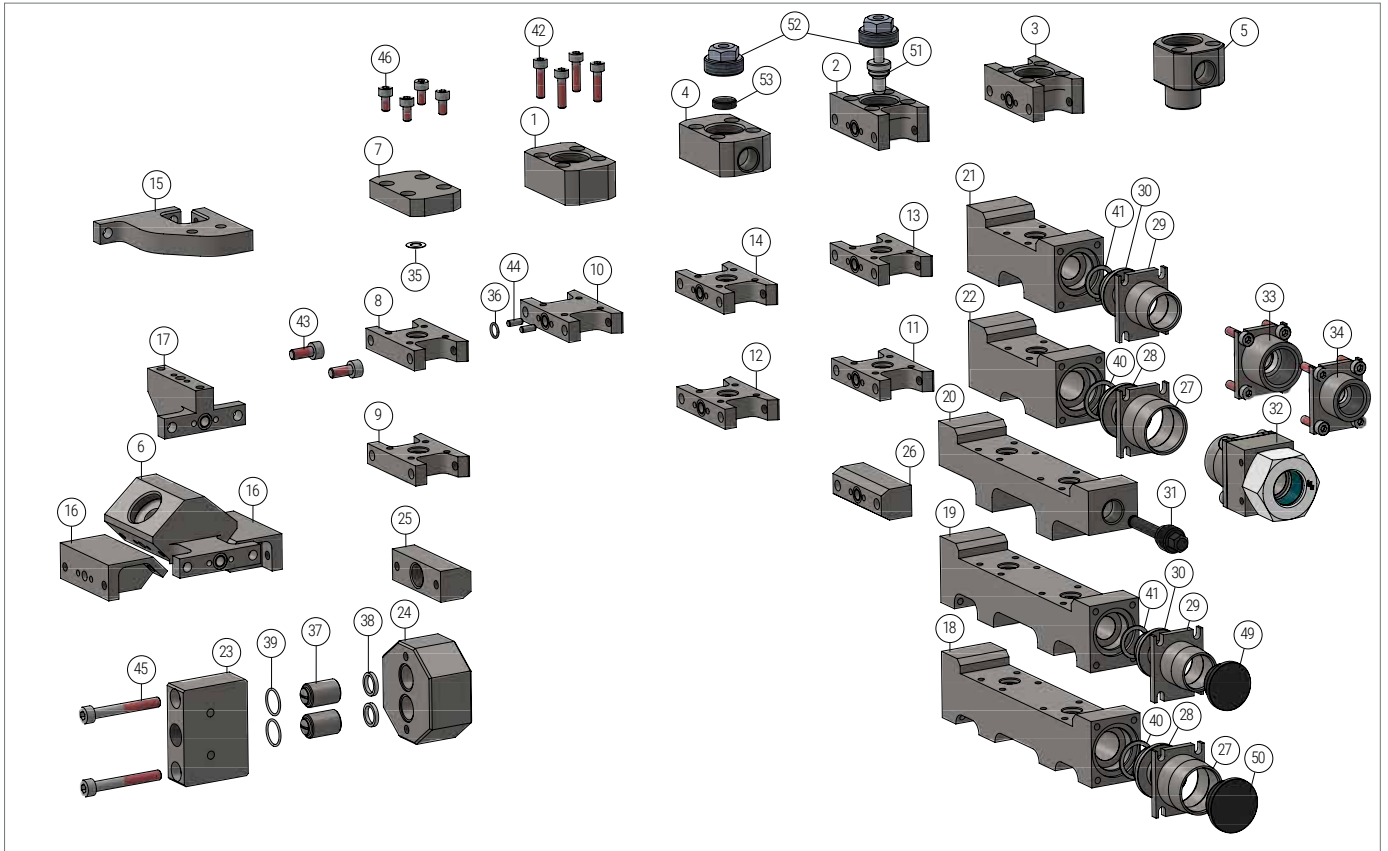


Fig. 1: ASIS Modular Color Changer System

Valve blocks

Fig.	No.	Name	Qty.	Order Number
1	1	Single valve block G1.4c end	1	ASIS.01045030-0
1	2	Valve housing circular pipeline	1	ASIS.01045031-0
1	3	Valve housing end	1	ASIS.01045032-0
1	4	Single valve block G1.4c circulation line	1	ASIS.01045037-0
1	5	Single valve block G1.4c screwable	1	ASIS.01046570-0
1	6	Release block	1	ASIS.01045174-0
1	7	Blank plate	1	ASIS.01045043-0

Line-up blocks

Fig.	No.	Name	Qty.	Order Number
1	8	Threaded plate (single), end piece	1	ASIS.01045027-0
1	9	End piece, (dual)	1	ASIS.01045028-0
1	10	Threaded plate extension	1	ASIS.01045029-0
1	11	Beginner piece, (dual)	1	ASIS.01045033-0
1	12	Center piece, (dual)	1	ASIS.01045034-0
1	13	Beginner piece, (single)	1	ASIS.01045035-0
1	14	Center piece, (single)	1	ASIS.01045036-0
1	15	Angle piece 90° horizontal	1	ASIS.01046113-0
1	16	Elbow 45°	2	ASIS.01045175-0
1	17	Angle piece 90° vertical	1	ASIS.01046124-0



Notes

- The flow of acids and alkalis or corrosive media is not intended.
- Can only be used in combination with ASIS needle valves.

Technical support

Our service team will be happy to support you with your individual configuration (page 95).

Pig & circular pipeline blocks

Fig.	No.	Name	Qty.	Order Number
1	18	Color changer block Ø15 two channels	1	ASIS.01045091-0
1	19	Color changer block Ø12 two channels	1	ASIS.01045130-0
1	20	Color changer block Ø6 two channels	1	ASIS.01045139-A
1	21	Color changer block Ø12 one channel	1	ASIS.01045408-0
1	22	Color changer block Ø15 one channel	1	ASIS.01045396-0

Mixing blocks

Fig.	No.	Name	Qty.	Order Number
1	23	Mixing block, Part 1	1	ASIS.01019953-B
1	24	Mixing block, Part 2	1	ASIS.01019954-B

End plates

Fig.	No.	Name	Qty.	Order Number
1	25	End plate	1	ASIS.01017429-E
1	26	End plate with o-ring groove	1	ASIS.01045045-0

Hose connection options for ring line blocks

Fig.	No.	Name	Qty.	Order Number
1	27	Flange-coupling ring 15x22	2	ASIS.01045111-A
1	28	Hose connector 15x22	2	ASIS.01044931-A
1	29	Flange-coupling ring 12x17	2	ASIS.01045132-A
1	30	Hose connector 12x17, piggable	2	ASIS.01045135-A
1	31	Blind plug G1/4 Ø6	1	ASIS.01021998-A
1	32	Pipe adapter 18L to 15x22	1	ASIS.01047313-0
1	33	Connection kit G1/2f	1	ASIS.01048292-A
1	34	Connection kit G3/8f	1	ASIS.01048291-A

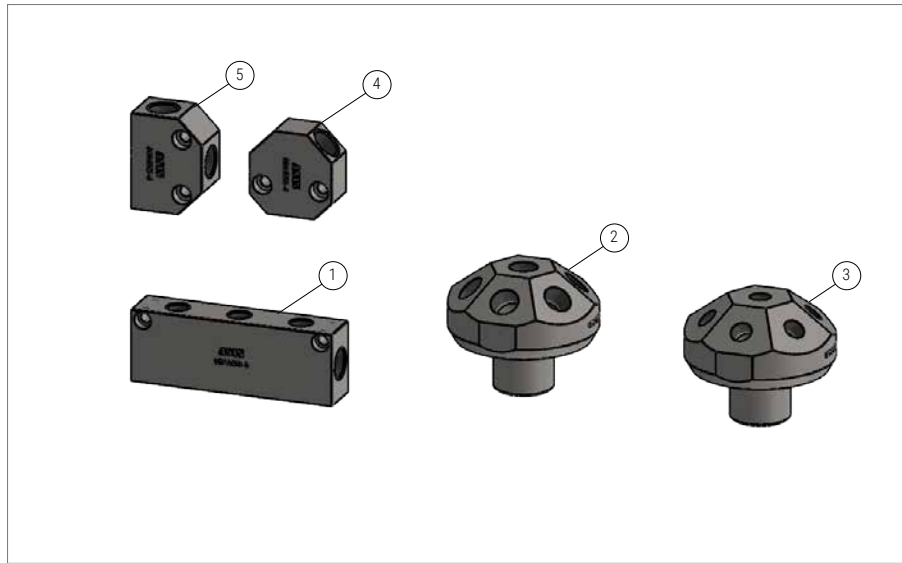
Spare parts/closure parts

Fig.	No.	Name	Qty.	Order Number
1	35	Teflon disc Da10_Di5	1	ASIS.01044158-A
1	36	O-ring 6x1 FEPM	1	ASIS.01018315-0
1	37	Check valve for mixing unit	2	ASIS.01018201-0
1	38	Seal ring NRV- mixer	2	ASIS.01019955-0
1	39	O-ring 12x1 FFKM	2	ASIS.01042753-0
1	40	Seal ring Ø19,9mm	2	ASIS.01045092-0
1	41	Seal ring Ø16,9mm	2	ASIS.01045134-0
1	42	Cylinder screw M4 x 16	4	ASIS.01024790-0
1	43	Cylinder screw M5 x 12	2	ASIS.01024788-0
1	44	Parallel pin 3 x 8	4	ASIS.01032653-0
1	45	Cylinder screw M5 x 40	2	ASIS.01020912-A
1	46	Cylinder screw M4 x 8	2	ASIS.01033014-0
1	49	Blind plug 12x17	1	ASIS.001042351-0
1	50	Blind plug 15x22	1	ASIS.01048542-0
1	51	Blind plug	1	ASIS.01048543-0
1	52	Screw-in plug M20x1.0	1	ASIS.01049222-0
1	53	Sealing disc Ø12 x 3,3	2	ASIS.01049224-0



Distributor Blocks

Distributor blocks for metal sealing fitting system



ASIS distributor blocks

External dimensions

Fig.	No.	Name	External dimensions
1	1	Multiplier 2x G1.4c - 6x G1.8c	85 x 30 x 18 mm
1	2	Distributor 1x G3.8f - 7x G1.4c	Øa: 60, H: 50 mm
1	3	Distributor 1x G1.4c - 7x G1.8c	Øa: 60, H: 50 mm
1	4	Y-fitting 3x G1.4c	35 x 35 x 16 mm
1	6	T-fitting 3x G1.4c	40 x 30 x 20 mm

Distributor blocks

Fig.	No.	Name	Qty.	Order Number
1	1	Multiplier 2x G1.4c - 4x G1.8c	1	ASIS.01001948-A
1	2	Distributor 1x G3.8f - 7x G1.4c	1	ASIS.01042541-0
1	3	Distributor 1x G1.4c - 7x G1.8c	1	ASIS.01042575-0
1	4	Y-fitting 3x G1.4c	1	ASIS.01049354-0
1	6	T-fitting 3x G1.4c	1	ASIS.01049355-0

Advantages and functions

- Very good rinsable distributor blocks
- Compatible with all conical sealing fittings in the painting industry as well as with the ASIS non-return valve
- Compact design
- Wide range of applications due to various options for connection in series (see double nipples ET rotatable on page 68)
- Mounting holes for desk or angle mounting
- Distributors can also be used as dump distributors

Fields of operation

Dead space free material distribution applications, dump collection point for individual lines.

RDR Pressure Regulator for Circular Pipeline

Modular pressure regulator for circular pipeline with pre-pressure function



ASIS pressure regulator RDR with manual top part

Dimensions and performance data

Top part type	Manual/spring operated			Pneumatic 1/3
Size/installation space without connection fittings	ØA: 80mm, H: 136mm			ØA: 110mm, H: 75mm
Weight top part	550g			600g
Input pressure (approx.)	8 bar	16 bar	20 bar	up to 24 bar
Output pressure (approx.)	0-4 bar	1-10 bar	1-16 bar	1-18 bar
Operating pressure air (approx.)	-			0-6 bar
Temperature range	10°C to 40°C			
Wetted parts air	Aluminum / anodized aluminum, nickel-plated brass, PTFE, POM			
Wetted parts media	Stainless steel, FFKM, ceramic, PEEK			
Ball sizes	Ø 6 / Ø 8			
Available seal kits	Ceramic, plastic			

Material connections and connection direction selectable/configurable

Material input G3.8f	side, bottom
Material output G3.8f	side

Other connections

Control air	G1/8" (thread length: 6mm) - 6x4
Material lock	M5 (thread length: 5mm) - 6x4

Advantages and functions

- Sustainable design structure (same top and bottom part for all RDR and RKR variations)
- Compact design for manual/spring-actuated and pneumatic variations
- Compatible with all conical sealing fittings in the painting industry
- Chemical resistant ceramic sealing seat available (safe use with high solid paints)
- Compatible with cutting ring fittings, Eco-Tube fittings of thread size G3.8f and G1.2f
- Flexible installation options due to selectable material flow direction (side inlet, bottom inlet)
- Variable accessory mounting options (pressure gauge connection, pressure sensor)
- Adaptation possibilities at materia input and materia output of G3.8f to G1.4c, G3.8c, G1.2f
- Leakage connection as optical control in case of malfunction
- Rinsable pressure gauge can be installed after the regulator

Specifications

- Diaphragm pressure regulator / inlet pressure regulator
- Suitable for use in EX areas
- Manual/spring operated or pneumatic 1:3
- Pneumatic metering for installation in material flow lines e.g. circular pipelines
- Two seal sets selectable (Ceramic, plastic)
- Depending on the type of system, the most suitable seal set can be selected for the desired function
- Selectable ball size (Ø 6 / Ø 8) depending on flow rate

Fields of operation

Paint systems, e.g. in the automotive industry, dispensing and material supply systems.

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

Model code

		RDR	-	M10	-	KS	8	-	A
Option	Code								
Top part									
Top part pneumatic	1/3								
Top part manual	M								
↳ Control pressure 4 bar	↳ 4								
↳ Control pressure 10 bar	↳ 10								
↳ Control pressure 16 bar	↳ 16								
Sealing kits									
Ceramic seal	KR								
Plastic seal	KS								
Ball Ø 6 mm	6								
Ball Ø 8 mm	8								
Input									
Input bottom	A								
Input side	B								

RDR Pressure regulator for circular pipeline

Fig.	No.	Name	Qty.	Order Number
/	/	Pressure regulator for circulating line RDR-M4-KS8-A	1	on request
/	/	Pressure regulator for circulating line RDR-M4-KS8-B	1	on request
/	/	Pressure regulator for circulating line RDR-M4-KR8-A	1	on request
/	/	Pressure regulator for circulating line RDR-M4-KR8-B	1	on request
/	/	Pressure regulator for circulating line RDR-M10-KS8-A	1	ASIS.01046165-0
/	/	Pressure regulator for circulating line RDR-M10-KS8-B	1	ASIS.01049000-0
/	/	Pressure regulator for circulating line RDR-M10-KR8-A	1	ASIS.01050255-0
/	/	Pressure regulator for circulating line RDR-M10-KR8-B	1	ASIS.01050257-0
/	/	Pressure regulator for circulating line RDR-M16-KS8-A	1	on request
/	/	Pressure regulator for circulating line RDR-M16-KS8-B	1	on request
/	/	Pressure regulator for circulating line RDR-M16-KR8-A	1	on request
/	/	Pressure regulator for circulating line RDR-M16-KR8-B	1	on request
/	/	Pressure regulator for circulating line RDR-1/3-KS8-B	1	on request
/	/	Pressure regulator for circulating line RDR-1/3-KS8-A	1	on request
/	/	Pressure regulator for circulating line RDR-1/3-KR8-B	1	on request
/	/	Pressure regulator for circulating line RDR-1/3-KR8-A	1	on request
/	/	Pressure regulator for circulating line RDR-1/3-KS8-B	1	ASIS.01049169-0
/	/	Pressure regulator for circulating line RDR-1/3-KS8-A	1	ASIS.01049170-0
/	/	Pressure regulator for circulating line RDR-1/3-KR8-B	1	ASIS.01056528-0
/	/	Pressure regulator for circulating line RDR-1/3-KR8-A	1	ASIS.01056530-0



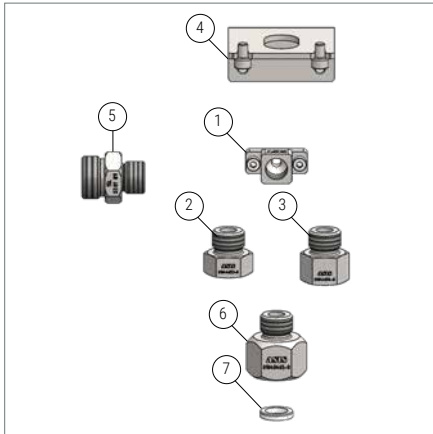


Fig. 1: Accessories RDR/RKR bottom part



Fig. 2: Accessories RDR/RKR top part

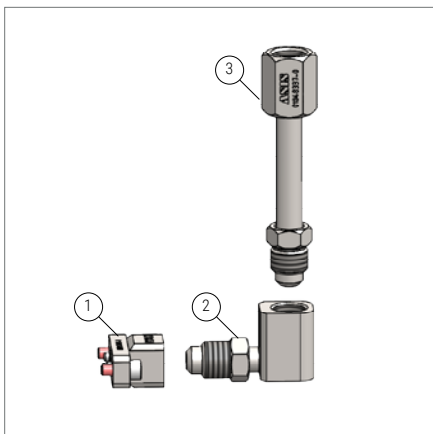


Fig. 3: Accessories package pressure gauge

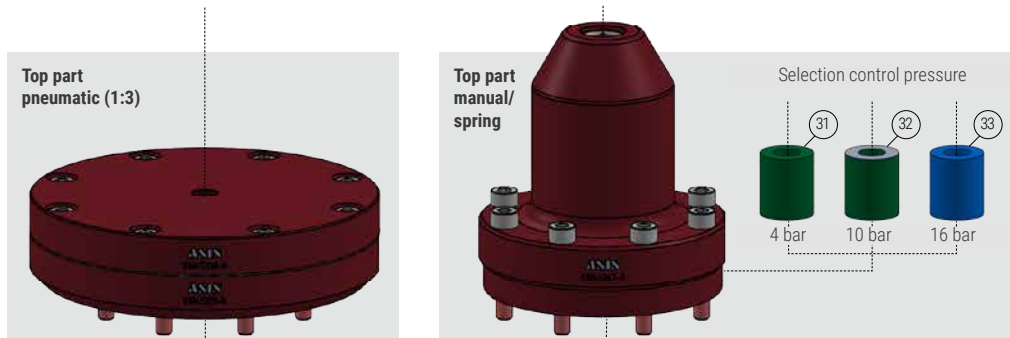
Spare parts

Fig.	No.	Name	Qty.	Order Number
/	/	Spare parts pack RDR-M4-KR8-A	1	on request
/	/	Spare parts pack RDR-M4-KR8-B	1	on request
/	/	Spare parts pack RDR-M4-KS8-A	1	on request
/	/	Spare parts pack RDR-M4-KS8-B	1	on request
/	/	Spare parts pack RDR-M10-KR8-A	1	ASIS.01056129-*
/	/	Spare parts pack RDR-M10-KR8-B	1	ASIS.01056140-*
/	/	Spare parts pack RDR-M10-KS8-A	1	ASIS.01056134-*
/	/	Spare parts pack RDR-M10-KS8-B	1	ASIS.01056137-*
/	/	Spare parts pack RDR-M16-KR8-A	1	on request
/	/	Spare parts pack RDR-M16-KR8-B	1	on request
/	/	Spare parts pack RDR-M16-KS8-A	1	on request
/	/	Spare parts pack RDR-M16-KS8-B	1	on request
/	/	Spare parts pack RDR-1/3-KR6-A	1	on request
/	/	Spare parts pack RDR-1/3-KR6-B	1	on request
/	/	Spare parts pack RDR-1/3-KS6-A	1	on request
/	/	Spare parts pack RDR-1/3-KS6-B	1	on request
/	/	Spare parts pack RDR-1/3-KR8-A	1	ASIS.01056155-*
/	/	Spare parts pack RDR-1/3-KR8-B	1	ASIS.01056148-*
/	/	Spare parts pack RDR-1/3-KS8-A	1	ASIS.01056152-*
/	/	Spare parts pack RDR-1/3-KS8-B	1	ASIS.01056143-*

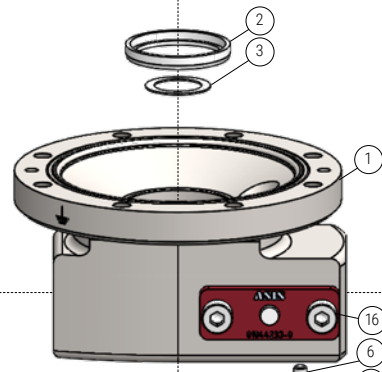
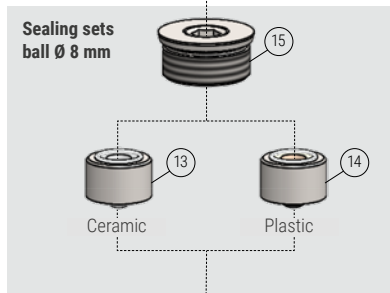
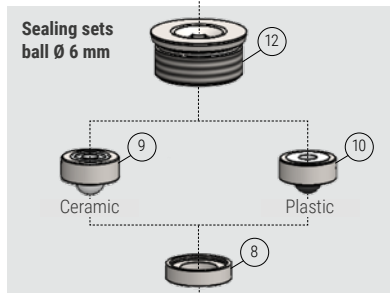
RDR/RKR accessories

Fig.	No.	Name	Qty.	Order Number
1	1	Connection kit RDR/RKR G1/4c	1	ASIS.01044714-0
1	2	Adapter G3.8f - G1.4c	1	ASIS.01044653-0
1	3	Adapter G3.8f - G3.8c	1	ASIS.01044654-0
1	4	Bracket RDR/RKR	1	ASIS.01044907-0
1	5	Straight fitting G3.8f - 15L (Ø19mm)	1	ASIS.01047693-0
1	6	Adapter G3/8f - G1/2f	1	ASIS.01048465-0
1	7	Sealing disc Ø12 x Ø17 x 3	1	ASIS.01047060-0
2	1	Key AF6 - AF12	1	ASIS.01046098-0
2	2	Leakage controll kit 90-M5-6	1	ASIS.01055466-0
2	3	Angle fitting G1.8-6	1	ASIS.01049956-0
3	/	Accessory package pressure gauge	1	on request
3	1	L Connection kit RDR/RKR G1/4c	1	L ASIS.01044714-0
3	2	L 90° angle fitting G1.4c OT - G1.4c IT	1	L ASIS.01045234-A
3	3	L Riser pipe G1/4c x 85, rotatable	1	L ASIS.01048337-0

Top part



Seal set



Input

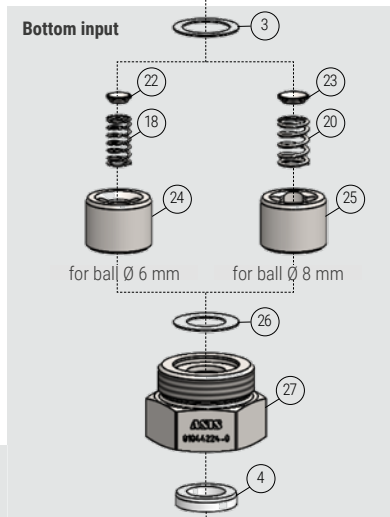
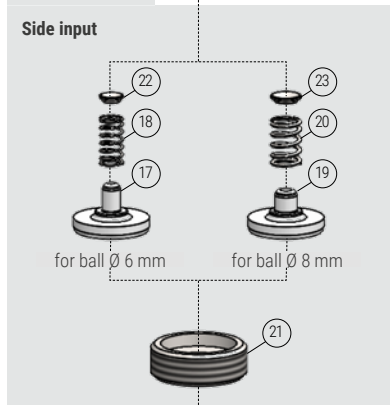


Fig. 1: RDR pressure regulator for circular pipeline with configuration possibilities

Basic components

Fig.	No.	Name	Qty.	Order Number
1	1	Regulator bottom part	1	ASIS.01043581-0
1	2	Seal ring Ø24	1	ASIS.01044188-0
1	3	Sealing foil Ø11 x Ø15 x 0,4	2	ASIS.01044256-0
1	4	Sealing disc Ø9 x Ø14 x 3	3	ASIS.01044227-0
1	5	Plate flow direction	1	ASIS.01044340-0
1	6	Flat headed srew M3 x 4	2	ASIS.01037736-0
1	7	Membrane colour side Ø75 x 0,8	1	ASIS.01045367-0
1	16	Blind plate RDR/RKR	2	ASIS.01044351-0
1	34	adjustment screw Ø1,6	1	ASIS.01046154-0
1	35	adjustment screw Ø2,4	1	ASIS.01045955-0

Top part

Fig.	No.	Name	Qty.	Order Number
1	31	Pressure spring light green	1	ASIS.01045294-0
1	32	Compression spring green	1	ASIS.01048962-0
1	33	Pressure spring blue	1	ASIS.01045918-0

Seal set

Fig.	No.	Name	Qty.	Order Number
1	8	Distance ring seal kit ball-Ø 6	1	ASIS.01044319-0
1	9	Ceramic seal kit ball-Ø 8	1	ASIS.01032907-A
1	10	Plastic seal kit ball-Ø 8	1	ASIS.01036503-B
1	12	Retaining screw seal kit ball-Ø 6	1	ASIS.01044277-0
1	13	Ceramic seal kit ball-Ø 8	1	ASIS.01044384-0
1	14	Plastic seal kit ball-Ø 8	1	ASIS.01044395-0
1	15	Retaining screw seal kit ball-Ø 8	1	ASIS.01044276-0

Input

Fig.	No.	Name	Qty.	Order Number
1	3	Seal ring Ø24	2	ASIS.01044256-0
1	4	Sealing foil Ø11 x Ø15 x 0,4	3	ASIS.01044227-0
1	14	Plastic seal kit ball-Ø 8	1	ASIS.01044395-0
1	15	Retaining screw seal kit ball-Ø 8	1	ASIS.01044276-0
1	17	Spring seat mandrel-Ø 4,1	1	ASIS.01044254-0
1	18	Pressure spring	2	ASIS.01032850-0
1	19	Spring seat mandrel-Ø 5,1	1	ASIS.01044252-0
1	20	Compression spring	2	ASIS.01045060-0
1	21	Closing screw M22x1 x 7,5	1	ASIS.01044237-0
1	22	Ball plate for ball Ø6	2	ASIS.01045251-0
1	23	Ball plate for ball Ø8	2	ASIS.01045055-0
1	24	Spring sleeve Ø5,7	1	ASIS.01044260-A
1	25	Spring sleeve Ø7.4	1	ASIS.01045068-A
1	26	Sealing foil Ø9 x Ø15 x 0,4	1	ASIS.01044255-0
1	27	Adapter M22x1 - G3.8f	1	ASIS.01044224-0
1	28	Closing screw G3/8	1	ASIS.01044786-0

Technical support

Our service team will be happy to support you with your individual configuration (page 95).

