



DOSING AND APPLICATION SYSTEMS MAXIMUM PRECISION

For grease, oil and many other media



DOSING AND APPLICATION SYSTEMS

Innovative Dosing and Application Systems By Walther Systemtechnik

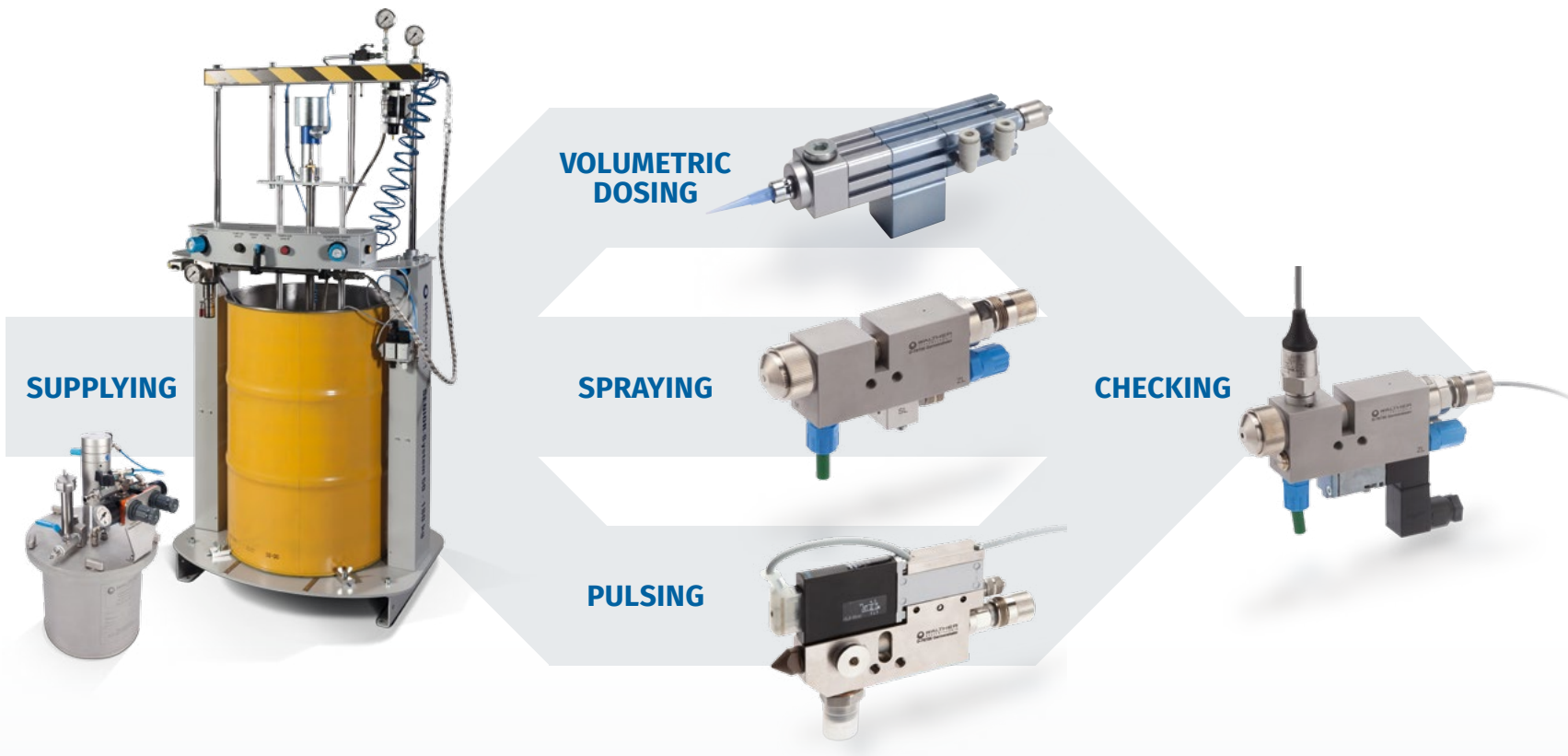
Our developments are constantly adapted to the requirements of the market. We develop the optimal solution for various fields of application in close cooperation with our customers.



We develop and build systems for the automotive, pharmaceutical, food, rubber, chemical and metal industries.

Of course, we do this for you, too – please contact us for more information!

“ As a system supplier, we deliver complete and adapted Dosing and Application Systems for your products ”



Supplying

Dosing

Spraying

Pulsing

Checking

Marking

Application

Suitable for greases, oils, preserving agents, silicones, separating agents, acids, alkaline solutions, primers, flux, air, water, glue, adhesives, liquid paste, Teflon solutions, lubricants, alcohols, anticorrosive agents and anti-friction coatings.

SUPPLYING

SENIOR-System

Barrel-lift pump
for 50 to 180 kg
containers



JUNIOR-System

Barrel-lift pump
for 10 to 50 kg
containers



MINI-System

Barrel-lift pump
for 1 to 10 kg
containers



Small-Scale Supply Unit

- For 0.25 to 10 kg containers
- Also for cartridges
- Space-saving
- Ideal for manual workstations



Supply Systems

For an exact, clean and safe supply of greases, oils and many other media.

- For container sizes 0.25 to 180 kg
- For material pressure 2 to 360 bar
- Pumps, grease containers, cartridge systems, material pressure tanks etc.

Accessories for Supply Systems

Depending on your type of application, we offer a wide range of accessories.

Material Pressure Relief / Media Storage for Grease Applications

The main focus is on the high process safety and availability of the device, as well as on grease and oil savings during the process.



