











WWW.WIWA.COM



## Dear business partners,

the renovation of structures such as bridges, tunnels, the sewer system, dams and old buildings is increasingly coming into focus. Due to climate change, the seasons are becoming more and more extreme - cracks and subsidence of the soil can be the result. Through our years of experience and close contact with material manufacturers worldwide, we are very flexible and can respond comprehensively to our customers special requests.

Our injection technology is completely designed, built and tested at our Lahnau site. We offer highly complex, automated systems and easy-to-operate equipment for efficient and trouble-free work. From small construction sites in the private sector, such as crack repair or the sealing of basements and buildings, up to underground or in tunnel construction - our WIWA INJECT series in the 1C and 2C range offer efficient solutions for every job volume.

In the following you will find our large selection of pump technology and accessories. Contact us - we will find the solution for your application and your material.

Kind regards on behalf of our entire team

Peter Turczak General Manager

## **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 de
1967	The first Airless spray painting units a
1970	New products – AIRLESS 10.000, AirC pumps, airless spray painting guns – a Company expands: New building is op
1975	Founder's daughter Heidrun Wagner- company and Günter Leinweber take
1980	Expansion of fluids handling technolo extrusion pumps and hot-spraying sy
1992	WIWA JUMBO launched on the mark
1994	WIWA plural component technology of the launch of the DUOMIX range.
1996	Certification of quality management a
2000	WIWA LP is established in Tucker, Ge
2004	Unveiling of 1K (single-component) an WIWA is awarded ATEX certification.
2005	WIWA launches electronic plural com FLEXIMIX 2.
2007	Relocation of WIWA factory in Leun-S
2009	Unveiling of newly developed range of
2014	WIWA DUOMIX 333 PFP certified for airless units, the HERKULES GX SER
2015	Modernization of the DUOMIX range
2016	Introduction of the new generation sir of the DATALOGGER.
2017	The 3rd generation takes over the ma Peter Turczak succeeds his mother H
2018	Launch of the new generation single fe
2021	DUOMIX 230 MINI as new 2K entry-le Brand relaunch and realignment to th Extrusion/Material Handling and Inject
2022	Relocation of the 2K special construct With the HYDRO PX series, compress product portfolio. Purely electrically of



levelops and makes oil pumps and lubrication guns. are sold.

- Combi units, zinc silicate spraying units, feed are added to the product range.
- pened on Gewerbestrasse in Lahnau-Waldgirmes.
- -Turczak takes the commercial helm of the
- es over as Chief Technical Officer.
- ogy product range and market launch of WIWA vstems.
- ket the world's largest airless unit.
- opens up a promising, new market segment with

according to DIN ISO 9001. eorgia, USA.

and 2K PFP units for fire-protection coatings.

nponent technology with the FLEXIMIX 1 and

Stockhausen to new building at HQ Lahnau. of polyurea application units.

use on offshore platforms. New generation of RIES.

with the launch of the DUOMIX 270.

ingle feed units HERKULES 270 and 333 GX and

anagement.

Heidrun Wagner-Turczak.

feed units PHOENIX GX and PROFESSIONAL GX.

level machine.

- he market segments Protective Coatings,
- ction/Building Protection.
- ction to new company building in Aßlar, Germany.
- ssed air independent units complete the WIWA
- operated follows the WIWA ELAN.

## About us

## Made in Germany – Made by WIWA!



#### 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 1- and multicomponent airless paint spraying equipment, material conveying, extrusion and injection systems.

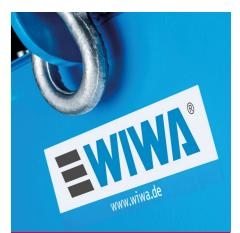
The application spectrum of our equipment and systems ranges from painting and bonding in mechanical and vehicle engineering to large-area and thick-film coatings in the marine and offshore industries, in building and corrosion protection, and in passive fire protection.

Under the highest quality standards WIWA manufactures at its founding site in Lahnau, Germany, equipment and systems for the most diverse requirements. WIWA technology proves itself in decorative and protective surface coating, surface sealing in tunnel and canal construction, or the application of highly viscous, paste-like 2K and 3K materials on steel and concrete. The family-owned company develops, produces and sells its products in Germany. It also sells through a company-owned subsidiary in the USA and through highly experienced distributors in all parts of the world. In close cooperation with these international experts, WIWA develops and implements industry-leading special solutions.

By adapting the work processes to the strict requirements of DIN EN ISO 9001:2008 as well as the introduction of a quality management system, WIWA offers national and international customers even more transparency and investment security. WIWA holds the corresponding certifications of TÜV Rheinland and Bureau Veritas. German workmanship describes in our company the consequent highest quality and innovative solutions. The fact that our global customers despite growing cost pressure and on "Made in Germany – Made by WIWA" is based not least on the clear commitment to our home location in Lahnau and our more than 135 qualified employees.