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RKR Runback Regulator

Modular runback regulator with back pressure function



ASIS runback regulator with pneumatic top part

Dimensions and performance data

Top part type	Manual/spring operated		Pneumatic 1/3
Size/installation space without connection fittings	ØA: 80mm, H: 136mm		ØA: 110mm, H: 75mm
Weight top part	550g		600g
Input pressure (approx.)	16 bar	20 bar	bis 24 bar
Dynamic pressure (approx.)	1-10 bar	1-16 bar	bis 20 bar
Operating pressure air (approx.)	-		0-8 bar
Temperature range	10°C to 40°C		
Wetted parts air	Aluminum / anodized aluminum, nickel-plated brass, PTFE, POM		
Wetted parts media	Stainless steel, FFKM, ceramic, PEEK		
Ball sizes	Ø 10		
Available seal kits	Ceramic		

Material connections and connection direction selectable/configurable

Material input G3.8f	side
Material output G3.8f	side, bottom

Other connections

Control air	G1/8" (thread length: 6mm) - 6x4
Material lock	M5 (thread length: 5mm) - 6x4

Advantages and functions

- Sustainable design structure (same top and bottom part for all RDR and RKR variations)
- Compact design for manual/spring-actuated and pneumatic variations
- Compatible with all conical sealing fittings in the painting industry
- Chemical resistant ceramic sealing seat available (safe use with high solid paints)
- Compatible with cutting ring fittings, Eco-Tube fittings of thread size G3.8f and G1.2f
- Flexible installation options due to selectable material flow direction (side inlet, bottom inlet)
- Variable accessory mounting options (pressure gauge connection, pressure sensor)
- Adaptation possibilities at materia input and materia output of G3.8f to G1.4c, G3.8c, G1.2f
- Leakage connection as optical control in case of malfunction
- Rinsable pressure gauge can be installed before the regulator

Specifications

- Runback regulator/return flow control regulator/back pressure regulator
- Suitable for use in EX areas
- Manual/spring operated or pneumatic 1:3
- Pneumatic metering for installation in material flow lines e.g. return line or short circulation lines
- Highly rinsable, chemical resistant ceramic seal set with a 10 mm ball

Fields of operation

Paint systems, e.g. in the automotive industry, dispensing and material supply systems.

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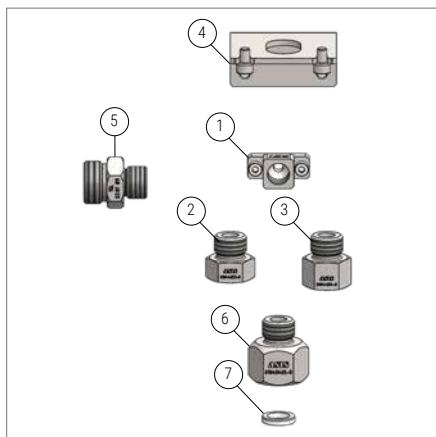


Fig. 1: Accessories RDR/RKR bottom part



Fig. 2: Accessories RDR/RKR top part

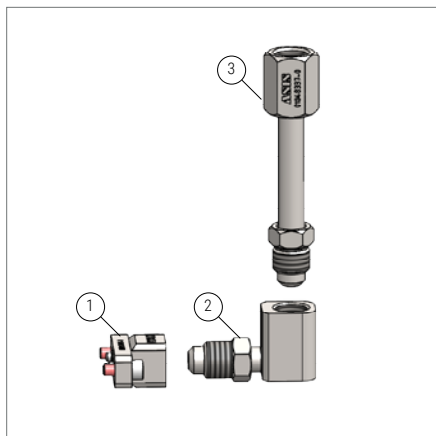


Fig. 3: Accessories package pressure gauge

Model code

Option	Code	RKR - 1/3 - A	
Top part			
Top part pneumatic	1/3		
Top part manual	M		
└ Control pressure 10 bar	└ 10		
└ Control pressure 16 bar	└ 16		
Output			
Output bottom	A		
Output side	B		

RKR runback regulator

Fig.	No.	Name	Qty.	Order Number
/	/	Runback regulator RKR-1/3-B	1	ASIS.01046166-0
/	/	Runback regulator RKR-1/3-A	1	ASIS.01050243-0
/	/	Runback regulator RKR-10-B	1	ASIS.01051756-0
/	/	Runback regulator RKR-10-A	1	on request

Spare parts

Fig.	No.	Name	Qty.	Order Number
/	/	Spare parts pack RKR-1/3-B	1	ASIS.01056531-0
/	/	Spare parts pack RKR-1/3-A	1	ASIS.01056532-0
/	/	Spare parts pack RKR-M10-B	1	ASIS.01056458-0
/	/	Spare parts pack RKR-M10-A	1	on request

RDR/RKR accessories

Fig.	No.	Name	Qty.	Order Number
1	1	Connection kit RDR/RKR G1/4c	1	ASIS.01044714-0
1	2	Adapter G3.8f - G1.4c	1	ASIS.01044653-0
1	3	Adapter G3.8f - G3.8c	1	ASIS.01044654-0
1	4	Bracket RDR/RKR	1	ASIS.01044907-0
1	5	Straight fitting G3.8f -15L (Øi9mm)	1	ASIS.01047693-0
1	6	Adapter G3/8f - G1/2f	1	ASIS.01048465-0
1	7	Sealing disc Ø12 x Ø17 x 3	1	ASIS.01047060-0
2	1	Key AF6 - AF12	1	ASIS.01046098-0
2	2	Leakage control kit 90-M5-6	1	ASIS.01055466-0
2	3	Angle fitting G1.8-6	1	ASIS.01049956-0
3	/	Accessory package pressure gauge	1	on request
3	1	└ Connection kit RDR/RKR G1/4c	1	└ ASIS.01044714-0
3	2	└ 90° angle fitting G1.4c OT - G1.4c IT	1	└ ASIS.01045234-A
3	3	└ Riser pipe G1/4c x 85, rotatable	1	└ ASIS.01048337-0

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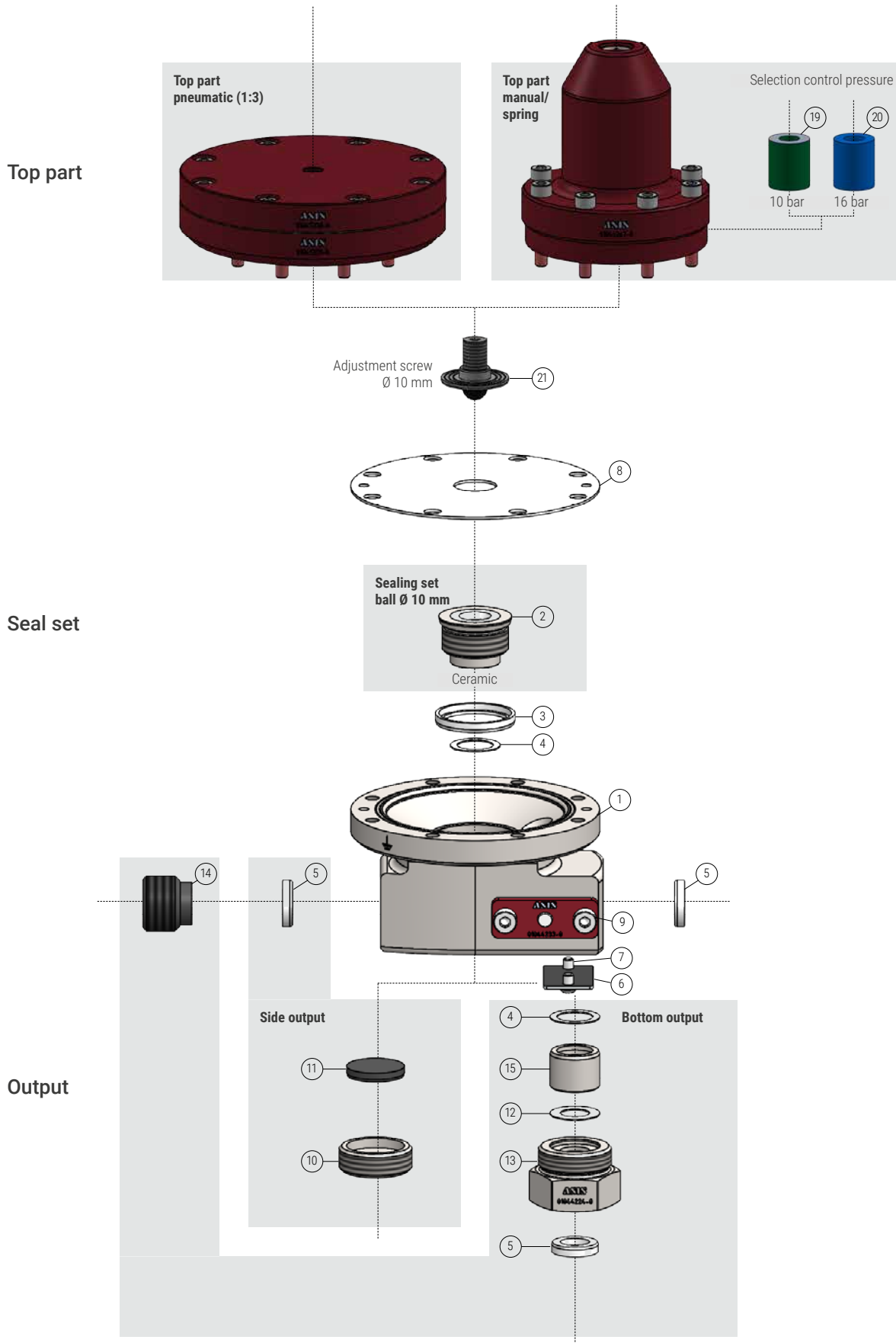


Fig. 1: ASIS RKR runback regulator with configuration options

Basic components

Fig.	No.	Name	Qty.	Order Number
1	1	Regulator bottom part	1	ASIS.01043581-0
1	2	Sealing seat cplt.	1	ASIS.01044356-0
1	3	Seal ring Ø24	1	ASIS.01044188-0
1	4	Sealing foil Ø11 x Ø15 x 0,4	2	ASIS.01044256-0
1	5	Sealing disc Ø9 x Ø14 x 3	3	ASIS.01044227-0
1	6	Plate flow direction	1	ASIS.01044340-0
1	7	Flat headed screw M3 x 4	2	ASIS.01037736-0
1	8	Membrane colour side Ø75 x 0,8	1	ASIS.01045367-0
1	9	Blind plate RDR/RKR	2	ASIS.01044351-0
1	21	Adjustment screw cplt.	1	ASIS.01045328-0

Top part

Fig.	No.	Name	Qty.	Order Number
1	18	Pressure spring light green	1	ASIS.01045294-0
1	19	Compression spring green	1	ASIS.01048962-0
1	20	Pressure spring blue	1	ASIS.01045918-0

Seal set

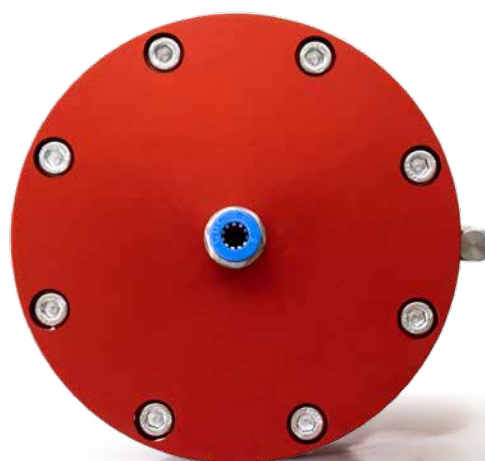
Fig.	No.	Name	Qty.	Order Number
1	2	Sealing seat cplt.	1	ASIS.01044356-0

Output

Fig.	No.	Name	Qty.	Order Number
1	4	Sealing foil Ø11 x Ø15 x 0,4	2	ASIS.01044256-0
1	5	Sealing disc Ø9 x Ø14 x 3	3	ASIS.01044227-0
1	10	Closing screw M22x1 x 7,5	1	ASIS.01044237-0
1	11	Sealing disc Ø17,5 x 3	1	ASIS.01044240-0
1	12	Sealing foil Ø9 x Ø15 x 0,4	1	ASIS.01044255-0
1	13	Adapter M22x1 - G3.8f	1	ASIS.01044224-0
1	14	Closing screw G3/8	1	ASIS.01044786-0
1	15	Insert Ø9	1	ASIS.01044198-0

Technical support

Our service team will be happy to support you with your individual configuration (page 95).



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MPR Material Pressure Regulator

Modular pneumatic diaphragm pressure regulator 1:1



ASIS material pressure regulator with connection kits

Dimensions and performance data

Size / installation space (without connection kits)	16 mm x 41 mm x 47 mm
Weight basic module MPR1.1	370 g
Weight of MPR DA connection kit	50 g
Weight of MPR G1.8 connection kit	60 g
Weight of MPR G1.4 connection kit	60 g
Weight blind plate	10 g
Input pressure	up to 15 bar
Operating pressure air	0 - 7 bar
Operating pressure media outlet	0,5 - 7 bar
Temperature range	10 - 40 °C
Wetted parts air	Aluminum / Anodized aluminum, Brass nickel plated, PTFE
Wetted parts media	Stainless steel, FFKM, ceramic, PEEK

Seals selectable/configurable

MPR-1/1-KR	Ceramic seal
MPR-1/1-KS	Plastic seal

Connection kits selectable/configurable

MPR DA connection kit	Direct attachment to ASIS color change technology
MPR G1.8.c connection kit	Material inlet G1/8" conical sealing
MPR G1.4.c connection kit	Material inlet G1/4" conical sealing
Blind plate (BP)	Material feed with end line to material pressure regulator

Connections

Material outlet	G1/8" conical sealing
Control air	M5 (thread length: 5mm) - 6x4
Material lock	M5 (thread length: 5mm) - 6x4

Advantages and functions

- Selectable between two different seal sets (ceramic, plastic seal)
- Depending on the type of plant, the optimum seal set can be selected, the basic body always remains identical
- Variation variety due to selectable connection packages for the material inlet: G1/8", G1/4", direct attachment to ASIS color changer, possibility to attach to ASIS distributor bar
- Short-term change of connection size at material inlet possible at any time
- When using a pig, material can be pushed back in reverse flow direction
- Nearly identical spare parts equipment despite variation diversity
- Leakage connection as visual control in case of malfunction
- Pneumatic connection direction is freely selectable
- Variety of mounting and installation options: direct attachment to ASIS color changer, double nipple, angle attachment, distributor strip
- Compatible with all conical sealing fittings in the painting industry
- Wenn der MDR einzeln verwendet wird (Stich), ist eine Blindplatte notwendig.

Fields of operation

Pneumatic dosing for installation in material flow lines in the paint processing industry.

Certifications



Standard references/approvals

The device is approved for use in hazardous areas in accordance with ATEX Directive 2014/34/EU:

- 2014/34/EU
- EN ISO 80079-36
- EN ISO 80079-37

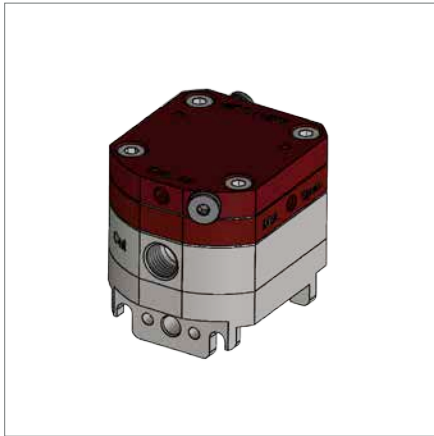


Fig. 1: ASIS material pressure regulator MPR

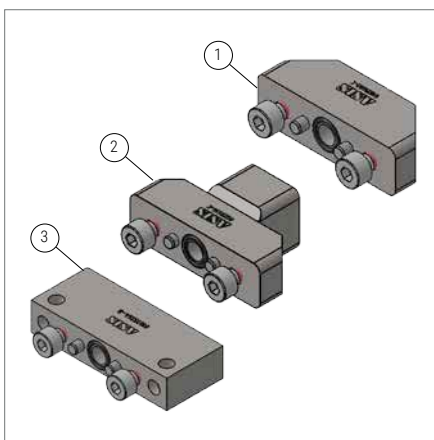


Fig. 2: Connection kits MPR

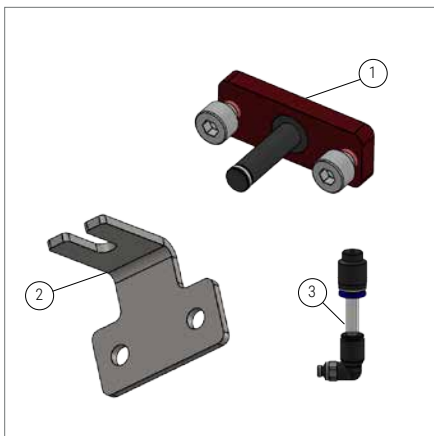


Fig. 3: Accessories



Fig. 4: MPR assembly aid for screw nut

Material pressure regulator MPR

Fig.	No.	Name	Qty.	Order Number
1	/	Material pressure regulator MPR-1/1-KR	1	ASIS.01036532-B
1	/	Material pressure regulator MPR-1/1-KS	1	ASIS.01048020-0

Connection kits (the MPR cannot be used without connection kits)

Fig.	No.	Name	Qty.	Order Number
2	1	Connection kit MPR G1.8c	1	ASIS.01036318-B
2	2	Connection kit MPR G1.4c	1	ASIS.01036544-B
2	3	Connection kit MPR DA	1	ASIS.01036548-B

Accessories (optional)

Fig.	No.	Name	Qty.	Order Number
3	1	Blind plate MPR	1	ASIS.01037236-0
3	2	Holding plate short	1	ASIS.01037236-0
3	3	Leakage control kit 90-M5-6	1	ASIS.01055466-0
/	/	Angle fitting M5-6	1	PARKER.3199 06 19
/	/	Angle fitting M5-4	1	PARKER.3199 04 19
/	/	Screw plug	1	ASIS.01020208-0

Tools (optional)

Fig.	No.	Name	Qty.	Order Number
7	1-3	MPR assembly aid for screw nut	1	ASIS.01038627-A
/	/	Fragol EMB-2 Grease, 100g Tube	1	ASIS.01043461-0

Technical support

Our service team will be happy to support you with your individual configuration (page 95).

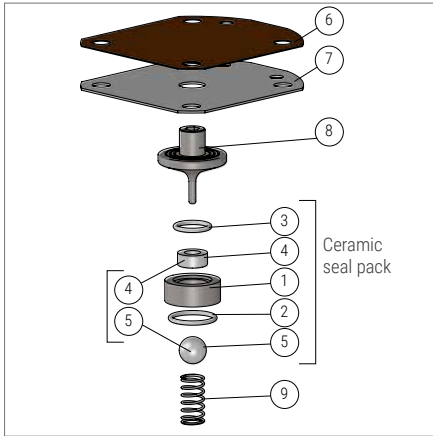


Fig. 1: Spare parts pack MPR1.1-KR

Spare parts ceramic seal

Fig.	No.	Name	Qty.	Order Number
2	1-9	Spare parts pack MPR-1/1-KR	1	ASIS.01036533-A
2	1	L Seal holder ceramic and plastic	1	L ASIS.01046496-0
2	2	L O-ring 9x1 FFKM75	1	L ASIS.01046708-0
2	3	L O-ring 7x1 FFKM75	1	L ASIS.01046830-0
2	4	L Ball seat for ball 6 mm	1	L ASIS.01032842-0
2	5	L Ball 6 mm	1	L ASIS.01032841-0
2	6	L Membrane air side	1	L ASIS.01045565-0
2	7	L Membrane color side	1	L ASIS.01032909-0
2	8	L Adjustment screw	1	L ASIS.01033835-A
2	9	L Pressure spring	1	L ASIS.01045252-0
2	1-5	Ceramic seal pack	1	ASIS.01032907-A

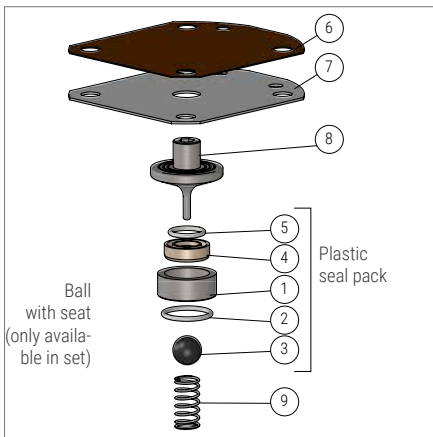


Fig. 2: Spare parts pack MPR1.1-KS

Spare parts plastic seal

Fig.	No.	Name	Qty.	Order Number
3	1-9	Spare parts pack MPR-1/1-KS	1	ASIS.01036572-A
3	1	L Seal holder ceramic and plastic	1	L ASIS.01046496-0
3	2	L O-ring 9x1 FFKM75	1	L ASIS.01046708-0
3	3	L Ball 6 mm	1	L ASIS.01036250-0
3	4	L Ball seat for ball 6 mm	1	L ASIS.01046942-0
3	5	L O-ring 7x1 FFKM75	1	L ASIS.01046830-0
3	6	L Membrane air side	1	L ASIS.01045565-0
3	7	L Membrane color side	1	L ASIS.01032909-0
3	8	L Adjustment screw	1	L ASIS.01033835-A
3	9	L Pressure spring	1	L ASIS.01045252-0
3	1-5	Plastic seal pack	1	ASIS.01036503-B



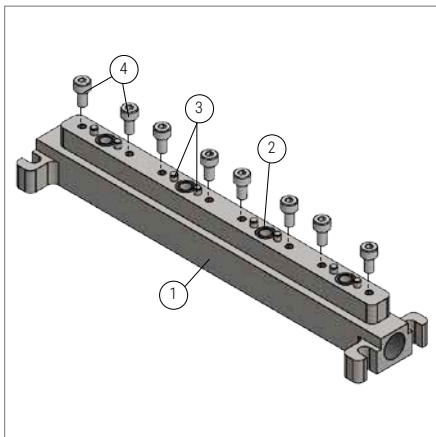


Fig. 4: Assembly kit MPR distributor 4-way

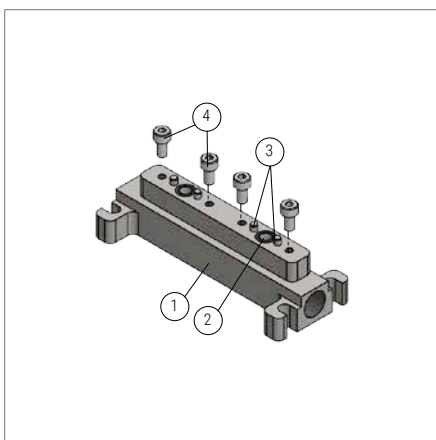


Fig. 5: Assembly kit MPR distributor 2-way



Fig. 6: Blind plate VL

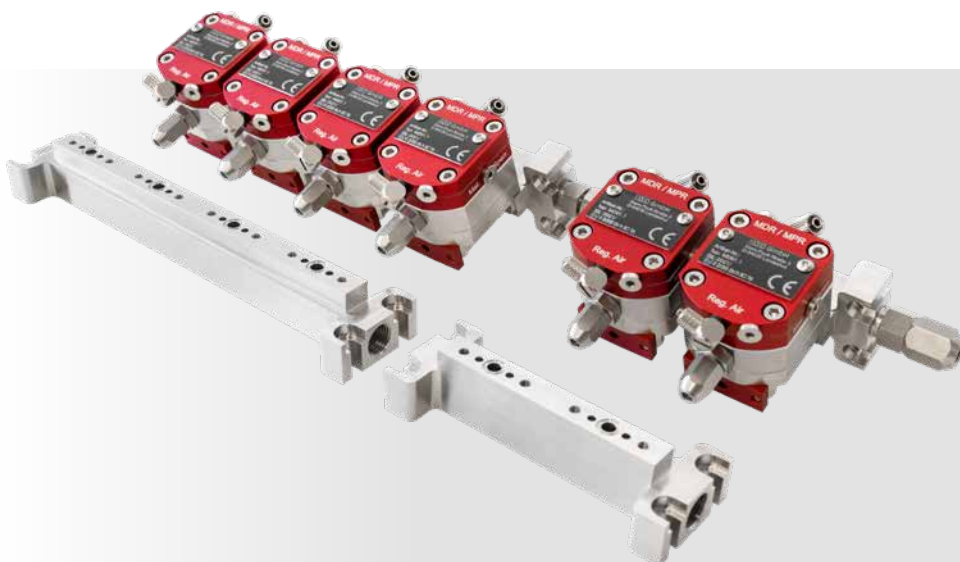


Fig. 7: Screw plug assembly G1.4 VL

Distributors (optional)

When mounting the material pressure regulator to a distributor, the connection package at the material inlet is not required.

