



Your project deserves it.



EXTRUSION AND MATERIAL HANDLING



WWW.WIWA.COM



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.
1970	New products – AIRLESS 10.000, AirCombi units, zinc silicate spraying units, feed pumps, airless spray painting guns – are added to the product range. 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.
2004	Unveiling of 1K (single-component) and 2K PFP units for fire-protection coatings. 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.
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. Peter Turczak succeeds his mother Heidrun Wagner-Turczak.
2018	Launch of the new generation single feed units PHOENIX GX and PROFESSIONAL GX.
2021	DUOMIX 230 MINI as new 2K entry-level machine. Brand relaunch and realignment to the market segments Protective Coatings, Extrusion/Material Handling and Injection/Building Protection.
2022	Relocation of the 2K special construction to new company building in Aßlar, Germany. With the HYDRO PX series, compressed air independent units complete the WIWA product portfolio. Purely electrically operated follows the WIWA ELAN.

Reliability and precision for more than 70 years.

WIWA Wilhelm Wagner GmbH & Co. KG is one of the world's leading developers and producers in the fields of 1K and multicomponent airless paint spraying equipment, material handling, extrusion and injection systems. The application spectrum of our equipment and systems ranges from painting and bonding in mechanical and vehicle engineering to large-area and thick-film coatings in the marine and offshore industry, in building and corrosion protection and in passive fire protection.

German engineering is written in capital letters in our company and means the consistent effort for highest quality and innovative approaches. Particularly in the 2K area, one of our core

competences is the individual special construction of customerspecific solutions. Despite growing cost pressure and increasing competition, our customers can rely on the seal „Made in Germany“, which is not least due to the clear commitment to our home location Lahnau and our employees.

Trust in the potential of all specialist departments in our company - from engineering and production to final assembly, dispatch and our service team - and use it for one big goal: your daily success!



How much „Made in Germany“ is actually still in a WIWA system?
Quite clearly - almost 100 %!



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.

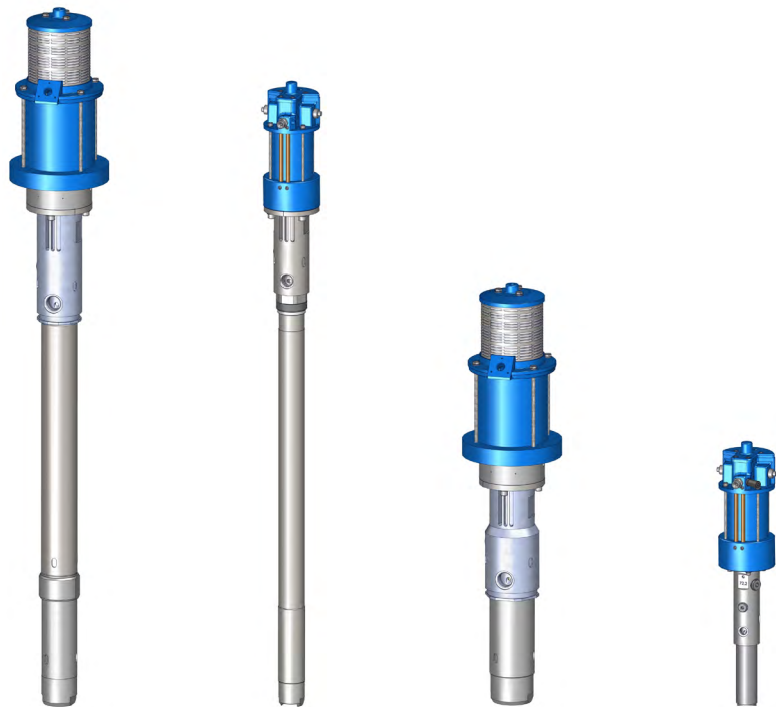
More environmentally-friendly, high-solid or super-high-solid adhesives with reduced solvent content are steadily gaining popularity. One reason is that less volatile organic compounds are released into the environment. They are also less flammable.

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 quantity of adhesive required and reduced transportation costs. Furthermore, there is less packaging waste.

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

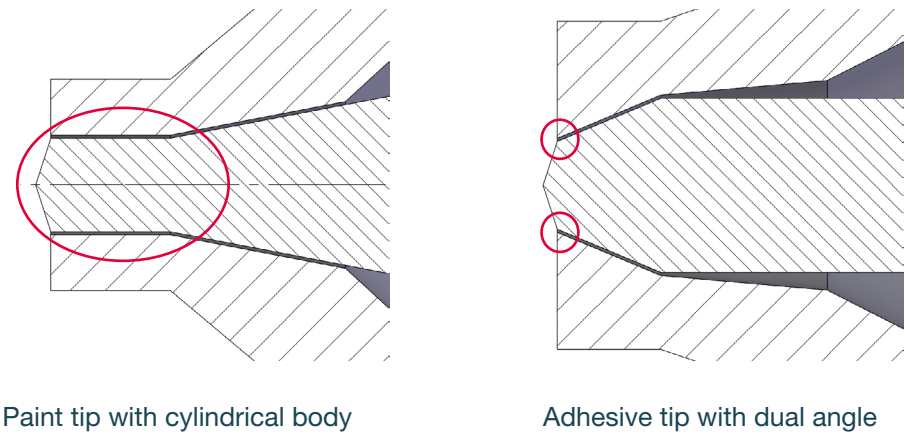
- Max. output (at 60 cycles/min): 8,76 l (2,3 gal.)
- Pressure ratio: 1,8:1
- Max. material pressure: 14 bar (203 psi)

i The names of the pumps are derived from a combination of the output (in cm³) and pressure ratio.

The right gun

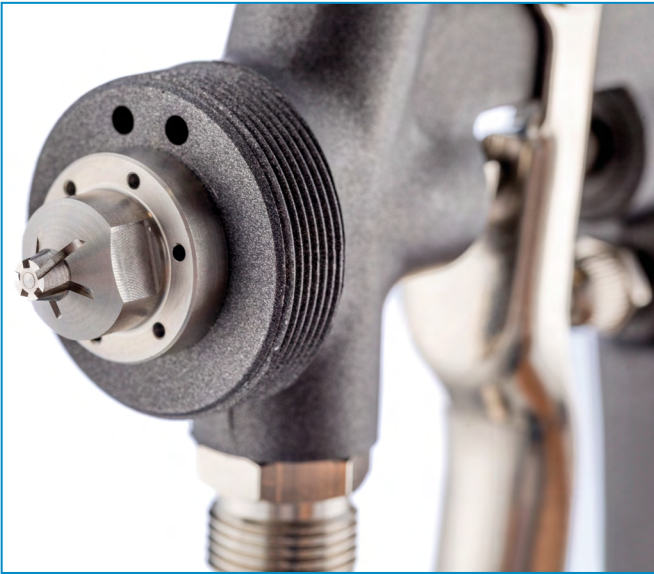
Adhesive spray guns require special tip-needle configurations to prevent shearing and an accumulation of material.

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.



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.



