WIWA®

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# WIWA Adhesive and sealing systems

## WIWA Extrusion systems

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Dear business partners,

just as in the fields of protective coatings, building protection or injection, many of our systems for adhesive and dispensing technology are also custom built. This brochure cannot completely cover all aspects of our product pallet, but it can definitely give you a taste of how we can support your global projects.

In addition, we are always open to new trends and grateful for the honest feedback from distributors and customers who put our products to the test daily. This information enables us to continuously improve and remain by your side as a strong and reliable partner.

Consider the following product lineup as the beginning of a new chapter, the aim of which is to meet the increasing challenges of the market and to grow with them. As a result, we can offer you the best possible equipment solutions, providing durability and longevity. We are on this path together with you and looking forward to expanding our portfolio and surprising you with powerful, robust and creative innovations.

As always, you can expect quality “made in Germany”; simple, efficient solutions and honest cooperation. We will keep you up to date with new product offerings that you can look forward to!

Kind regards on behalf of our entire team

Peter Turczak
Managing Director



# Company history

It all started with spray nozzles, which precision mechanic Wilhelm Wagner manufactured in the 1940s. Today – 70 years after it was established – WIWA Wilhelm Wagner GmbH & Co. KG supplies first class coating systems, spray painting equipment, injection and fluid handling systems around the world.

| | |
|---|---|
| 1950 | Company founded in Lahnau, WIWA develops and makes oil pumps and lubrication guns. |
| 1967 | The first Airless spray painting units are sold. |
| 1968 | New Airless spray painting units and underbody coating pumps are added to the product range. |
| 1970 | New products – AIRLESS 10.000, AirCombi units, zinc silicate spraying units, feed pumps, airless spray painting guns – are added to the product range.<br>Company expands: New building is opened on Gewerbestrasse in Lahnau-Waldgirmes. |
| 1975 | Founder‘s daughter Heidrun Wagner-Turczak takes the commercial helm of the company and Günter Leinweber takes over as Chief Technical Officer. |
| 1980 | Expansion of fluids handling technology product range and market launch of WIWA extrusion pumps and hot-spraying systems. |
| 1992 | WIWA JUMBO launched on the market – the world’s largest airless unit. |
| 1994 | WIWA plural component technology opens up a promising, new market segment with the launch of the DUOMIX range. |
| 1996 | Certification of quality management according to DIN ISO 9001. |
| 2000 | WIWA LP is established in Tucker, Georgia, USA. |
| 2002 | Mobile 2K unit added to plural component systems program. |
| 2004 | Unveiling of 1K (single-component) and 2K PFP units for fire-protection coatings.<br>WIWA is awarded ATEX certification. |
| 2005 | WIWA launches electronic plural component technology with the FLEXIMIX 1 and FLEXIMIX 2. |
| 2007 | Relocation of WIWA factory in Leun-Stockhausen to new building at HQ Lahnau. |
| 2009 | Unveiling of newly developed range of polyurea application units. |
| 2010 | Relocation of WIWA LP to Alger, Ohio, USA. |
| 2013 | Establishment of WIWA Middle East in Dubai. |
| 2014 | WIWA DUOMIX 333 PFP certified for use on offshore platforms. New generation of airless units, the HERKULES GX SERIES. |
| 2015 | Modernization of the DUOMIX range with the launch of the DUOMIX 270. |
| 2016 | Introduction of the new generation single feed units HERKULES 270 and 333 GX and of the DATALOGGER. |
| 2017 | The 3rd generation takes over the management.<br>Peter Turczak succeeds his mother Heidrun Wagner-Turczak. |
| 2018 | Launch of the new generation single feed units PHOENIX GX and PROFESSIONAL GX. |
| 2020 | 70 years of passion for your application in over 80 countries worldwide. |

# Low viscosity adhesive application



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## Solvent-borne adhesives
## ... properties, advantages and disadvantages

With solvent-borne adhesives, the adhesive substances - also called binders - are dissolved in (a mixture of different) organic solvents. Binding agents, which make up a substantial part of the solids content, are often resins or rubber.

Solvents initially serve as a means of transport by keeping the binders pliable. During the processing of the adhesive they evaporate, leaving undiluted adhesive at the end. They also influence, for example, the adhesion of an adhesive by promoting wetting and effecting the flash-off time through the speed the solvents evaporate.

There are two types of solvent-borne adhesives: Products that soften the surface to be bonded and contact adhesives. These form the largest group of adhesives and must be applied alternately to the two surfaces you want to join. There they dry for a pre-determined period before the two surfaces are bonded together. Especially with vertical surfaces, the advantage here is that a certain initial strength is immediately available.

More environmentally-friendly, high-solid or super-high-solid adhesives with reduced solvent content are steadily gaining popularity. One reason is that less volatile organic compounds are released into the environment. They are also less flammable.

| Product group | Solid | High-Solid | Super-High-Solid |
|---|---|---|---|
| Solids content | Ca. 50 % | Ca. 60-70 % | > 70 % |
| Viscosity | Up to 500 mPas | Up to 1.000 mPas | > 1.000 mPas |
| Applications e.g. | Metal, wood, textile, felt, high-quality foam bonds | Foam, wood, hardboard and composite board, cardboard, rubber hair, styrofoam | |

**i** High-solids adhesives have the advantages of reduced flammability, reduction in the quatitiy of adhesive required and reduced transportation costs. Furthermore, there is less packaging waste.

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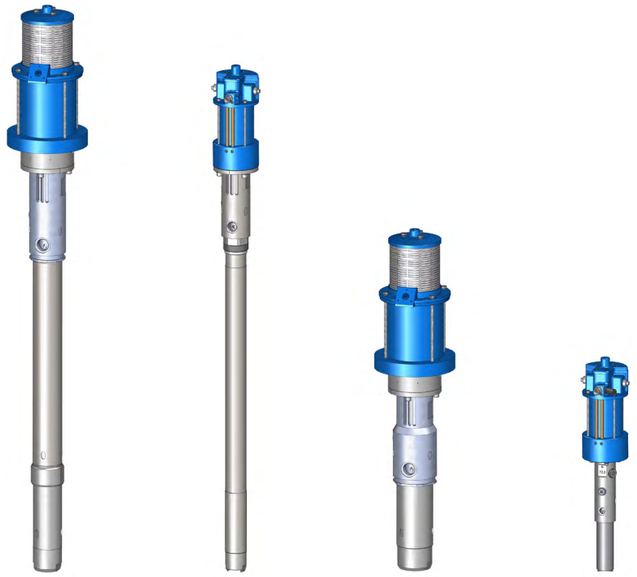
## The right pump for every system solution

- For adhesives with low to medium viscosity
- For up to five delivery points within a short range
- Loss-free conveying of solvent-bourne adhesives



| Product group | Solid | High-Solid | Super-High-Solid |
|---|---|---|---|
| Solids content | Ca. 50 % | Ca. 60 - 70 % | > 70 % |
| Viscosity | Up to 500 mPas | Up to 1.000 mPas | > 1.000 mPas |
| Up to 3 delivery points | 146.1,8 | 146.1,8 | 146.1,8 |
| 4 - 5 delivery points | 146.1,8 | 150.3,5 | 150.3,5 |
| Up to 50 delivery points | 375.03 | 375.03 | 375.03 |
| > 50 delivery points | 600.03 | 600.03 | 600.03 |

**Technical data LP-pump 146.1,8**

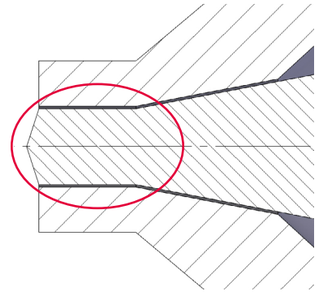
- Max. output (at 60 cycles/min): 8,76 l (2,3 gal.)
- Pressure ratio: 1,8:1
- Max. material pressure: 14 bar (203 psi)

i The names of the pumps are derived from a combination of the output (in $cm^3$) and pressure ratio.