Protection Hood

- Protection against soiling from outside
- Visual protection

Available for:

- SENIOR-System
- JUNIOR-System
- MINI-System
- Small-scale Pumps



Grease Supply Systems

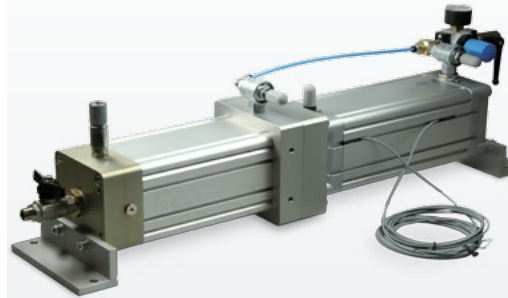
- For 14 to 180 kg containers



Grease Containers

Walther grease containers guarantee highest process safety

- No pulsation
- Quantities from 1 to 2 kg
- Material pressure 0 to 18 bar



Material Pressure Tanks

- Highly liquid media such as paint, oils and preserving agents
- Standard sizes 2, 5, 12, 20, 40 l



Mixing Tube

Static mixing tube for homogenisation and reduction of air bubbles



Material Distributor / Hoses

- Flow-optimised



Grease Filters

- Filter mesh 150 µm
- Filter mesh 300 µm
- Filter mesh 500 µm



Membrane Pressure Regulator

- Exact setting of the pressure range
- Also lockable

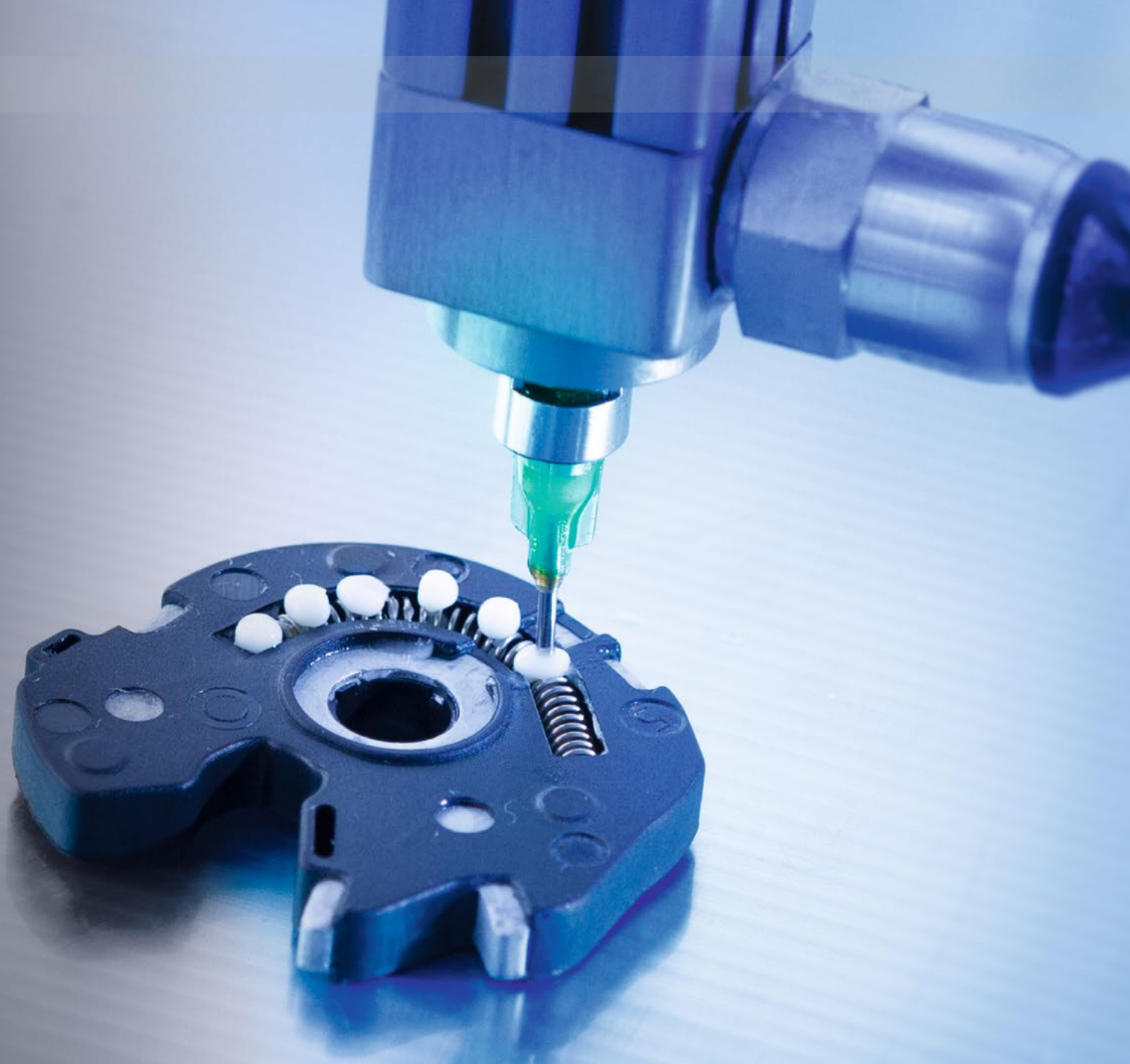


DOSING

All that matters is the quantity – Dosing systems for many media

No matter whether you are dosing manually or fully automatically, we can provide the matching application systems. High-precision repeatability and clean application make our manual systems the economic tool for individual production and also small batches.