It is not always recognizable technical factors that pay off for our customers day after day. Direct contact with each individual WIWA employee, often with many years of experience and competence, creates trust. Use the potential of all specialist departments of our company from design to production to final assembly, the shipping department and our service team clearly for one big goal: Your daily success!





How much "Made in Germany" is actually still in a WIWA system?

> Quite clear: almost 100%



# The new dimension of injection systems

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

High-performance injection materials combined with optimal processing technology are prerequisites for successful injection measures.

This brochure presents you with a comprehensive overview of WIWA injection solutions from the 1K and 2K range for:

- Waterproofing of floor slabs
- Reinforcement and strengthening
- Crack repair / crack grouting
- Joint sealing
- Horizontal barriers
- Stopping of strong water inflows
- Structural waterproofing by curtain and surface injection
- Filling of cavities
- Consolidation and stabilization
   of rock and subsoil



## **2K INJECT SOLUTIONS**

from Page 28

from Page 10

**2K PU/FOAM SOLUTIONS** 

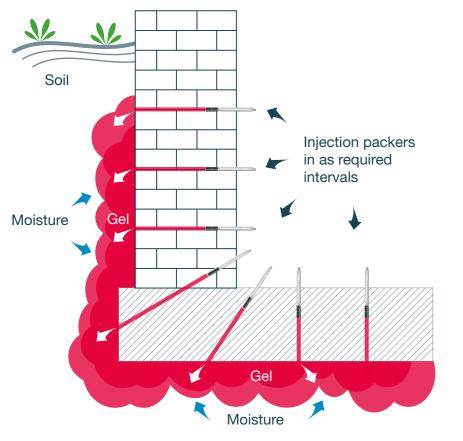
from Page 54

## ACCESSORIES

from Page 64



## **Injection methods**

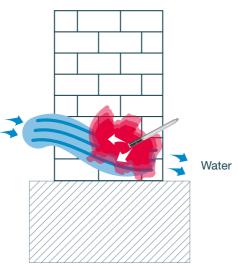


## **Curtain injection**

This is a retrofitted waterproofing of structures in contact with the ground, such as basements, sewers, shafts and tunnels.

Sealing is carried out from the inside to the outside. Additional costs for the external uncovering of the wall can thus often be avoided. A curtain is built up on the component in contact with the ground, which repels the moisture.

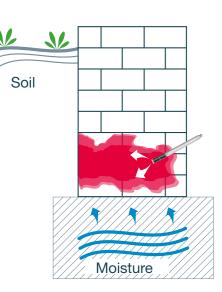
Our recommendation: WIWA INJECT 14025 GX RS



## Stop water inflows

With fast reacting 1K or 2K injection materials, the water inflow is stopped. As a rule, this is a temporary procedure, which requires subsequent sealing.

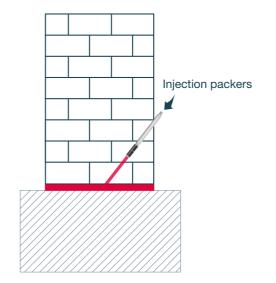
Our recommendation: WIWA INJECT HD4 WIWA INJECT 14015 GX



## Horizontal barrier

The horizontal barrier is subsequently injected into the masonry to prevent rising moisture. The injection material impregnates the masonry so that the moisture cannot penetrate.

Our recommendation: WIWA INJECT HD1 WIWA INJECT HD2 WIWA INJECT 14015 GX



## Joint sealing

In this process, vertical or horizontal joints are sealed in an expandable manner.

Our recommendation: WIWA INJECT HD4/HD5 WIWA INJECT 14025 GX





Injection packers in as required intervals

- 1 Damaged concrete element with crack
- 2 Drill channel with injection packer
- 3 Filling the crack with special resin

## **Crack injection**

Cracks in masonry or concrete are sealed by the injection materials via packers force-fitted or expandable.

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Our recommendation: WIWA INJECT HD1 WIWA INJECT ND1

## **Cavity filling**

Injection method for backfilling and sealing of dry or filled cavities (e.g. behind the tunnel lining, see Fig.), porous soils and rock (karst), scouring, cavities or existing tunnels and drifts.

Our recommendation: WIWA INJECT 2 K 230 WIWA INJECT 2 K 333 GX

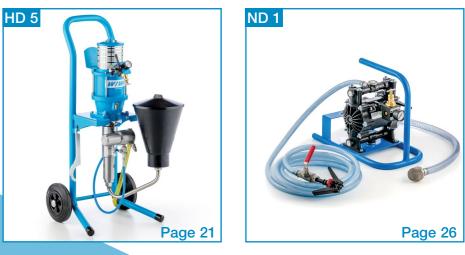
## Do you already know the WIWA YouTube channel?

Here you can find a Playlist "Injection" with exciting projects around the WIWA INJECT portfolio:



1K injection range. the requirements of the ZTV Riss.