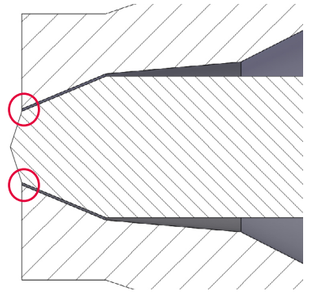
## The right gun

Adhesive spray guns require special tip-needle configurations to prevent shearing and an accumulation of material.

The difference between a „normal“ paint tip and an adhesive tip is that adhesive tips have a different sealing angle and they are not designed with a cylindrical body.



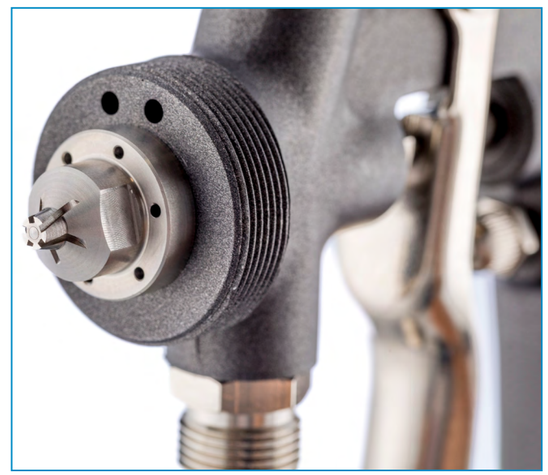
Paint tip with cylindrical body



Adhesive tip with dual angle

i With the dual angle adhesive tip, applicators benefit from a higher process reliability and material savings compared to processing with a standard spray gun.

Materials with a high solids content are optimally applied using the air guidance of the rotary jet tips. ▶



# Our processing systems

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## System solution for small containers and individual workstations

### Advantages

- Easy handling
- Perfect spray result
- High application rate


Part No. complete system: 0669685 (RS)
(carbon steel version on request)

**Suitable for**

- One delivery point with low consumption

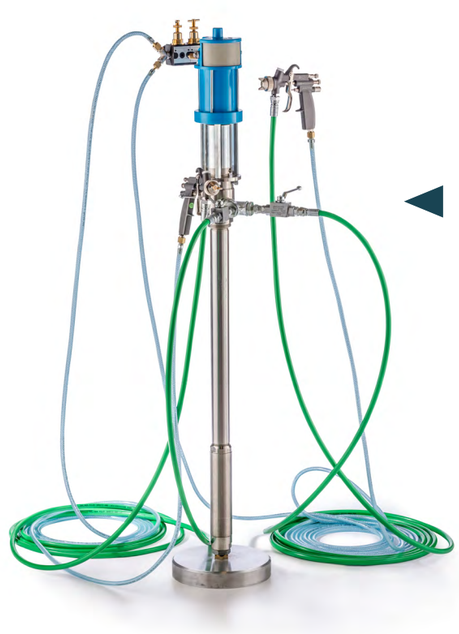
**Components**

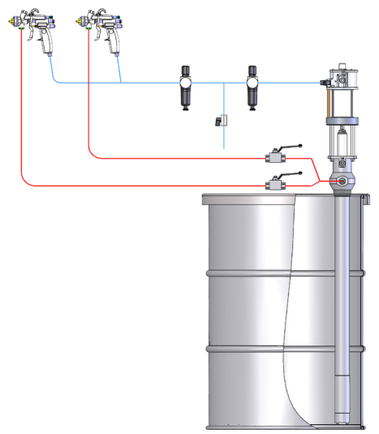
- LP-pump 146.1,8
- Hose package for compressed air and glue (Part No.: 0669474)
- Compressed air regulator
- Glue gun (Part No.: 0520041)

**Technical data**

- Max. output (at 60 cycles/min): 8,8 l (2,3 gal.)
- Pressure ratio: 1,8:1

## System solution for 200 liter (55 gal.) bunghole drums





Part No. complete system for two guns: 0669505 (RS) / 0669761 (N)
Part No. complete system for four guns: 0669506 (RS) / 0669760 (N)

**Suitable for**

- one to four delivery points with high consumption

**Components**

- LP-pump 146.1,8 with connection for guns
- Hose package for compressed air and glue (Part No.: 0669474)
- Glue gun (Part No.: 0520041)

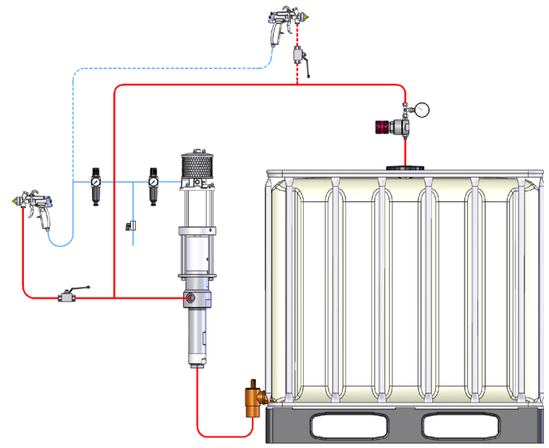
**Technical data**

- Max. output (at 60 cycles/min): 8,8 l (2,3 gal.)
- Pressure ratio: 1,8:1

## System solution for 1000 liter (265 gal.) IBC

### Advantages

- Environmentally friendly due to lower number of waste containers
- Reduced operational costs thanks to longer service life of the containers
- Frequency of container switch out reduced by feeding with large containers



Part No. complete system 375.05: 0669167 (R)
Part No. complete system 600.06: 0669168 (R)

**Suitable for**

- Central adhesive supply via ring line
- Up to 50 delivery points with high consumption

**Components**

- LP-pump 375.05 / 600.06
- Feed hose for connection to an adhesive ring line
- Circulation regulator for consistant material pressure
- Compressed air regulator
- Hose package for compressed air and glue (Part No.: 0669474)
- Glue gun (Part No.: 0520041)

**Technical data**

- Max. output (at 60 cycles/min): 22,5 - 36 l (5,9 - 9,5 gal.)
- Pressure ratio: 5:1 - 6:1

i RS = Stainless steel, rust and acid resistant N = Normal steel, galvanized R = Stainless steel
Hose package and gun are not included in the complete system part numbers.

# Dispersion adhesives
## ... properties, advantages and disadvantages

Dispersion adhesives, whether sprayed or applied as a bead, cure through the evaporation of water. Their polymeric adhesive components flow into a film and thus achieve their adhesive effect. There are formulations for wet adhesives and contact adhesives.

Compared to solvents, water evaporates much slower. The adhesive only sets when the water is completely evaporated. In addition, dispersion adhesives always need an absorbent surface to bond to, e.g. wood, cardboard or leather. However, the joint filling properties of dispersion adhesives are often better due to the high solids content of 50 - 75%.

It is important to be mindful of the fact that the dispersion shrinks in the joint due to water evaporation.

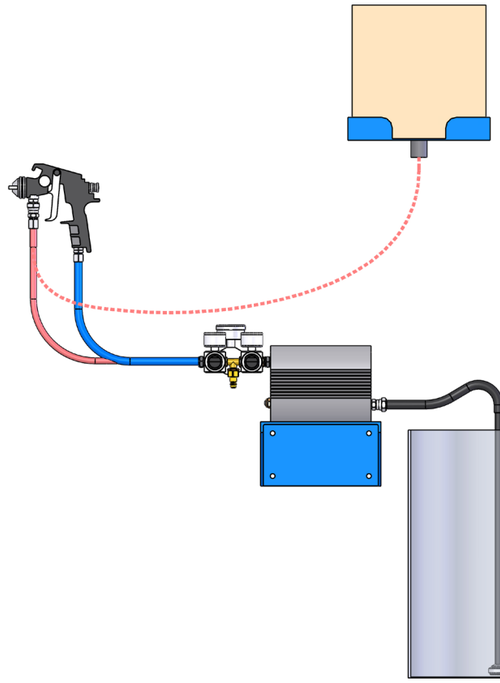
Typical areas of application are wood processing, paper and packaging manufacture and the automotive and electrical industry. This type of adhesive is also particularly suitable for high-tension gluing. A one-sided application is usually sufficient.

Dispersion adhesives do have a limited moisture and heat resistance. Both can, however, be improved by adding an isocyanate crosslinking agent or a salt hardener.