Fig.	No.	Name	Qty.	Order Number
4	1-4	Assembly kit MPR distributor 4-way	1	ASIS.01043431-0
4	1	L MPR regulator block 4-way	1	L ASIS.01041698-A
4	2	L O-ring 6x1 FEPM75 black	4	L ASIS.01046720-0
4	3	L Parallel pin 3 x 8	8	L ASIS.01047798-0
4	4	L Cylinder screw M4 x 8	8	L ASIS.01047816-0
5	1-4	Assembly kit MPR distributor 2-way	1	ASIS.01043460-0
5	1	L MPR regulator block 2-way	1	L ASIS.01041700-A
5	2	L O-ring 6x1 FEPM75 black	2	L ASIS.01046720-0
5	3	L Parallel pin 3 x 8	4	L ASIS.01047798-0
5	4	L Cylinder screw M4 x 8	4	L ASIS.01047816-0
6	/	Blind plate VL	1	ASIS.01044127-A
/	/	45° angle fitting G1.4c Ø9 - 9x12, cptl.	1	ASIS.01048028-0
/	/	45° angle fitting G1.4c Ø9 - 6x9, cptl.	1	ASIS.01048090-0
/	/	Straight fitting G1.4c Ø9 - 6x9, cptl.	1	ASIS.01048093-0
7	/	Screw plug assembly G1.4 VL	1	ASIS.01048102-A



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Non-return Valve

Stainless steel non-return valve for compressed air or liquid media (water, paint, solvent)



Fig 1: Non-return valve

Advantages and functions

- Very easy to rinse
- Direct mounting to ASIS color change technology
- Extremely durable
- Standard seal pack teflon, also available in option ceramic or O-ring

Fields of operation

Suitable for installation in material flow lines in the paint processing industry.

Notes

- Designed for installation in color change systems
- Compatible with all application systems in the paint industry

Dimensions and performance data

Length	46 mm
Outer diameter	21 mm
Opening pressure	1 bar / 2 bar

Connections

External thread	G1/4" (conical seal)
Female thread	G1/4" (conical seal)

Materials

Housing parts	Stainless steel (1.4305)
Valve seat	PTFE
Ball	Ceramic
Spring	Stainless steel (1.4310)
Seal	FKM (optionally also available as FFKM)

Non-return valve

Fig.	No.	Name	Qty.	Order Number
1	/	Non-return-valve RSV-G1.4c-TF6-1	1	ASIS.01037749-0
1	/	Non-return-valve RSV-G1.4c-TF6-2	1	ASIS.01054989-0

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Clear-Jet

Flush valve for efficient cleaning of media lines and application components



Clear-Jet

Dimensions and performance data

Size / installation space (without connection kit)	approx. 130 mm x 60 mm x 50 mm
Weight Clear-Jet	approx. 1000 g
Weight of connection kit CJ DA	110 g
Weight connection kit Ø7 CJ	100 g
Weight adapter flange G1.4c	160 g
Control pressure	ca. 6 bar
Operating pressure main air inlet	6 - 10 bar
Operating pressure inlet rinsing medium	min. 0.5 bar higher than main air
Operating pressure control air main needle/ needle valve	6 bar
Wetted parts air	Stainless steel, NBR, nickel-plated brass, ceramic, FFKM
Wetted parts media	Stainless steel, POM, PTFE, FFKM

Connection kits output (selectable/configurable)

Connection kit CJ DA	Direct attachment to ASIS color change technology
Connection kit Ø7 CJ	Connection to Ø7 duct holes
Adapter flange G1.4c	Connection with G1/4" thread
Connection kit Ø9 CJ	Connection to Ø9 duct holes
Y-connection CJ	Installation alternative in short circulation (e.g. special color station)

Connections

Rinsing medium inlet	G1.8c - 6x4 (straight, 45°, 90°)
Main air inlet	G1/4" - 12x9 (straight, angled)
Control air main needle	G1/8" - 6x4/4x2.7 (straight, angled)
Control air needle valve	4x2.7 (angled)

Advantages and functions

- Clear-Jet micro-atomizes solvents into a turbulent compressed air flow and cleans media lines powerfully and with minimal solvent consumption
- approx. 80% less solvent consumption with conventional solvents
- approx. 50% less solvent consumption with aqueous solvents
- Low disposal costs, short amortization time
- Faster rinsing times compared to conventional air-solvent connections
- Long service life, easy to maintain and simple to install thanks to different connection packages
- Suitable for use in EX areas

Fields of operation

Cleaning of media lines in dosing systems, special color supply, color change technology in the paint processing industry.

Notes

- Clear-Jet cannot be used without connection kits

Technical support

Our service team will be happy to support you with your individual configuration (page 95).

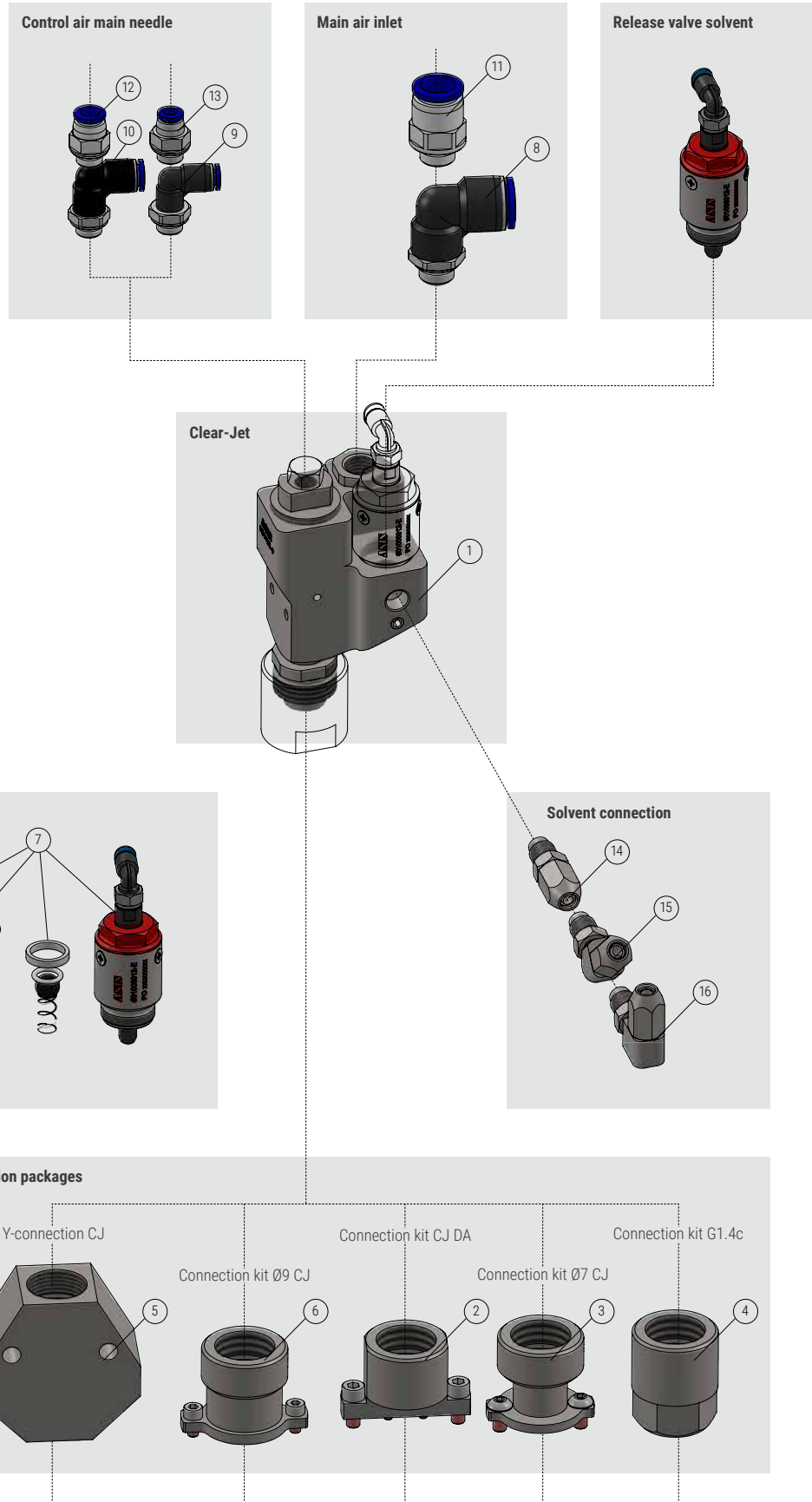


Abb. 1: Clear-Jet flush valve with configuration options

Clear-Jet

Fig.	No.	Name	Qty.	Order Number
1	1	Clear-Jet	1	ASIS.01047185-0

Connection kits (Clear-Jet cannot be used without connection kit)

Fig.	No.	Name	Qty.	Order Number
1	2	Connection kit CJ DA	1	ASIS.01048114-0
1	3	Connection kit Ø7 CJ	1	ASIS.01047827-0
1	4	Connection kit G1/4c	1	ASIS.01046557-0
1	5	Y-connection CJ	1	ASIS.01050822-0
1	6	Connection kit Ø9 CJ	1	ASIS.01050832-0

Spare parts

Fig.	No.	Name	Qty.	Order Number
1	7	Spare parts package CJ	1	ASIS.01048115-0

Accessories (optional)

Fig.	No.	Name	Qty.	Order Number
1	8	Angle screw-in fitting G1.4-12	1	ASIS.01004713-0
1	9	Angle screw-in fitting G1.8-4	1	ASIS.01002758-0
1	10	Angle screw-in fitting G1.8-6	1	ASIS.01008943-0
1	11	Straight screw-in fitting G1.4-12	1	ASIS.01010596-0
1	12	Straight screw-in fitting G1.8-6	1	ASIS.01010583-0
1	13	Straight screw-in fitting G1.8-4	1	ASIS.01002756-0
1	14	Straight fitting G1.8c - 4x6, kpl.	1	ASIS.01044717-*
1	15	45° Angle fitting G1.8c - 4x6, kpl.	1	ASIS.01044730-*
1	16	90° Angle fitting G1.8c - 4x6, kpl.	1	ASIS.01044784-*

Tools (optional)

Fig.	No.	Name	Qty.	Order Number
/	/	Fragol EMB-2 Grease, 100g Tube	1	ASIS.01043461-0
/	/	Teflon sealing tape GOLD	1	ASIS.01048134-0



Clear-Jet mounted

Flushable Diaphragm Seal with Pressure Gauge

Pressure gauge block with medium lock



Flushable diaphragm seal with pressure gauge

Dimensions and performance data

Size	Depending on thread size of the lower part
Bottom part G1/8"	L: 48mm, W:43mm, D: 35mm
Bottom part G1/4"	L: 44mm, W:43mm, D: 35mm
Bottom part G3/8"	L: 58mm, W:43mm, D: 35mm
Bottom part G1/2"	L: 65mm, W:43mm, D: 35mm

Connections

Internal thread	G1/8" / G1/4" (conical sealing) and G3/8" / G1/2" (flat sealing)
-----------------	--

Materials

Bottom part	Stainless steel (1.4305)
Membrane	PTFE
Top part	Aluminum (3.3535)

Advantages and functions

- Flushable due to inline mounting option
- Absolute separation between medium and pressure gauge
- Pressure gauge connection selectable vertical or horizontal
- Pressure gauge position selectable in flow direction or perpendicular to flow direction
- Manometer display range selectable
- Lower part (connection diameter) selectable
- Suitable for use in EX areas

Fields of operation

Suitable for installation in material flow lines e.g. end lines and ring lines

Notes

- The upper part must not be separated from the lower part.
- The lateral screw plug must not be unscrewed.
- Suitable for classic cutting ring screw fittings.
- For thread sizes G1/8" and G1/4", conically sealing screw fittings or lacquer screw fittings must be used.
- For thread sizes G3/8" and G1/2", classic cutting ring fittings can be used. Sealing is achieved with the sealing rings included in the package.

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Type code

		MR	-	35F63	04	-	G3/8f	-	A
Option	Code								
Pressure gauge									
Connection									
L vertical (bottom)	30F63								
L horizontal (eccentric at the back)	35F63								
Display range									
L 0-4 bar	04								
L 0-10 bar	010								
L 0-16 bar	016								
L 0-25 bar	025								
Bottom part									
G1/8c (conical sealing)	G1/8c								
G1/4c (conical sealing)	G1/4c								
G3/8f (flat sealing)	G3/8f								
G1/2f (flat sealing)	G1/2f								
Pressure gauge position									
Readable in flow direction	A								
Readable perpendicular to flow direction	B								

Flushable diaphragm seal with pressure gauge

Fig.	No.	Name	Qty.	Order Number
/	/	MR-35F63025-G3.8f-A	1	ASIS.01055923-0

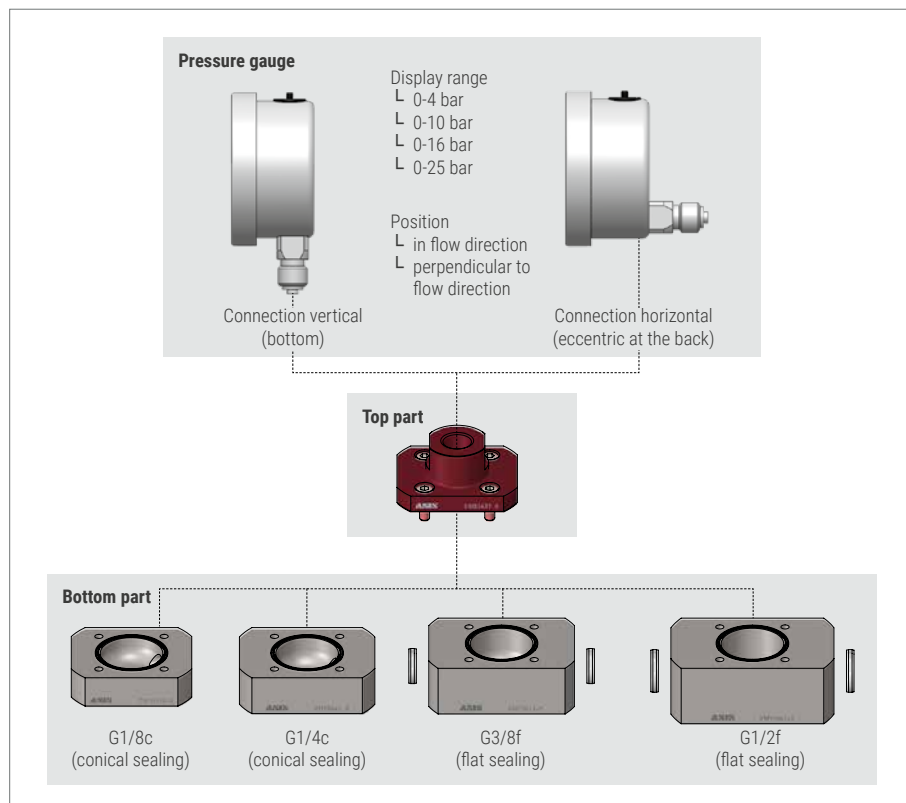


Fig. 1: Modular design

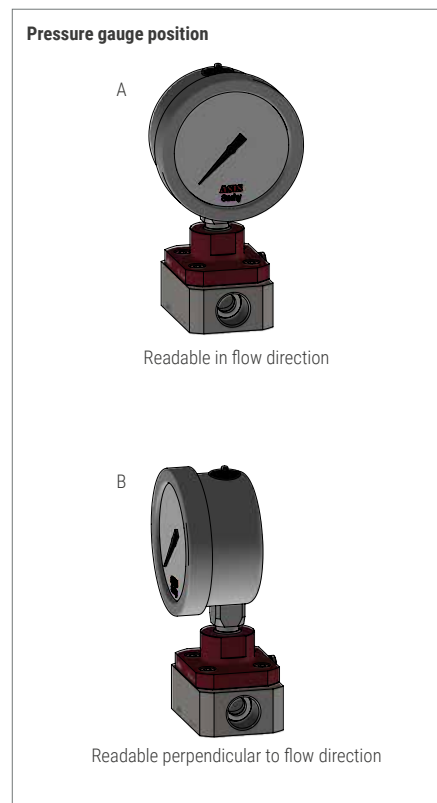


Abb. 2: Pressure gauge position

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Piggable paint fittings

Stainless steel fittings for use in pigging lines with an inner diameter of 12mm



Piggable paint fittings

Dimensions and performance data

Screw-in thread sizes	M24x1.5; M33x2 (Bulkhead fitting)
Hose connection options	12x17
Suitable hose materials	FEP
Max. media pressure	22 bar

Advantages and functions

- Attachment possibility to ASIS ring line blocks
- Very good piggable
- Solvent and detergent resistant
- Stainless
- Undercut-free
- Dead space free transition from hose to fitting
- High media pressures possible from both sides (22 bar)

Fields of operation

Use in pigging lines e.g. special color stations.

The piggable screw-in bulkhead fitting is required to make a mechanical connection to valve blocks, color changers, etc.

The piggable bulkhead fitting can be mounted as a separating element for color stations.

Notes

For the comfortable assembly of the hose we have a tool in the program. It expands the hose and mounts the hose nozzle.

Technical regulations for Operational Safety (TRBS 2152, Part 2 (BGR 104))

Avoidance or limitation of explosive atmospheres

- The plant components are designed / installed to be technically tight in the long term
- Preparation of instructions for control of screwed connections, pipe connections
- Preparation of a OI by the operator is required (weekly leakage test by visual inspection).

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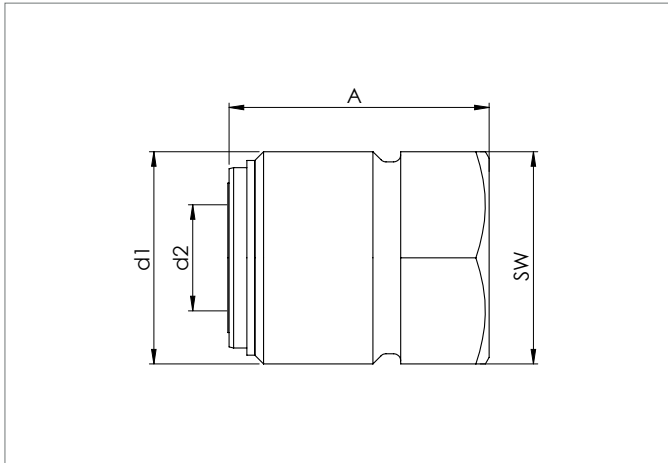


Fig. 1: Piggable fitting

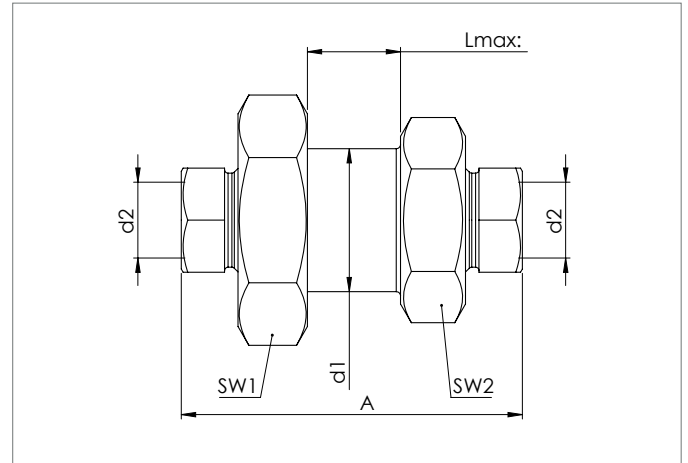


Fig. 2: Piggable bulkhead fitting

Molchbare Verschraubungen

Name	d1	d2	A	SW	Lmax	SW1	SW2	Menge	Order number
Piggable fitting M24x1.5 - 12x17	M24x1.5	12	29,5	24	-	-	-	1	ASIS.01053345-0
Piggable bulkhead fitting M33 - 12x17	12x17	12x17	41	-	21	50	41	1	ASIS.01053348-0

Tools (optional)

Fig.	No.	Name	Qty.	Order Number
1	1	Mounting tool fittings NW15	1	ASIS.01055872-0
1	2	Mounting tool piggable fittings NW12	1	ASIS.01055710-0

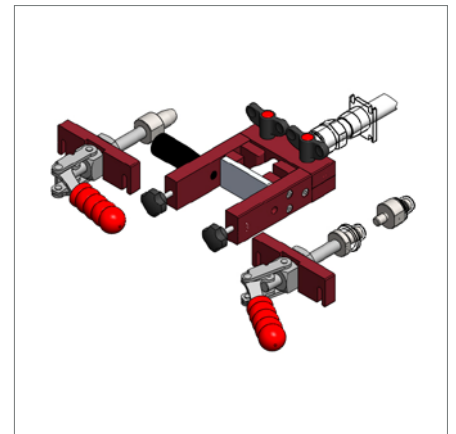


Fig. 3: Tools

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Paint Fittings

Stainless steel fittings for compressed air or liquid media (water, paint, solvents), metallic seals with 90° cone



Paint fittings

Advantages and functions

- Very easy to rinse
- Solvent and detergent resistant
- Rustproof
- Undercut-free due to metallic cone sealing system
- Dead space free transition from hose to fitting
- High media pressures possible from both sides (22 bar)

Fields of operation

Use in flushable media lines (e.g. color changers, distributors, etc.).

General use in media lines with metallic cone sealing systems.

Notes

Can only be used in combination with ASIS Modular Color Changer.