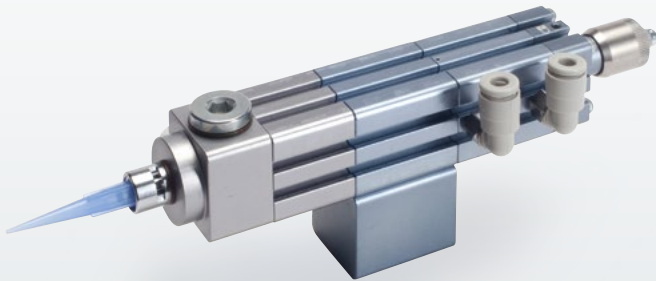
Our valves can be smoothly integrated into industrial processes. In large-scale productions with high dosing speeds the valves are highly reliable tools as well.



Valve Technology

Volume Dosing and Outlet Valve WDV

- Dot application
- Quantities from 0.001 to 6 cm³
- High-precision repeatability
- Compact design
- Finest quantity setting
- Process safety available through dosing piston sensor or pressure sensor
- Optional for spray application



Electrically Driven Dosing Valve WDVE

- Dot and bead application
- Exact adjusting of actual dosing
- Adjustable dosing speed
- Compact design
- Fast change in dosing quantity

NEW



Full-Jet Valve

- Dot and bead application
- Dosing quantity adjustable (pressure-time-dosing)
- Pneumatic or electric control



Dosing Valves

The valves are suitable for use in automated assembly lines for grease and oil as well as other media.



Contact Greasing of Gearwheel



Point-by-Point Greasing of Ball Bearings

Manual Systems

Handpen

- Manual triggering for dots and beads
- Suitable for manual workstations
- Light-weight construction



Dosing Valve with Handgrip

- Especially for assembly lines with manual greasing and oiling
- For dot and bead application
 - Highest process safety for smallest dosing volumes
 - Pinpoint and clean application
 - Highest repeatability in dosing
 - With electric control



Dosing Valve with Handgrip

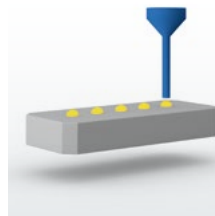
- For a comfortable and easy job at the workstation
- Quantities from 0.001 to 6 cm³
 - Stroke fine adjustment with lock



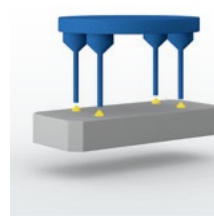
Advantages of the Manual Systems:

- High process safety
- Material savings
- Clean workstation
- Savings in assembly time
- Precise application

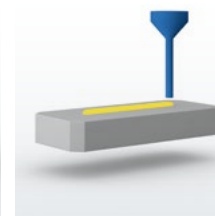
Dot Dosing



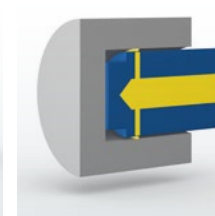
Multiple Dot Dosing



Bead Application



Inside Dosing



Outside Dosing

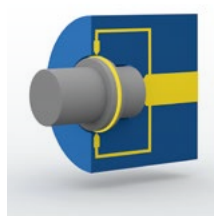


Table-Top Greasing Unit with Exchange Adapter

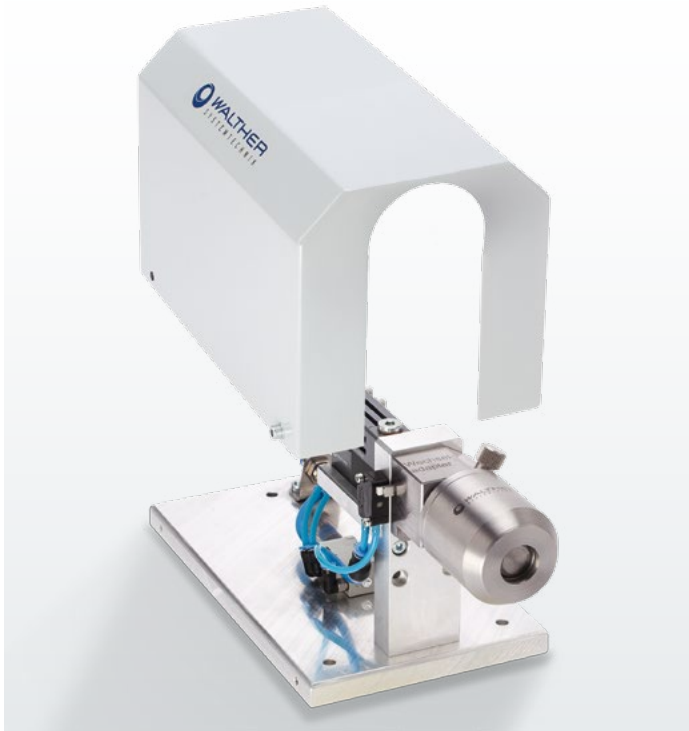
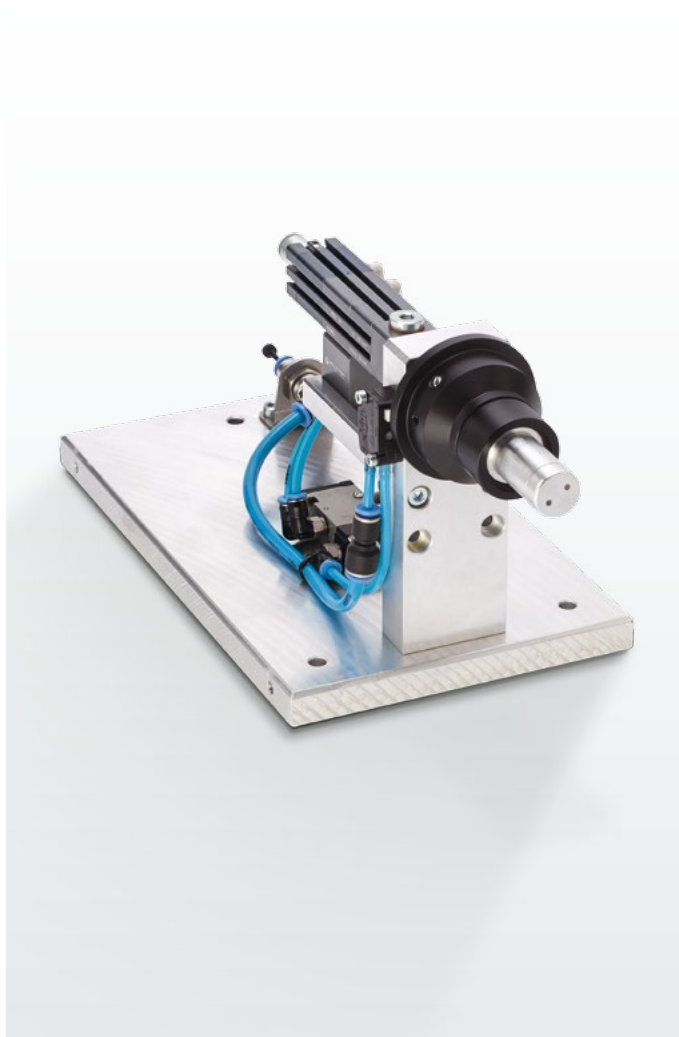