System solution for small containers and individual workstations

Advantages

- Easy handling
- Perfect spray result
- High application rate

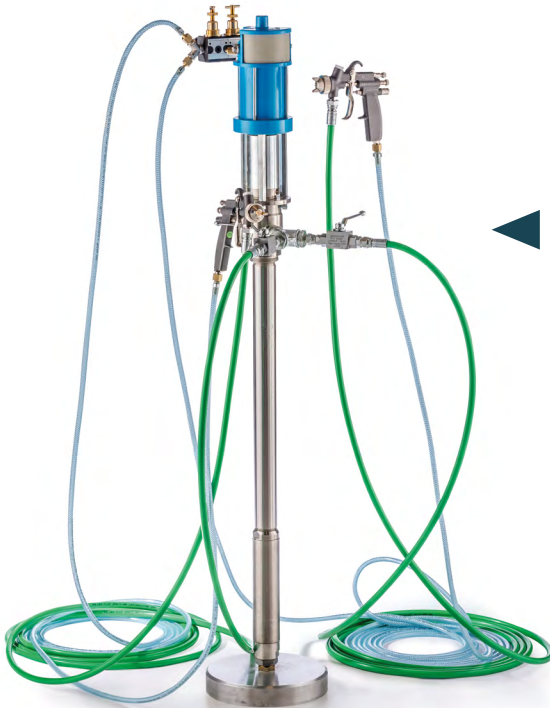


Part No. complete system: 0669685 (RS)
(carbon steel version on request)

Suitable for
<ul style="list-style-type: none">• One delivery point with low consumption
Components
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 8,8 l (2,3 gal.)• Pressure ratio: 1,8:1

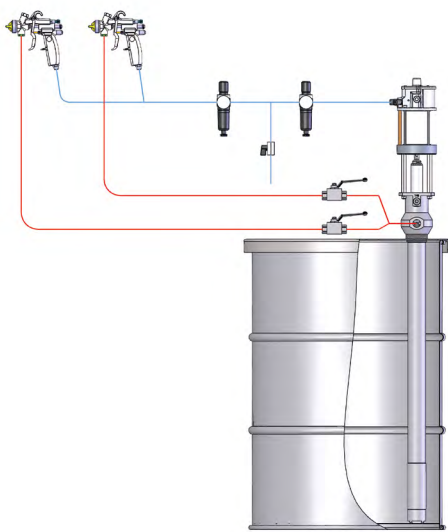
i RS = Stainless steel, rust and acid resistant N = Normal steel, galvanized R = Stainless steel
Hose package and gun are not included in the complete system part numbers.

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



Part No. complete system for two guns:
Part No. complete system for four guns:

Suitable for	Technical data
<ul style="list-style-type: none">• one to four delivery points with high consumption	<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 8,8 l (2,3 gal.)• Pressure ratio: 1,8:1
Components	
<ul style="list-style-type: none">• LP-pump 146.1,8 with connection for guns• Hose package for compressed air and glue (Part No.: 0669474)• Glue gun (Part No.: 0520041)	

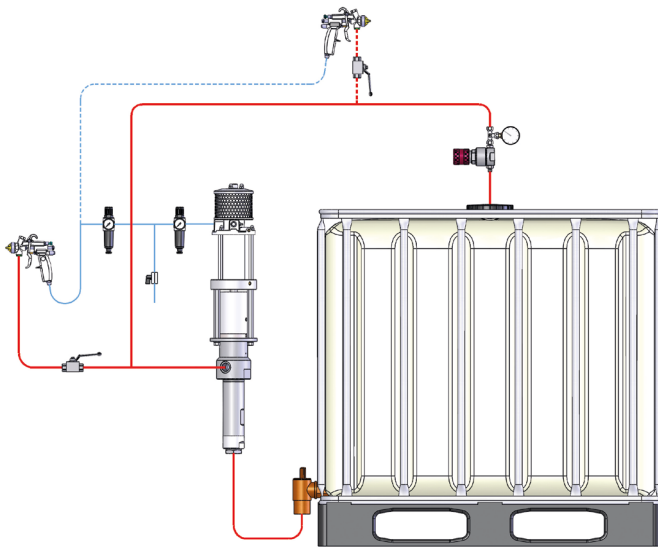


0669505 (RS) / 0669761 (N)
0669506 (RS) / 0669760 (N)

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
<ul style="list-style-type: none">• Central adhesive supply via ring line• Up to 50 delivery points with high consumption
Components
<ul style="list-style-type: none">• LP-pump 375.05 / 600.06• Feed hose for connection to an adhesive ring line• Circulation regulator for constant material pressure• Compressed air regulator• Hose package for compressed air and glue (Part No.: 0669474)• Glue gun (Part No.: 0520041)
Technical data
<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 22,5 - 36 l (5,9 - 9,5 gal.)• Pressure ratio: 5:1 - 6:1

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%.

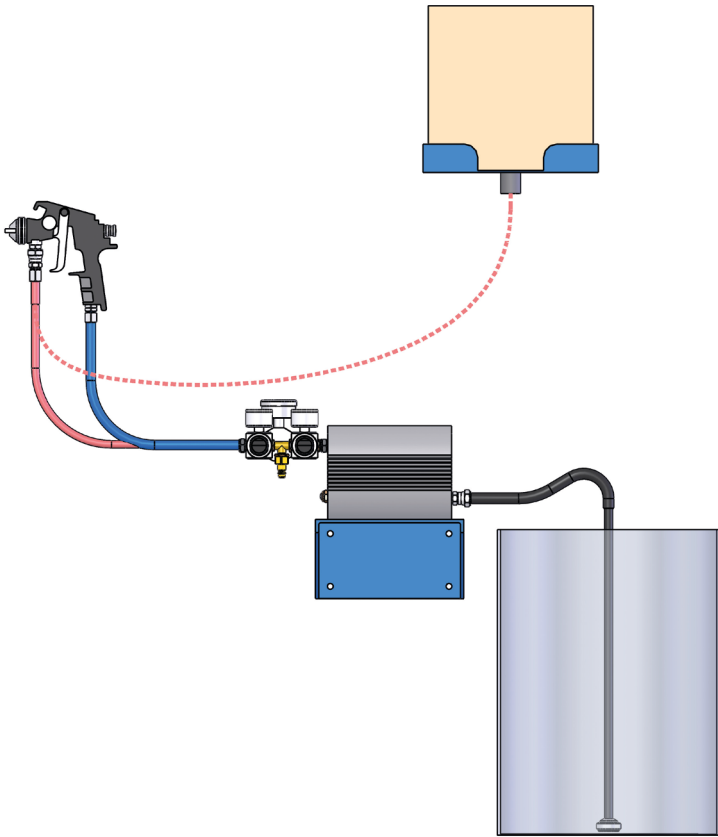
It is important to be mindful of the fact that the dispersion shrinks in the joint due to water evaporation. Typical areas of application are wood processing, paper and packaging manufacture and the automotive and electrical industry. This type of adhesive is also particularly suitable for high-tension 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
<ul style="list-style-type: none">• One delivery point with low consumption	<ul style="list-style-type: none">• Diaphragm pump• Suction kit• Hose package for compressed air and glue• HVLP glue gun or extrusion gun• Optional: feed hopper or pressure pot



Underbody coatings

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.