Dimensions and performance data

Screw-in thread sizes	G1/8" ; G1/4"
Hose connection options	2x4; 4x6, 4x8, 6x8, 6x9, 6x10, 9x12, 12x15
Suitable hose materials	FEP, PA, PU, etc.
Max. media pressure	22 bar

Content paint fittings

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Connectors.....	68
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Double nipples ET (external thread) rotatable (conical sealing).....	70
Double nipples ET (external thread) rotatable (flat sealing).....	70
Double nipples ET - IT (external thread - internal thread).....	71
90° Double nipples ET - IT (external thread - internal thread) rotatable ..	71

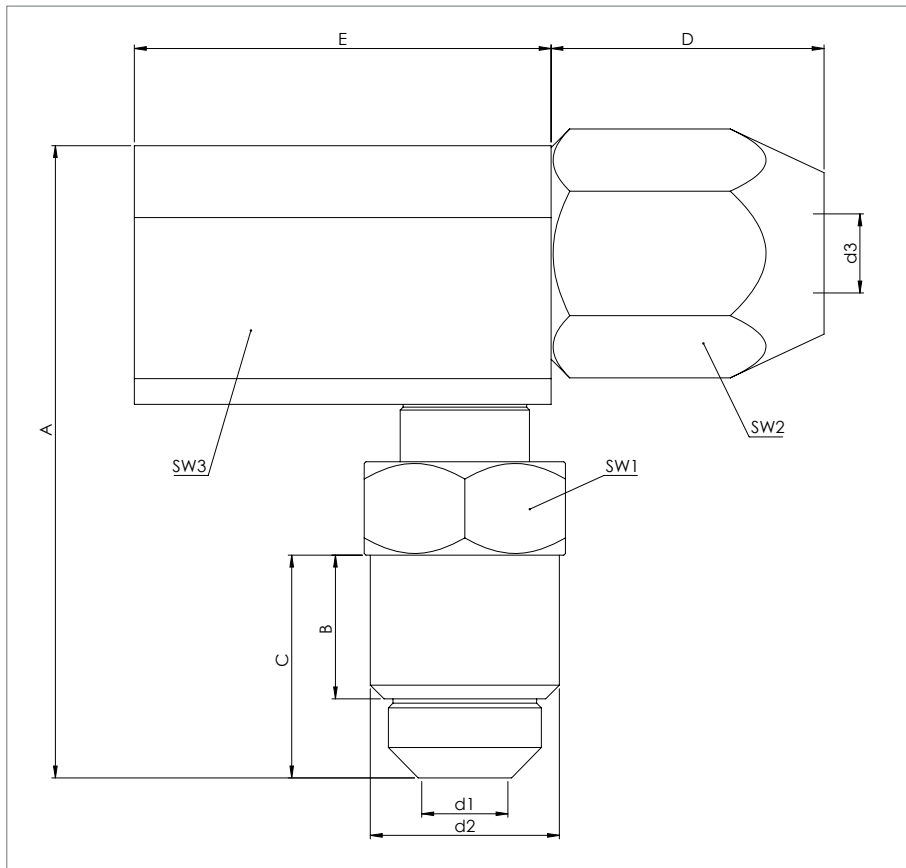


Fig. 1: 90° Angle fitting lockable

90° Angle fittings lockable

Name	d1	d2	d3	A	B	C	D	E	SW1	SW2	Order Number
90° Angle fitting G1.8c - 6x8 lockable, cptl.	Ø5	G1/8"	Ø5,5	41,5	9	13,5	19	29	12	15	ASIS.01045090-*
90° Angle fitting G1.4c - 6x9 lockable, cptl.	Ø5	G1/8"	Ø5,5	41,5	9	13,5	19	29	12	15	ASIS.01045071-*
90° Angle fitting G1.8c - 6x10 lockable, cptl.	Ø5	G1/8"	Ø5,5	41,5	9	13,5	19	29	12	15	ASIS.01045089-*
90° Angle fitting G1.4c - 6x8 lockable, cptl.	Ø6	G1/4"	Ø5,5	44	10	15,5	19	29	14	15	ASIS.01045084-*
90° Angle fitting G1.4c - 6x9 lockable, cptl.	Ø6	G1/4"	Ø5,5	44	10	15,5	19	29	14	15	ASIS.01045071-*
90° Angle fitting G1.4c - 6x10 lockable, cptl.	Ø6	G1/4"	Ø5,5	44	10	15,5	19	29	14	15	ASIS.01045083-*



Fig. 2: 90° Angle fitting lockable

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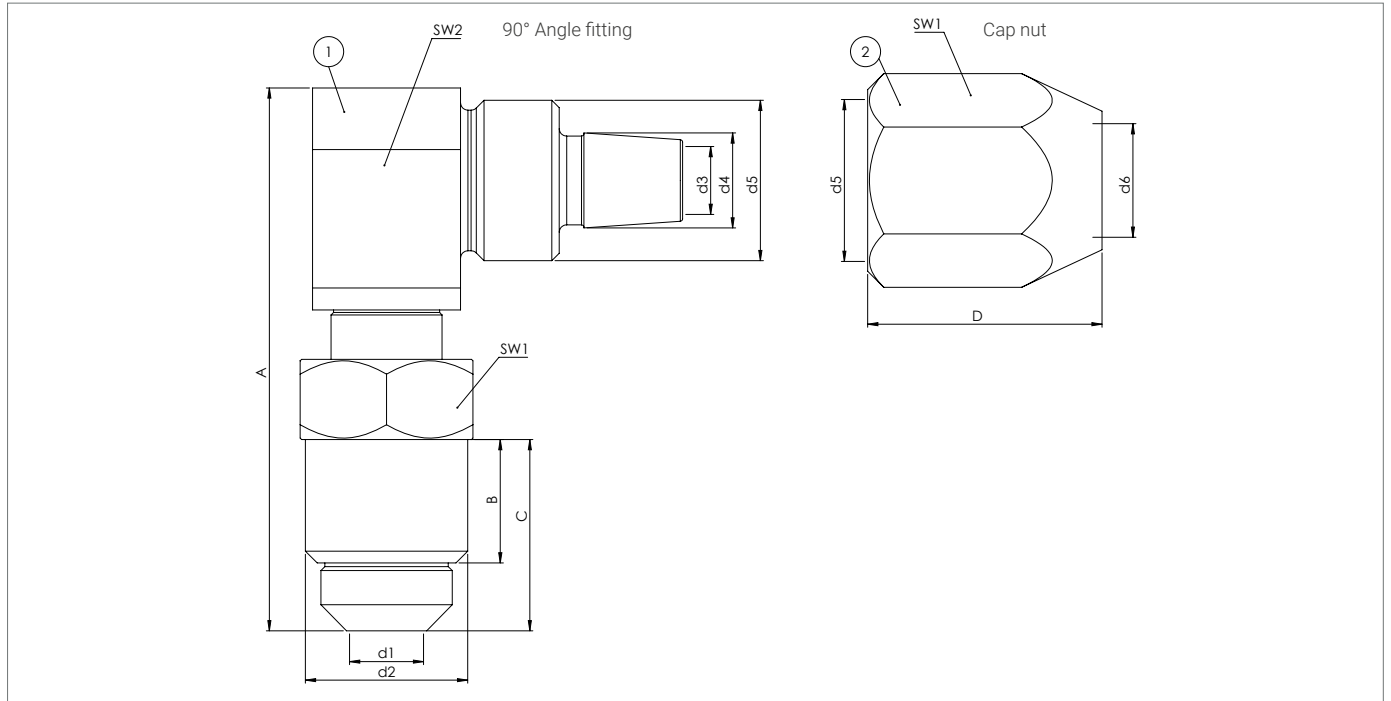


Fig. 2: 90° Angle fitting

90° Angle fittings

Name	d1	d2	d3	d4 Hose size	d5	d6 Hose-OD	A	B	C	D	SW1	SW2	Order Number
90° Angle fitting G1.8c - 2x4, cptl.	Ø5	G1/8"	Ø1,5	2x4	M10x1	Ø4	-	9	13,5	19	-	-	ASIS.01044783-*
└ 90° Angle fitting G1.8c - 2x4	Ø5	G1/8"	Ø1,5	2x4	M10x1	-	40	9	13,5	-	12	12	└ ASIS.01044456-*
└ Cap nut M10 x 1.0 for 2x4	-	-	-	2x4	M10x1	Ø4	-	-	-	19	12	-	└ ASIS.01044317-*
90° Angle fitting G1.8c - 4x6, cptl.	Ø5	G1/8"	Ø3,5	4x6	M10x1	Ø6	-	9	13,5	19	-	-	ASIS.01044784-*
└ 90° Angle fitting G1.8c - 4x6	Ø5	G1/8"	Ø3,5	4x6	M10x1	-	40	9	13,5	-	12	12	└ ASIS.01044457-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	-	└ ASIS.01035801-*
90° Angle fitting G1.8c - 4x6 +15, cptl.	Ø5	G1/8"	Ø3,5	4x6	M10x1	Ø6	-	9	13,5	19	-	-	ASIS.01044785-*
└ 90° Angle fitting G1.8c - 4x6 +15	Ø5	G1/8"	Ø3,5	4x6	M10x1	-	55	9	13,5	-	12	12	└ ASIS.01044460-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	-	└ ASIS.01035752-*
90° Angle fitting G1.8c - 6x8, cptl.	Ø5	G1/8"	Ø5,5	6x8	M13x1	Ø8	-	9	13,5	19	-	-	ASIS.01044787-*
└ 90° Angle fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	41,5	9	13,5	-	14	15	└ ASIS.01044463-*
└ Cap nut M13 x 1.0 for 6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
90° Angle fitting G1.8c - 6x8 +15, cptl.	Ø5	G1/8"	Ø5,5	6x8	M13x1	Ø8	-	9	13,5	19	-	-	ASIS.01044788-*
└ 90° Angle fitting G1.8c - 6x8/6x9/6x10 +15	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	56,5	9	13,5	-	14	15	└ ASIS.01044462-*
└ Cap nut M13 x 1.0 for 6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
90° Angle fitting G1.8c - 6x9, cptl.	Ø5	G1/8"	Ø5,5	6x9	M13x1	Ø9	-	9	13,5	19	-	-	ASIS.01044789-*
└ 90° Angle fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	41,5	9	13,5	-	14	15	└ ASIS.01044463-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	-	└ ASIS.01037865-*
90° Angle fitting G1.8c - 6x9 +15, cptl.	Ø5	G1/8"	Ø5,5	6x9	M13x1	Ø9	-	9	13,5	19	-	-	ASIS.01044790-*
└ 90° Angle fitting G1.8c - 6x8/6x9/6x10 +15	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	56,5	9	13,5	-	14	15	└ ASIS.01044462-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	-	└ ASIS.01037865-*
90° Angle fitting G1.8c - 6x10, cptl.	Ø5	G1/8"	Ø5,5	6x10	M13x1	Ø10	-	9	13,5	19	-	-	ASIS.01045508-*
└ 90° Angle fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	41,5	9	13,5	-	14	15	└ ASIS.01044463-*
└ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	-	└ ASIS.01037851-*
90° Angle fitting G1.4c - 2x4, cptl.	Ø6	G1/4"	Ø1,5	2x4	M10x1	Ø10	-	10	15,5	19	-	-	ASIS.01044792-*
└ 90° Angle fitting G1.4c - 2x4	Ø6	G1/4"	Ø1,5	2x4	M10x1	-	42,5	10	15,5	-	14	12	└ ASIS.01044479-*
└ Cap nut M10 x 1.0 for 2x4	-	-	-	2x4	M10x1	Ø10	-	-	-	19	15	-	└ ASIS.01044317-*

Name	d1	d2	d3	d4 Hose size	d5	d6 Hose-OD	A	B	C	D	SW1	SW2	Order Number
90° Angle fitting G1.4c - 4x6, cptl.	Ø6	G1/4"	Ø3,5	4x6	M10x1	Ø6	-	10	15,5	19	-	-	ASIS.01044793-*
└ 90° Angle fitting G1.4c - 4x6	Ø6	G1/4"	Ø3,5	4x6	M10x1	-	42,5	10	15,5	-	14	12	└ ASIS.01044480-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	-	└ ASIS.01035801-*
90° Angle fitting G1.4c - 4x6 +15, cptl.	Ø6	G1/4"	Ø3,5	4x6	M10x1	Ø6	-	10	15,5	19	-	-	ASIS.01044794-*
└ 90° Angle fitting G1.4c - 4x6 +15	Ø6	G1/4"	Ø3,5	4x6	M10x1	-	47,5	10	15,5	-	14	12	└ ASIS.01044482-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	-	└ ASIS.01035801-*
90° Angle fitting G1.4c - 4x8, cptl.	Ø6	G1/4"	Ø3,5	4x8	M13x1	Ø8	-	10	15,5	19	-	-	ASIS.01047807-*
└ 90° Angle fitting G1.4c - 4x8	Ø6	G1/4"	Ø3,5	4x8	M13x1	-	44	10	15,5	-	14	15	└ ASIS.01047808-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
90° Angle fitting G1.4c - 6x8, cptl.	Ø6	G1/4"	Ø5,5	6x8	M13x1	Ø8	-	10	15,5	19	-	-	ASIS.01044795-*
└ 90° Angle fitting G1.4c - 6x8/6x9/6x10	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	44	10	15,5	-	14	15	└ ASIS.01044469-*
└ Cap nut M13 x 1.0 for 6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
90° Angle fitting G1.4c - 6x8 +15, cptl.	Ø6	G1/4"	Ø5,5	6x8	M13x1	Ø8	-	10	15,5	19	-	-	ASIS.01044797-*
└ 90° Angle fitting G1.4c - 6x8/6x9/6x10 +15	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	59	10	15,5	-	14	15	└ ASIS.01044475-*
└ Cap nut M13 x 1.0 for 6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
90° Angle fitting G1.4c - 6x9, cptl.	Ø6	G1/4"	Ø5,5	6x9	M13x1	Ø9	-	10	15,5	19	-	-	ASIS.01044798-*
└ 90° Angle fitting G1.4c - 6x8/6x9/6x10	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	44	10	15,5	-	14	15	└ ASIS.01044469-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	-	└ ASIS.01037865-*
90° Angle fitting G1.4c - 6x9 +15, cptl.	Ø6	G1/4"	Ø5,5	6x9	M13x1	Ø9	-	10	15,5	19	-	-	ASIS.01044799-*
└ 90° Angle fitting G1.4c - 6x8/6x9/6x10 +15	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	59	10	15,5	-	14	15	└ ASIS.01044475-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	-	└ ASIS.01037865-*
45° Angle fitting G1.4c - 6x10, cptl.	Ø6	G1/4"	Ø5,5	6x10	M13x1	Ø10	-	10	15,5	19	-	-	ASIS.01055950-*
└ 90° Angle fitting G1.4c - 6x8/6x9/6x10	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	44	10	15,5	-	14	15	└ ASIS.01044469-*
└ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	-	└ ASIS.01037851-*
90° Angle fitting G1.4c - 9x12, cptl.	Ø6	G1/4"	Ø8,5	9x12	M15x1	Ø12	-	10	15,5	19	-	-	ASIS.01044800-*
└ 90° Angle fitting G1.4c - 9x12	Ø6	G1/4"	Ø8,5	9x12	M15x1	-	45,5	10	15,5	-	14	18	└ ASIS.01044476-*
└ Cap nut M15 x 1.0 for 9x12	-	-	-	9x12	M15x1	Ø12	-	-	-	19	18	-	└ ASIS.01035691-*
90° Angle fitting G1.4c - 9x12 +23, cptl.	Ø6	G1/4"	Ø8,5	9x12	M15x1	Ø12	-	10	15,5	19	-	-	ASIS.01044801-*
└ 90° Angle fitting G1.4c - 9x12 +23	Ø6	G1/4"	Ø8,5	9x12	M15x1	-	68,5	10	15,5	-	14	18	└ ASIS.01044477-*
└ Cap nut M15 x 1.0 for 9x12	-	-	-	9x12	M15x1	Ø12	-	-	-	19	18	-	└ ASIS.01035691-*
90° Angle fitting G1.4c - 12x15, cptl.	Ø6	G1/4"	Ø11,5	12x15	M18x1	Ø15	-	10	15,5	19	-	-	ASIS.01044802-*
└ 90° Angle fitting G1.4c - 12x15	Ø6	G1/4"	Ø11,5	12x15/12x16/12x17	M18x1	-	47	10	15,5	-	14	21	└ ASIS.01044478-*
└ Cap nut M18 x 1.0 for 12x15	-	-	-	12x15	M18x1	Ø15	-	-	-	19	21	-	└ ASIS.01029343-*



Fig. 2: 90° Angle fitting

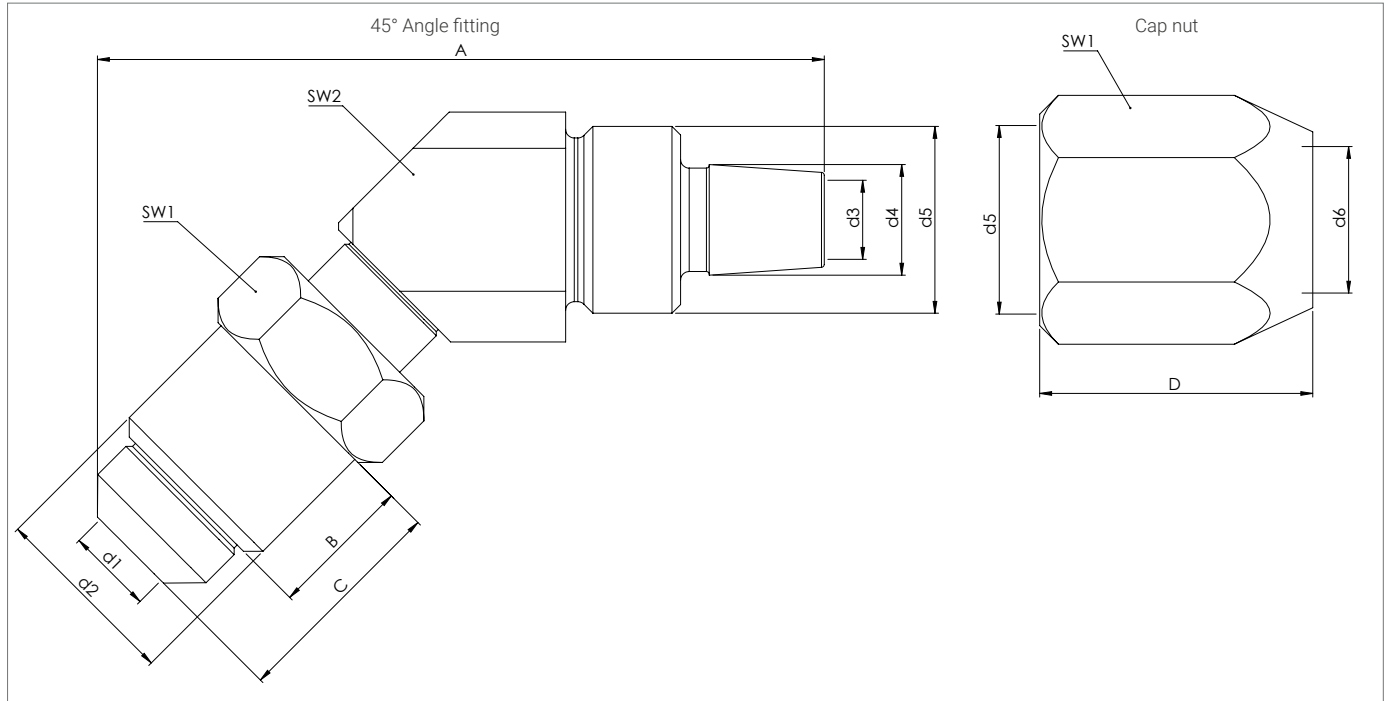


Fig. 1: Drawing 45° angle fitting

45° Angle fittings

Name	d1	d2	d3	d4 Hose size	d5	d6 Hose-OD	A	B	C	D	SW1	SW2	Order Number
45° Angle fitting G1.8c - 2x4, cptl.	Ø5	G1/8"	Ø1,5	2x4	M10x1	Ø4	-	9	13,5	19	-	-	ASIS.01044729-*
└ 45° Angle fitting G1.8c - 2x4	Ø5	G1/8"	Ø1,5	2x4	M10x1	-	49	9	13,5	-	12	12	└ ASIS.01044448-*
└ Cap nut M10 x 1.0 for 2x4	-	-	-	2x4	M10x1	Ø4	-	-	-	19	12	-	└ ASIS.01044317-*
45° Angle fitting G1.8c - 4x6, cptl.	Ø5	G1/8"	Ø3,5	4x6	M10x1	Ø6	-	9	13,5	19	-	-	ASIS.01044730-*
└ 45° Angle fitting G1.8c - 4x6	Ø5	G1/8"	Ø3,5	4x6	M10x1	-	49	9	13,5	-	12	12	└ ASIS.01044364-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	-	└ ASIS.01035801-*
45° Angle fitting G1.4c - 4x8, cptl.	Ø5	G1/8"	Ø3,5	4x8	M13x1	Ø8	-	9	13,5	19	-	-	ASIS.01045210-*
└ 45° Angle fitting G1.8c - 4x8	Ø5	G1/8"	Ø3,5	4x8	M13x1	-	49	9	13,5	-	14	15	└ ASIS.01045208-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
45° Angle fitting G1.8c - 6x8, cptl.	Ø5	G1/8"	Ø5,5	6x8	M13x1	Ø8	-	9	13,5	19	-	-	ASIS.01044732-*
└ 45° Angle fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	49	9	13,5	-	14	15	└ ASIS.01044367-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
45° Angle fitting G1.8c - 6x9, cptl.	Ø5	G1/8"	Ø5,5	6x9	M13x1	Ø9	-	9	13,5	19	-	-	ASIS.01044733-*
└ 45° Angle fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	49	9	13,5	-	14	15	└ ASIS.01044367-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	-	└ ASIS.01037865-*
45° Angle fitting G1.8c - 6x10, cptl.	Ø5	G1/8"	Ø5,5	6x10	M13x1	Ø10	-	9	13,5	19	-	-	ASIS.01045219-*
└ 45° Angle fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	49	9	13,5	-	14	15	└ ASIS.01044367-*
└ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	-	└ ASIS.01037851-*
45° Angle fitting G1.4c - 2x4, cptl.	Ø6	G1/4"	Ø1,5	2x4	M10x1	Ø10	-	10	15,5	19	-	-	ASIS.01044734-*
└ 45° Angle fitting G1.4c - 2x4	Ø6	G1/4"	Ø1,5	2x4	M10x1	-	49	10	15,5	-	14	12	└ ASIS.01044449-*
└ Cap nut M10 x 1.0 for 2x4	-	-	-	2x4	M10x1	Ø10	-	-	-	19	15	-	└ ASIS.01044317-*
45° Angle fitting G1.4c - 4x6, cptl.	Ø6	G1/4"	Ø3,5	4x6	M10x1	Ø6	-	10	15,5	19	-	-	ASIS.01044774-*
└ 45° Angle fitting G1.4c - 4x6	Ø6	G1/4"	Ø3,5	4x6	M10x1	-	51	10	15,5	-	14	12	└ ASIS.01044347-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	-	└ ASIS.01035801-*
45° Angle fitting G1.4c - 4x8, cptl.	Ø6	G1/4"	Ø3,5	4x8	M13x1	Ø8	-	10	15,5	19	-	-	ASIS.01045205-*
└ 45° Angle fitting G1.4c - 4x8	Ø6	G1/4"	Ø3,5	4x8	M13x1	-	51	10	15,5	-	14	15	└ ASIS.01045204-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*

Name	d1	d2	d3	d4 Hose size	d5	d6 Hose-OD	A	B	C	D	SW1	SW2	Order Number
45° Angle fitting G1.4c - 6x8, cpl.	Ø6	G1/4"	Ø5,5	6x8	M13x1	Ø8	-	10	15,5	19	-	-	ASIS.01044775-*
└ 45° Angle fitting G1.4c - 6x8/6x9/610	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	51	10	15,5	-	14	15	└ ASIS.01044323-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	-	└ ASIS.01035752-*
45° Angle fitting G1.4c - 6x9, cpl.	Ø6	G1/4"	Ø5,5	6x9	M13x1	Ø9	-	10	15,5	19	-	-	ASIS.01044776-*
└ 45° Angle fitting G1.4c - 6x8/6x9/610	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	51	10	15,5	-	14	15	└ ASIS.01044323-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	-	└ ASIS.01037865-*
45° Angle fitting G1.4c - 6x10, cpl.	Ø6	G1/4"	Ø5,5	6x10	M13x1	Ø10	-	10	15,5	19	-	-	ASIS.01045218-*
└ 45° EWS-Verschraubung G1.4c - 6x8/6x9/6x10	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	51	10	15,5	-	14	15	└ ASIS.01044323-*
└ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	-	└ ASIS.01037851-*
45° Angle fitting G1.4c - 9x12, cpl.	Ø6	G1/4"	Ø8,5	9x12	M15x1	Ø12	-	10	15,5	19	-	-	ASIS.01044777-*
└ 45° Angle fitting G1.4c - 9x12	Ø6	G1/4"	Ø8,5	9x12	M15x1	-	51	10	15,5	-	14	18	└ ASIS.01044348-*
└ Cap nut M15 x 1.0 for 9x12	-	-	-	9x12	M15x1	Ø12	-	-	-	19	18	-	└ ASIS.01035691-*
45° Angle fitting G1.4c - 12x15, cpl.	Ø6	G1/4"	Ø11,5	12x15	M18x1	Ø15	-	10	15,5	19	-	-	ASIS.01044779-*
└ 45° Angle fitting G1.4c - 12x15	Ø6	G1/4"	Ø11,5	12x15/12x16/12x17	M18x1	-	53	10	15,5	-	14	21	└ ASIS.01044350-*
└ Cap nut M18 x 1.0 for 12x15	-	-	-	12x15	M18x1	Ø15	-	-	-	19	21	-	└ ASIS.01029343-*