**i** Some of the advantages of dispersion adhesives are their simple processing (sprayable, pourable and rollable), good storage stability and low production costs. Since they are also water-based, they are especially ecological.

With dispersion adhesives, for example, ship decks made of wood are glued. In this case, the water resistance of the adhesive is required.

## System solution for small containers



**i** We would be happy to put together a system for you according to your personal requirements. Just talk to us!

| Suitable for | Components |
|---|---|
| • One delivery point with low consumption | • Diaphragm pump<br>• Suction kit<br>• Hose package for compressed air and glue<br>• HVLP glue gun or extrusion gun<br>• Optional: feed hopper or pressure pot |

# Underbody coatings



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# Underbody coatings
## ... properties, advantages and disadvantages

Underbody coatings - also known as underbody protection or anti-drumming compounds - basically have the following functions:
They are intended to preserve the sub-floor of an object by protecting it against falling rocks, rust attacks or other climatic conditions. Another task of the material is to reduce noise in the interior.
Underbody protection material usually consists of a solvent-free mixture of polymer powders based on PVC, a plasticizer, additives and fillers.

An additional varnish or special waxes are sometimes applied for additional protection.

The underbody protection is also often combined with seam sealing and is, for example, relevant to the car body construction, container or (rail) vehicle construction.

Usually the agent is sprayed on.
Due to the relatively high application speed and the large fan width, airless or air-assisted airless (AirCombi) are often the spray methods of choice.
However, an extrusion application is also possible.

## Did you know?

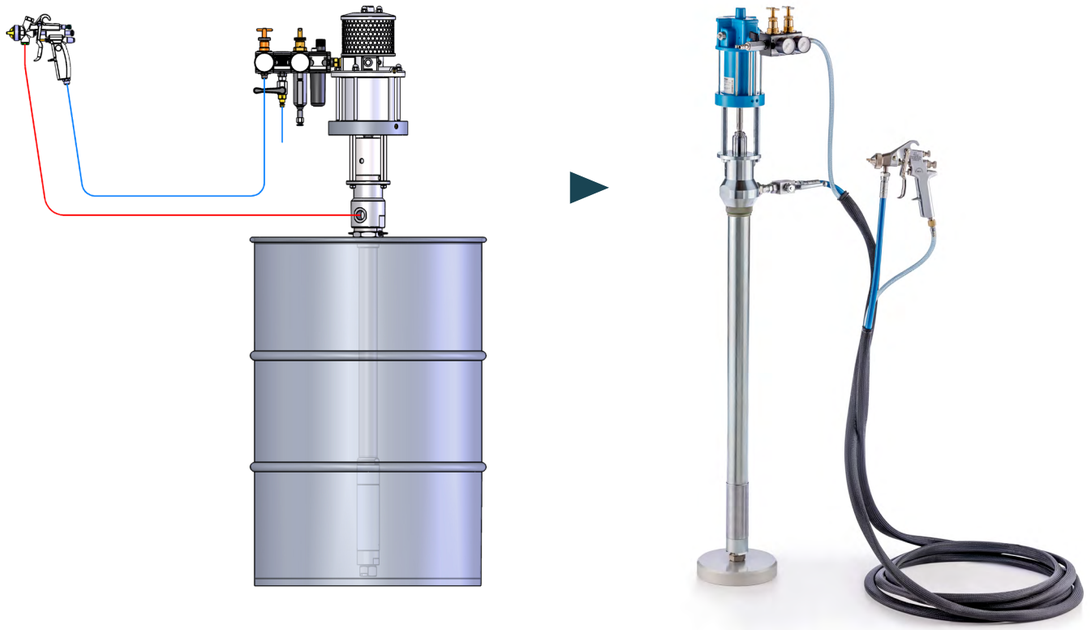
At speeds of 125 miles and more, the phenomenon of ballast pick-up can seriously damage railcars. High-speed trains in particular, some of which can reach speeds of over 185 mph, can be seriously damaged and forced to be taken out of service.

**High-quality underbody and insulation protection systems can prevent such failures.**

i Ballast pick-up refers not only to small stones being whirled up from the track bed but also to ice clumps which detach from the underbody of a train and splinter in the track bed.

# Our processing systems

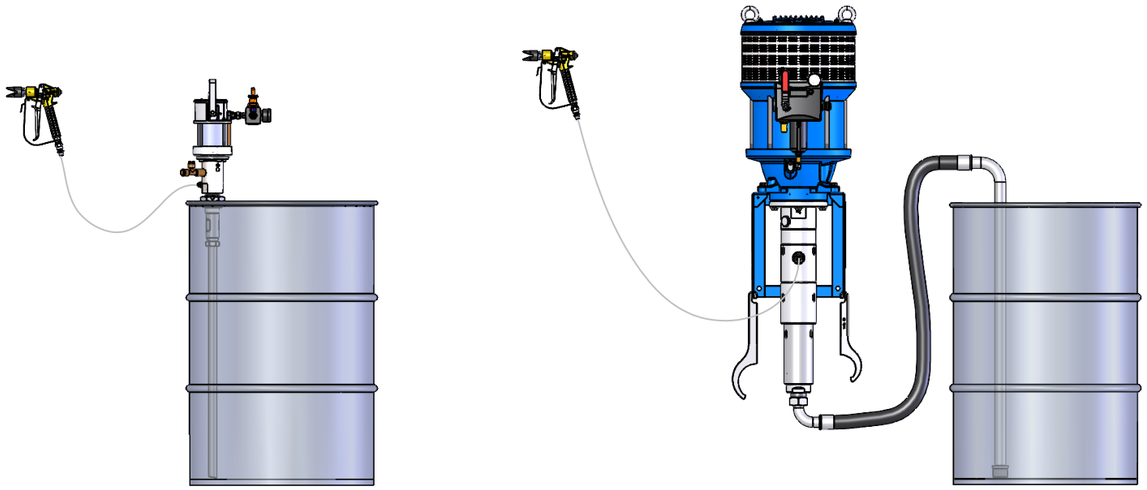
## System solution for direct suction from a 200 liter (55 gal.) container



Part No. complete system 150.8: 0669500 (N)
Part No. complete system 375.09,5: 0669499 (N)

| Suitable for | Components |
|---|---|
| • One delivery point | • LP-pump 150.8 / 375.09,5<br>• Hose package for compressed air and glue<br>• Compressed air regulator<br>• Mastic gun |
| **Technical data** | |
| • Max. output (at 60 cycles/min): 9 - 22,5 l (2,4 - 5,9 gal.)<br>• Pressure ratio: 8:1 - 9,5:1 | |

## System solutions for 30 to 200 liter (8 to 55 gal.) containers



Part No. complete system: 0669501 (N)

| Suitable for | Components |
|---|---|
| • One delivery point with low consumption | • HP-Pump 14.33<br>• Material hose<br>• Compressed air regulator<br>• Airless gun |
| **Technical data** | |
| • Max. output (at 60 cycles/min): 0,8 l (0,2 gal.)<br>• Pressure ratio: 33:1 | |

Part No. complete system: 0669502 (RS)

| Suitable for | Components |
|---|---|
| • Several delivery points | • HP-Pump 275.49<br>• Suction kit<br>• Material hose<br>• Maintenance unit<br>• Airless gun |
| **Technical data** | |
| • Max. output (at 60 cycles/min): 16,5 l (4,4 gal.)<br>• Pressure ratio: 49:1 | |