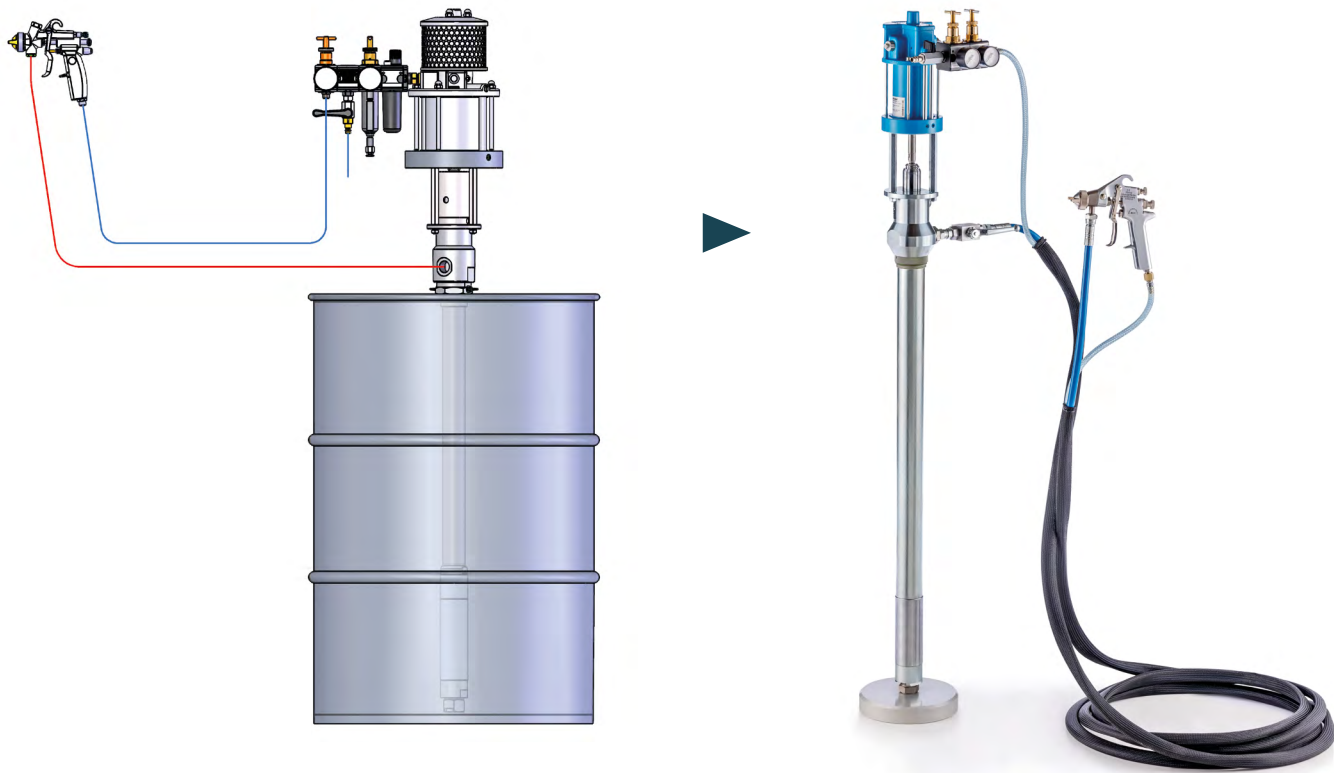
High-quality underbody and insulation protection systems can prevent such failures.



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.

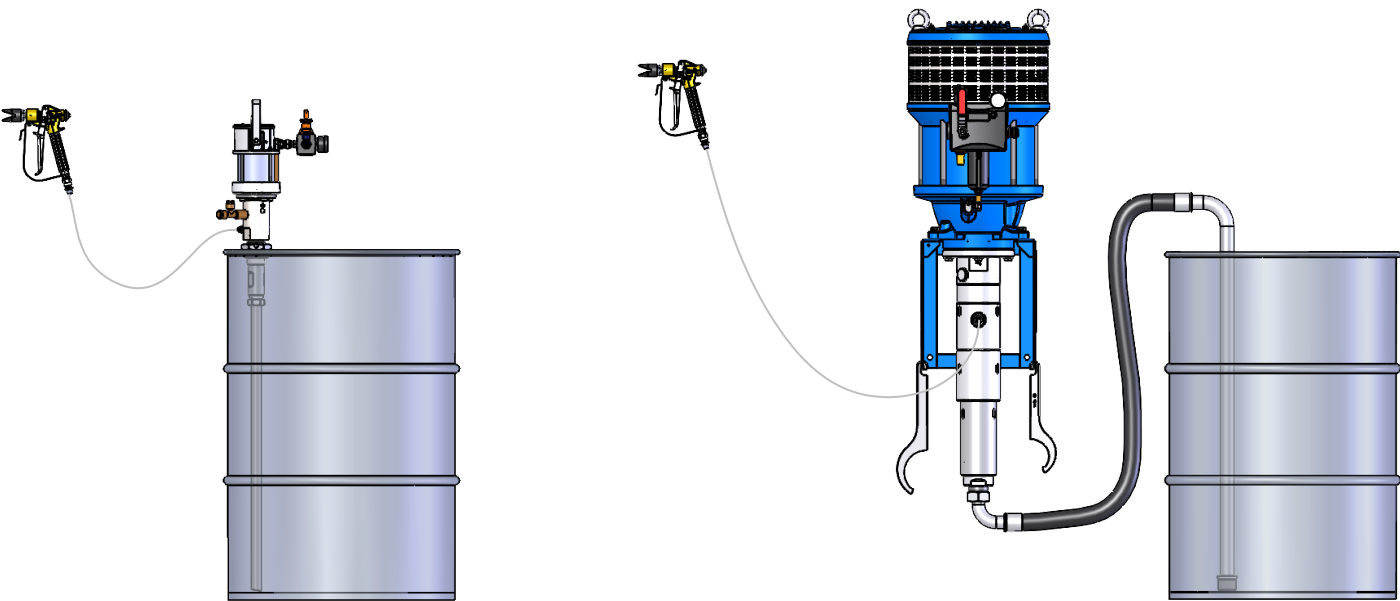
System solution for direct suction from a 200 liter (55 gal.) container



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

Suitable for	Components
<ul style="list-style-type: none">• One delivery point	<ul style="list-style-type: none">• LP-pump 150.8 / 375.09,5• Hose package for compressed air and glue• Compressed air regulator• Mastic gun
Technical data	
<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 9 - 22,5 l (2,4 - 5,9 gal.)• 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)