The WIWA INJECT ND 1 is ideal for the processing of suspensions and complements the WIWA INJECT 1K portfolio in the low-pressure range.













## WIWA 1K INJECT SOLUTIONS

The WIWA INJECT HD series consists of 5 versatile and high quality pneumatic piston pumps for the

They are particularly suitable for injecting and injection of low viscosity epoxy or polyurethane resins and meet

# 1K Solutions IK Solutions

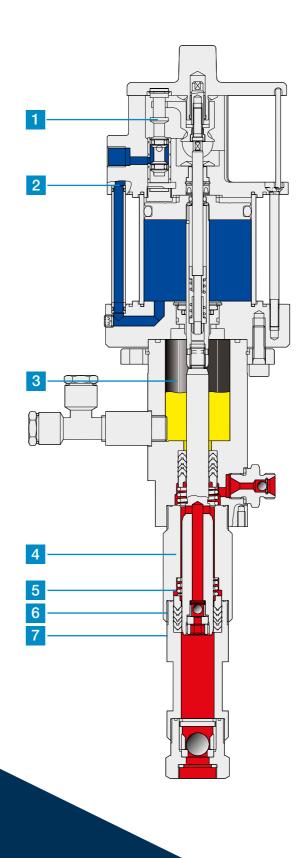
# Compact · High-quality · Strong

Our 1K injection units HD 1 to HD 3 of the WIWA INJECT HD series are equipped with the powerful pneumatic WIWA PROFIT piston pumps.

Carefully selected, premium quality materials create high durability and reduce the wear and tear of all parts that come into contact with the fluid. Minimal repair costs and downtime create satisfied customers all over the world. Robust, reliable and versatile WIWA technology to your benefit.

#### THE ADVANTAGES:

- Portable for flexible use anywhere.
- Pulsation is barely noticeable thanks to the high stroke changeover speed.
- Spring supported, self adjusting packings reduce wear and tear.
- Quicker and simpler maintenance and assembly thanks to direct threading and wrench flats.





#### **DESIGN FEATURES OF HD 1-3**

#### Air motor

- 1 Pulsation is barely noticeable thanks to the high stroke changeover speed.
- 2 Low number of components make the motor easy to assemble and disassemble.

#### Lubrication chamber

3 A closed lubrication chamber separates the air motor and the material pump. The closed design prevents foreign objects such as blasting material from entering the pump system from the outside. The lubricant also prevents paint from drying onto the piston rod and protects the packings.

#### Material pump

Less pressure loss even with highly viscous materials due to large bores and voluminous material passages in the bottom valve.

- Precision guides ensure simple and exact alignment of components and thus less wear and tear.
- 5 Better flushing due to short packing retention springs and large fluid passages.
- 6 Sealing rings located in front of the threads prevent the threads from sticking and make disassembly easier.
- 7 Pump components are quick to assemble and disassemble as they are simply screwed together.

# WIWA INJECT HD 1 / HD 2 / HD 3



#### **SECURITY FOR YOUR PROFIT**

The advantage of air-operated piston pumps compared to electric membrane pumps is that the pump stops when the injection site is filled. The slower stroke speed allows the operator to see how far the injection process has progressed. In addition, pneumatic pumps do not heat up, which could have an influence on the reaction time of the material:

#### MATERIALS

- PUR injection foam resins
- PUR combination injection foam resins
- PUR combination injection resins
- PUR injection resins
- EP injection resins
- Also suitable for processing 2K injection materials with longer reaction time.



## Output per cyc

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Material feed h
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#### **AREAS OF APPLICATION**

- Crack injection
- Subsequent horizontal barrier
- Grouting of injection hoses
- Filling of smaller cavities •
- Sewer rehabilitation •

## **BASIC EQUIPMENT**

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#### Easy to operate and transport