Material viscosity

# Our processing systems

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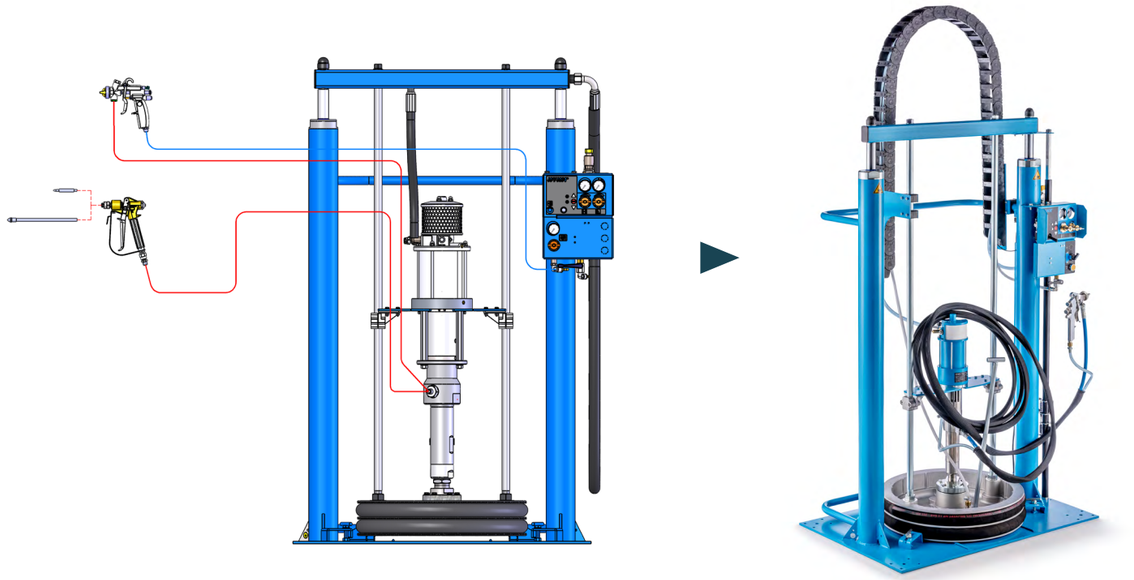
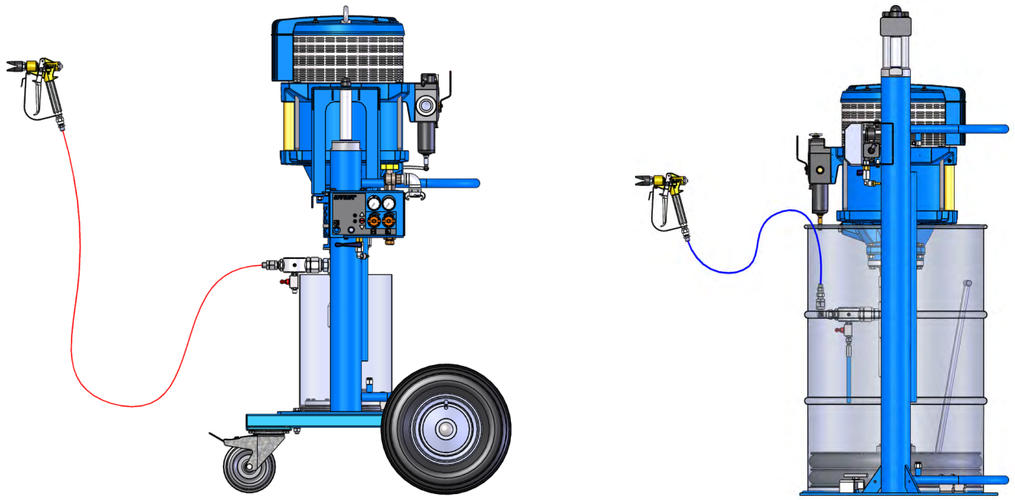
## System solution for 200 liter (55 gal.) containers



Part No. complete system mastic gun: 0669503 (R) / Part No. complete system extrusion gun: 0669504 (R)

| Suitable for | Components | Technical data |
|---|---|---|
| • One to two delivery points<br>• Spraying or extrusion | • LP-pump<br>• Hose package for compressed air and glue with all connections<br>• Compressed air regulator<br>• Twin-post ram<br>• Following plate<br>• Mastic gun or extrusion gun | • Max. output (at 60 cycles/min): 22,5 l (5,9 gal)<br>• Pressure ratio: 9,5:1 (with LP-pump 375.09,5) |

## System solutions for small and large containers



Part No. complete system mobile: 0669497 (R) / Part No. complete system stationary: 0669498 (R)

| Suitable for | Components | Technical data |
|---|---|---|
| • One to two delivery points | • HP-Pump<br>• Material hose<br>• Maintenance unit<br>• Twin-post ram<br>• Following plate<br>• Airless gun | • Max. output (at 60 cycles/min): 16,5 l (4,4 gal.)<br>• Pressure ratio: 75:1 |

Bonding of **high viscosity** materials



Your project deserves it.

# WIWA VULKAN GX
## Established quality refined

The **WIWA VULKAN GX** extrusion pumps for pumping, dosing and applying adhesives, insulating materials and sealants are now fitted with the new WIWA GX air motor. It captivates with a full metal housing, optimizing air distribution during operation to minimize icing and maximize sound reduction.

Our extrusion pump program includes a total of 22 pumps in six performance classes with different delivery capacities and pressure ratios, making it one of the most extensive series worldwide.

It is supplemented by a broad range of accessories such as floor mounts, single-and twin-post rams, following plates and lids, heating elements and various other mounting kits. With this flexibility, a suitable system can be put together for almost any area of application.

Our configurator, which you can find in a simplified form on pages 26/27, will help you with this. We also offer a wide variety of custom solutions to meet your individual requirements.

## The most important areas of application

- Machine and vehicle construction
- Aviation
- Marine and offshore industries
- Wood and furniture industry
- Wind energy
- Rail vehicle construction
- Window and door construction
- Electrical industry
- White goods
- Oil and grease delivery systems
- Packaging industry
- Construction industry
- Chemical industry
- Paint and varnish production
- Manufacture of silicone products
- Underbody protection applications
- Cartridge filling systems
- Adhesive and polyurethane processing

Your project deserves it.

## The most important adhesives

An adhesive is a non-metallic substance that is able to connect materials through surface adhesion and its internal strength (= cohesion). In addition to their load-transferring effect, adhesives can take on other functions, e.g. vibration damping, corrosion protection or thermal and electrical insulation or conductivity. The following are used particularly often:

- Silicone adhesives
- Polyurethane / PUR adhesives
- Hybrid adhesives
- Butyl adhesives
- Polymer adhesives
- Acrylate adhesives
- Epoxy adhesives

**i** Compared to sealants, adhesives tend to bond more firmly to the surface to which they are applied. In general, sealants and adhesives differ from one another, e.g. in their elasticity, their processing time and method, their resistance to external influences or their adhesion to different surfaces.

## The most important sealants

Sealants act as a kind of mechanical seal that prevents liquids from leaking through surfaces, joints or openings. In practice, they can be exposed to movement and must therefore adhere well in order to perform their function. As soon as a sealant meets the definition of DIN EN 923, it is assigned to the adhesives. Examples of popular sealants are:

- Silicone sealants
- Polyurethane sealants
- Hybrid sealants
- Butyl sealants
- Polymer sealants