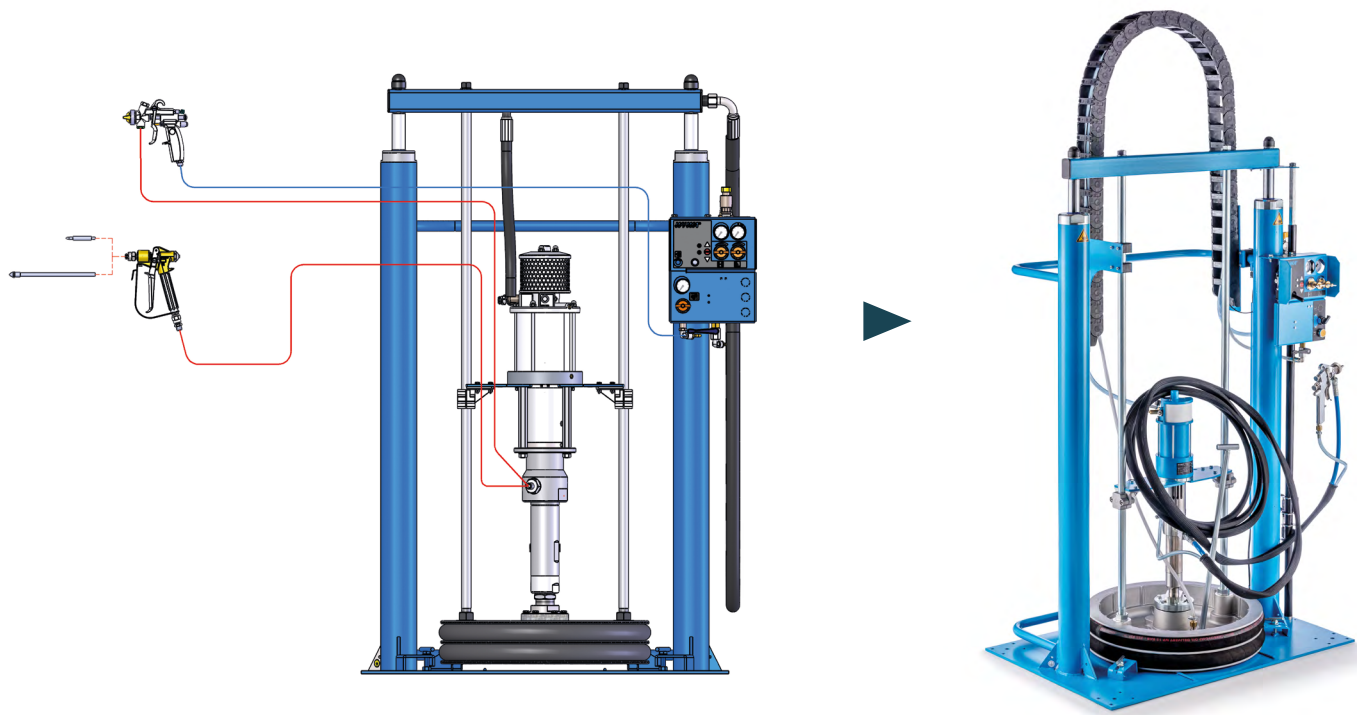
Suitable for	Components
<ul style="list-style-type: none">• One delivery point with low consumption	<ul style="list-style-type: none">• HP-Pump 14.33• Material hose• Compressed air regulator• Airless gun
Technical data	
<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 0,8 l (0,2 gal.)• Pressure ratio: 33:1	

Part No. complete system: 0669502 (RS)

Suitable for	Components
<ul style="list-style-type: none">• Several delivery points	<ul style="list-style-type: none">• HP-Pump 275.49• Suction kit• Material hose• Maintenance unit• Airless gun
Technical data	
<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 16,5 l (4,4 gal.)• Pressure ratio: 49:1	



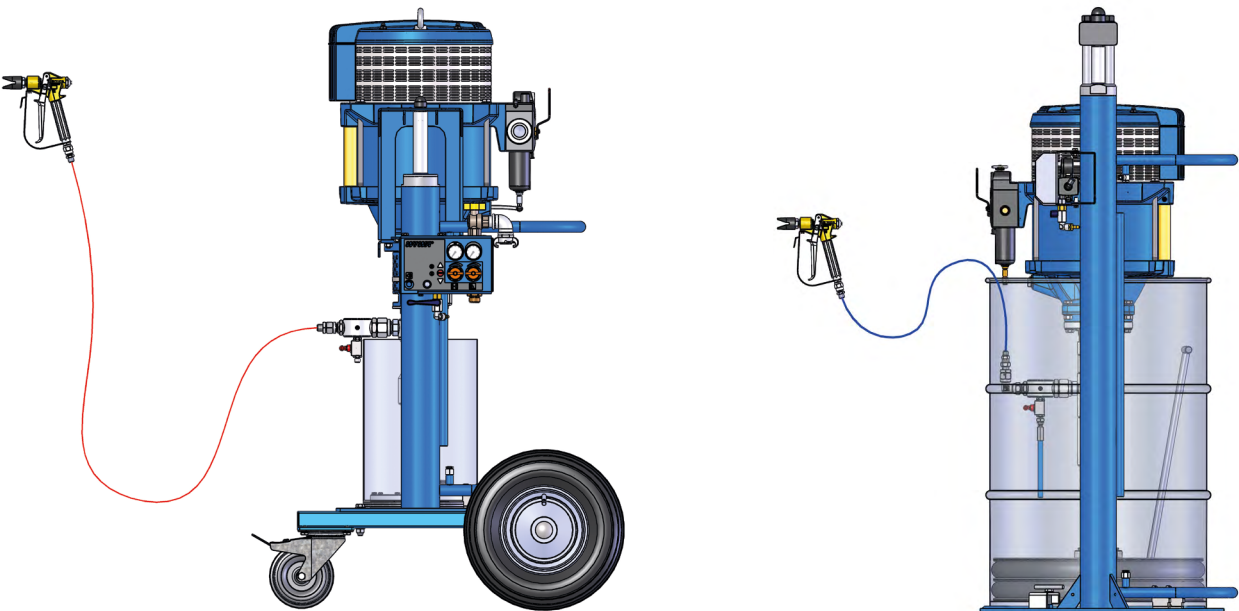
System solution for 200 liter (55 gal.) containers



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

Suitable for	Components	Technical data
<ul style="list-style-type: none">• One to two delivery points• Spraying or extrusion	<ul style="list-style-type: none">• LP-pump• Hose package for compressed air and glue with all connections• Compressed air regulator• Twin-post ram• Following plate• Mastic gun or extrusion gun	<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 22,5 l (5,9 gal)• 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
<ul style="list-style-type: none">• One to two delivery points	<ul style="list-style-type: none">• HP-Pump• Material hose• Maintenance unit• Twin-post ram• Following plate• Airless gun	<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 16,5 l (4,4 gal.)• Pressure ratio: 75:1

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

Bonding of high viscosity materials

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



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:

