DOSING AND APPLICATION SYSTEMS
MAXIMUM PRECISION
For grease, oil and many other media
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.

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.
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

Protection Hood
- Protection against soiling from outside
- Visual protection

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

Mixing Tube
Static mixing tube for homogenisation and reduction of air bubbles

Grease Supply Systems

Grease Containers

Material Pressure Tanks

Grease Filters

Membrane Pressure Regulator
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

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

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

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

**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

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**Electro Contact Greasing**

**Greasing of Internal Gearing**
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.

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

**Heating Systems**
- For improving the flowability of the medium
- For compensating temperature fluctuations
- For optimising the spray image
- For increasing process safety
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 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
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
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
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<th>Light Barrier</th>
<th>Metering Unit</th>
<th>Stationary Pressure Sensor</th>
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| - Digital counting of oil and grease dots  
- High process safety  
- Space-saving quality control | - For measuring the dosed quantity  
- For spray and full-jet valves  
- Gentle measuring process for the medium  
- High-quality metering technology | - 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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