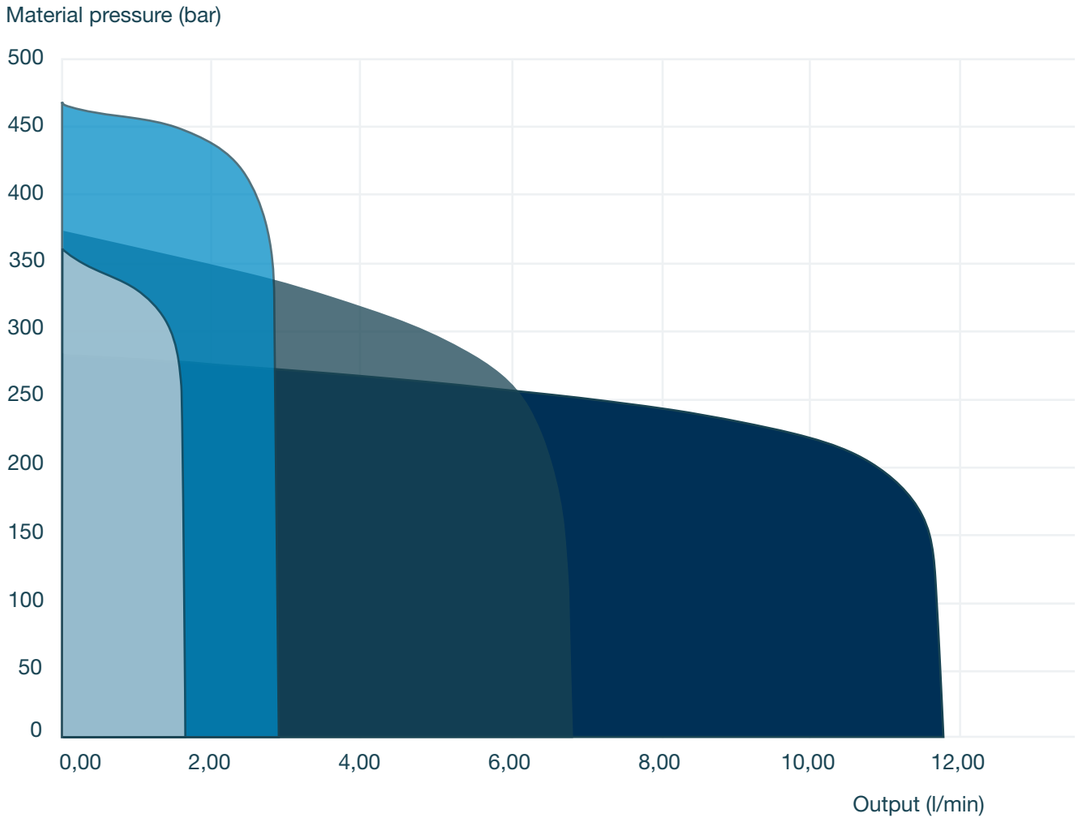
## Why the **WIWA VULKAN GX**?

- Steady material flow
- Precise results due to low pulsation
- Top performance even in the toughest areas of application and in continuous operation



## You know your material and the necessary output.

## We have the best pump for the job.




Model 79.45

Model 134.72

Model 300.62

Model 580.35

**i** The graphic above is for guidance only. The actual delivery rate could differ.

Your project deserves it.

# Automated material supply and application. **All from a single source**

WIWA delivered a 200 liter (55 gal.) version **VULKAN** series pump (model 134.54) as a feed pump as well as four pneumatically controlled **WIWA 250 needle outlet valves** to a system integrator manufacturing a machine for the automatic gluing of wooden door strips.

# Our processing systems

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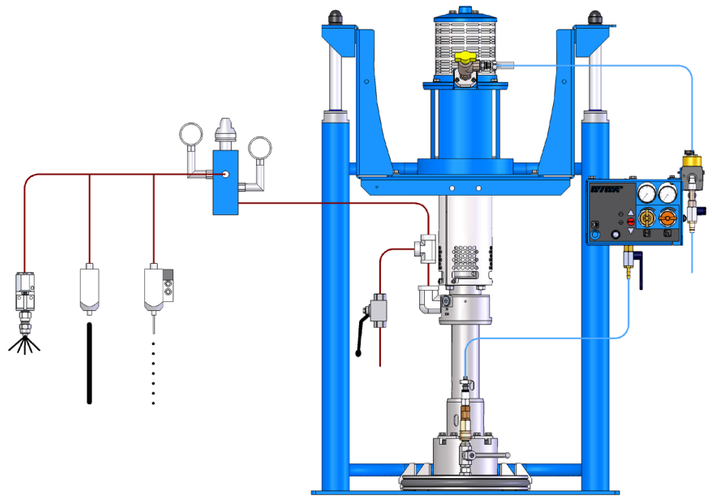
## System solution for 20 liter (5 gal.) containers

### Advantages

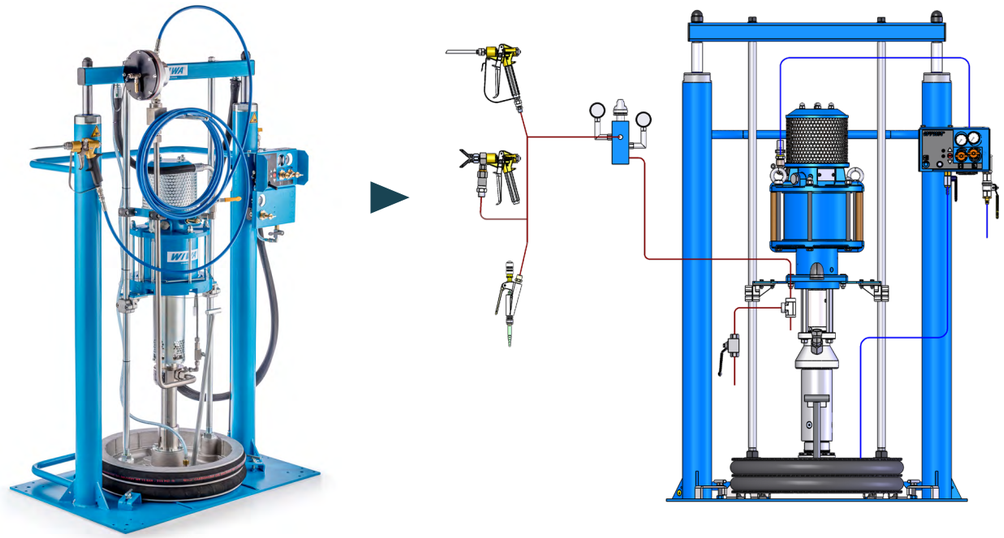
- Easy to maintain
- Soft start of the pump with an air inlet pressure of less than 1 bar (15 psi)
- Longer service life of the pump because of the spring loaded upper packing



| Suitable for | Components | Technical data |
|---|---|---|
| • One to several delivery points | • Shovel pump<br>• Material hose<br>• Material pressure regulator<br>• Twin-post ram<br>• Following plate<br>• Automatic gun | • Max. output (at 60 cycles/min): 4,7 - 34,8 l (1,2 - 9,2 gal.)<br>• Pressure ratio: 14:1 - 72:1 |

Automatic operation

## System solution for 200 liter (55 gal.) containers



| Suitable for | Components | Technical data |
|---|---|---|
| • One to several delivery points | • Shovel pump<br>• Material hose<br>• Maintenance unit<br>• Twin-post ram<br>• Following plate<br>• Airless gun or extrusion gun | • Max. output (at 60 cycles/min): 4,7 - 34,8 l (1,2 - 9,2 gal.)<br>• Pressure ratio: 14:1 - 72:1 |

Manual operation

# Modular diversity

## With the WIWA VULKAN GX

**Container**
- Small containers
- 200 liter (55 gal.) drum

▼

**Rams**
- 0,3 t + 0,75 t for small containers
- 0,75 t + 3 t for 200 liter (55 gal.) drum

▼

**Following lid / plate**
- Heated
- Teflon-coated

▼

**Extrusion pumps**
- 79.24 (N/R)
- 79.54 (N/R)
- 134.16 (N/R)
- 134.26 (N/R)
- 134.54 (N/R)
- 134.72 (N/R)
- 330.29 (N)
- 330.40 (N)
- 330.62 (N)
- 580.23 (N)
- 580.35 (N)

(also available heated)

**Pressure relief** 1

**Material pressure regulator** 2

**Rising pipe** 3

**Energy chain** 4
- Hoses also available heated

i The energy chain guarantees the smallest permissible bending radius of the hoses and protects them from damage.

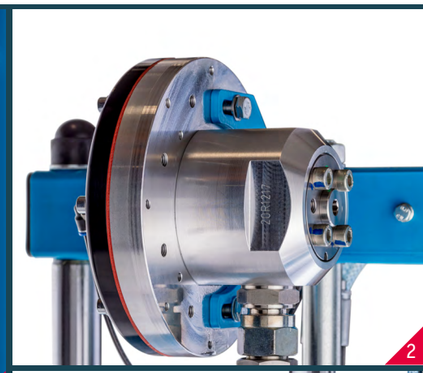
**Guns** 6
- Extrusion guns
- AirCombi guns
- Airless guns

▲

**Control**
- 1-hand-control
- 2-hands-control

▲

**Monitoring** 5
- Drum low level indicator
- Drum low level indicator with shutdown
- Drum low level indicator without shutdown



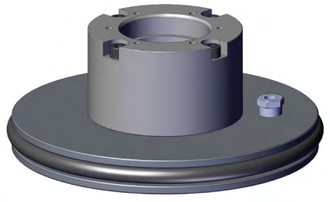



i Our systems are also available on wheels. If you have any questions about your individual configuration, please do not hesitate to contact us.