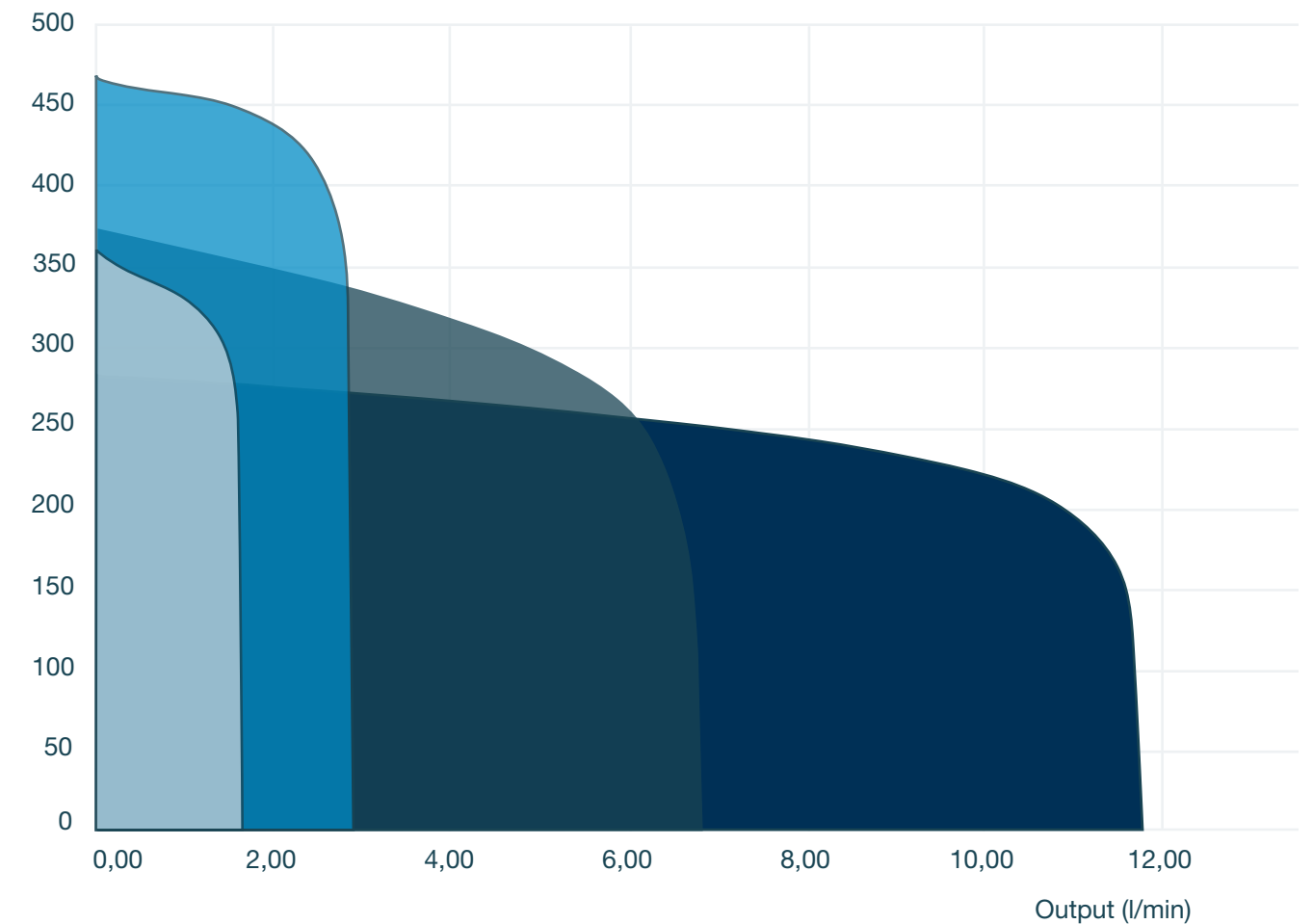
- Silicone sealants
- Polyurethane sealants
- Hybrid sealants
- Butyl sealants
- Polymer sealants

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.

Material pressure (bar)



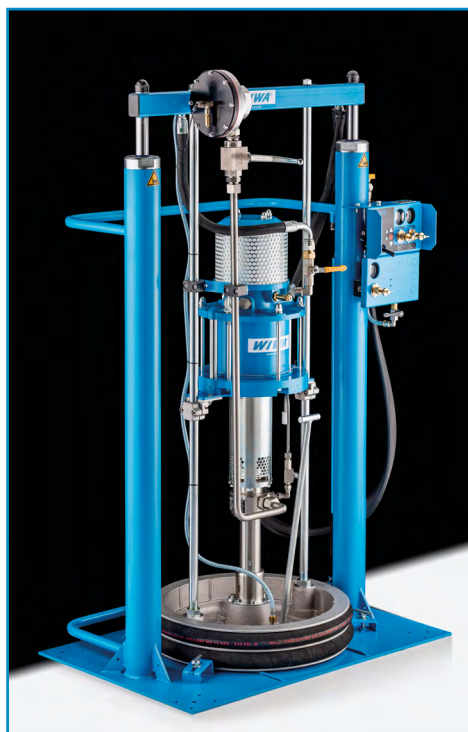
- ▶ Model 79.45
- ▶ Model 134.72
- ▶ Model 300.62
- ▶ Model 580.35



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

Automated material supply and application. All from a single source

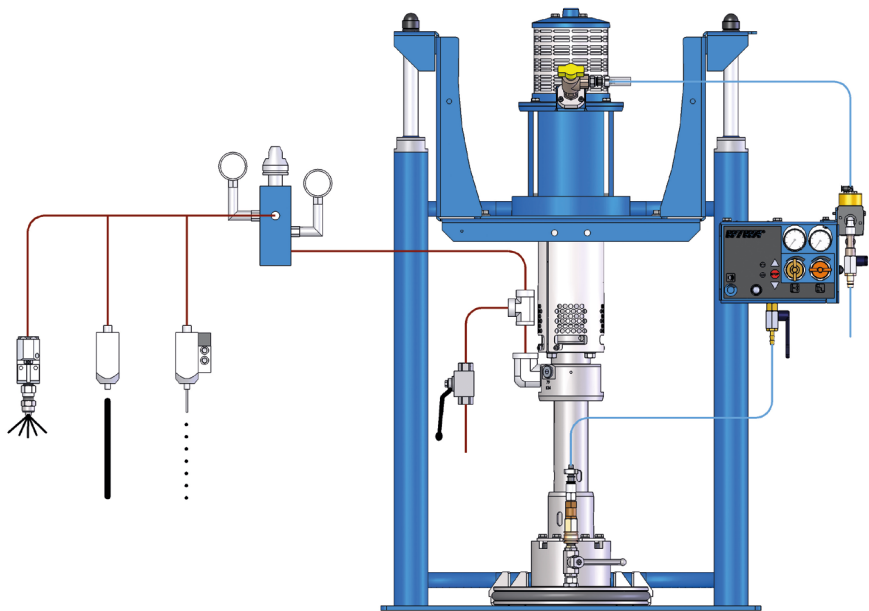
WIWA delivered a 200 liter (55 gal.) version **VULKAN** series pump (model 134.54) as a feed pump as well as four pneumatically controlled **WIWA 250 needle outlet valves** to a system integrator manufacturing a machine for the automatic gluing of wooden door strips.