Fig. 2: 45° Angle fitting

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

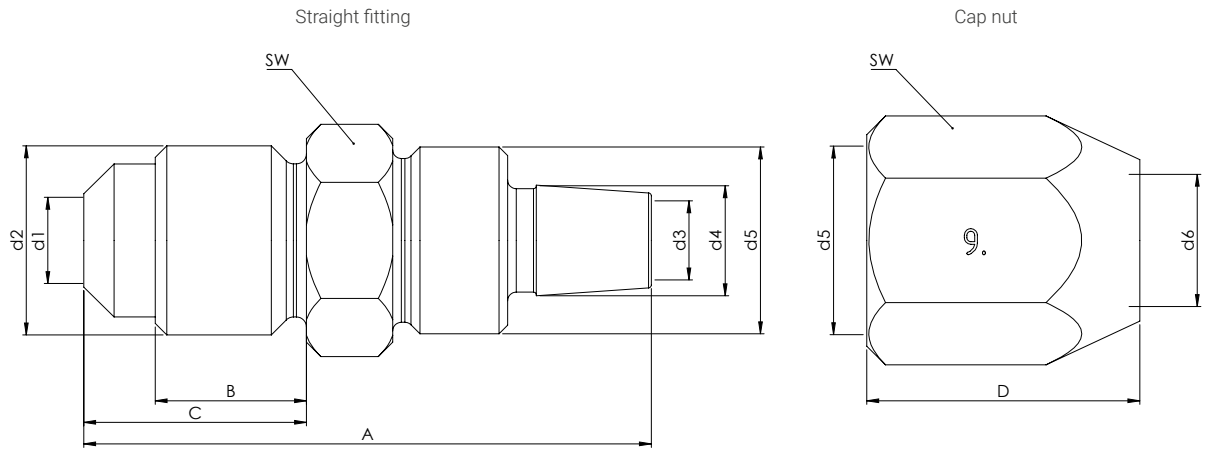


Fig. 1: Drawing straight fitting

Straight fittings

Name	d1	d2	d3	d4 Hose size	d5	d6 House-OD	A	B	C	D	SW	Order Number
Straight fitting G1.8c - 2x4, cptl.	Ø5	G1/8"	Ø1,5	2x4	M10x1	Ø4	-	9	13,5	19	-	ASIS.01044716-*
└ Straight fitting G1.8c - 2x4	Ø5	G1/8"	Ø1,5	2x4	M10x1	-	37,5	9	13,5	-	12	└ ASIS.01044403-*
└ Cap nut M10 x 1.0 for 2x4	-	-	-	2x4	M10x1	Ø4	-	-	-	19	12	└ ASIS.01044317-*
Straight fitting G1.8c - 2.5x4, cptl.	Ø5	G1/8"	Ø1,7	2.5x4	M10x1	Ø4	-	9	13,5	19	-	ASIS.01054061-0
└ Straight fitting G1.8c - 2.5x4	Ø5	G1/8"	Ø1,7	2.5x4	M10x1	-	37,5	9	13,5	-	12	└ ASIS.01054060-0
└ Cap nut M10 x 1.0 for 2.5x4	-	-	-	2.5x4	M10x1	Ø4	-	-	-	19	12	└ ASIS.01044317-A
Straight fitting G1.8c - 4x6, cptl.	Ø5	G1/8"	Ø3,5	4x6	M10x1	Ø6	-	9	13,5	19	-	ASIS.01044717-*
└ Straight fitting G1.8c - 4x6	Ø5	G1/8"	Ø3,5	4x6	M10x1	-	37,5	9	13,5	-	12	└ ASIS.01035799-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	└ ASIS.01035801-*
Straight fitting G1.8c - 4x8, cptl.	Ø5	G1/8"	Ø3,5	4x8	M13x1	Ø8	-	9	13,5	19	-	ASIS.01045193-*
└ Straight fitting G1.8c - 4x8	Ø5	G1/8"	Ø3,5	4x8	M13x1	-	37,5	9	13,5	-	14	└ ASIS.01045192-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	└ ASIS.01035752-*
Straight fitting G1.8c - 6x8, cptl.	Ø5	G1/8"	Ø5,5	6x8	M13x1	Ø8	-	9	13,5	19	-	ASIS.01044718-*
└ Straight fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	37,5	9	13,5	-	14	└ ASIS.01044404-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	└ ASIS.01035752-*
Straight fitting G1.8c - 6x9, cptl.	Ø5	G1/8"	Ø5,5	6x9	M13x1	Ø9	-	9	13,5	19	-	ASIS.01044722-*
└ Straight fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	37,5	9	13,5	-	14	└ ASIS.01044404-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	└ ASIS.01037865-*
Straight fitting G1.8c - 6x10, cptl.	Ø5	G1/8"	Ø5,5	6x10	M13x1	Ø10	-	9	13,5	19	-	ASIS.01045217-*
└ Straight fitting G1.8c - 6x8/6x9/6x10	Ø5	G1/8"	Ø5,5	6x8/6x9/6x10	M13x1	-	37,5	9	13,5	-	14	└ ASIS.01044404-*
└ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	└ ASIS.01037851-*
Straight fitting G1.8c - 8x10, cptl.	Ø5	G1/8"	Ø7,5	8x10	M13x1	Ø10	-	9	13,5	19	-	ASIS.01045229-*
└ Straight fitting G1.8c - 8x10	Ø5	G1/8"	Ø7,5	8x10	M13x1	-	37,5	9	13,5	-	14	└ ASIS.01045228-*
└ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	└ ASIS.01037851-*
Straight fitting G1.4c - 4x6, cptl.	Ø6	G1/4"	Ø3,5	4x6	M10x1	Ø6	-	10	15,5	19	-	ASIS.01044724-*
└ Straight fitting G1.4c - 4x6	Ø6	G1/4"	Ø3,5	4x6	M10x1	-	39,5	10	15,5	-	14	└ ASIS.01044263-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	3x6/4x6	M10x1	Ø6	-	-	-	19	12	└ ASIS.01035801-*
Straight fitting G1.4c - 4x8, cptl.	Ø6	G1/4"	Ø3,5	4x8	M13x1	Ø8	-	10	15,5	19	-	ASIS.01045195-*
└ Straight fitting G1.8c - 4x8	Ø6	G1/4"	Ø3,5	4x8	M13x1	-	39,5	10	15,5	-	14	ASIS.01045194-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	ASIS.01035752-*

Name	d1	d2	d3	d4 Hose size	d5	d6 House-OD	A	B	C	D	SW	Order Number
Straight fitting G1.4c - 6x8, cpl.	Ø6	G1/4"	Ø5,5	6x8	M13x1	Ø8	-	10	15,5	19	-	ASIS.01044725-*
↳ Straight fitting G1.4c - 6x8/6x9/6x10	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	39,5	10	15,5	-	14	↳ ASIS.01044996-*
↳ Cap nut M13 x 1.0 for 4x8/6x8	-	-	-	4x8/6x8	M13x1	Ø8	-	-	-	19	15	↳ ASIS.01035752-*
Straight fitting G1.4c - 6x9, cpl.	Ø6	G1/4"	Ø5,5	6x9	M13x1	Ø9	-	10	15,5	19	-	ASIS.01044726-*
↳ Straight fitting G1.4c - 6x8/6x9/6x10	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	39,5	10	15,5	-	14	↳ ASIS.01044996-*
↳ Cap nut M13 x 1.0 for 6x9	-	-	-	6x9	M13x1	Ø9	-	-	-	19	15	↳ ASIS.01037865-*
Straight fitting G1.4c - 6x10, cpl.	Ø6	G1/4"	Ø5,5	6x10	M13x1	Ø10	-	10	15,5	19	-	ASIS.01045216-*
↳ Straight fitting G1.4c - 6x8/6x9/6x10	Ø6	G1/4"	Ø5,5	6x8/6x9/6x10	M13x1	-	39,5	10	15,5	-	14	↳ ASIS.01044996-*
↳ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	↳ ASIS.01037851-*
Straight fitting G1.4c - 8x10, cpl.	Ø6	G1/4"	Ø7,5	8x10	M13x1	Ø10	-	10	15,5	19	-	ASIS.01045231-*
↳ Straight fitting G1.4c - 8x10, cpl.	Ø6	G1/4"	Ø7,5	8x10	M13x1	-	39,5	10	15,5	-	14	↳ ASIS.01045230-*
↳ Cap nut M13 x 1.0 for 6x10/8x10	-	-	-	6x10/8x10	M13x1	Ø10	-	-	-	19	15	↳ ASIS.01037851-*
Straight fitting G1.4c - 9x12, cpl.	Ø6	G1/4"	Ø8,5	9x12	M15x1	Ø12	-	10	15,5	19	-	ASIS.01044727-*
↳ Straight fitting G1.4c - 9x12	Ø6	G1/4"	Ø8,5	9x12	M15x1	-	39,5	10	15,5	-	18	↳ ASIS.01036201-*
↳ Cap nut M15 x 1.0 for 9x12	-	-	-	9x12	M15x1	Ø12	-	-	-	19	18	↳ ASIS.01035691-*
Straight fitting G1.4c - 12x15, cpl.	Ø6	G1/4"	Ø11,5	12x15	M18x1	Ø15	-	10	15,5	19	-	ASIS.01044728-*
↳ Straight fitting G1.4c - 12x15/12x16/12x17	Ø6	G1/4"	Ø11,5	12x15/12x16/12x17	M18x1	-	40,5	10	15,5	-	21	↳ ASIS.01044287-*
↳ Cap nut M18 x 1.0 for 12x15	-	-	-	12x15	M18x1	Ø15	-	-	-	19	21	↳ ASIS.01029343-*
Straight fitting G1.4c - 12x16, cpl.	Ø6	G1/4"	Ø11,5	12x16	M18x1	Ø16	-	10	15,5	19	-	ASIS.01044805-*
↳ Straight fitting G1.4c - 12x15/12x16/12x17	Ø6	G1/4"	Ø11,5	12x15/12x16/12x17	M18x1	-	40,5	10	15,5	-	21	↳ ASIS.01044287-*
↳ Cap nut M18 x 1.0 for 12x16	-	-	-	12x16	M18x1	Ø16	-	-	-	19	21	↳ ASIS.01044345-*
Straight fitting G1.4c - 12x17, cpl.	Ø6	G1/4"	Ø11,5	12x17	M18x1	Ø17	-	10	15,5	19	-	ASIS.01044806-*
↳ Straight fitting G1.4c - 12x15/12x16/12x17	Ø6	G1/4"	Ø11,5	12x15/12x16/12x17	M18x1	-	40,5	10	15,5	-	21	↳ ASIS.01044287-*
↳ Cap nut M18 x 1.0 for 12x17	-	-	-	12x17	M18x1	Ø17	-	-	-	19	24	↳ ASIS.01044355-*



Fig. 2: Straight fitting

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

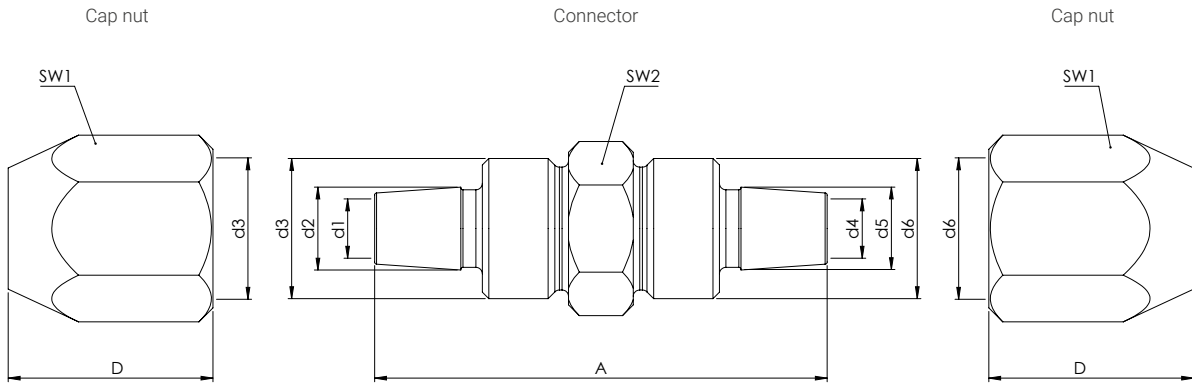


Fig. 1: Connector

Connectors

Name	d1	d2 Hose size	d3	d4	d5 Hose size	d6	A	D	SW1	SW2	Qty.	Order Number
Connector 4x6 - 4x6, cptl.	Ø3,5	4x6	M10x1	Ø3,5	4x6	M10x1	-	-	-	12	1	ASIS.01045005-*
└ Connector 4x6	Ø3,5	4x6	M10x1	Ø3,5	4x6	M10x1	42	-	-	12	1	└ ASIS.01045001-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	M10x1	-	-	M10x1	-	19	12	-	2	└ ASIS.01035801-*
Connector 6x8 - 6x8, cptl.	Ø5,5	6x8	M13x1	Ø5,5	6x8	M13x1	-	-	-	14	1	ASIS.01045000-*
└ Connector 6x8/6x9/6x10	Ø5,5	6x8	M13x1	Ø5,5	6x8	M13x1	42	-	-	14	1	└ ASIS.01045010-*
└ Cap nut M13 x 1.0 for 6x8	-	-	M13x1	-	-	M13x1	-	19	15	-	2	└ ASIS.01035752-*
Connector 6x9 - 6x9, cptl.	Ø5,5	6x9	M13x1	Ø5,5	6x9	M13x1	-	-	-	14	1	ASIS.01044999-*
└ Connector 6x8/6x9/6x10	Ø5,5	6x9	M13x1	Ø5,5	6x9	M13x1	42	-	-	14	1	└ ASIS.01045010-*
└ Cap nut M13 x 1.0 for 6x9	-	-	M13x1	-	-	M13x1	-	19	15	-	2	└ ASIS.01037865-*
Connector 9x12 - 9x12, cptl.	Ø8,5	9x12	M15x1	Ø8,5	9x12	M15x1	-	-	-	18	1	ASIS.01044995-*
└ Connector 9x12	Ø8,5	9x12	M15x1	Ø8,5	9x12	M15x1	42	-	-	18	1	└ ASIS.01044994-*
└ Cap nut M15 x 1.0 for 9x12	-	-	M15x1	-	-	M15x1	-	19	17	-	2	└ ASIS.01035691-*
Connector 4x6 - 3x6, cptl.	Ø3,5	4x6	M10x1	Ø2,5	3x6	M10x1	-	-	-	14	1	ASIS.01045054-*
└ Connector 3x6 - 4x6	Ø3,5	4x6	M10x1	Ø2,5	3x6	M10x1	42	-	-	14	1	└ ASIS.01045048-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	M10x1	-	-	M10x1	-	19	12	-	2	└ ASIS.01035801-*
Connector 6x9 - 4x6, cptl.	Ø5,5	6x9	M13x1	Ø3,5	4x6	M10x1	-	-	-	14	1	ASIS.01045017-*
└ Connector 6x8/6x9/6x10 - 4x6	Ø5,5	6x9	M13x1	Ø3,5	4x6	M10x1	42	-	-	14	1	└ ASIS.01045014-*
└ Cap nut M13 x 1.0 for 6x9	-	-	M13x1	-	-	-	-	19	15	-	1	└ ASIS.01037865-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	-	-	-	-	M10x1	-	19	12	-	1	└ ASIS.01035801-*
Connector 9x12 - 6x9, cptl.	Ø8,5	9x12	M15x1	Ø5,5	6x9	M13x1	-	-	-	18	1	ASIS.01045047-*
└ Connector 6x8/6x9/6x10 - 9x12	Ø8,5	9x12	M15x1	Ø5,5	6x9	M13x1	42	-	-	18	1	└ ASIS.01045024-*
└ Cap nut M15 x 1.0 for 9x12	-	-	M15x1	-	-	-	-	19	17	-	1	└ ASIS.01035691-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	-	-	M13x1	-	19	15	-	1	└ ASIS.01037865-*
Connector 6x9 - 4x8, cptl.	Ø5,5	6x9	M13x1	Ø3,5	4x8	M13x1	-	-	-	14	1	ASIS.01047348-*
└ Connector 6x8/6x9/6x10 - 4x8	Ø5,5	6x9	M13x1	Ø3,5	4x8	M13x1	42	-	-	14	1	└ ASIS.01047344-*
└ Cap nut M13 x 1.0 for 4x8/6x8	-	-	M13x1	-	-	-	-	19	15	-	1	└ ASIS.01035752-*
└ Cap nut M13 x 1.0 for 6x9	-	-	-	-	-	M13x1	-	19	15	-	1	└ ASIS.01037865-*

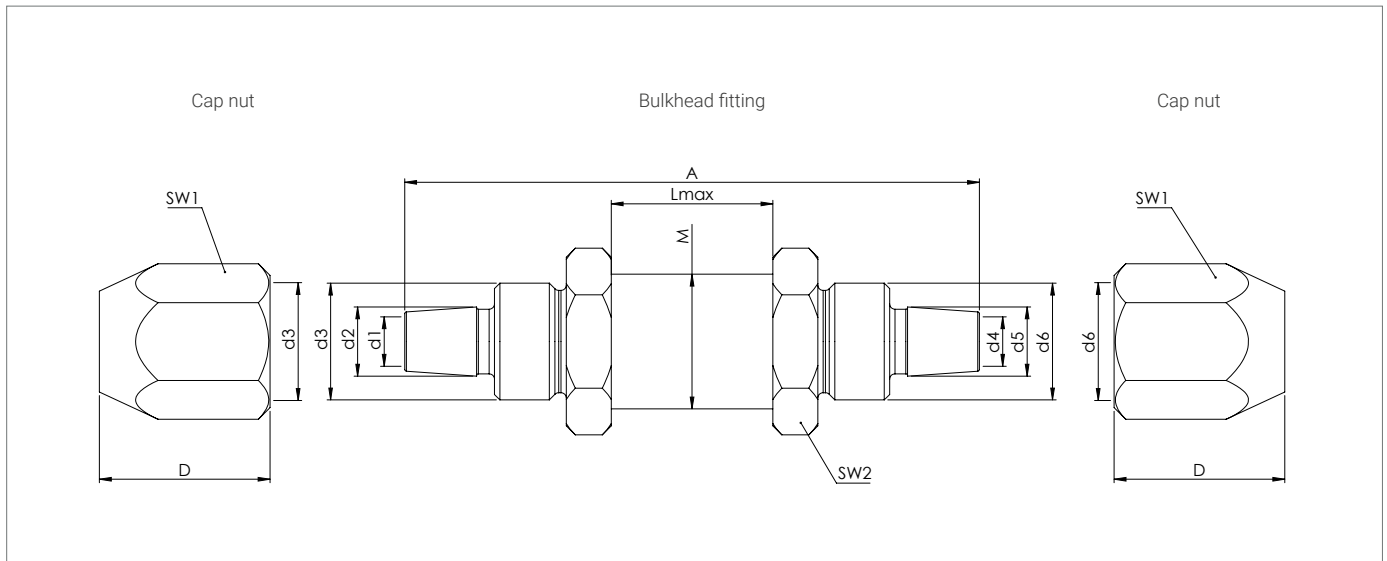


Fig. 2: Bulkhead fitting

Bulkhead fittings

Name	d1	d2 Hose size	d3	d4	d5 Hose size	d6	A	D	SW1	SW2	M	Lmax	Qty.	Order Number
Bulkhead fitting 4x6 - 4x6, cptl.	Ø3,5	4x6	M10x1	Ø3,5	4x6	M10x1	-	-	-	-	-	15	1	ASIS.01044984-*
└ Bulkhead fitting 4x6	Ø3,5	4x6	M10x1	Ø3,5	4x6	M10x1	60	-	-	-	12	-	1	└ ASIS.01044982-*
└ Cap nut M10 x 1.0 for 3x6/4x6	-	3x6/4x6	M10x1	-	3x6/4x6	M10x1	-	19	12	-	-	-	1	└ ASIS.01035801-*
└ Screw nut M12x1	-	-	-	-	-	-	-	-	-	15	-	-	2	└ ASIS.01044983-*
Bulkhead fitting 4x8 - 4x8, cptl.	Ø3,5	4x8	M13x1	Ø3,5	4x6	M13x1	-	-	-	-	-	18	1	ASIS.01045224-*
└ Bulkhead fitting 4x8	-	4x8	M13x1	-	4x8	M13x1	64	-	-	-	15	-	1	└ ASIS.01047334-*
└ Cap nut M13 x 1.0 for 4x8/6x8	Ø3,5	-	M13x1	Ø3,5	-	M13x1	-	19	15	-	-	-	1	└ ASIS.01035752-*
└ Screw nut M15x1	-	-	-	-	-	-	-	-	-	18	-	-	2	└ ASIS.01044978-*
Bulkhead fitting 6x8 - 6x8, cptl.	Ø5,5	6x8	M13x1	Ø5,5	6x8	M13x1	-	-	-	-	-	18	1	ASIS.01044980-*
└ Bulkhead fitting 6x8/6x9/6x10	Ø5,5	6x8	M13x1	Ø5,5	6x8	M13x1	64	-	-	-	15	-	1	└ ASIS.01044977-*
└ Cap nut M13 x 1.0 for 6x8	-	-	M13x1	-	-	M13x1	-	19	15	-	-	-	1	└ ASIS.01035752-*
└ Screw nut M15x1	-	-	-	-	-	-	-	-	-	18	-	-	2	└ ASIS.01044978-*
Bulkhead fitting 6x9 - 6x9, cptl.	Ø5,5	6x9	M13x1	Ø5,5	6x9	M13x1	-	-	-	-	-	18	1	ASIS.01044979-*
└ Bulkhead fitting 6x8/6x9/6x10	Ø5,5	6x9	M13x1	Ø5,5	6x9	M13x1	64	-	-	-	15	-	1	└ ASIS.01044977-*
└ Cap nut M13 x 1.0 for 6x9	-	-	M13x1	-	-	M13x1	-	19	15	-	-	-	1	└ ASIS.01037865-*
└ Screw nut M15x1	-	-	-	-	-	-	-	-	-	18	-	-	2	└ ASIS.01044978-*
Bulkhead fitting 6x10 - 6x10, cptl.	Ø5,5	6x10	M13x1	Ø5,5	6x10	M13x1	-	-	-	-	-	18	1	ASIS.01045222-*
└ Bulkhead fitting 6x8/6x9/6x10	Ø5,5	6x10	M13x1	Ø5,5	6x10	M13x1	64	-	-	-	15	-	1	└ ASIS.01044977-*
└ Cap nut M13 x 1.0 for 6x10/8x10	-	-	M13x1	-	-	M13x1	-	19	15	-	-	-	1	└ ASIS.01037851-*
└ Screw nut M15x1	-	-	-	-	-	-	-	-	-	18	-	-	2	└ ASIS.01044978-*
Bulkhead fitting 9x12 - 9x12, cptl.	Ø8,5	9x12	M15x1	Ø8,5	9x12	M15x1	-	-	-	-	-	21,5	1	ASIS.01044989-*
└ Bulkhead fitting 9x12	Ø8,5	9x12	M15x1	Ø8,5	9x12	M15x1	70	-	-	-	20	-	1	└ ASIS.01044987-*
└ Cap nut M15 x 1.0 for 9x12	-	-	M15x1	-	-	M15x1	-	19	18	-	-	-	1	└ ASIS.01035691-*
└ Screw nut M20x1	-	-	-	-	-	-	-	-	-	24	-	-	2	└ ASIS.01044988-*