The injection pressure is infinitely adjustable

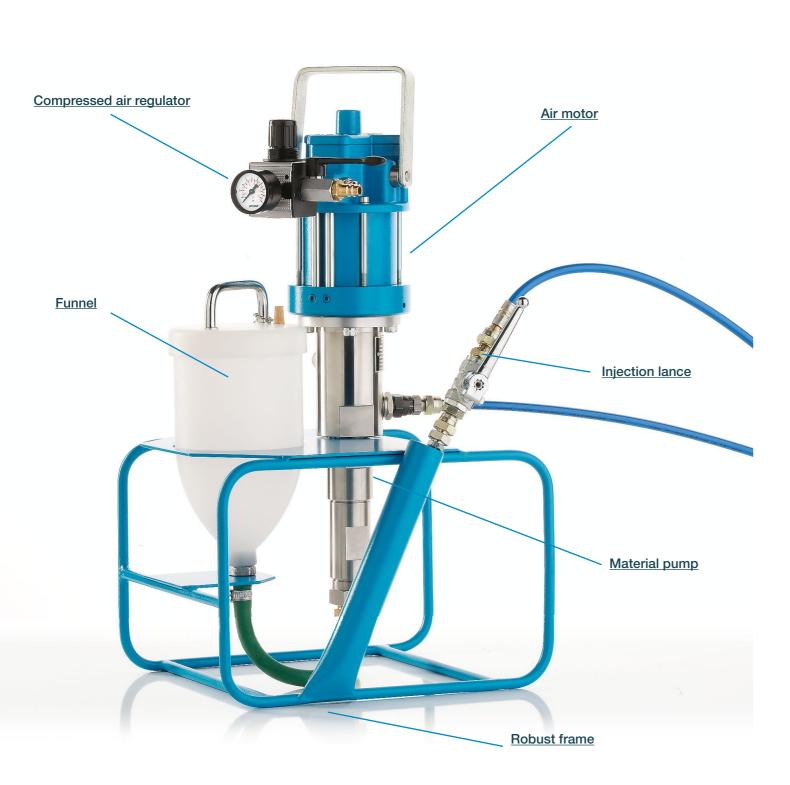
Compact, portable and powerful injection equipment with pneumatic drive



Technical data	HD 1	HD 2	HD 3	
Output per cycle	14 cm <sup>3</sup>	14 cm <sup>3</sup>	27 cm <sup>3</sup>	
Pressure ratio	33:1	33:1	33:1	
Max. air inlet pressure	8 bar/116 psi	8 bar/116 psi	8 bar/116 psi	
Max. operating pressure	264 bar/ 3829 psi	264 bar/ 3829 psi	264 bar/ 3829 psi	
Weight	12 kg	16,3 kg	13 kg	
Material feed hopper	1,5	6	1,5 I	
Order No.	0644426	0644517	0669680	

- High pressure pump
- Compressed air regulator
  - Safety valve
- Feed hopper, approx. 1.5 liters (HD 1) or feed tank, approx. 6 liters (HD 2)
- High-pressure material hose (7.5 m
- Injection lance with 4-jaw-injection coupling
  - Bottle of release agent
- Operating manual with spare parts list

## <u>Accessories for</u> WIWA INJECT HD 1 / HD 2 / HD 3



Accessories	Order No.	Description
Suction line	0643949	Suction hose -N- NW 9
Mounting kit funnel black 1,5 l	0645575	Funnel 1,5 Liter complete
Mounting kit funnel black 6 l	0631064	Funnel 6 Liter complete
Mounting kit funnel transparent 6 l	0668846	Funnel 6 Liter complete with lid and sieve
Hose NW4 1/4" 7,5 m	0410845	Material hose NW 4/460-1/4"-7,5 N
Compressed air regulator	0644180	Compressed air regulator G 1/4" complete
Injection lance complete	0641948	Injection lance complete
Stroke counter	0671687	Stroke counter complete with holder
Gun	0668657	Injection gun complete WIWA 500D with adapter 1/4" NPSM (A)
Whip 0,3 m	0631406	Material hose NW 6/410-1/4"-0,30 N
Mounting kit straight lance	0669411	Mounting kit for injection gun pipe straight 600 mm
Mounting kit bent lance	0669410	Mounting kit for injection gun pipe bent 170 mm
Mounting kit bent lance	0218820	Double nipple NPS 1/4"-M 10x1
Sliding coupling 90°	0669301	Sliding coupling angular 90°, for nipple M1 Aluminium
Sliding coupling straight	0641199	Sliding coupling gerade, for nipple M1 Aluminium
Hydraulic mouthpiece	0411302	Hydraulic mouthpiece M10x1 IG 4 jaws chrome-plated (Replacement seal 0660477)
Quick release pliers	0668559	Quick release pliers R1/4 (A), 4 mm

#### ATEX version: Can be used in explosion-proof areas. N = Normal steel galvanized, not stainless RS = \$



n-proof areas. ess RS = Stainless steel, rust and acid resistant

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# 3 2 1 4 5 10 7 8

# <u>Enduring</u> <u>Reliable</u> <u>Robust</u>

Our next larger 1K injection units WIWA INJECT HD 4 and HD 5 are equipped with the high-quality pneumatic WIWA PHOENIX piston pumps.

They convince with above-average service life of all components. During daily operation, selected high-quality materials reduce wear and tear and the resulting repair costs to a minimum. The INJECT HD series is uniquely versatile thanks to its sophisticated modular conception. If the operating conditions change, the pressure ratio and output can be easily adjusted by replacing only a few components. This avoids additional investments.



#### **DESIGN FEATURES OF HD 4+5**

#### Air motor

- Easy disassembly and assembly due to few components.
- 2 The snips are highly visible and therefore easy to use.
- 3 Pulsation is barely noticeable thanks to the high stroke changeover speed.
- 4 Change of performance by changing the piston diameter of the air motor.