System solution for 20 liter (5 gal.) containers

Advantages

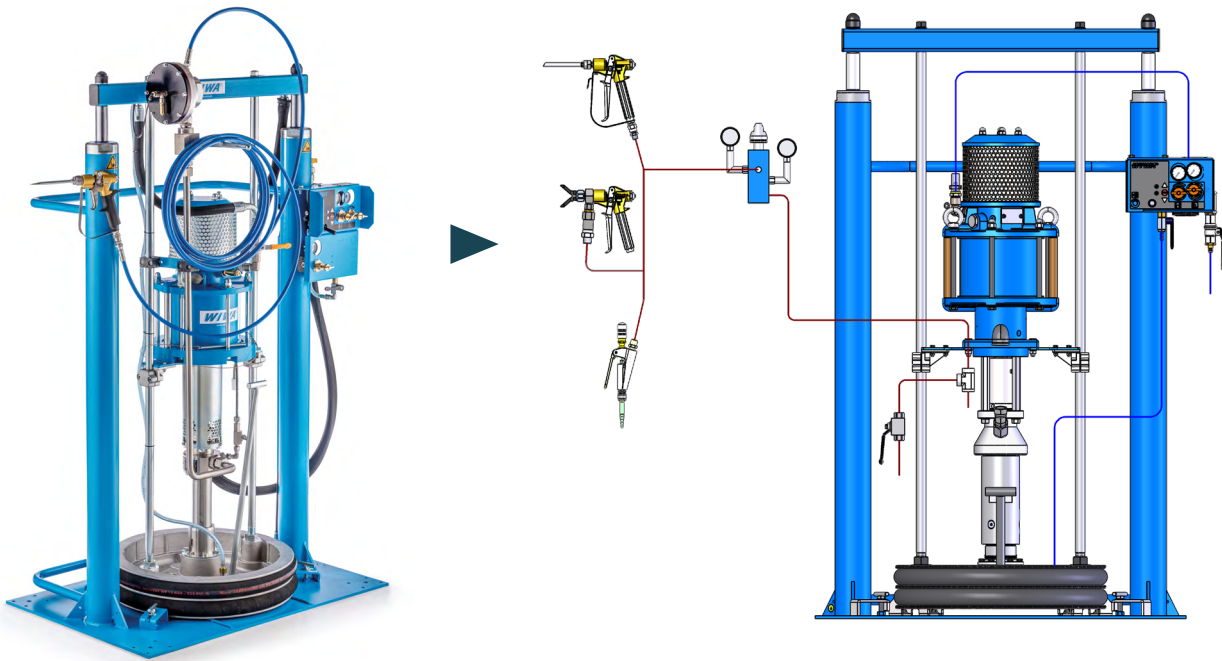
- Easy to maintain
- Soft start of the pump with an air inlet pressure of less than 1 bar (15 psi)
- Longer service life of the pump because of the spring loaded upper packing



Suitable for	Components	Technical data
<ul style="list-style-type: none">• One to several delivery points	<ul style="list-style-type: none">• Shovel pump• Material hose• Material pressure regulator• Twin-post ram• Following plate• Automatic gun	<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 4,7 - 34,8 l (1,2 - 9,2 gal.)• Pressure ratio: 14:1 - 72:1

► Automatic operation ◀

System solution for 200 liter (55 gal.) containers

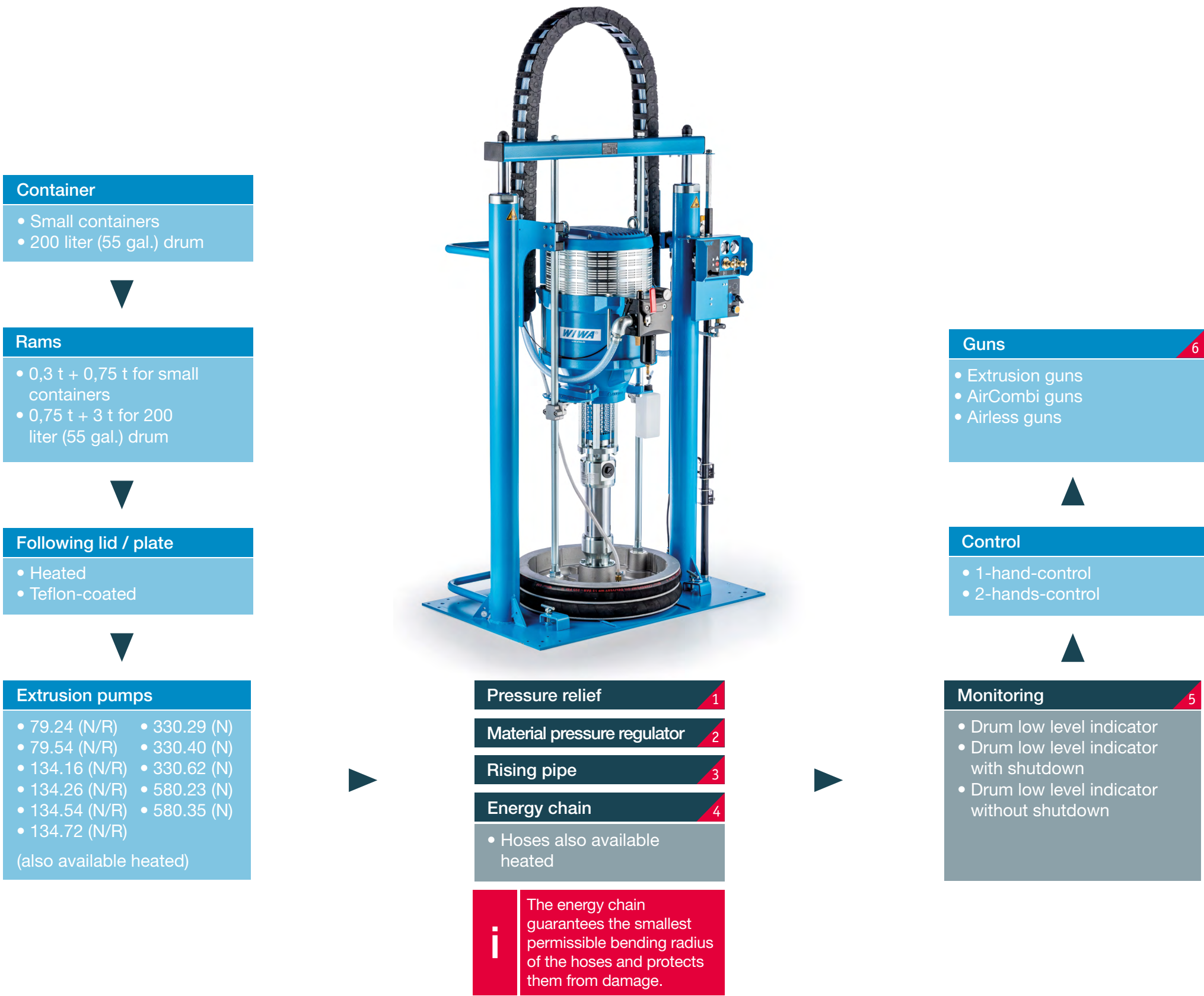


Suitable for	Components	Technical data
<ul style="list-style-type: none">• One to several delivery points	<ul style="list-style-type: none">• Shovel pump• Material hose• Maintenance unit• Twin-post ram• Following plate• Airless gun or extrusion gun	<ul style="list-style-type: none">• Max. output (at 60 cycles/min): 4,7 - 34,8 l (1,2 - 9,2 gal.)• Pressure ratio: 14:1 - 72:1