Table-Top Greasing Device open



Application Tool

- Custom designed
- Tools for inner and outer greasing



Accessories for Dosing Systems

Table-top greasing devices / oiling systems are suitable for manual workstations with small or medium batches. They come with an adjustable volume up to 6 cm³ or for larger quantities as time-controlled versions. The custom-designed special application tools are part of the individual delivery.

SPRAYING

Accurate Spraying – no overspraying

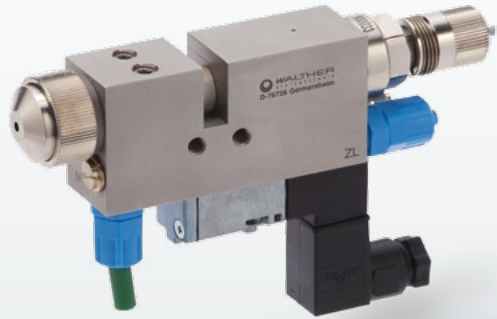
Spraying greases and oils target the finest homogenous application with spraying valves, without nebulisation. For 15 years now we have been able to apply grease and oil evenly in a thin film. The special valve and nozzle technique with an individual exact air atomisation is the main advantage of industrial spray greasing.

The high repeatability of the spray application results in high process safety. It is not rare for material and cost savings of more than 50 % over common methods to be achieved. More than 2,500 different nozzle extensions also spray hard-to-reach areas. Different component sizes can mostly be sprayed in a repeatable and procedurally safe manner with one spraying system.



Spray Valve SMS-02

- Dot and flat-jet application
- Material pressure up to 25 bar
- Electro-pneumatic controls
- Integrated pre- and post-air function



Spray Valve SMS-11 / SMS-04

- Low weight and compact design
- Pneumatic controlling
- Dot and flat-jet application
- Material pressure up to 30/10 bar
- Controllable pre- and post air



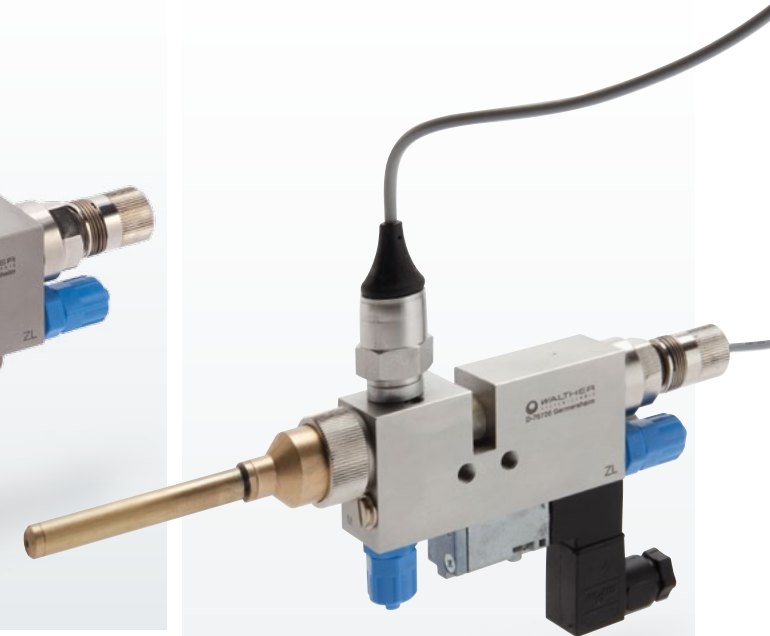
Pneumatic Spray Valve

- Standard valve for higher material pressures up to 50 bar
- Dot and flat-jet application
- Controllable pre- and post air