#### Lubrication chamber

5 A closed lubrication chamber separates the air motor and the material pump. The closed design prevents foreign objects such as blasting material from entering the pump system from the outside. The lubricant also prevents paint from drying onto the piston rod and protects the packings.

#### Material pump

- 6 Fast disassembly and assembly due to direct screw connection. During disassembly, the parts are automatically pulled apart.
- 7 Sealing rings located in front of the threads prevent the threads from sticking and make disassembly easier.
- 8 Less wear due to guided and therefore easy to assemble components.
- 9 Less pressure loss due to large bores and large-volume material passages.
- 10 Better flushing due to large material passages and short packing tensioners.
- **11** Change flow rate and pressure ratio by replacing piston rod and packings.

## WIWA INJECT HD 4 / HD 5



#### **COMPACT AND POWERFUL**

The WIWA INJECT HD 4 and HD 5 are characterized by large valves. The spring-loaded packings make them particularly low-wear. The models are available in direct suction, suction line, funnel and with connection to a large container. By adapting an high pressure filter and nozzle, they can also be used as an airless unit.



#### MATERIALS

- PUR injection foam resins
- PUR combination injection foam resins
- PUR combination Injection resins
- PUR injection resins
- EP injection resins
- Also suitable for processing 2K injection materials with longer reaction time.



#### Technical data

Output per cycle

Pressure ratio

Max. air inlet pres

Max. operating pr

Weight

Material filling

Order No.

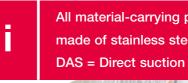
#### **AREAS OF APPLICATION**

- Ideal for filling cracks and cavities
- Subsequent horizontal barrier
- Grouting of injection hoses
- Filling of smaller cavities
- Sewer renovation
- Sealing of joints •
- Connecting of broken building elements •
- Renovation of floor slabs •

Also suitable for viscous materials

Fast start-up of the pump with very low air input

Simple handling, easy operation and simple maintenance of the plant



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	HD 4	HD 5	HD 5
)	43 cm <sup>3</sup>	72 cm <sup>3</sup>	72 cm <sup>3</sup>
	30:1	32:1	32:1
ssure	8 bar/116 psi	8 bar/116 psi	8 bar/116 psi
oressure	240 bar/ 3480 psi	256 bar/ 3712 psi	256 bar/ 3712 psi
	23 kg	33 kg	33 kg
	DAS	6 I Funnel	ASL
	0669679	0669225	0669224

#### **BASIC EQUIPMENT**

- High pressure pump
- Compressed air regulator
- DAS = Direct suction (INJECT HD 4) or feed tank, approx. 6 Liter (INJECT HD 5), ASL = Suction line (INJECT HD 5)
- High pressure material hose (7,5 m)
  - Injection lance with hydraulic mouthpiece
  - Bottle of release agent
- Operating manual with spare parts list

All material-carrying parts of the pump technology are made of stainless steel. ASL = Suction line

## <u>Accessories for</u> <u>WIWA INJECT HD 4 / HD 5</u>



Accessories	Order No.
Suction line	0667173
Mounting kit funnel black	0666699
Mounting kit funnel transparent	0668846
Hoses NW6 1/4" 7,5 m	0410780
Compressed air regulator	0663775
Injection lance complete	0641948
Ball valve	0646988
Stroke counter	0671687
Injection gun	0668657
Whip 0,3 m	0631406
Mounting kit straight lance	0669411
Mounting kit bent lance	0669410
Connection nipple	0218820
Sliding coupling 90°	0669301
Sliding coupling straight	0641199
Hydraulic mouthpiece	0411302
Quick release pliers	0668559
High pressure filter	0663760
Airless gun WIWA 250 D with swivel joint	0646997

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ATEX version: Can be used in explosion-proof areas. N = Normal steel galvanized, not stainless RS = Stainless steel, rust and acid resistant