► Manual operation ◀

Modular diversity

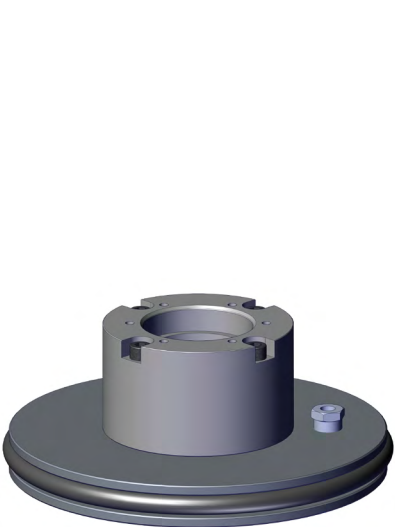
With the WIWA VULKAN GX



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

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



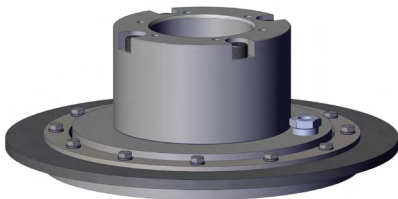
Standard following plate for large containers

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

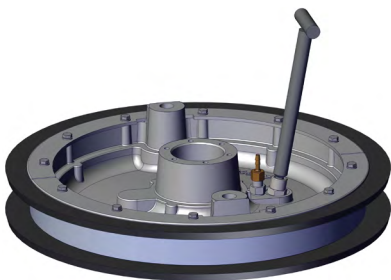
i WIWA's electrically-heated following plates enable the effective pumping of materials with very high viscosities. An overview of our heating options can be found on the following pages.

... 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.

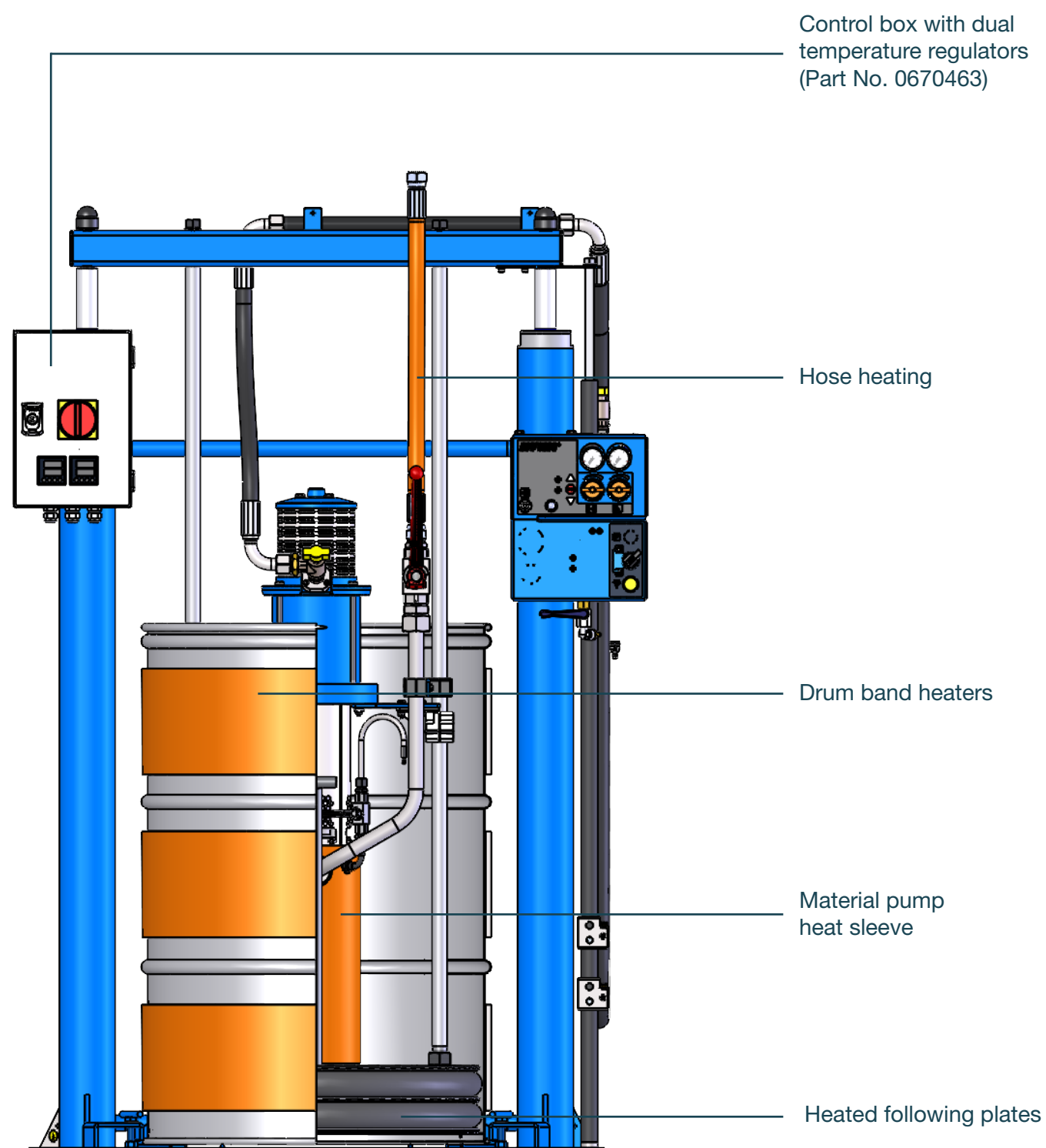
Advantages

- 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.

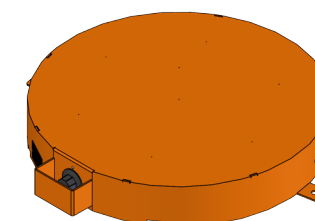
Our heating options from drum floor heaters to the outbound fluid hose

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

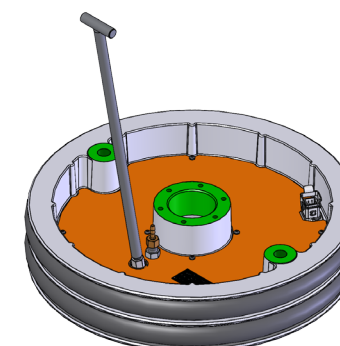
In order to preheat a new drum in advance - so that, for example, the ongoing work process does not have to be interrupted - our separate drum floor heaters are ideally suited.



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

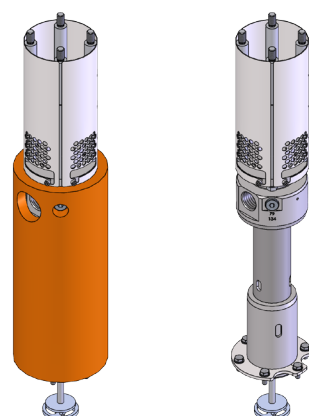


A thermostat, drum retention device, cable (without plug) and ground wire are included.

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 consistent 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.



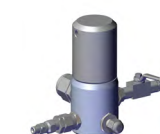
Double filter fitting

- 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.



- Direct analog or digital display of the measured values
- Electrically measured value acquisition and control via control box

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

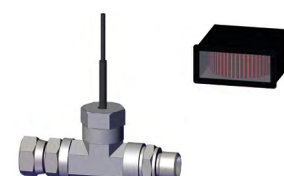
- Measuring range: 0,16 - 16 l/min
(0.035 - 3.5 - gal./min)
- Material inlet: 3/8" BSPP / 1/2" BSPP

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)

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)

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)

Small quantities efficiently dosed with the WIWA DOSYS M



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 small, mobile **WIWA DOSYS M**, 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 task.