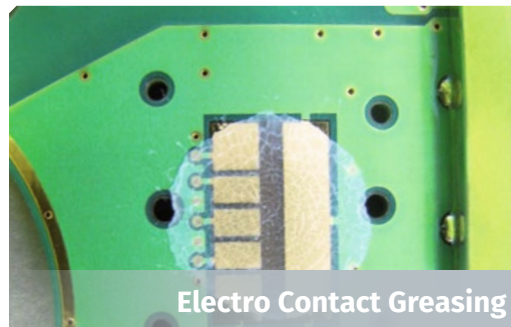


Spray Valve with Process Control

- Process control through pressure sensors and raster needle sensor



The spray valves allow a precise and contact-free application of greases, oils, paints and separating agents in a thin layer. A process-safe application on hard-to-reach locations is possible through the attachment of special nozzle extensions. The valves are suitable for use in automated systems.



Electro Contact Greasing

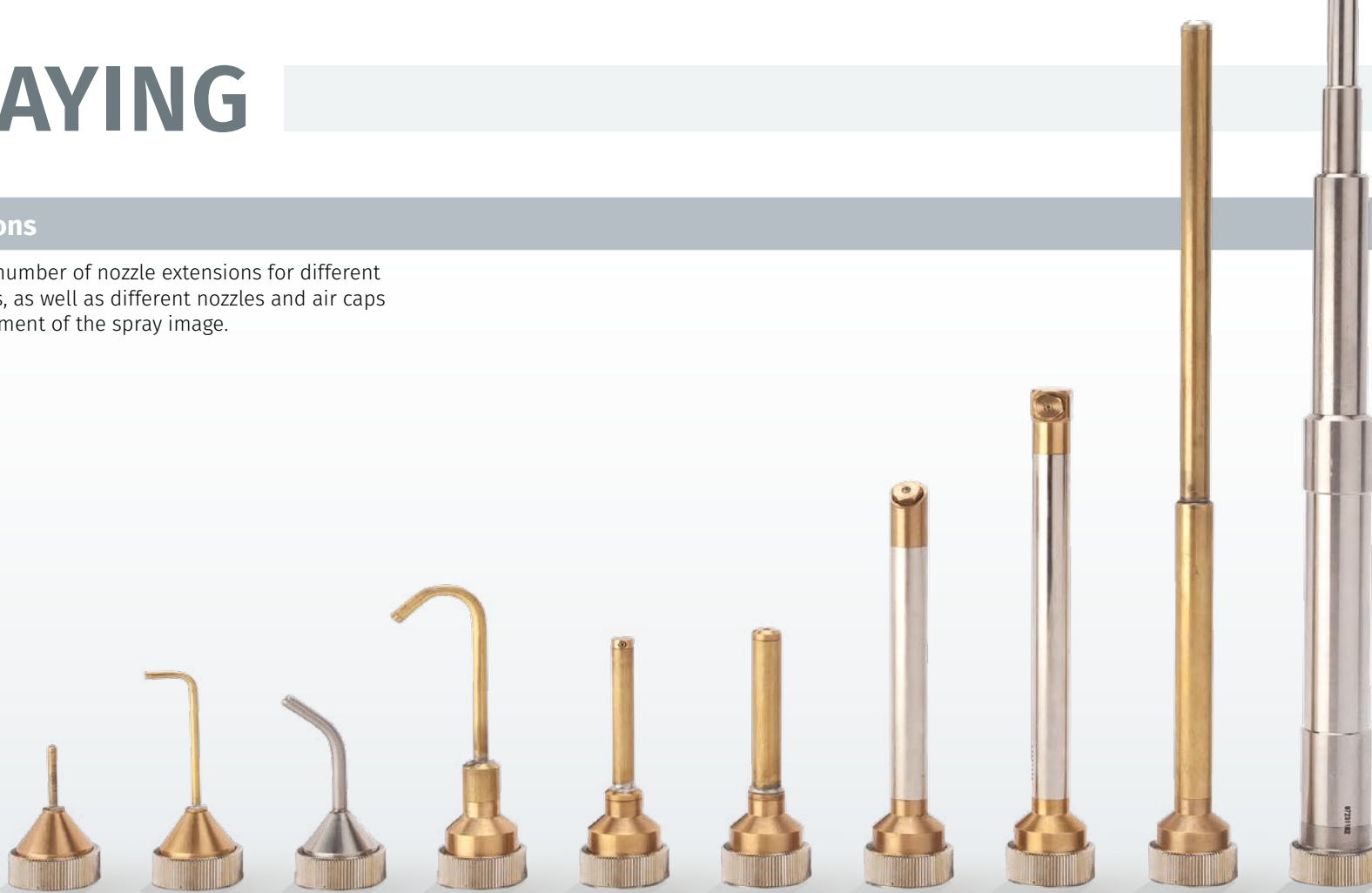


Greasing of Internal Gearing

SPRAYING

Nozzle Extensions

We produce a large number of nozzle extensions for different kinds of applications, as well as different nozzles and air caps for individual adjustment of the spray image.