Main components | Versions | Accessories | Options

# Use the full potential of this power series with the matching following plates ...

Following plates have an o-ring seal and fit onto cylindrical containers.
They are therefore only suitable for containers with a **specific** inner diameter.



Following plate optimized for minimal residual material for small containers

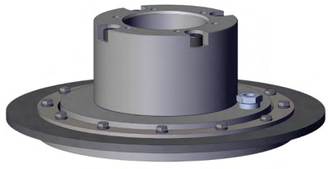
Standard following plate for large containers

| Container size | Inner Ø | Heating capacity (optional) |
|---|---|---|
| Small containers | 280 - 380 mm (11 - 15 in.) | 1000 - 2000 W |
| 200 liter (55 gal.) drum | 571,5 mm (22.5 in.) | 2100 W |

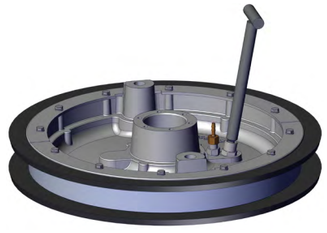
**i** WIWA‘s electrically-heated following plates enable the effective pumping of materials with very high viscosities. An overview of our heating options can be found on the following pages.

# ... and following lids

Following lids are characterized by a lip seal.
They are designed for conical containers and accordingly also for **different** container inner diameters.



Following lid optimized for minimal residual material for small containers



Following lid with double sealing lip for large containers

| Container size | Inner Ø | Heating capacity (optional) |
|---|---|---|
| Small containers | 280 - 380 mm (11 - 15 in.) | 1000 - 2000 W |
| 200 liter (55 gal.) drum | 571,5 mm (22.5 in.) | 2100 W |

**i** PTFE-coated equipment is easier to clean because less material remains on the extremely smooth non-stick surface. It is also extremely resistant to abrasive, alcohol-containing or oily substances.

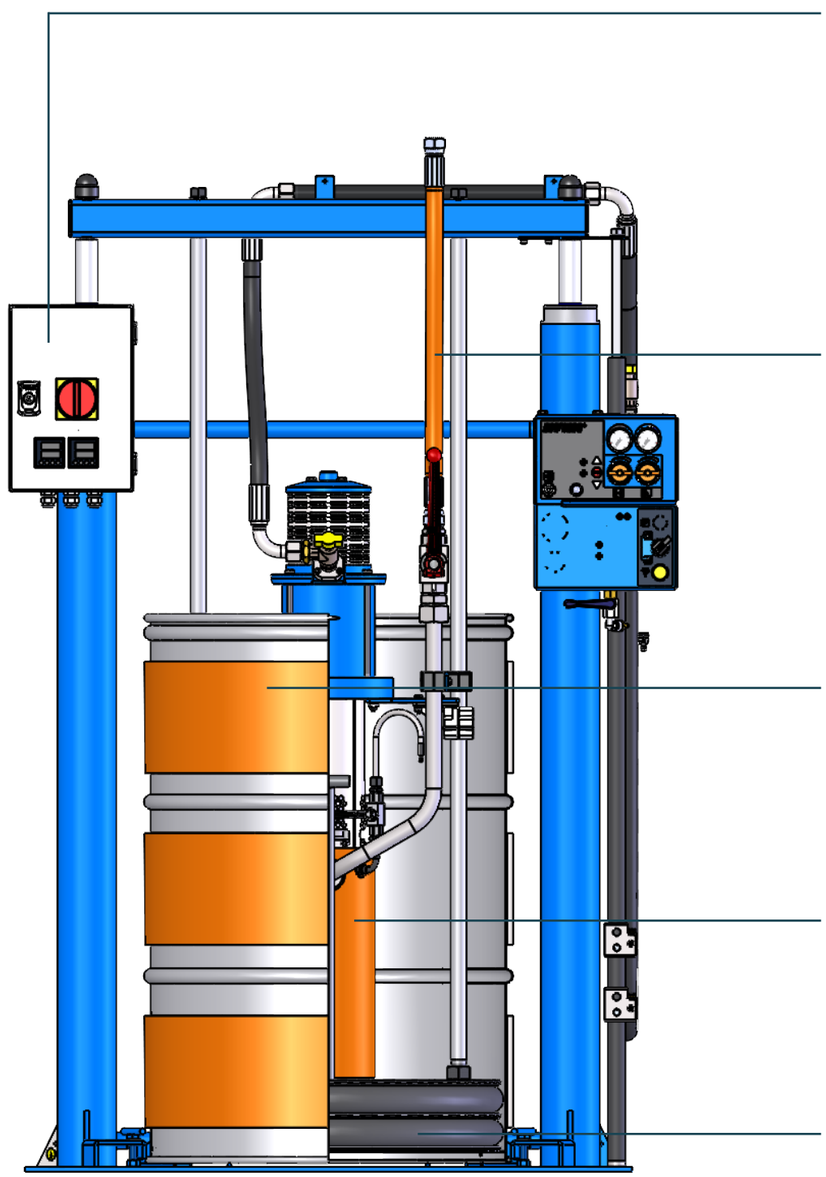
## Advantages

- Constant product flow by avoiding cavitation
- Electrically heated or PTFE-coated on request
- Protection of the contents of the container from moisture, dust or curing through contact with air

**i** Of course, we can also produce other sizes on request.

# Our heating options
## from drum floor heaters to the outbound fluid hose

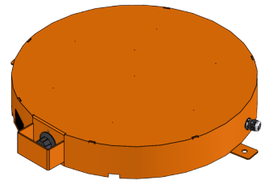
The control box comes standard with dual temperature regulators for the following plate and outbound fluid hose. If you require additional drum band heaters and/or a heated material pump, this can be arranged for as well. Be sure to mention this to us when discussing your project.






## Drum floor heaters

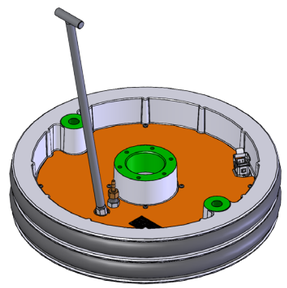
In order to preheat a new drum in advance - so that, for example, the ongoing work process does not have to be interrupted - our separate drum floor heaters are ideally suited.



| Container size | Inner Ø | Voltage | Temperature | ATEX | Part No. |
|---|---|---|---|---|---|
| Small containers | 267/312 mm (10.5/12.3 in.) | 230 V | 30 - 85 °C (86 - 185 °F) | No | 0663860 |
| | | 400 V | | | 0666309 |
| 216.5 liter drum (55 gal. drum) | 546 mm (21.5 in.) | 230 V | 0 - 110 °C (0 - 230 °F) | Yes | 0639158 |
| | 550 - 650 mm (21.7 - 25.6 in.) | | 30 - 110 °C (86 - 230 °F) | No | 0664500 |
| | | 400 V | | | 0665630 |
| | | 480 V | max. 80 °C (176 °F) | | 0666597 |

## Heated following plates

For even better material flow, we offer heated following plates. They enable highly viscous products to be pumped effortlessly.



| Container size | Inner Ø | Voltage | Power | Temperature | Part No. |
|---|---|---|---|---|---|
| 200 liter drum (43 gal. drum) | 571,5 mm (22.5 in.) | 230 V | 2100 W | max. 85 °C (185 °F) | 0670095 |
| | | | | | 0670097 |
| Small containers | 280 mm (11 in.) | | 1000 W | | 0670604 |

# Drum band heaters and drum belt heaters

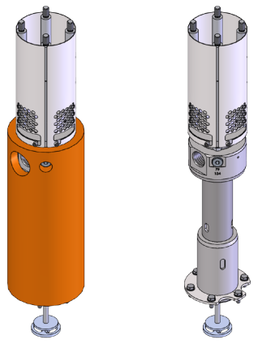
While drum band heaters are sized to fit a specific drum diameter, drum belt heaters can be adjusted to fit different drum sizes. Depending on the desired temperature, one or more heaters are required. We can supply other models on request.