Smallest quantities, even of a few milliliters, are the special target area of the user-friendly system, because for selective applications it can even be stopped in the middle of the stroke to provide the exact quantity required.



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

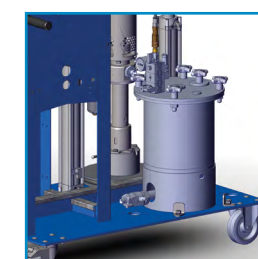
- Filler materials based on epoxy resin, polyurethane or peroxide
- Adhesives
- Sealants
- Thickeners
- Mastics
- Insulating materials

Even more successful projects with our special solutions

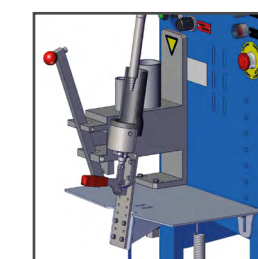
Technical data	Example systems WIWA DOSYS M			
Mixing ratio	100:100	100:50	100:10	100:3
Output per stroke comp. A	412,34 cm ³	412,34 cm ³	288,66 cm ³	412,34 cm ³
Output per stroke comp. B	412,34 cm ³	206,17 cm ³	28,85 cm ³	12,37 cm ³
Max. operating pressure	18 bar	23,8 bar	63,6 bar	34 bar
Max. air inlet pressure	6 bar			
Optional features (others on request)	14 liter pressure tank Cartridge filling device Extreme mixing ratio			
Part No.	0666500	0667905	0669960	0666910



Start-stop function
via foot control



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 DOSYS M 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

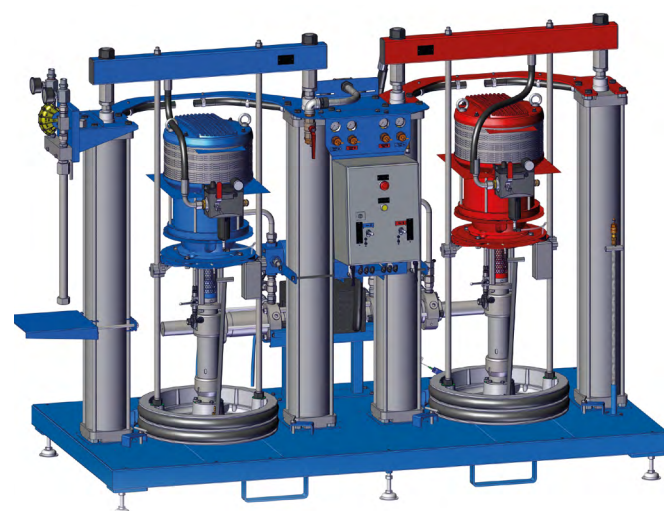
Simple operation, enormous benefit

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

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 DOSYS XL**



With the larger, more stationary **WIWA DOSYS XL**, too, results that vary depending on the day and the user, unevenness in the material surface, and expensive and time-consuming leveling work are a thing of the past.

The system, equipped with either pedestals or rollers, was developed especially for large-area industrial coatings where a continuous delivery rate is required.

With the **WIWA DOSYS XL**, you can count on bubble-free mixing with a constant mixing ratio and therefore on consistent quality of your job. The removal from different sized containers makes it an environmentally friendly and economical partner for every project.



Areas of application

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

Materials

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

Even more successful projects with our special solutions

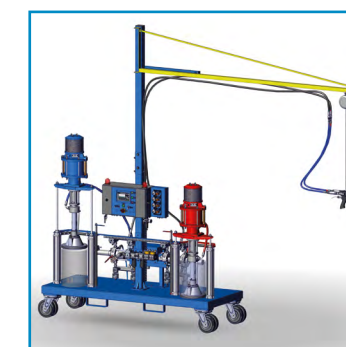
Technical data	Example systems WIWA DOSYS XL		
Mixing ratio	1:1	1:1	5:1
Output per DS	2106 cm ³	2106 cm ³	1263 cm ³
Max. operating pressure	208 bar	270 bar	192 bar
Max. air inlet pressure	8 bar		
Max. lifting force A-side	7200 N	4400 N	7200 N
Max. lifting force B-side	7200 N	4400 N	4400 N
Part No.	0671751	0671752	0671758



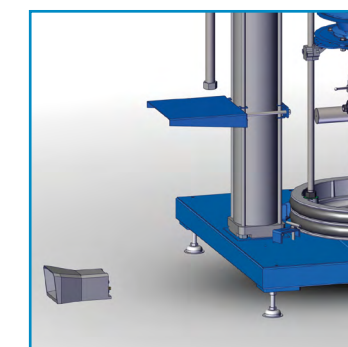
In addition to the models listed here, many more can be configured with different delivery rates, mixing ratios or feed variants. We will be happy to advise you!



Feeding via
large containers



Swivel arm
with gun mount



Start-stop function
via foot control

Advantages

- Precision and performance
- Countless customized configurations due to modular design
- Environmental friendliness and cost savings through removal from large 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.



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

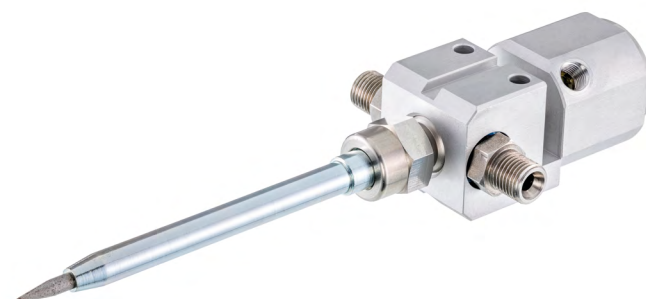
- Robust construction
- Can be used with and without circulation
- Connection option for pneumatic trigger release for even more precise, faster application



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.)



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.)



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.)



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 cm³ / 0,003 - 0,2 cm³

i

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

► Spraying application ◀

► Extrusion application ◀

► Extrusion application ◀

► Dosing application ◀

Not enough of WIWA yet?



Protective Coatings

Regular maintenance and repair are important for the long-term use of structures. Injection systems make a sustainable contribution to this.

High-performance injection materials, combined with optimum processing technology, are prerequisites for the success of injection projects. Our injection solutions in the single and plural component range are second to none. We are leaders in customizing our system technologies to find the best solution for your application. WIWA is your optimal partner for every project.

Coatings can perform various functions for surfaces they are applied upon.

From forming a protective layer to providing a decorative finish, they reimagine the surface's face and characteristics. Protection from weathering, defense against mechanical stress and even performance as a flame and fire retardant are all possible functions coatings can provide as they maintain the value of the coated object. WIWA equipment and systems provide the perfect finish you are looking for. More than 70 years of expertise in applying paint, varnish, stain and industrial coatings are proof of the quality and professionalism that goes into our products, giving peace of mind even under the most difficult application conditions.



Injection / Building Protection



www.wiwa.de/en/newsletter

The WIWA website leaves no questions unanswered!

On our website you will find all products for the three WIWA business units Protective Coatings, Injection/Building Protection and Extrusion/Material Handling clearly presented. To ensure that you do not miss any of our news, you can also register there for our WIWA NEWS newsletter.


However, should you have any questions, you can contact a WIWA employee directly via chat on the website.



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