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

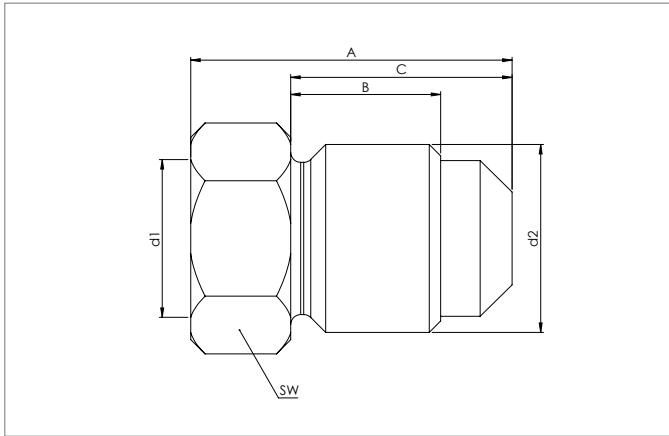


Fig. 1: Plug screw and reduction

Plug screws and reduction

Name	d1	d2	A	B	C	SW	Order Number
Plug screw G1.8c	-	G1/8"	20	8,5	13	12	ASIS.01044603-*
Plug screw G1.4c	-	G1/4"	22,5	10,5	15,5	14	ASIS.01044602-*
Reduction G1.4c AG - G1.8c IG	G1/8"	G1/4"	22,5	10,5	15,5	14	ASIS.01044204-*

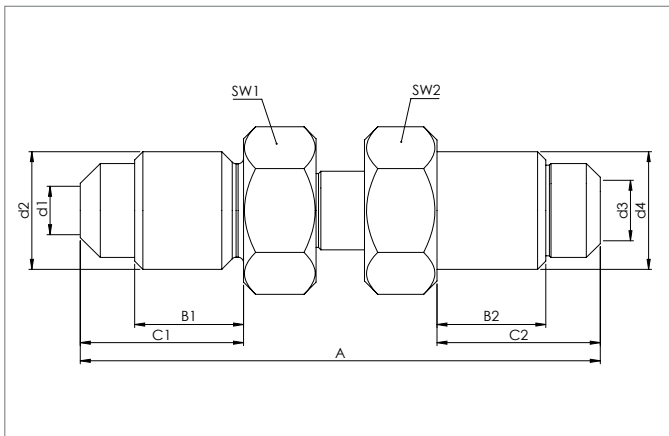


Fig. 2: Double nipple ET rotatable (conical sealing)

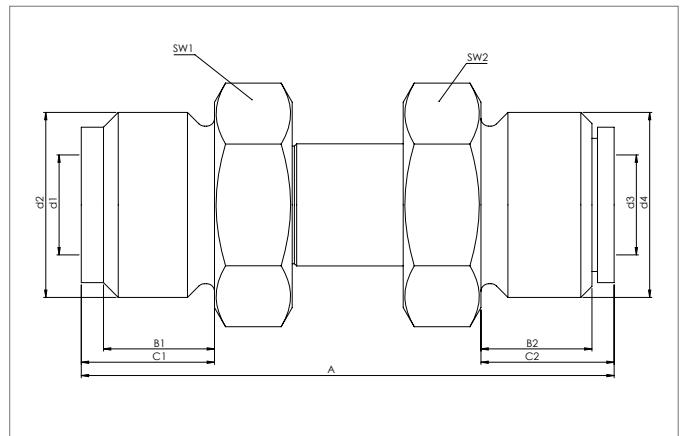


Fig. 3: Double nipple ET rotatable (flat sealing)

Double nipples ET (external thread) rotatable (conical sealing)

Name	d1	d2	d3	d4	A	B1	B2	C1	C2	SW1	SW2	Order Number
Double nipple G1.8 ET, rotatable	5	G1/8"	4	G1/8"	43	9	9	13,5	13,5	12	12	ASIS.01045165-*
Double nipple G1.4 ET, rotatable	6	G1/4"	6	G1/4"	47,5	10	10	15,5	15,5	14	14	ASIS.01045163-*
Double nipple G1.8 ET - G1.4 ET, rotatable	5	G1/8"	6	G1/4"	45	9	10	13,5	15,5	12	14	ASIS.01045167-*

Double nipples ET (external thread) rotatable (flat sealing)

Name	d1	d2	d3	d4	A	B1	B2	C1	C2	SW1	SW2	Order Number
Double nipple G3.8f ET, rotatable	5	G3/8"	6	G3/8"	45	9	10	13,5	15,5	12	14	ASIS.01048398-0

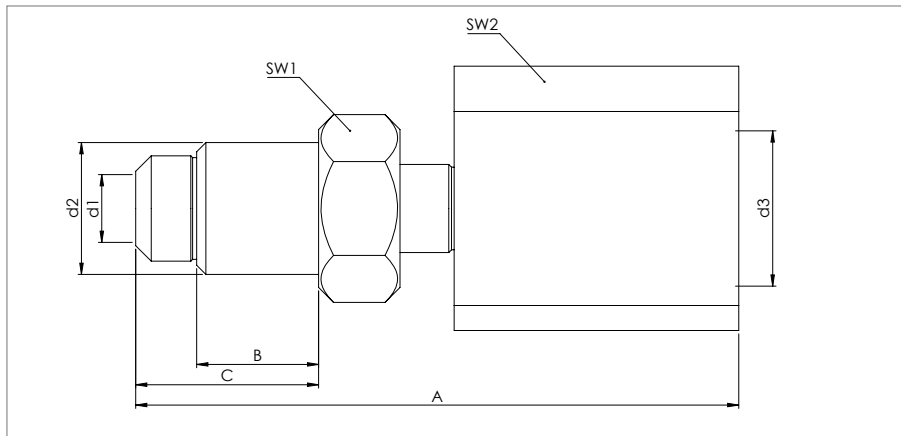


Fig. 4: Double nipple ET -IT

Double nipples ET - IT (external thread - internal thread)

Bezeichnung	d1	d2	d3	A	B1	C	SW1	SW2	Order Number
Double nipple G1.4c ET - G1.4c IT	5	G1/8"	G1/4"	44,5	9	13,5	12	18	ASIS.01045533-*
Double nipple G1.8c ET - G1.4c IT	6	G1/4"	G1/4"	46	10	15,5	14	18	ASIS.01046861-*

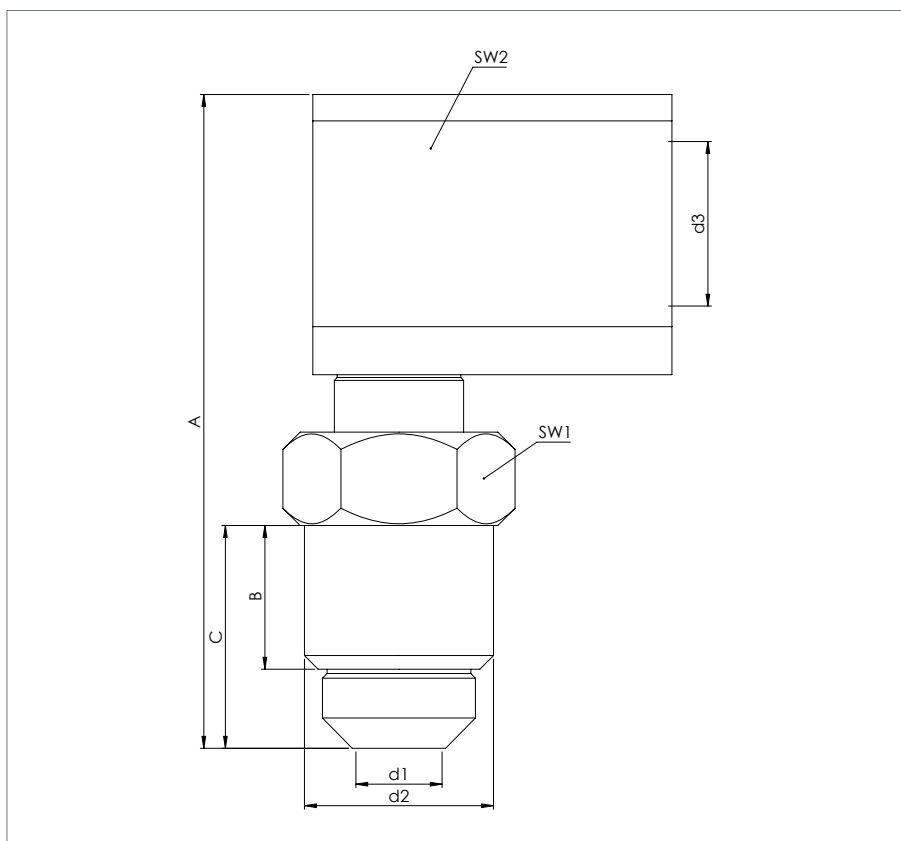


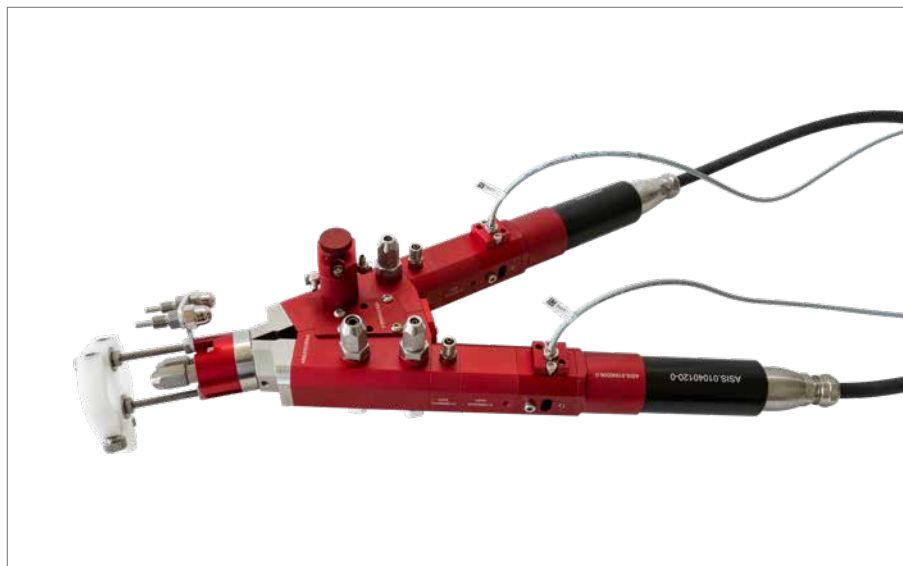
Fig. 5: 90° Double nipple ET - IT rotatable

90° Double nipples ET - IT (external thread - internal thread) rotatable

Name	d1	d2	d3	A	B	C	SW1	SW2	Order Number
90° Double nipple G1.8c ET – G1.8c IT, rotatable	5	G1/8"	G1/8"	41,5	9	13,5	12	15	ASIS.01045238-*
90° Double nipple G1.4c ET – G1.4c IT, rotatable	6	G1/4"	G1/4"	45,5	10	15,5	14	18	ASIS.01045234-*

Micro-Dispenser

Flushable and fully integrable 2K screw feeder



ASIS Micro-Dispenser

Advantages and functions

- Very well rinsable
- Undercut-free structure
- Control via Profinet
- Feedback of parameters for optimal monitoring
- Easy connection to PLC
- Repeatability > 99%

Volume flows

Per line volume flow flexibly configurable:

- 0,003 - 0,360 ml/min
- 0,01 - 1,2 ml/min
- 0,05 - 6,0 ml/min

Fields of operation

Precise, volumetric dosing of very small quantities of various types, such as:

- Anaerobic adhesives
- Shear sensitive adhesives
- UV adhesives
- Thermosetting adhesives
- 1K and 2K epoxy resins
- Thermally conductive paste
- Solvent-based coatings
- Rinsing and cleaning agents

Technical data

Weight	approx. 1,200 g (without drives)
Material input A/B	Straight fitting G1.8f - 4x2
Material output line A	Configurable: Screw plug G1.8 Manual needle valve Straight screw joint G1.8f - 6x4 / 4x2
Material output line B	Configurable: Screw plug G1.8 Manual needle valve Straight screw joint G1.8f - 6x4 / 4x2
Side flushing port A/B	M5 - 4x2 with check valve function
Material outlet (at the dosing head)	Hose adaption each for 4x2 (A and B)
Minimum operating pressure	0 bar, with self-leveling liquid
Maximum operating pressure	0 to 6 bar inlet pressure, for non-self-leveling liquid
Maximum dosing pressure	Up to 20 bar
Self-tightness	Approx. 2 bar (reference medium approx. 1000 mPas at 20°C)
Medium touched parts	Anodized aluminum, stainless steel, POM (black), bare aluminum, PTFE
Seals	PE, aluminum / hi-tec
Seals static	O-ring Viton, FFKM, PTFE
Drive	Synchronous motor with planetary gear
Motor DC link voltage	48V DC
Maximum permissible rotational speed	360 rpm
Motor power	375 W
Protection class	IP66/67
Operating conditions	+10 °C to +40 °C (Ta.), air pressure 1 bar
Dosing accuracy	± 1%
Repeatability	> 99%
Mixing ratio	Flexible controllable

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

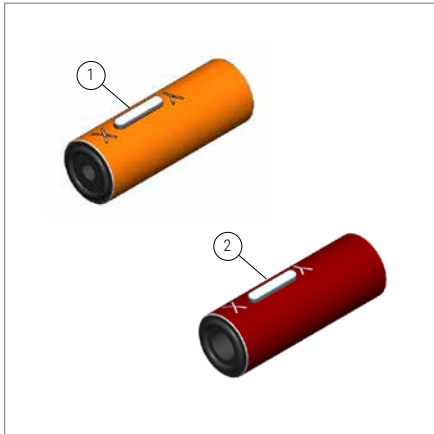


Fig. 1: Stators

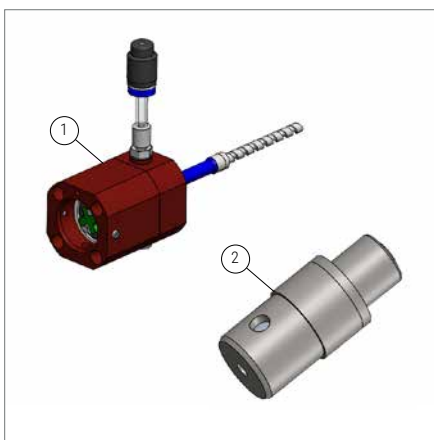


Fig. 2: Spare parts

Materials used

End cap, screw-on plate, screw plug	Stainless steel 1.4305
2K dispenser housing	Aluminum anodized, 3.3535
2K dispenser components, motor housing, screw-on plate	Aluminum anodized, 3.3535
Screws, washers, etc.	A2 stainless steel
Stator elastomer	HI-TEC / FFKM
Rotary seal	High-molecular PE (spring-loaded)
O-rings	FKM, FFKM
Drive unit	Stainless steel 1.4404
Drive shaft / rotor	DLC coated / hard chrome plated
Fittings	Stainless steel 1.4404
Fixation and clamping piece Inject	PA (white)
Flushing sleeve	POM-C (black)

Micro-Dispenser

Fig.	No.	Name	Qty.	Order Number
3	/	Micro-Dispenser	1	on request

Spare parts

Fig.	No.	Name	Qty.	Order Number
1	1	Stator 0.01	1	ASIS.01039073-0
1	2	Stator 0.05	1	ASIS.01039068-0
2	1	Rotor-unit with seal casing 0.05	1	ASIS.01038143-0
2	1	Rotor-unit with seal casing 0.01	1	ASIS.01039070-0
2	2	Cartridge mini-nrv	1	ASIS.01039942-A

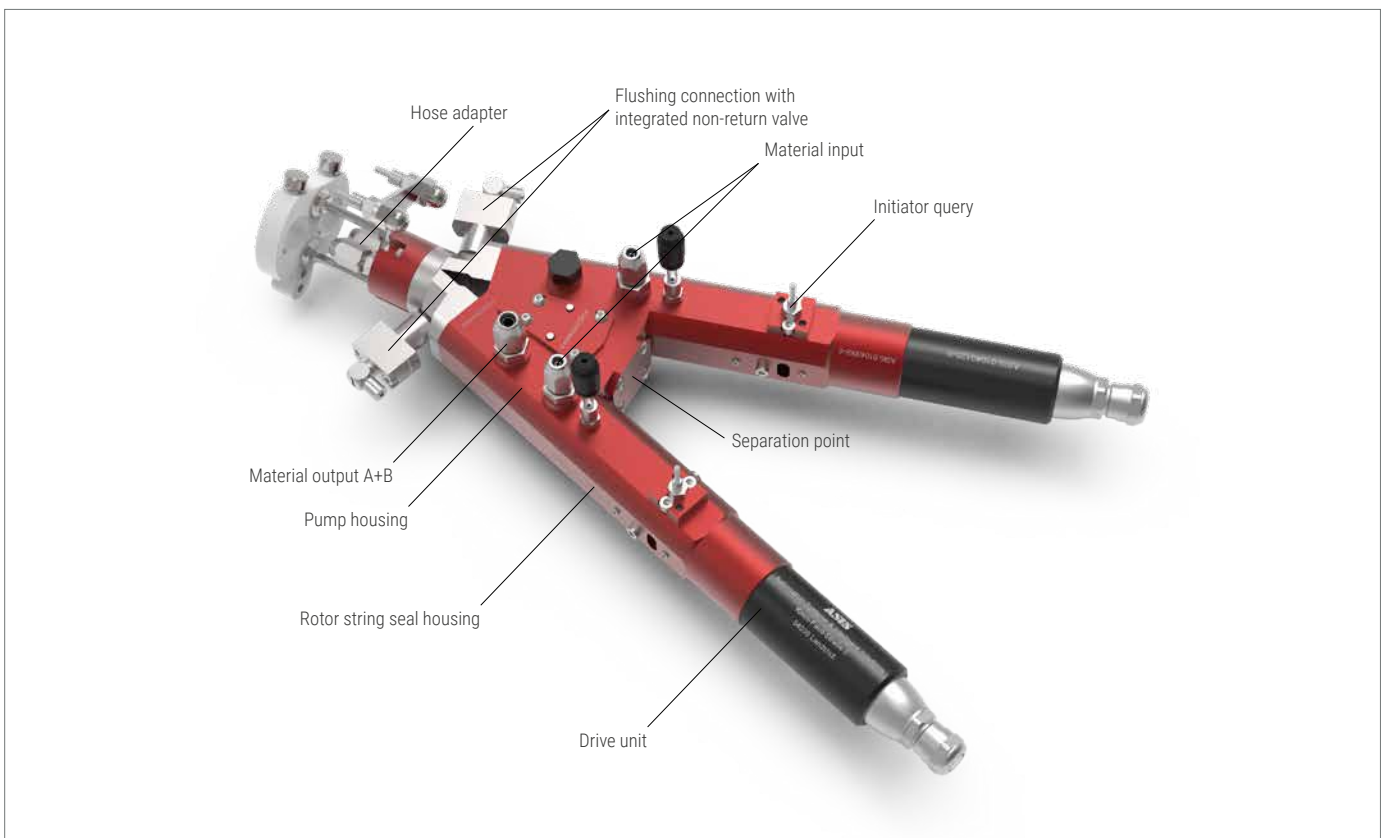


Fig. 3: Micro-Dispenser

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



Paint Supply

Lowest consumption of paint and rinsing media during color changes





Automatic Finish

Automatic Sanding

Paint Application



Paint Supply



Atomizer Cleaning

Flaming

Software

Simple-2K

Paint supply

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software



s2k | Simple-2K

Advantages and functions

- Easy integration into higher-level control system or as stand-alone system
- Suitable for robots and manual painting
- Number of paint and hardener connections can be expanded modularly, even at a later stage
- Simple operation via integrated touch panel

Fields of application

Supply of media, such as paints in the paint processing industry.

Dimensions and performance data

Dimensions (L x W x H)	600 mm x 400 mm x 1250 mm
Weight	ca.110 kg
Material flow rate paint	max. 900 ml/min, other value on request
Material flow rate hardener	Standard max. 300 ml/min, other value on request

Connections

5 color connections as ring line (extension possible, on request)
1 hardener connection as end line (extension possible, on request)

Connections compressed air

Pressure	6 - 8 bar
Particle	Class 2
Air humidity	Class 6
Oil content	Class 2
Norm	Acc. ISO 8573-1:2001
Air connection	Push-in connector 10 mm

Electrical connections

Power supply	24 V
Communication	ProfiNet (if communication with further control is required) Ethernet I/P





Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

Software

Atomizer Cleaning

for high rotation atomizers or automatic atomizers



Automatic Finish

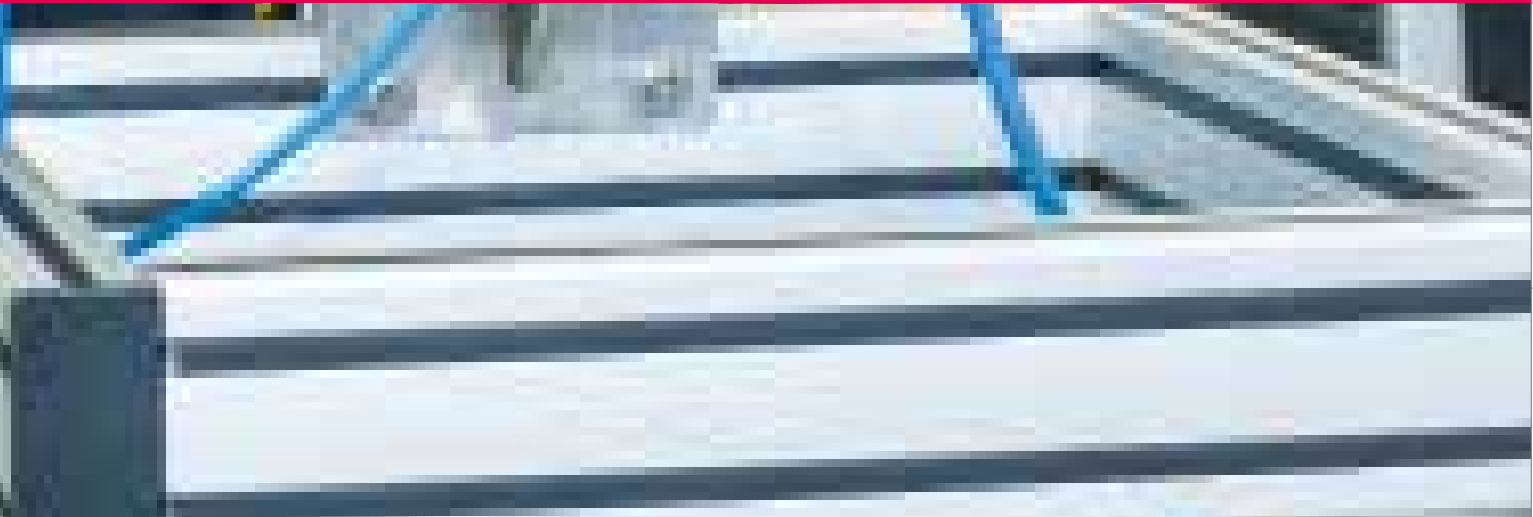
Automatic Sanding

Paint Application

Paint Supply



Atomizer Cleaning



Flaming

Software

Clean-Gun

Automatic cleaning of automatic spray guns



Clean-Gun

Dimensions and performance data

Dimensions (L x W x H)	598 mm x 217 mm x 150 mm
Weight	ca. 13 kg
Materials	Stainless steel, POM, Teflon, brass
Operating media	Air, solvent / water-based rinsing agent
Working pressure solvent	$P_{min} = 0,5 \text{ bar} - P_{max} = 8,0 \text{ bar}$
Working pressure air	$P_{min} = 3,0 \text{ bar} - P_{max} = 8,0 \text{ bar}$

Connections

Connection size solvent	G 1/8" 6x9 FEP or 6x8 FEP
Connection size compressed air	Push-in connector 6mm, 6x4 PA
Connection size dump	G 2 1/2"

Certifications



Special model: Clean-Gun dual

Advantages and functions

- Fast cleaning
- Exceptionally low rinsing media consumption
- VOC compliant
- Lower compressed air consumption
- Closed tank
- No secondary contamination
- Low maintenance
- Cleaning is done by oscillating brush movement
- Single and dual version
- Blow-off device for drying the cleaned air cap

Fields of operation

Painting booths with robot application in the paint processing industry

Standard references/approvals

The device is approved for use in hazardous areas in accordance with ATEX Directive 2014/34/EU:

- 2006/42/EG
- 2014/34/EU
- EN ISO 80079-36
- EN ISO 80079-37

Notes

- Closed cabin with enough air exchange
- Machine gun guidance mainly with painting robot