Dot Application

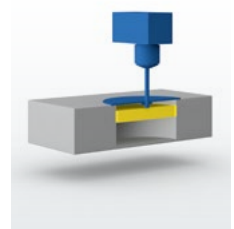
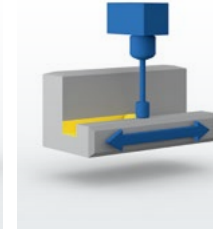
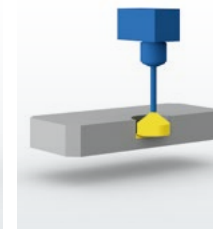
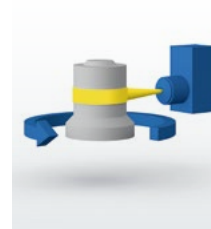
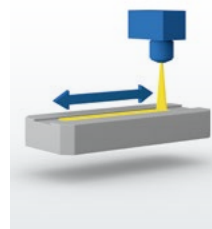
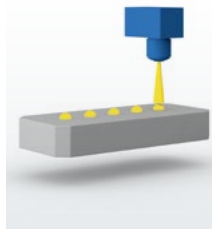
Area Application

Outside Spray

Boring Spray

Angled Spray –
90° and 45°

Internal Boring
Spray – 360°



**High process safety,
the finest application,
material savings and a
clean workstation**

Manual Systems

Spraypen

- Fine-spray handpen for a precise, contact-free application
- Light construction
- Pneumatic control



Hand Spray Valve

- Especially for assembly lines with manual greasing and oiling
- Hand spray valve with a stepless setting of the sprayed quantity
- Trigger at valve
- Highest repeatability for dosing
- With electric control



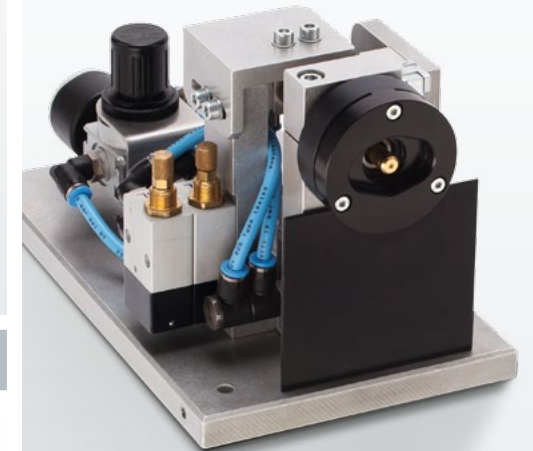
Fine-Spray Hand Gun

Fine-spray hand gun for a contact-free spraying of dots or areas



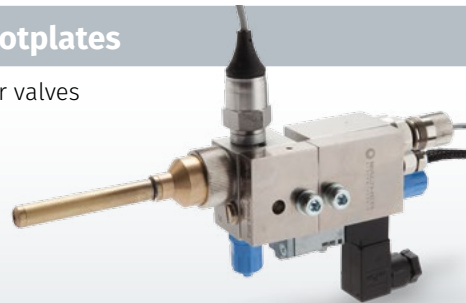
Table-Top Spraying Device

- Table-top spraying device for a contact-free spraying of greases, oils and other media with constant quantities
- For manual workstations
- Adjustable quantities
- Custom-designed part holders



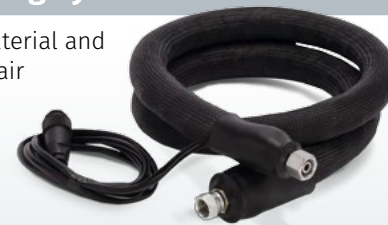
Hotplates

for valves



Heating Systems

for material and spray air



Heating Systems

- For improving the flowability of the medium
- For compensating temperature fluctuations
- For optimising the spray image
- For increasing process safety

PULSING



On the pulse of Application Technology - Micro-Point Pulse Valves

Our pulse valves were specially designed for contact-free application of lubricants. Other media can also be pulsed. The contact-free dosing application with minute quantities helps you save a considerable amount of material compared to manual or contact dosing.

The valves can be installed in almost any position and offer an application range from the smallest dots to very broad beads; this makes them suitable for use in fully automated assembly lines and robots.

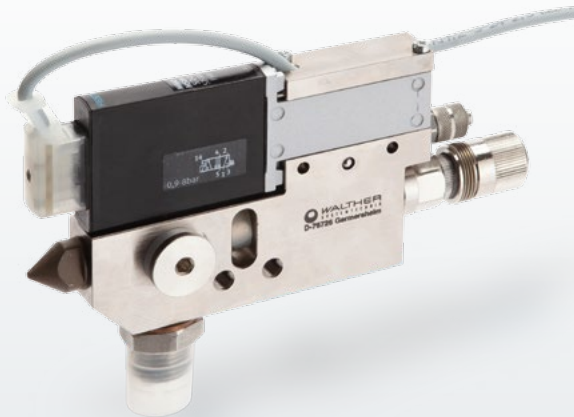
Micro-Point Pulse Valve MPP-01

- Raster setting for an easy adjustment of the medium quantity
- The medium can be dispensed in various directions
- Up to 40 Hz
- Repeatable contact-free dosing



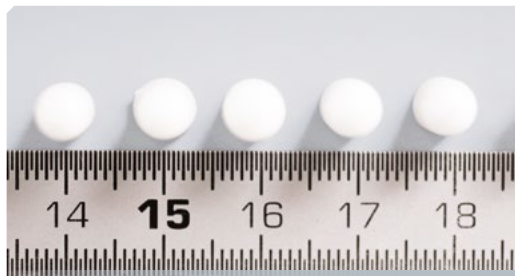
Micro-Point Pulse Valve MPP-03-PRO

- Raster setting for easy adjustment of the medium quantity
- The medium can be dispensed in various directions
- Up to 200 Hz
- Suitable for smaller quantities
- Repeatable contact-free dosing