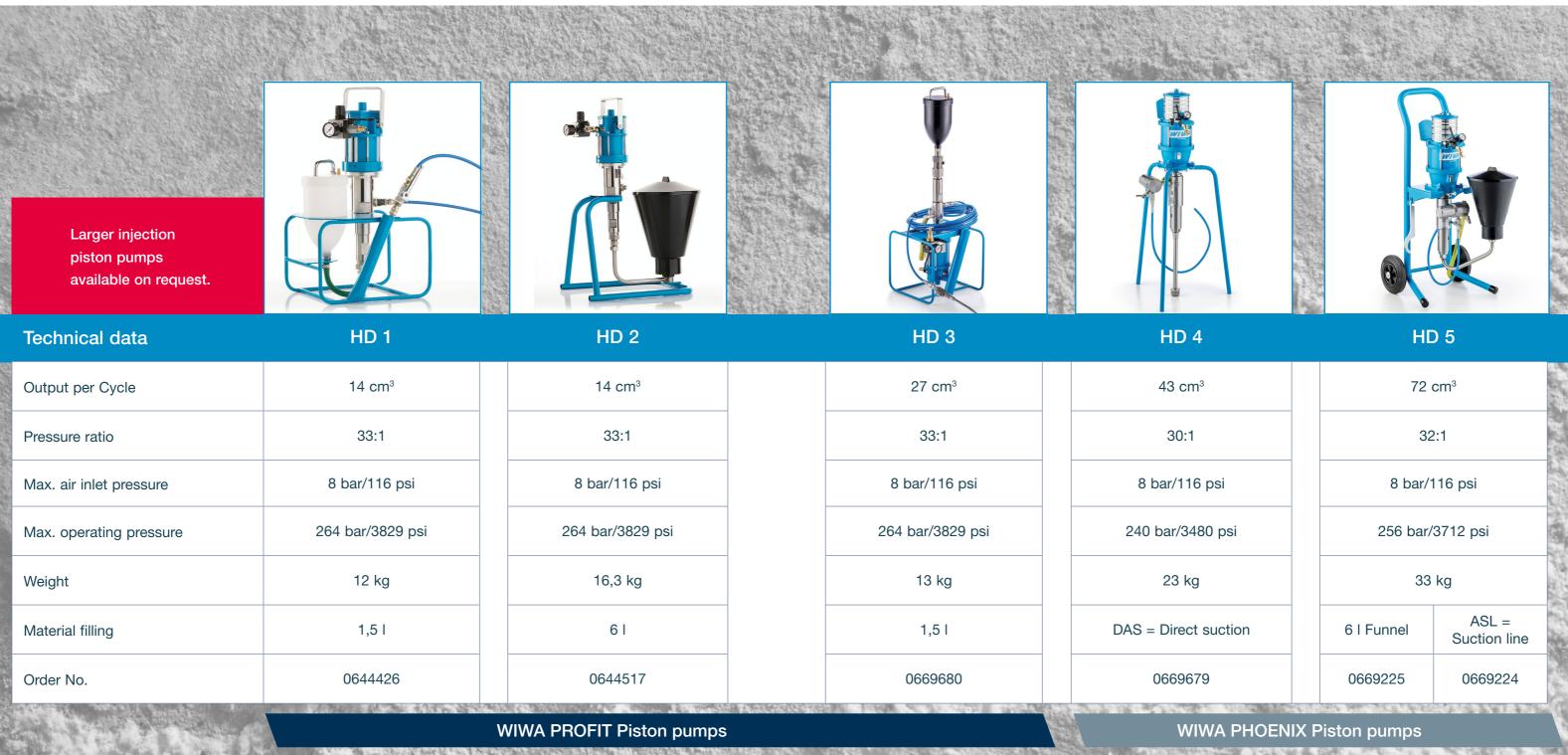
#### Description

- Suction line 25 ltr NW20 / G 3/4" -RS-
- Funnel 6 I complete for PHOENIX GX, with cover and suction tube
- Funnel 6 I complete with lid and sieve, plastic white, non-conductive
- Material hose NW 6/410-1/4"-7,5 N
- Compressed air regulator G 1/4" complete
- Injection lance complete
- Ball valve G 1/4" I/I
- Stroke counter complete with holder
- Injection gun complete WIWA 500D with adapter 1/4" NPSM (A)
- Material hose NW 6/410-1/4"-0,30 N
- Mounting kit for injection gun pipe straight 600 mm
- Mounting kit for injection gun pipe bent 170 mm
- Double nipple NPS 1/4"-M 10x1
- Sliding coupling angular 90°, for nipple M1 Aluminium

5

- Sliding coupling straight, for nipple M1 Aluminium
- Hydraulic mouthpiece M10x1 IG 4 jaws chrome-plated (Replacement seal 0660477)
- Quick release pliers R1/4 (A), 4 mm
- High pressure filter typ 11 GX -RS-
- Airless gun WIWA 250D 7/8" Insert

## The WIWA INJECT HD series at a glance





WIWA INJECT ND 1



#### HANDY AND COMPACT

The WIWA INJECT ND 1 is an pneumatically operated diaphragm pump for low-pressure applications and is particularly suitable for processing suspensions. The self-priming device is flexibly adjustable, equipped with a compressed air regulator, a 1 m suction line with strainer and a 5 m material hose. Positive features include the low air consumption, the pressure limitation and the compact size, with which you will not feel crowded even on small construction sites.