| Container size | Length | Width | Voltage | Power | Temperature | Part No. |
|---|---|---|---|---|---|---|
| Small containers | 800 mm (31.5 in.) | 125 mm (4.9 in.) | 230 V | 300 W | 0 - 120 °C (32 - 248 °F) | 0656881 |
| | 1020 mm (40.2 in.) | 400 mm (15.7 in.) | | 200 W | 0 - 90 °C (32 - 194 °F) | 0666963 |
| | 940 mm (37 in.) | 125 mm (4.9 in.) | | 500 W | 0 - 120 °C (32 - 248 °F) | 0656882 |
| 200 liter drum (43 gal. drum) | 1665 mm (65.6 in.) | 180 mm (7.1 in.) | | 1500 W | 0 - 120 °C (32 - 248 °F) | 0656883 |
| | 1950 mm (76.8 in.) | 800 mm (31.5 in.) | | 1200 W | 0 - 90 °C (32 - 194 °F) | 0667176 |

**i** A thermostat, drum retention device, cable (without plug) and ground wire are included.

# Material pump heat sleeves

Our thermally insulated heating sleeves made of fiberglass can be easily and flexibly mounted and removed with the aid of a Velcro fastener. The heat sleeve ensures uniform heating of the material flowing through the pump.
Heat sleeves for all other WIWA pumps are available on request.



| Pump | Ø | Length | Voltage | Power | Temperature | Part No. |
|---|---|---|---|---|---|---|
| LP pump 600 | 94 mm (3.7 in.) | 325 mm (12.8 in.) | 230 V | 100 W | max. 60 °C (140 °F) | 0664387 |



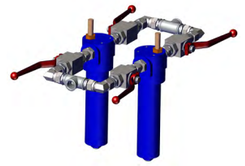
# Heating hoses

Heating the outbound hoses is another way to ensure a consistant material temperature and thus maintain the optimum working temperature.

| Type | Max. operating pressure | Material inlet | Voltage | Power | Temperature |
|---|---|---|---|---|---|
| DN 12 | 200/450 bar (2900/6526 psi) | 1/2“ BSPP | 230 V | 160 W/m | max. 100 °C (212 °F) |
| DN 16 | 175/400 bar (2538/5801 psi) | 3/4“ BSPP | | 200 W/m | |
| DN 20 | 150/300 bar (2175/4351 psi) | 1“ BSPP | | 260 W/m | |

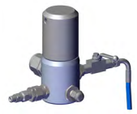
# High pressure filters
## for a comprehensive protection of your unit

Put simply, filters have the task of preventing contamination of materials.
In this way, they not only protect your system from possible damage, but also increase the efficiency of your production process by ensuring an uninterrupted flow.
This effect is even stronger with double filter fittings, because even if one filter is clogged, the material can still be passed through the other one.



**Double filter fitting**
- Material inlet: 1“/1/2“ BSPP
- Max. material pressure: 250/400 bar (2900/6526 psi)

**HP filter type 11 R**
- Max. material pressure: 450 bar (6526 psi)
- Material inlet: M22 x 1,5
- Part No.: 0011800



**HP filter type 13 R**
- Max. material pressure: 450 bar (6526 psi)
- Material inlet: 1“ BSPP
- Part No.: 0065285

**Inline filter**
- Max. material pressure: 400 bar (6526 psi)
- Material inlet: 1“ BSPP

# Full control
## over all important parameters

For a successful project, it is essential to know parameters such as pressure, flow rate and temperature of the processed material at all times to be able to intervene if necessary.
We provide a broad range of products for this purpose.

## Control

**Control box**
- With display and control
- Readout of up to three measured values possible

## Pressure

**Pressure gauge D63**
- Measuring ranges: 0 - 50/100/400/600 bar (0 - 725/1450/5801/8702 psi)
- Material inlet: 1/2“ BSPP

**Pressure sensor**
- Measuring range: 0 - 600 bar (0 - 8702 psi)
- Material inlet: 1/4“ BSPP

## Flow rate

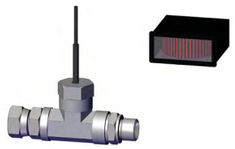
**Stroke counter pneumatic**
- Measuring range: 0 - 999.999 strokes

**Stroke sensor inductive**
- Available for all pumps and air motors

**Flow meter**
- Measuring range: 0,16 - 16 l/min (0.035 - 3.5 - gal./min)
- Material inlet: 3/8“ BSPP / 1/2“ BSPP

## Temperature

**Thermometer with pointer**
- Measuring range: -40 - 400 °C (-40 - 752 °F)



**Thermometer analog**
- Measuring range: 0 - 120 °C (32 - 248 °F)

**Thermometer digital**
- Measuring range: -50 - 150 °C (-58 - 302 °F)

**Temperature sensor PT100**
- Measuring range: -50 - 150 °C (-58 - 302 °F)

Direct analog or digital display of the measured values

Electrically measured value acquisition and control via control box

# Material pressure regulators
## for sealants, adhesives and lubricants

Generally speaking, material pressure regulators ensure that a set pressure is not exceeded on the outlet side of a system or that the required working pressure is reached, even if there are different pressures on the inlet side. They also compensate for pulsation that can occur when material is pumped by piston pumps. This ensures an even flow of material and the application quality remains stable.

When processing self-lubricating media such as grease, oil and 1- and 2-component silicones, material pressure regulators with **pistons** are preferred. The spring chamber is sealed by a mechanical seal.

Material pressure regulators with **membranes** are used in particular for reactive, moisture-sensitive and abrasive media such as epoxy resins, polyurethanes and many other materials. The spring chamber is sealed by a membrane.

Regulators for hand-operated systems


Regulators for automated systems


### Manual material pressure regulator

- Material inlet pressure:
  100 bar (1450 psi) (Part No.: 0651610),
  250 bar (3626 psi) (Part No.: 0651609),
  400 bar (5801 psi) (Part No.: 0643777)
- Control range: 20 - 100 bar (290 - 1450 psi) / 20 - 250 bar (290 - 3626 psi) / 20 - 400 bar (290 - 5801 psi)
- Material inlet: 3/8“ BSPP
- Piston version
- Suitable for low to medium viscosity materials (e.g. grease, silicone)

**i** All part numbers cover the material pressure regulators without attachment kits (hoses, double nipples, etc.).

### Manual material pressure regulator

- Part No.: 0669404
- Material inlet pressure: max. 400 bar (5801 psi)
- Control range: 10 - 320 bar (145 - 4640 psi)
- Material inlet: 3/4“ BSPP
- Piston version
- Suitable for medium to high viscosity materials (e.g. mastic)

### Pneumatic material pressure regulator

- Part No.: 0669401
- Material inlet pressure: max. 400 bar (5801 psi)
- Material outlet pressure: 25 - 275 bar (362 - 3988 psi)
- Material inlet: 3/4“ BSPP
- Ball seat version
- Suitable for medium to high viscosity as well as moisture-sensitive materials

### Manual material pressure regulator

- Material inlet pressure: max. 400 bar (5801 psi)
- Control range: 4 - 50 bar (58 - 725 psi) / 15 - 150 bar (217 - 2175 psi)
- Material inlet: 3/8“ BSPP
- Membrane version (Part No.: 0669348), piston version (Part No.: 0669701)
- Suitable for low to high viscosity and abrasive materials (e.g. epoxy / PU)

# Efficient dosing of even small quantities with the WIWA spackle unit

If fillers, adhesives or sealants are mixed by hand, there is a risk that air will be stirred in. The resulting bubbles in the surface would then have to be compensated by further layers of material - a time and cost factor. In addition, the final result can vary depending on the day and the user.

With the **WIWA spackle unit**, bubble-free mixing with a constant mixing ratio is guaranteed, thus ensuring the consistent quality of the job. In addition, the removal from containers of different sizes makes it an environmentally friendly and cost-saving partner for any job.