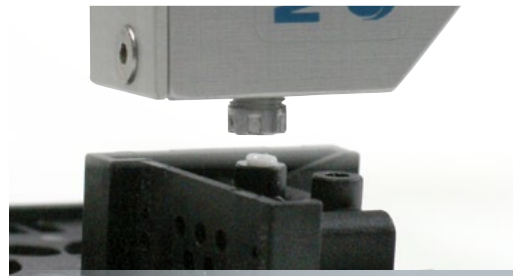


Micro-Point Pulse Valve SPEED

- Parameters can be changed for individual adjustment of the medium quantity
- Dot application of minute quantities
- Repeatable contact-free dosing
- Integrated heating for an optimal temperature of the medium
- Up to 400 Hz



Different quantities can be pulsed



Exact pulsing of smallest quantities



Pulsing at hard-to-reach locations



Slanted pulsing

PULSING WITH NOZZLE EXTENSIONS

Micro-Point Pulse Valve MPP-02

- Medium can be dispensed in various directions
- Up to 40 Hz



Micro-Point Pulse Valve MPP-03-PRO

- Medium can be dispensed in various directions
- Up to 200 Hz



Valve with attached Hotplate

Hotplate for warming the medium as temperature balance and for improving the flowability of the medium



Valve Control WLVC

This extremely fast valve controller with heating controls serves to ensure high switching frequency



Nozzle Extensions

- For hard-to-reach locations
- For slanted pulsing from 0° to 125°
- With lengths up to 80 mm

MPP-03-PRO

The Micro-Point Pulse Valve MPP-03-PRO is the newest and fastest mechanical pulse valve in the Walther valve family.

- Fast pulsing times up to 200 Hz
- High transfer of kinetic energy onto the medium which makes larger distances to the actual part more feasible
- Different dosing quantities are possible

MARKING



Leave a mark – Colour Marking Systems for Quality Control

Different materials such as plastics, metal, textiles, rubber, wood etc. can be marked with our colour marking systems. You can use either dots, or areas, or lines. Even wet or oily surfaces can be marked.

Fine adjustment and high process safety guarantee material savings and a clean work environment. Walther Marking Systems represent straight system set-ups and continuous automation capacity.

Material Pressure Tanks

- Different sizes
- Stainless steel container 2, 5, 12 l
- Filling level indicator
- Filling unit
- Stirrer
- Completely installed on container



Colour Spray Valve SMS-05

- Especially for paint application
- Different nozzles and air caps for individual adjustment of the sprayed image
- Raster needle sensor optional
- Self-cleaning with pre- and post air
- Needle-sealing, non-dripping
- Easy to clean



Hand System SMS-16

- Hand spray valve with stepless setting of the sprayed quantity



Quick-Fill System

- Simple filling system for fast filling with paint
- Colours available in almost all RAL colours
- No exhaust suction required