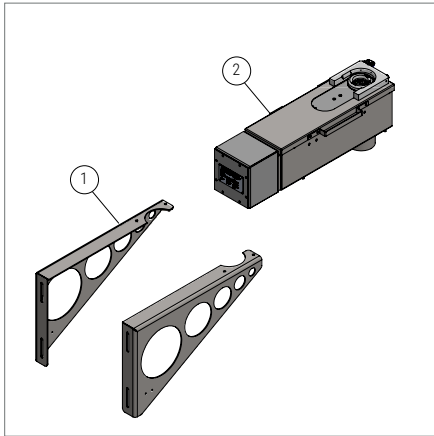


Fig. 1: Clean-Gun, Clean-Gun attachment

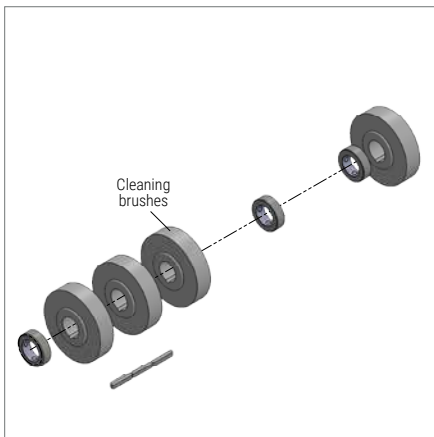


Fig. 2: Brush set (SP 1)



Fig. 3: Bushing and spring set (SP 2)

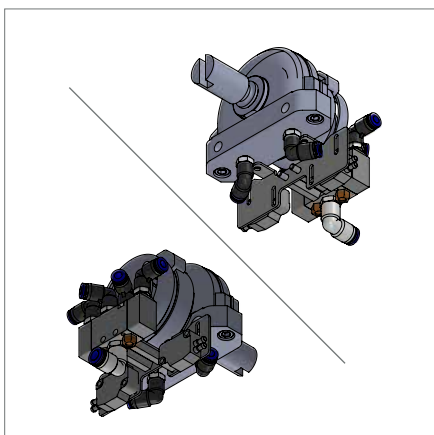


Fig. 4: Pneumatic drive unit (SP 3)

Clean-Gun

Abb.	Nr.	Bezeichnung	Menge	Bestellnummer
1	1	Clean-Gun attachment	1	ASIS.01040342-0
1	2	Clean-Gun for Industra INHP	1	ASIS.01055616-0
1	2	Clean-Gun for ECCO 70	1	ASIS.01055790-0
1	2	Clean-Gun for SATAjet 1800 M	1	ASIS.01055791-0
1	2	Clean-Gun for Krauzberger RA5 HV3	1	ASIS.01055792-0
1	2	Clean-Gun for AGMD 514	1	ASIS.01055793-0
1	2	Clean-Gun for AGMD PRO	1	ASIS.01055794-0
1	2	Clean-Gun for GRACO AA G40	1	ASIS.01055795-0
1	2	Clean-Gun for GRACO 24A755	1	ASIS.01055796-0
1	2	Clean-Gun for SAMES 428376	1	ASIS.01055798-0
1	2	Clean-Gun for SAMES TRP 501	1	ASIS.01055799-0
1	2	Clean-Gun for Assy Spray Gun AGB 51	1	ASIS.01055800-0

Spare parts

Abb.	Nr.	Bezeichnung	Menge	Bestellnummer
2	/	Brush set (spare parts package 1)	1	ASIS.01036373-0
3	/	Bushing and spring set (spare parts package 2)	1	ASIS.01036375-0
4	/	Pneumatic drive unit (spare parts package 3)	1	ASIS.01036374-0
/	/	Needle valve NW5	1	ASIS.01006012-E
/	/	Needle valve stainless steel 1/4"	1	ASIS.01003162-0
/	/	Radial sealing 30x20x10mm	1	ASIS.01002967-0

Accessories (optional)

Abb.	Nr.	Bezeichnung	Menge	Bestellnummer
1	1	Clean-Gun attachment	1	ASIS.01040342-0
5	1	Connecting flushing medium	1	ASIS.01003165-G
5	2	Attachment	1	ASIS.01056124-0
6	/	Pneumatic box Clean-Gun	1	ASIS.01007427-B

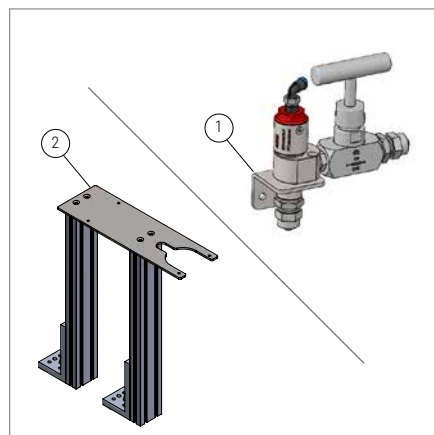


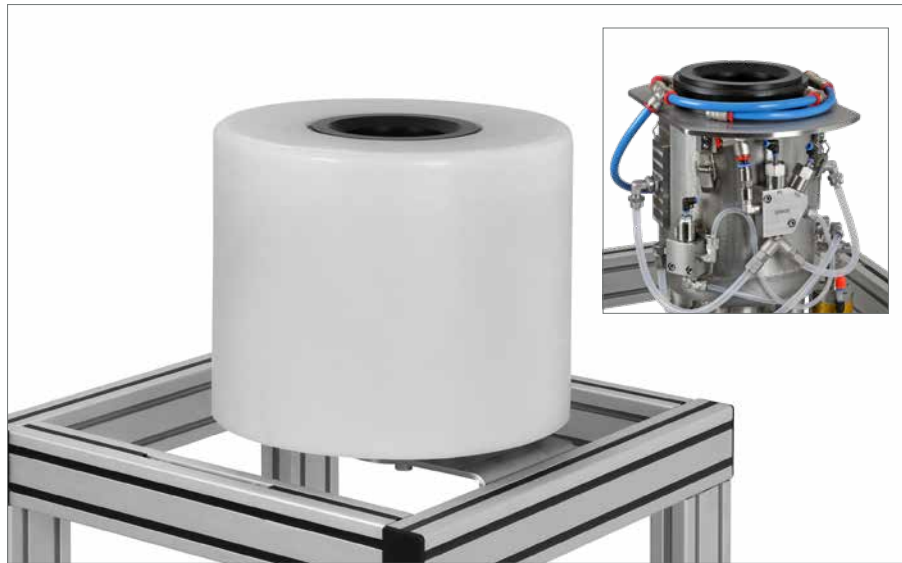
Fig. 5: Clean-Gun attachment



Fig. 6: Pneumatic box Clean-Gun

Clean-Bell

Automatic cleaning of high rotation atomizers



Clean-Bell

Dimensions and performance data

Dimensions (L x W x H)	320 mm x 320 mm x 412 mm
Weight	ca. 20 kg
Materials	Edelstahl, Polyamid, Teflon, Messing
Operating media	Solvent / water-based rinsing agent
Working pressure solvent	P _{min} = 2,5 bar to P _{max} 4,0 bar
Working pressure air	P _{min} = 6,0 bar to P _{max} 8,0 bar

Connections

Connection size solvent	G 1/8" 6x9 FEP
Connection size compressed air	Push-in connector 8x10 PA
Connection size dump	G 2 1/2"

Certifications



Advantages and functions

- Fast and automatic cleaning of the bell, steering air ring and bell plate
- Connection to a dump system possible
- Especially low flushing medium consumption
- Closed tank
- No secondary contamination
- Low maintenance
- Adaptation to various bell manufacturers possible (Sames, ABB, etc.)
- Control box optional

Fields of operation

Painting booths with robot application in the paint processing industry

Standard references/approvals

The device is approved for use in hazardous areas in accordance with ATEX Directive 2014/34/EU:

- 2014/34/EU
- EN ISO 80079-36
- EN ISO 80079-37

Notes

- Enclosed booth with enough air exchange
- Mechanical atomizer guidance mainly with painting robot

Automatic Finish

Automatic Sanding

Paint Application

Paint Supply

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Flaming

Software



Fig. 1: Clean-Bell

Clean-Bell

Fig.	No.	Name	Qty.	Order Number
1	/	Clean-Bell ABB RB1000-SSD	1	ASIS.01019800-A
1	/	Clean-Bell Sames PPH 707 SB	1	ASIS.01017281-A

Spare parts

Fig.	No.	Name	Qty.	Order Number
2	1	Flushing valve	1	ASIS.01016480-0
2	2	Solvent regulator	1	ASIS.01016663-0
2	3	Flushing pipe	1	ASIS.01017649-0
2	4	Flushing unit	1	ASIS.01017770-0
2	5	Valve BlowAir2 dryblowing	1	ASIS.01017917-0
2	6	Valve BlowAir1 exhaust suction	1	ASIS.01017920-0
3	/	Purge ring	1	ASIS.01017282-A
4	/	Blow-off ring RB1000-SSD 50mm	1	ASIS.01016907-0
5	1	Full cover RB1000-SSD	1	ASIS.01019902-0
5	2	Full cover PPH707	1	ASIS.01017677-0

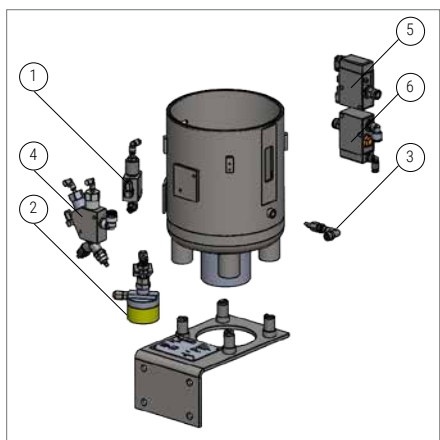


Fig. 2: Spare parts

Accessories (optional)

Fig.	No.	Name	Qty.	Order Number
6	/	Pneumatic box Clean-Bell	1	ASIS.01016683-0

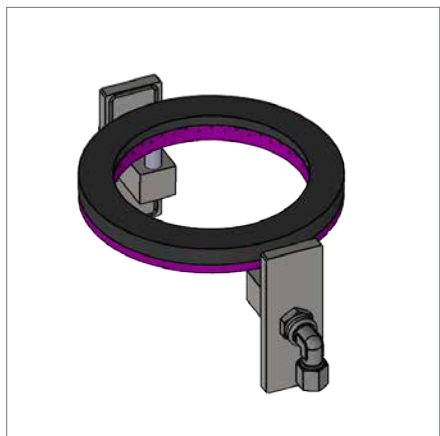


Fig. 3: Purge ring



Fig. 4: Blow-off ring RB1000-SSD 50mm

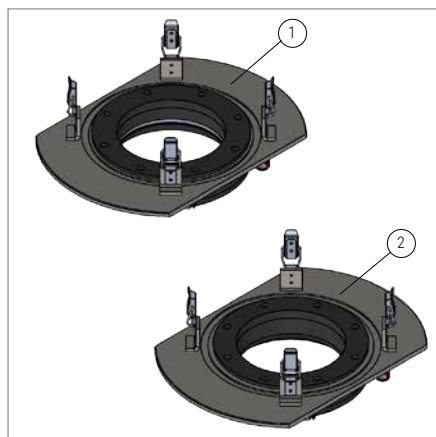


Fig. 5: Full cover



Fig. 6: Pneumatic box Clean-Bell

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Economic flame treatment technology



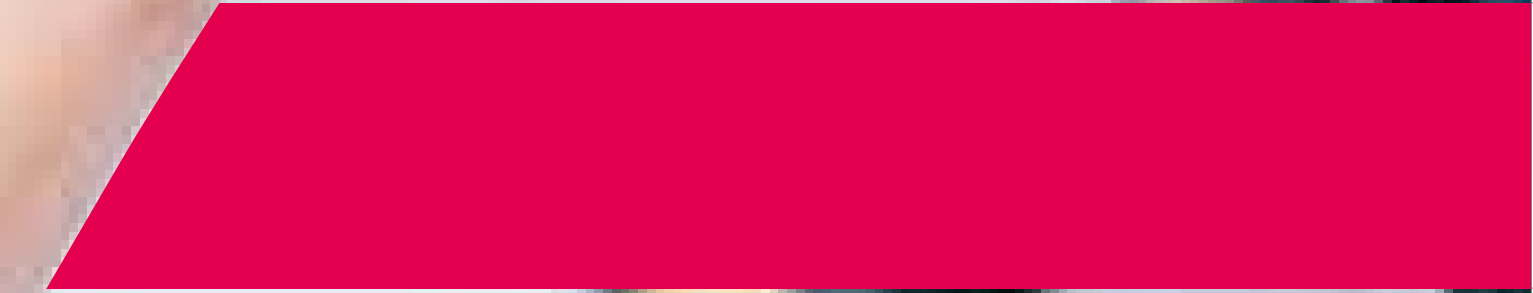
Automatic Finish

Automatic Sanding

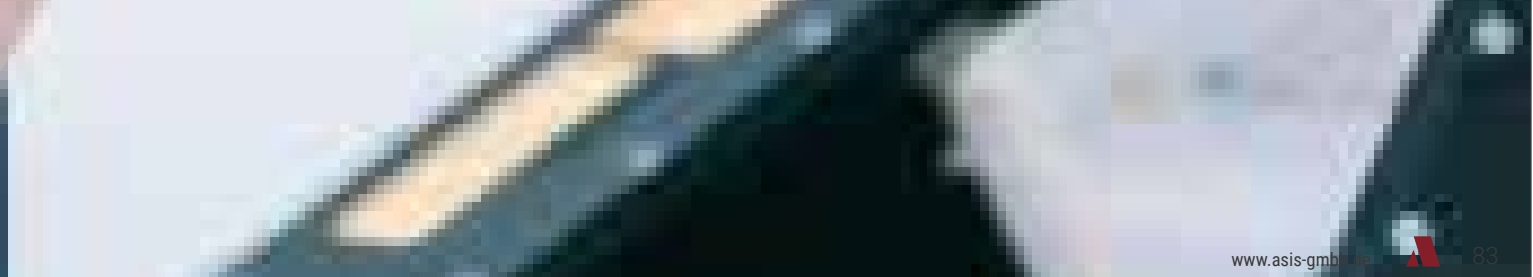
Paint Application

Paint Supply

Atomizer Cleaning



Flaming



Software

Rob-Flame

Flame treatment system for paint pretreatment



Rob-Flame

Dimensions and performance data

Control	Siemens S7
Operation	Touch panel, higher-level control
Gas types	Liquid gas/natural gas
Compressed air supply	Existing compressed air network, frequency controlled supply air fan
Heat output	up to 50 kW (depending on gas type)
Dimensions desk side by side	1200 mm x 50 mm x 1200 mm (L x W x H)
Dimensions cabinets one above the other	700 mm x 400 mm x 2210 mm (L x W x H)
Weight	ca. 200 kg

Connections

Gas connection	1/2" male connection
Air connection	3/4" male connection
Mixture connection	1" male connection
Power supply	230V / 50 Hz

Advantages and functions

- Precise electronic control of air and gas quantities
- Flexible burner design according to customer requirements
- Optimum paint adhesion on polyfin and polyolefin plastic components
- Reproducibility of the application result
- Improved product quality and durability
- Process monitoring in terms of quality management
- Leakage monitoring of the air/gas mixture hose
- Profibus, Profinet or E/A interface
- Integration into higher-level system
- Fully automated

Fields of operation

Paint pretreatment of plastic parts in the paint processing industry.

Standard references/approvals

The partly completed machinery (in the sense of EC Machinery Directive 2006/42/EC, Annex II 1.B for partly completed machinery) complies with all relevant provisions of the following EC Directives or Regulations:

- 2006/42/EG
- 2014/35/EU
- 2014/30/EU
- EN 746-2

Maintenance

For the long-term and optimal functioning of our flame treatment systems, we offer semi-annual or annual maintenance.

Our service team will be happy to advise you, which maintenance interval is ideal for your plant type (page 95).

Automatic Finish

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Paint Application

Paint Supply

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Flaming

Software

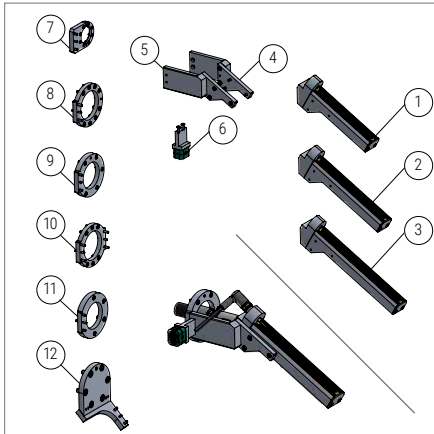


Fig. 1: Internal hose routing

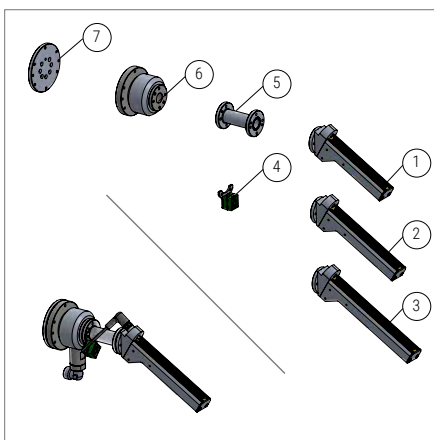


Fig. 2: External hose routing

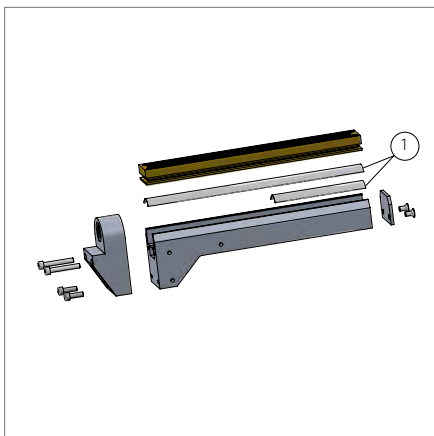


Fig. 3: Mesh sets

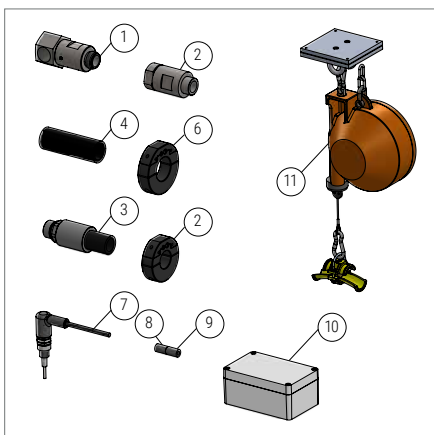


Fig. 4: Spare parts/accessories

Robot burner - internal hose routing

Fig.	No.	Name	Qty.	Order Number
1	1	Robot burner, 200mm	1	ASIS.01030159-0
1	2	Robot burner, 250mm	1	ASIS.01030067-0
1	3	Robot burner, 250mm	1	ASIS.01008600-A
1	4	Robot burner sideplates, right	1	ASIS.01030036-0
1	5	Robot burner sideplates, left	1	ASIS.01030063-0
1	6	Cable clip	1	ASIS.01042914-0
1	7	Mounting ABB IRB 4600, 45°	1	ASIS.01030077-0
1	8	Mounting ABB IRB 5400	1	ASIS.01030322-0
1	9	Mounting Fanuc M20iA left/right	1	ASIS.01030345-0
1	10	Mounting ABB IRB 5400, dual	1	ASIS.01030350-0
1	11	Mounting b+m T1	1	ASIS.01030370-0
1	12	Mounting Fanuc P-250ib	1	ASIS.01030625-0

Robot burner - external hose routing

Fig.	No.	Name	Qty.	Order Number
2	1	Robot burner, 200mm	1	ASIS.01044225-0
2	2	Robot burner, 250mm	1	ASIS.01034326-0
2	3	Robot burner, 250mm	1	ASIS.01044226-0
2	4	Cable clip	1	ASIS.01042916-0
2	5	Flange	1	ASIS.01042894-0
2	6	Rotatable duct	1	ASIS.01040516-0
2	7	Mounting KUKA KR20 R3100	1	ASIS.01042739-0

Mesh set

Fig.	No.	Name	Qty.	Order Number
3	1	Mesh set, 200mm	1	ASIS.01047853-0
3	1	Mesh set, 250mm	1	ASIS.01015493-0
3	1	Mesh set, 300mm	1	ASIS.01047856-0

Spare parts robot burner - gas line

Fig.	No.	Name	Qty.	Order Number
4	1	Swivel joint G3/4 with side outlet	1	ASIS.01022097-0
4	2	Pivot bearing	1	ASIS.01015493-0
4	3	Gas tube DN20	1	ASIS.01030104-A
4	4	Gas tube DN25	1	ASIS.01030910-0
4	5	Clamping jaw for gas hose DN20	1	ASIS.01036979-0
4	6	Clamping jaw for gas hose DN25	1	ASIS.01040754-0

Spare parts robot burner - starter line

Fig.	No.	Name	Qty.	Order Number
4	7	Starter gap robot burner	1	ASIS.01042915-0
4	8	Starter gap connector	1	ASIS.01030107-0
4	9	Starter gap connector	1	ASIS.01030108-0
4	10	Aluminium casting case	1	ASIS.01013608-0

Accessories robot burner (optional)

Fig.	No.	Name	Qty.	Order Number
4	11	Holder balancer	1	ASIS.01035216-0

Automatic Finish

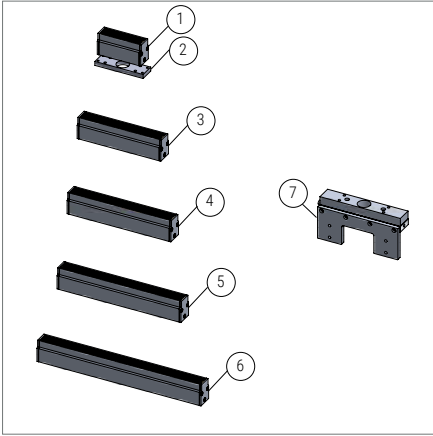


Fig. 1: Stationary burner

Automatic Sanding

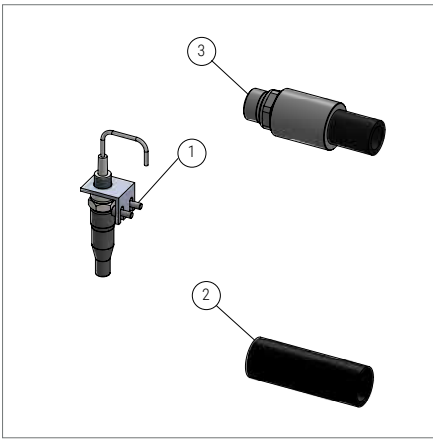


Fig. 2: Spare parts stationary burner

Paint Application

Paint Supply

Atomizer Cleaning

Flaming

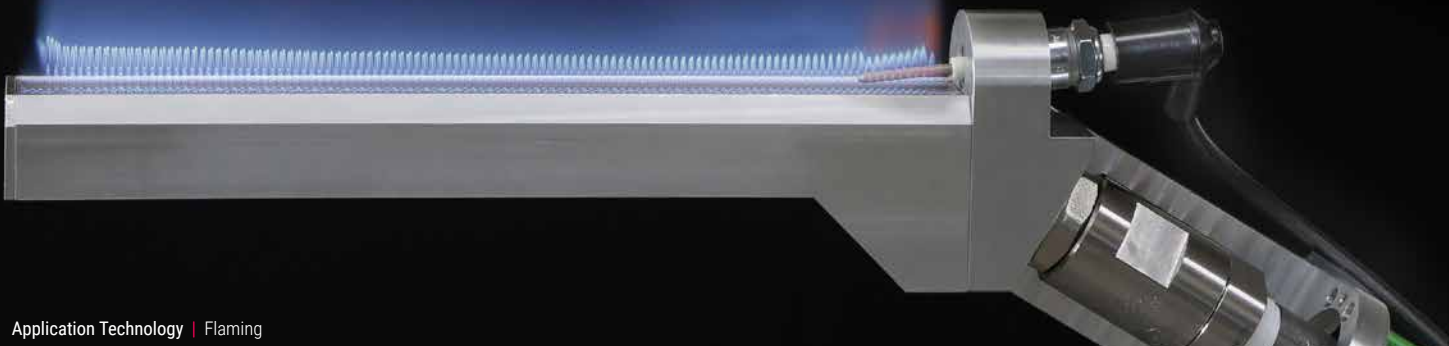
Software

Stationary burner

Fig.	No.	Name	Qty.	Order Number
1	1	Stationary burner, 100mm	1	ASIS.01041878-0
1	2	Adapter plate	1	ASIS.01041873-0
1	3	Stationary burner, 200mm	1	ASIS.01030976-0
1	4	Stationary burner, 250mm	1	ASIS.01030987-0
1	5	Stationary burner, 300mm	1	ASIS.01041997-0
1	6	Stationary burner, 400mm	1	ASIS.01030991-0
1	7	Burner quick change system	1	ASIS.01007270-0