Smallest quantities, even of a few milliliters, are the special target area of the user-friendly unit, because for selective applications it can even be stopped in the middle of the stroke to convey exactly the required amount.

## Areas of application

- (Rail) vehicle construction
- Shipbuilding
- Production of machine beds
- Industrial bonding
- Construction
- Spot dosing of rather small material quantities (e.g. cartridge filling)

## Materials

- Filler materials based on epoxy resin, polyurethane or peroxide
- Adhesives
- Sealants
- Thickeners
- Mastics
- Insulating materials





# Even more successful projects with our special solutions

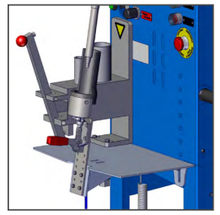
Standard version with emergency stop button

**Technical data WIWA spackle unit**

- Mixing ratio: 1:1 / 2:1 / 100:3
- Output (per dosing cycle): ca. 500 ml (30.5 cu. in.)
- Max. output: 3 l/min (0.8 gal./min)

Foot switch

Feeding via pressure tank



Cartridge filling device

Simply scan the QR code and learn more about the features and benefits of this optional accessory!

**i** Based on the standard version, we have customized systems for individual customer requirements. How can we adapt the WIWA spackle unit for your application?

## Advantages

- Simple operation
- Hazardous location rated (no electronics, purely pneumatic control)
- Precise conveying at the push of a button even of the smallest quantities

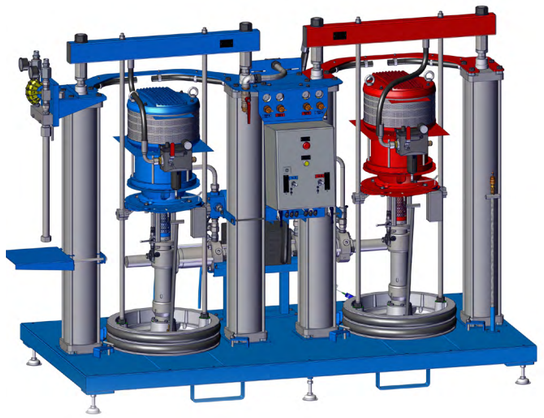
WIWA®
Your project deserves it.

# Simple operation, enormous benefit

Since 2018, a German manufacturer for machine beds and components based on granite or concrete has been working with one of our WIWA spackle units.

To fasten stainless steel threaded bushings to machine beds, it is used to fill smaller quantities of a 2K epoxy resin adhesive about 10 times a day and apply it by hand. The customer particularly appreciates the absolutely error-free mixing (here at a ratio of 1:1), the simple operation and the fact that his employees can always dose the material exactly as required. Waste and costs are therefore reduced.

# High outputs without interruptions with the WIWA dosing unit



If fillers, adhesives or sealants are mixed by hand, there is a risk that air will be stirred in. The resulting bubbles in the surface would then have to be compensated by further layers of material - a time and cost factor. In addition, the final result can vary depending on the day and the user.

With the **WIWA dosing unit**, bubble-free mixing with a constant mixing ratio is guaranteed, so that the consistent quality of the job is assured. In addition, the removal from containers of different sizes makes it an environmentally friendly and cost-saving partner for any task.

The unit, equipped with either legs or casters, was developed especially for large-area coatings where continuous output is required.


## Areas of application

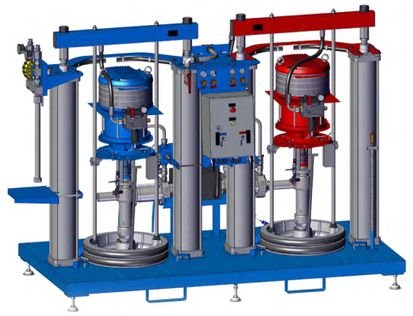
- Vehicle construction
- Aircraft industry
- Wind power industry
- Railcar construction
- Shipbuilding
- Apparatus and mechanical engineering
- Concrete construction

## Materials

- Filler materials based on epoxy resin, polyurethane or peroxide
- Adhesives
- Sealants
- Thickeners
- Mastics
- Insulating materials



# Even more successful projects with our special solutions



Standard version

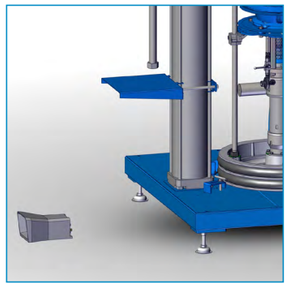
**Technical data WIWA dosing unit**

- Mixing ratio: 100:100 - 100:1
- Max. output (per cycle): 1945 $cm^3$ (119 cu. in.)

**i** Feeding of the A and B components via different sized containers is possible as well.

Feeding via large containers

Swivel arm with gun mount



Foot switch

## Advantages

- Simple operation
- Hazardous location rated (no electronics, purely pneumatic control)
- Environmental friendliness and cost savings due to removal from bulk containers

# Our guns for manual application

## Advantages

- Flexible handling
- Effortless two- or four-finger trigger
- Optimal mobility thanks to ball-bearing swivel joint

Part No. WIWA 250 D: 0015032
Part No. WIWA 500 D: 0015016

**WIWA 250 D (500 D)**

- Material inlet pressure: 300 bar (500 bar) / 4350 psi (7250 psi)
- Material inlet: 1/4“ NPSM / 3/8“ NPSM
- Outlet tip (Part No.: 0669649)

**i** Outlet tips or needles must be ordered in addition to the gun.

Extrusion application

Part No. WIWA 250 D: 0015032
Part No. WIWA 500 D: 0015016

**WIWA 250 D (500 D)**

- Material inlet pressure: 300 bar (500 bar) / 4350 psi (7250 psi)
- Material inlet: 1/4“ NPSM / 3/8“ NPSM
- Outlet needle (Part No.: 0669650)

Extrusion application

Part No.: 0520012

**Extrusion gun**

- Material inlet pressure: 350 bar / 5076 psi
- Material inlet: 3/8“ NPSM
- Adjustable tip (included)

Extrusion application

Part No. WIWA 250 D: 0015032
Part No. WIWA 500 D: 0015016

**WIWA 250 D (500 D)**

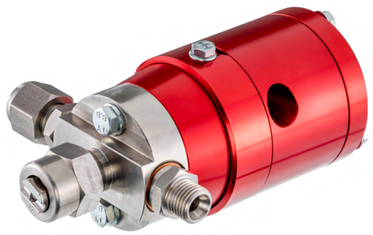
- Material inlet pressure: 300 bar (500 bar) / 4350 psi (7250 psi)
- Material inlet: 1/4“ NPSM
- Live swivel (included)

Spraying application

# Our guns for automated application

## Advantages

- Robust construction
- Can be used with and without circulation
- Connection option for pneumatic trigger release for even more precise, faster application



Part No.: 0630876

**WIWA 250 Automatic gun**

- Material inlet pressure: 250 bar (3626 psi)
- Material inlet: 1/4“ NPSM
- Needle size: 4 mm (0,16 in.)

Spraying application

Part No.: 0646339

**WIWA 225 Automatic gun**

- Material inlet pressure: 225 bar (3263 psi)
- Material inlet: 1/4“ NPSM
- Needle size: 3 mm / 4 mm (0,12 in. / 0,16 in.)

Extrusion application


Part No.: 0669171

**WIWA 250 Needle outlet valve**

- Material inlet pressure: 250 bar (3626 psi)
- Material inlet: 1/4“ NPSM
- Needle size: 2,5 mm (0,1 in.)

Extrusion application


**WIWA Dosing valve**

- Material inlet pressure: 3 - 20 bar (43 - 290 psi) (Part No.: 0669730) / 3 - 50 bar (43 - 725 psi) (Part No.: 0669740)
- Material inlet: 1/4“ NPSM
- Needle size: 2,5 mm (0,1 in.) (also 1 mm (0,04 in.) or 4mm (0,16 in.) available)
- Dosing range: 0,001 - 3 $cm^3$ / 0,003 - 0,2 $cm^3$

i Overdosing practically impossible: With the WIWA dosing valve, the output can be precisely determined before application.

Dosing application

WIWA®

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