#### **AREAS OF APPLICATION**

- Cavity filling
- Masonry filling
- Rigid connections
- Closing cracks

#### **BASIC EQUIPMENT**

- Air operated ½" plastic diaphragm pump mounted on frame
- Pressure regulator
- 1 m suction line with sieve
- Material hose 5m with 1/4" ball valve with release pliers





#### Easily adjustable

Compact size

Low air consumption



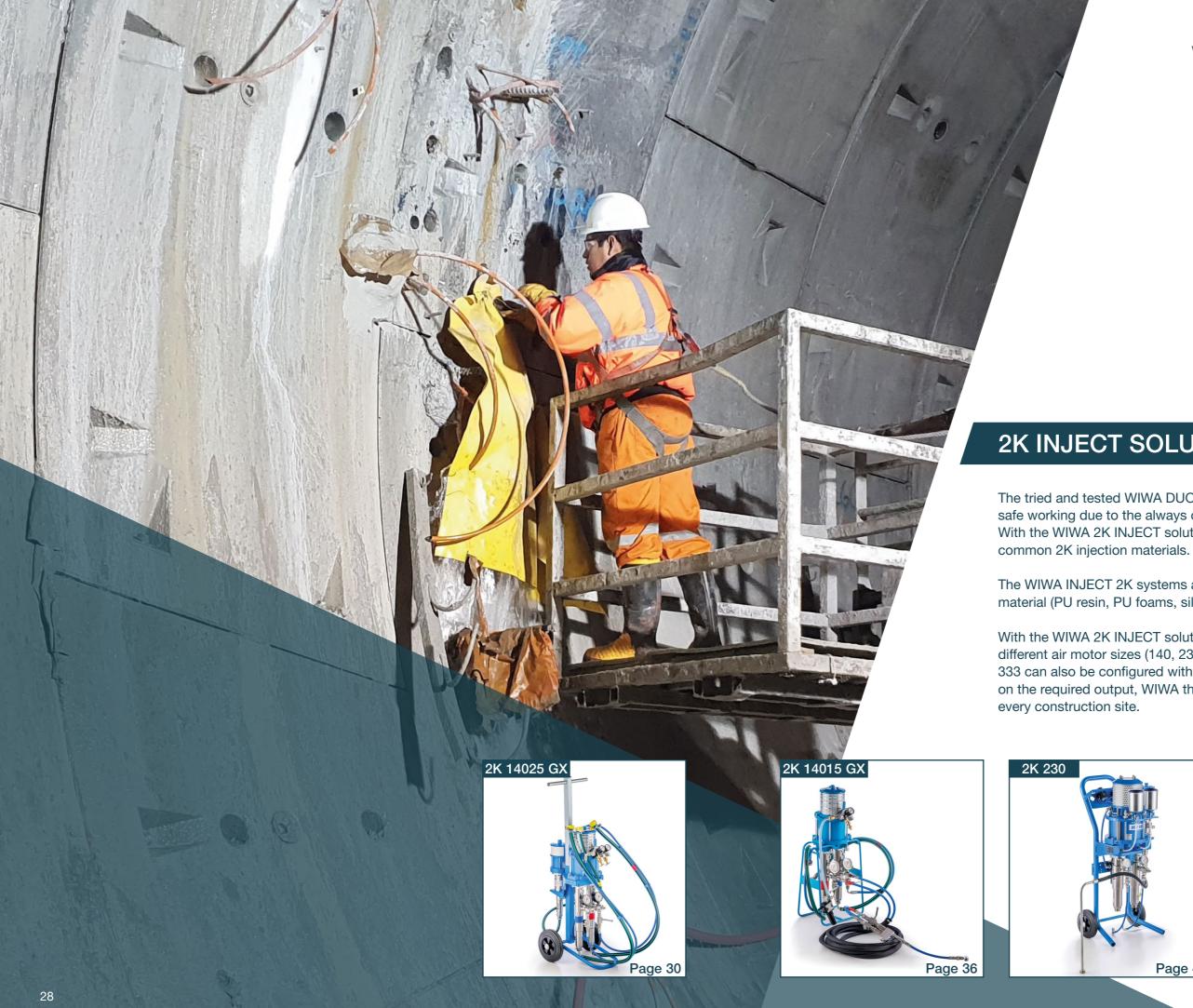
#### MATERIALS

• Suspensions

Technical data	INJECT ND 1
Pressure ratio	1:1
Max. delivery rate	25 l/min.
Max. air inlet pressure	8 bar/116 psi
Max. operating pressure	8 bar/116 psi
Version	G
Weight	5 kg
Order No.	0671622









## **2K INJECT SOLUTIONS**

The tried and tested WIWA DUOMIX technology guarantees safe working due to the always constant mixing ratio. With the WIWA 2K INJECT solutions you can process all

The WIWA INJECT 2K systems are designed for your injection material (PU resin, PU foams, silicates, acrylates or phenol).

With the WIWA 2K INJECT solutions you can choose from three different air motor sizes (140, 230 and 333). The sizes 230 and 333 can also be configured with different mixing ratios. Depending on the required output, WIWA therefore offers the right device for





## WIWA INJECT 2K 14025 GX



The WIWA Inject 2K 14025 GX is a pneumatic 2K piston pump in mixing ratio 1:1. The material pumps are connected to the air motor, so that no mixing errors occur due to the positive control. The unit is equipped with a flush pump for quick cleaning of the A and B components for the mixing unit.