System Set-up Dot Marking



Dot Marking

Optical Sensor

- Additional monitoring of the colour dot on the part

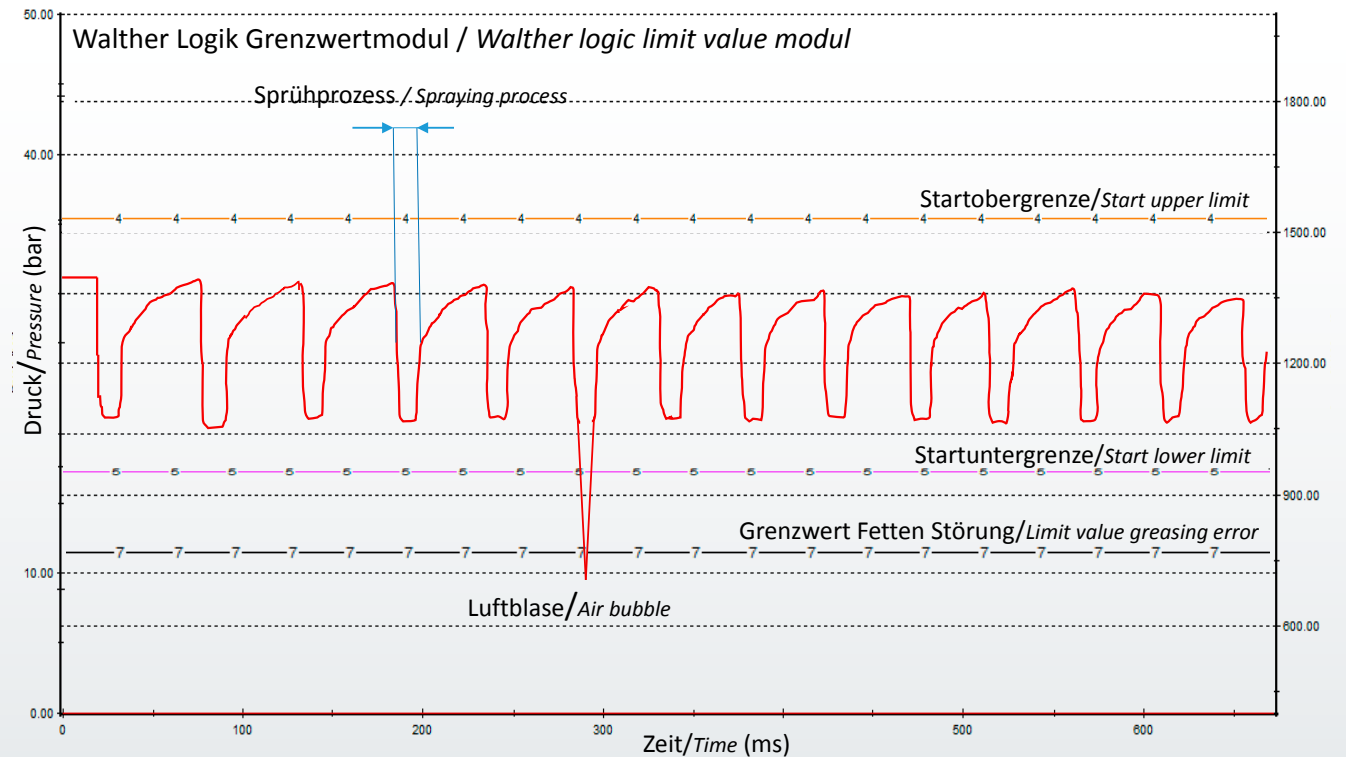


CHECKING

Raster Needle Sensor and Pressure Sensor



Pressure History Curve during Greasing Process



Monitoring Technology for Highest Process Safety

- Monitoring the dosing process with pressure sensor and raster needle sensor
- Individual setting of process parameters is possible
- The Walther Logic Limit Value Module is an evaluating module for process control

Logic Limit Value Module WLG



Light Barrier

- Digital counting of oil and grease dots
- High process safety
- Space-saving quality control



Metering Unit

- For measuring the dosed quantity
- For spray and full-jet valves
- Gentle measuring process for the medium
- High-quality metering technology



Stationary Pressure Sensor

- Monitoring the applied pressure in the system
- With digital display



Optical Sensor

- Optical monitoring of the dosed medium



Gearwheel Flow Meter

- Quantity measuring for oils and greases
- For quantities of 50 mm³ and above



APPLICATIONS

Table-top Robot for Spraying Grease and Oil with a 3-Axis-System



For greases, oil, glue, paint, silicone, primer, separating agents, flux or preservatives

- High process safety
- Savings in production costs
- Different sizes available
- Integrated high-tech control unit with high track precision and speed
- Custom-designed part holders
- We also offer you complete solutions from one source

Manual Workstation with Greasing

We combine assembly and greasing process into one process-safe manual workstation.

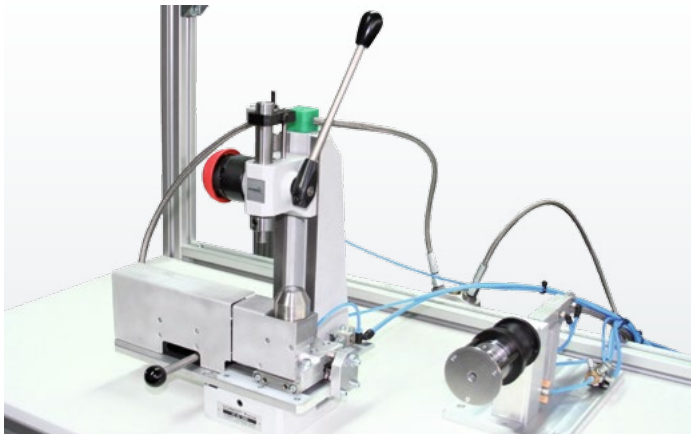


Table-Top Greasing System

The table-top greasing device was designed for applying greases and oils. It is a combination of dosing valve, distributor for grease supply and tool holder, mounted on an aluminum baseboard.

- A customer-specific application will be supplied
- Very high repeatability
- Perfect for manual workstations
- Pneumatic and electric control



Cartridge Filling System

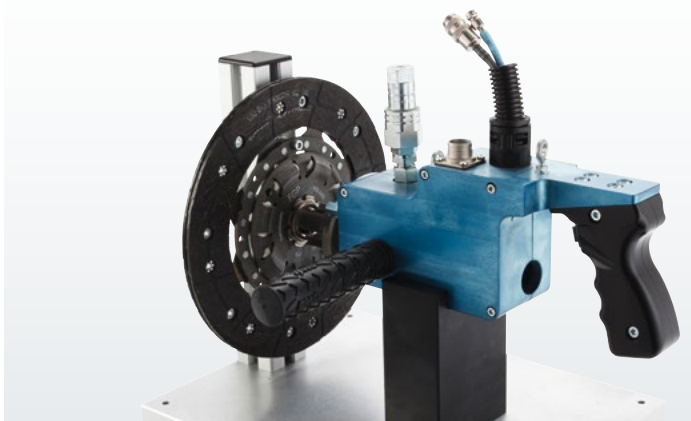
Cartridge filling system for standard one-way cartridges.

- Integrated high-tech control unit with high precision and speed
- All standard pump types can be attached
- Suitable for cartridges from 3 to 55 cm³



Spray Dosing Gun

- Spraying gun with spin nozzle technology for spraying grease onto internal gearings, offers a clean, practical and process-safe solution



Semi-Automatic Dosing System

- Device for applying grease onto ball bearings by using an application head and a manual stroke movement
- Custom-designed construction
- Process safety through semi-automatic work



“ We are your Project Partner ”

We take the term “system technology” literally. We interpret production plants as total systems, into which our technology and our know-how have to integrate seamlessly. Therefore, our top priority is to consult you integrally, and to offer you the exact dosing technology that is tailored to your needs.

We consult, plan, sample, pilot-test, adapt the systems to your production plants, deliver them ready for installation and exactly adapted up to the tiniest detail. We offer you everything you need in dosing technology, starting with individual components and up to complex complete systems, e.g. addition to existing robots. And with a system!



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