Spare parts stationary burner

Fig.	No.	Name	Qty.	Order Number
2	1	Stater gap stand burner	1	ASIS.01030971-0
2	2	Gas tube DN20	1	ASIS.01030104-A
2	3	Gas tube DN25	1	ASIS.01030910-0



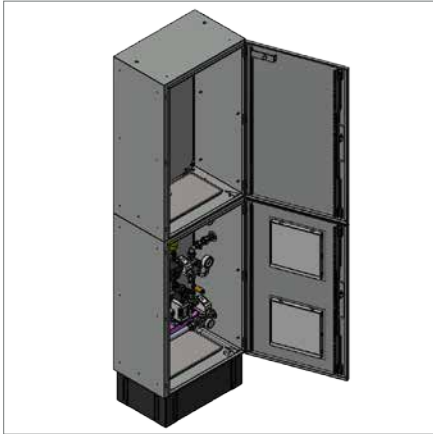


Fig. 3: 2 Flame switch cabinets, stacked

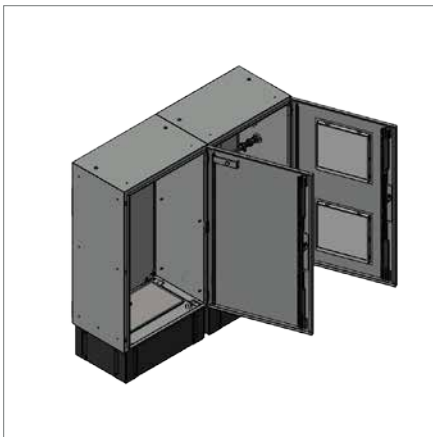


Fig. 4: 2 Flame switch cabinets, side by side

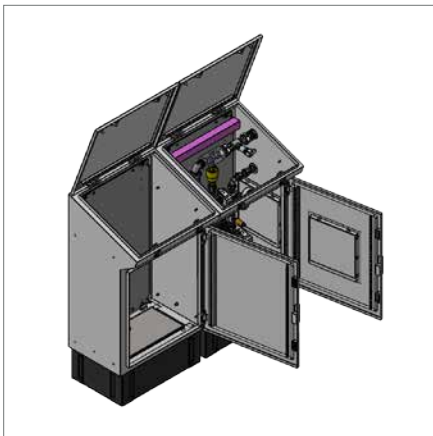


Fig. 5: 2 Flame consoles

Gas/air control line

Fig.	No.	Name	Qty.	Order Number
3	/	2 Flame switch cabinets, stacked	1	ASIS.01031972-0
4	/	2 Flame switch cabinets, side by side	1	ASIS.01031997-0
5	/	2 Flame consoles	1	ASIS.01031960-0

Spare parts gas/air control line

Fig.	No.	Name	Qty.	Order Number
/	/	Pressure regulator	1	ASIS.01031974-0
/	/	Pressure switch	1	ASIS.01004283-0
/	/	Mass flow controller inline	1	ASIS.01004351-A
/	/	Gas ball valve DVGW tested	1	ASIS.01004408-0
/	/	Gas filter 1/2"	1	ASIS.01004442-0
/	/	Pressure gauge, 63mm, connection 1/4"	1	ASIS.01004454-0
/	/	Pressure transmitter type 8316	1	ASIS.01004402-A
/	/	Gas solenoid valve	2	ASIS.01004443-0
/	/	Mass flow controller	1	ASIS.01004352-A
/	/	Non-return gas valve	1	ASIS.01004444-0
/	/	Pressure transmitter oil-, fat- and siliconfree G1/2", pressure range 0-0,1 bar	1	ASIS.01015410-0



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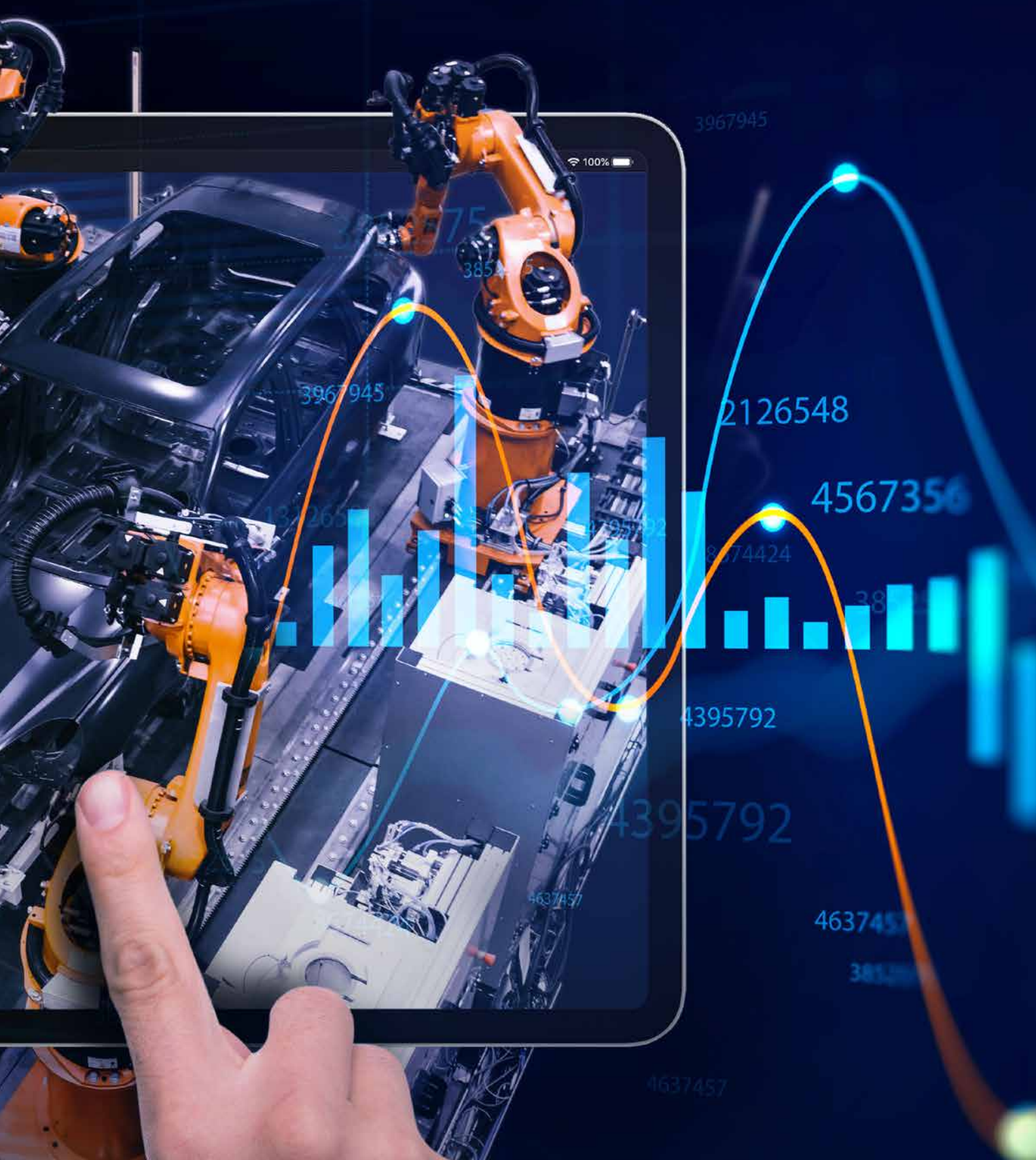
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Software

Solutions for your digitization strategy

Software



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Surface-Analytics 4.0

The digital solution for data acquisition, analysis and process optimization for plant engineering



Surface-Analytics

Advantages and functions

- Overview of current and historical production data
- Automatic determination of production-relevant KPIs
- Future-proof communication standard OPC UA
- User configurable email reporting
- Easy access via browser
- Access via tablet or smartphone
- Possible export of all production data as xlsx file

Fields of operation

Process data acquisition for production plants of any kind.

Details

Data communication	c via OPC UA
Data storage	Microsoft SQL
User interface	via web server

Server system requirements

Processor	4-core
RAM	16 GB
Hard drive	500 GB

	Surface-Analytics Basic	Surface-Analytics Pro
Alarm archive		
Save PLC alarm messages in database	✓	✓
Download in Excel format	✓	✓
Alarm evaluation	✗	✓
Alarm knowledge base*	✗	✓
Shift book*	✗	✓
Color-/type tables		
Display and edit of plc tables	✓	✓
Download in Excel format	✓	✓
Maintenance planner		
Graphical display and evaluation	✓	✓
Edit from components	✓	✓
Overview of upcoming maintenance	✓	✓
E-Mail reporting (connection to customer email server required)	✗	✓
Create new component types	✗	✓
Process data		
Collect process data	✓	✓
Download in Excel format	✓	✓
OEE evaluation	✓	✓
Edit OEE formulas	✗	✓
Integration of external data sources	✗	✓
User management		
User- & group management	✓	✓
Create new user groups	✗	✓
Dashboards		
Energy consumption	✓	✓
OEE evaluation	✓	✓
Plant overview	✓	✓

*available from Q3/2024

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Whitepaper Software



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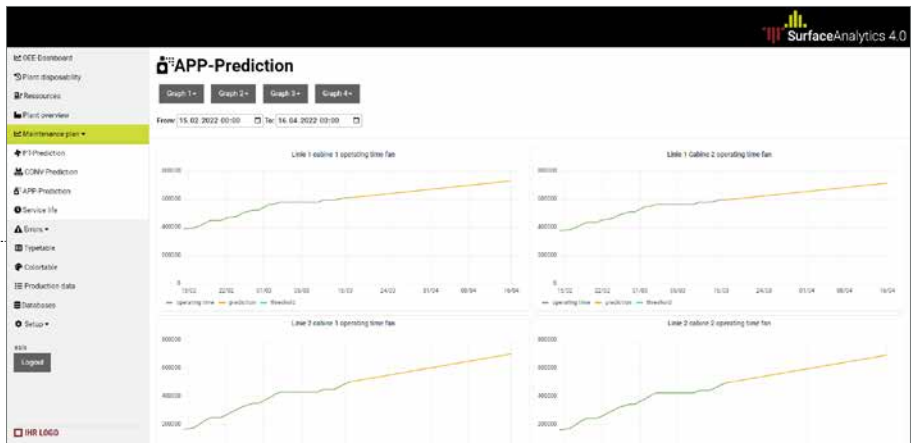
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OEE Dashboard



Energy consumption



Maintenance plan

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Software



CC-Edit

The digital solution for optimizing color change sequences



CC-Edit

Advantages and functions

- Easy graphical modification and optimization of color change sequences. Also possible offline.
- Runnable on all popular Windows PCs
- Future-proof through communication via OPC UA
- Changes also possible during running production
- No complex installation necessary
- Changes and optimizations from several different PCs possible
- Simple graphic change of the valve interlock also for maintenance work
- Data backup online as well as offline

Fields of operation

The color change editor is used primarily for more complex coating applications.

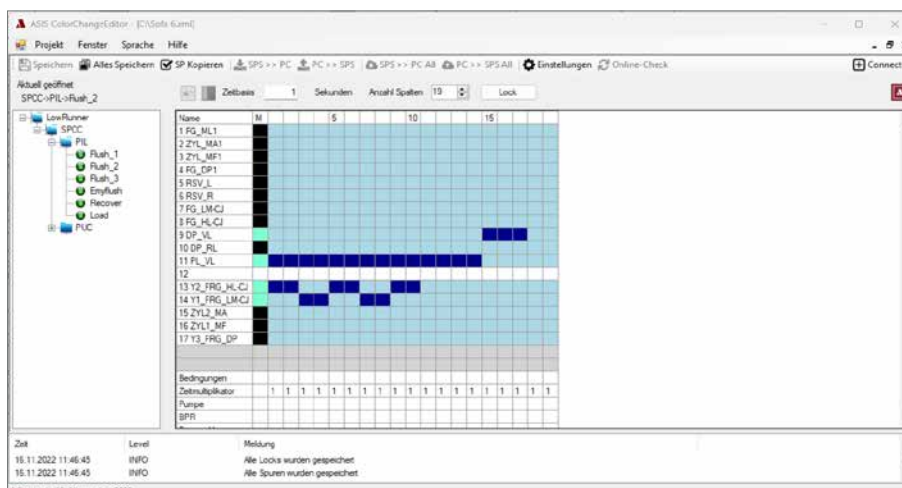
With CC-Edit, fully automatic color change sequences can be edited graphically and transferred to the control system.

Details

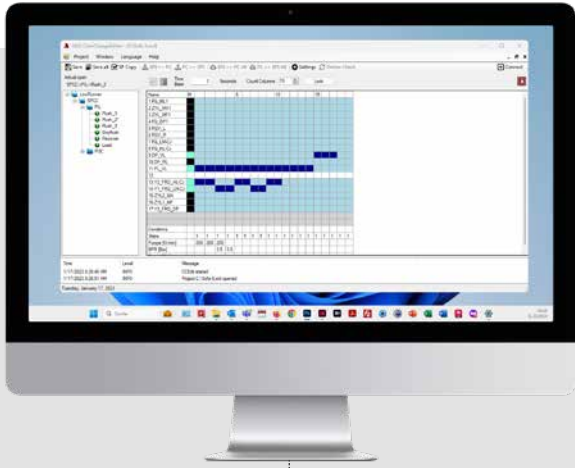
Data storage	XML
User interface	Windows application

System requirements for the computer

Application	Windows 10 or higher
Processor	1 GHz
RAM	512 MB
Memory	500 MB



Simple graphical interface of CC-Edit

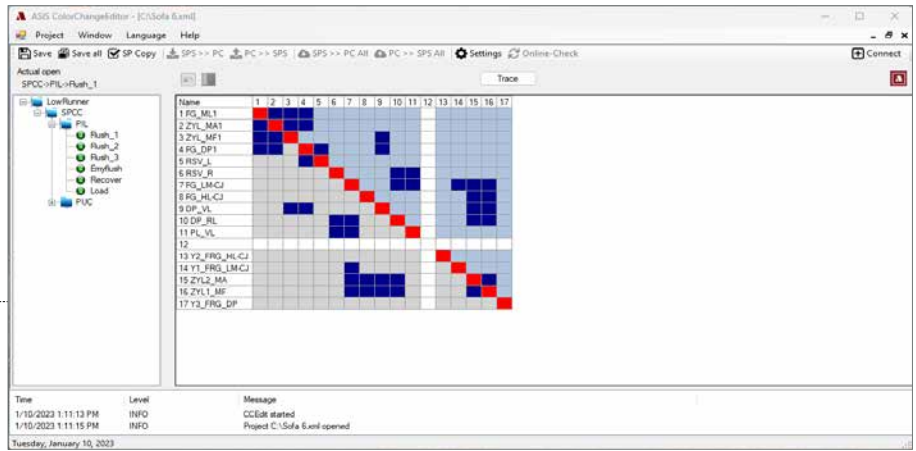


Whitepaper Software

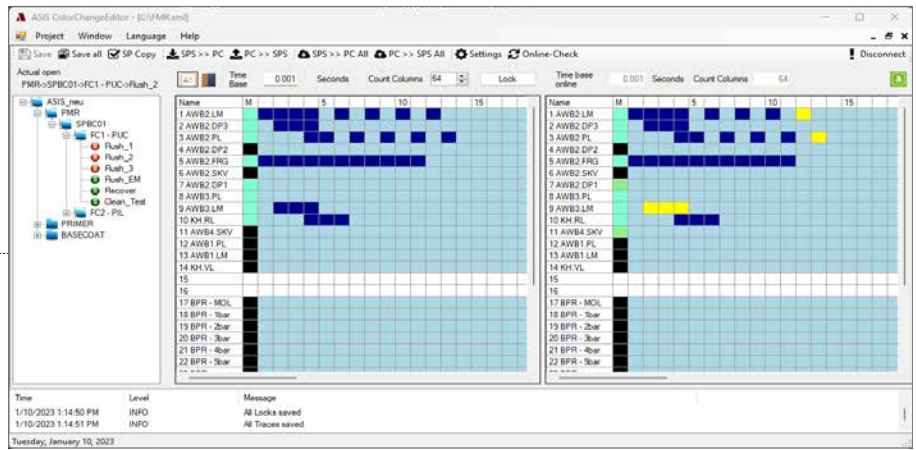


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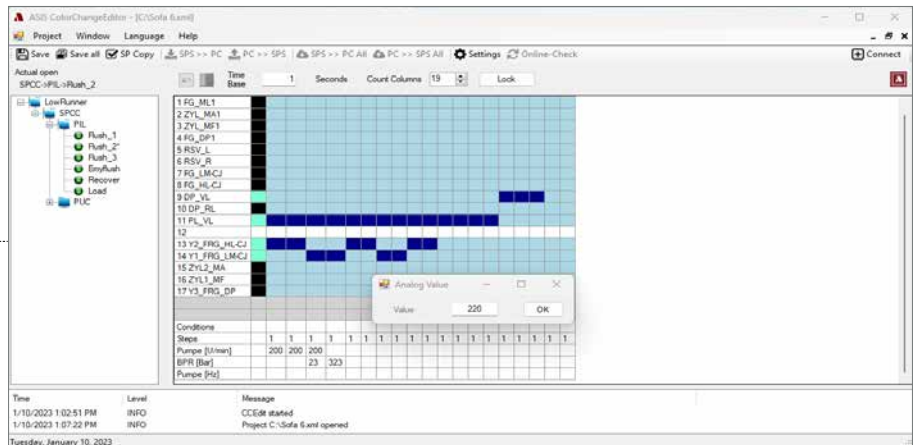
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Valve locking



On-/Offline comparison



Analog values

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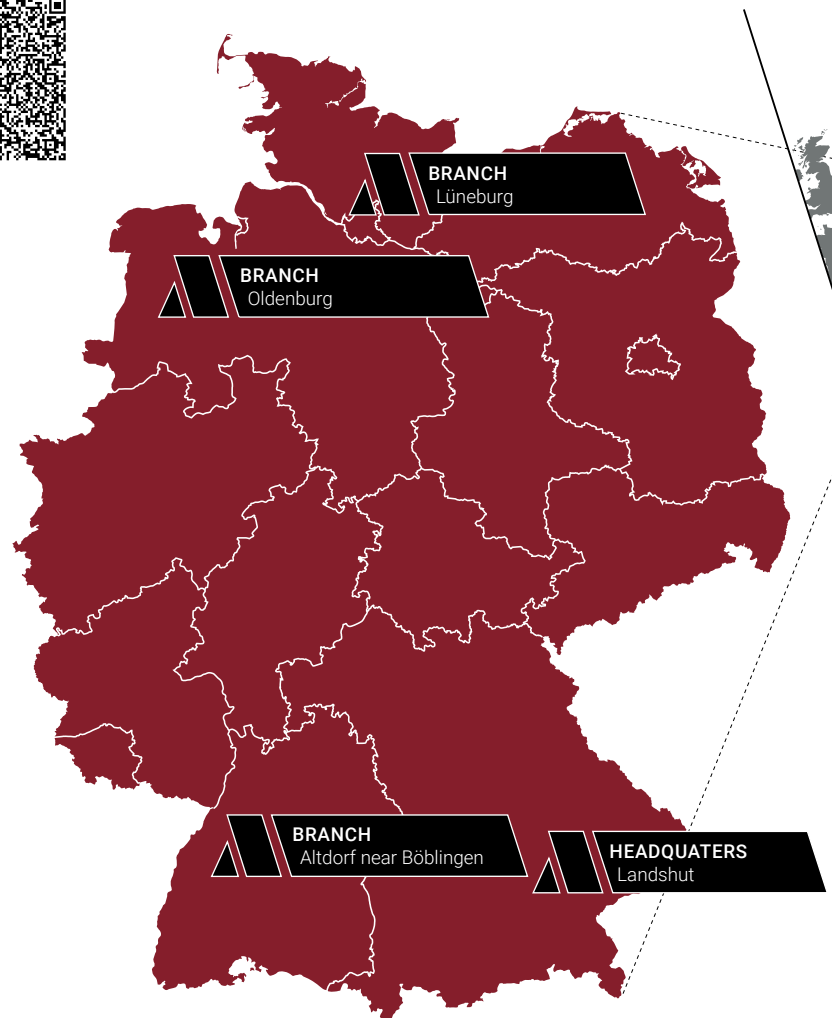
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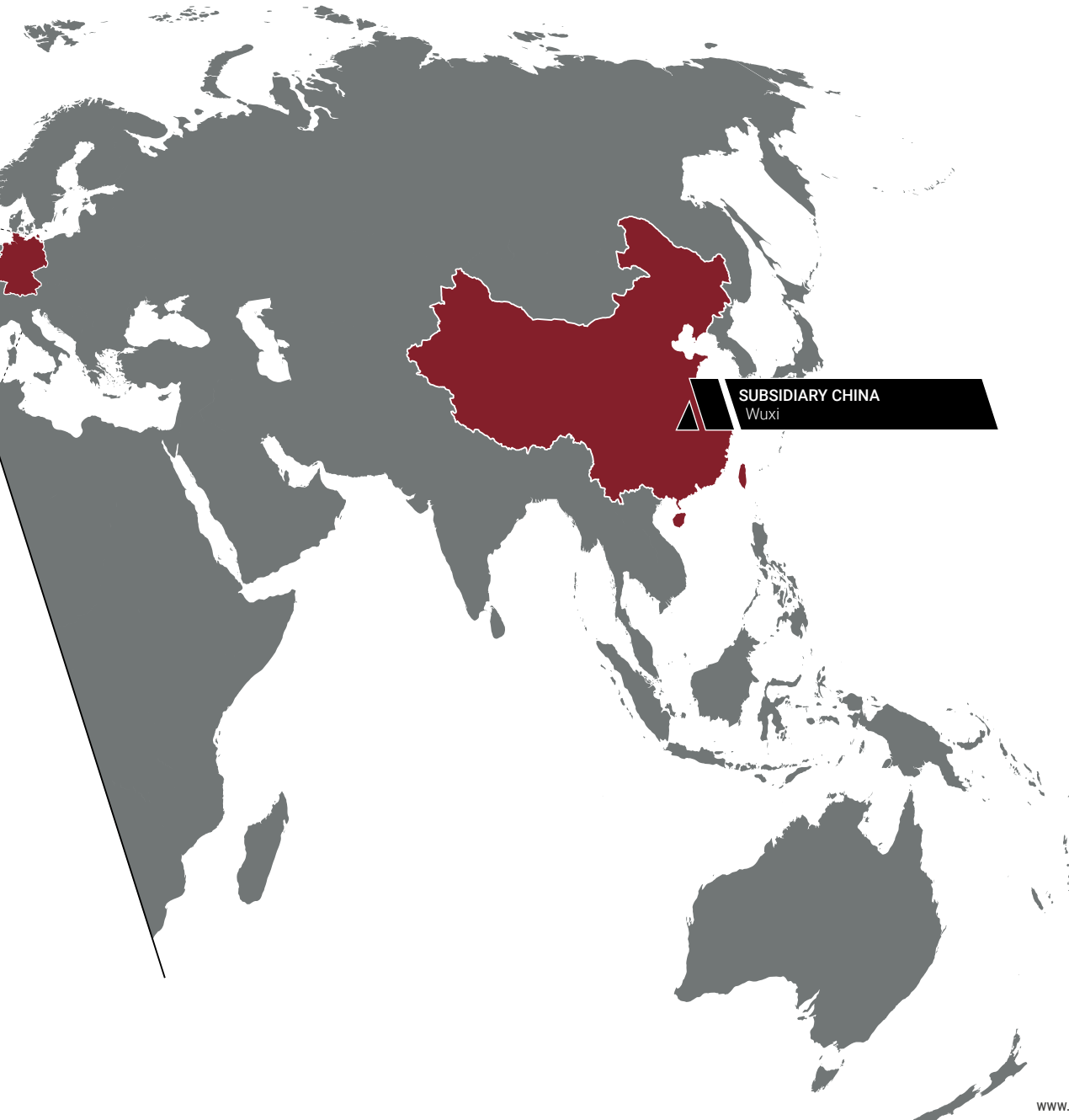
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CONNECTING TECHNOLOGY AND PEOPLE