Due to its compact design, it is particularly suitable for sealing basements and for use in inaccessible places. All material-carrying parts are made of stainless steel.

- Easy maintenance
- Easy and quick cleaning
- Particularly low wear due to fixed, ٠ pre-stressed packings

#### **Technical data**

Output per cycle

Pressure ratio

Max. air inlet pressure

Max. operating pressure

Mixing ratio

Version

Order No.

#### MATERIALS

- 2K injection resins
- Acylate gel
- Injection foams

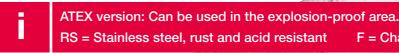
#### **AREAS OF APPLICATION**

- Building pit waterproofing
- Subsoil injection/soil consolidation
- Cavity filling
- Subsequent horizontal barrier
- Sewer rehabilitation
- Curtain injection
- Area injection

Quick commissioning

High mixing accuracy due to force-controlled material conveying

Large material inlets and check valves for viscous materials





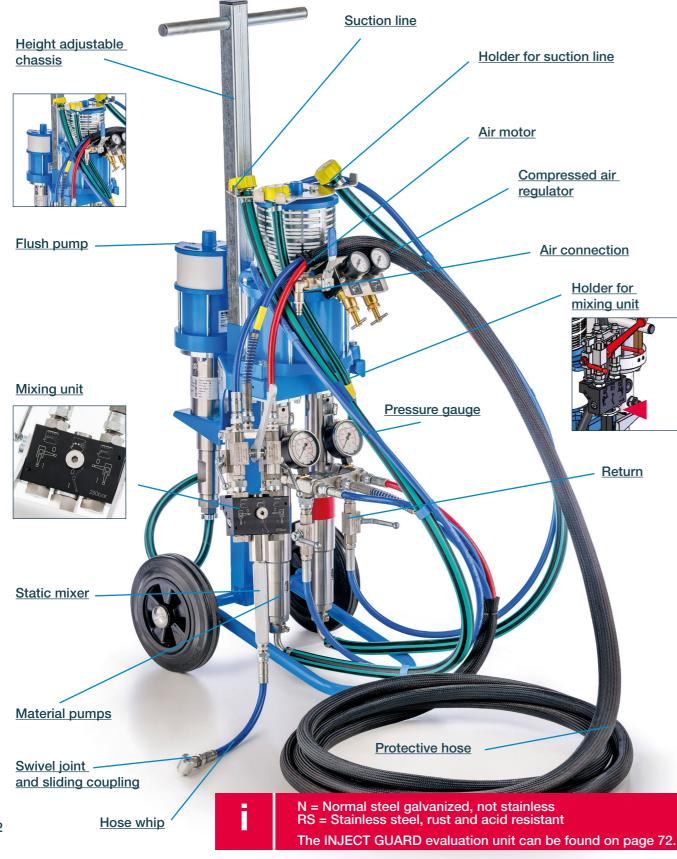
INJECT 2K 14025 GX RS, F
80 cm <sup>3</sup>
25:1
8 bar/116 psi
200 bar/2900 psi
1:1
RS, F
0669067

## **BASIC EQUIPMENT**

- 2K high pressure dosing pump
- Maintenance unit
- Suction system
- 2 x Pressure gauge at material outlet
- 3 x Material hoses 7.5 m 1/4"
- Flush pump PROFIT
- Relief for A and B component •
- 2K mixing unit with separate flush function for component A and B
- Bottle of release agent
- Operating manual with spare parts list

F = Chassis

## Overview and accessories for WIWA INJECT 2K 14025 GX



Accessories	Order No.	Desc
Suction line	0669523	Suction System
Suction line	0671169	Suction System
Suction line flush pump	0669524	Suction
Mounting kit funnel	0666699	Funne
Flush pump (only High pressure pump	0669066	High above below
Pressure gauge	0631359	Press
Double air pressure regulator	0669529	Doub syste
Mounting kit condensate- water separator	0669329	Moun
Stroke counter	0670950	Strok
Hose package	0669720	Hose blue /
Hose 7,5 m 1/4" NPSM blue A-component	0613819	Mater RS, b
Hose 7,5 m 1/4" NPSM red B-component	0670246	Mater RS, re
Hose 7,5 m ¼" flush pump	0638610	Mater
Mixing unit	0669666	Mixin for co
Extension mixing section	0671626	Exten
Whip 0,3 m	0669787	Mater
Gun	0668657	Inject 1/4" I
Connection nipple	0218820	Doub
Sliding coupling 90°	0669301	Slidin
Sliding coupling 90°	0672169	Slidin (conn Passa
Sliding coupling straight	0641199	Slidin
Sliding coupling straight	0672168	Slidin (conn Passa
Hydraulic mouthpiece	0411302	Hydra chron
Quick release pliers	0668559	Quick

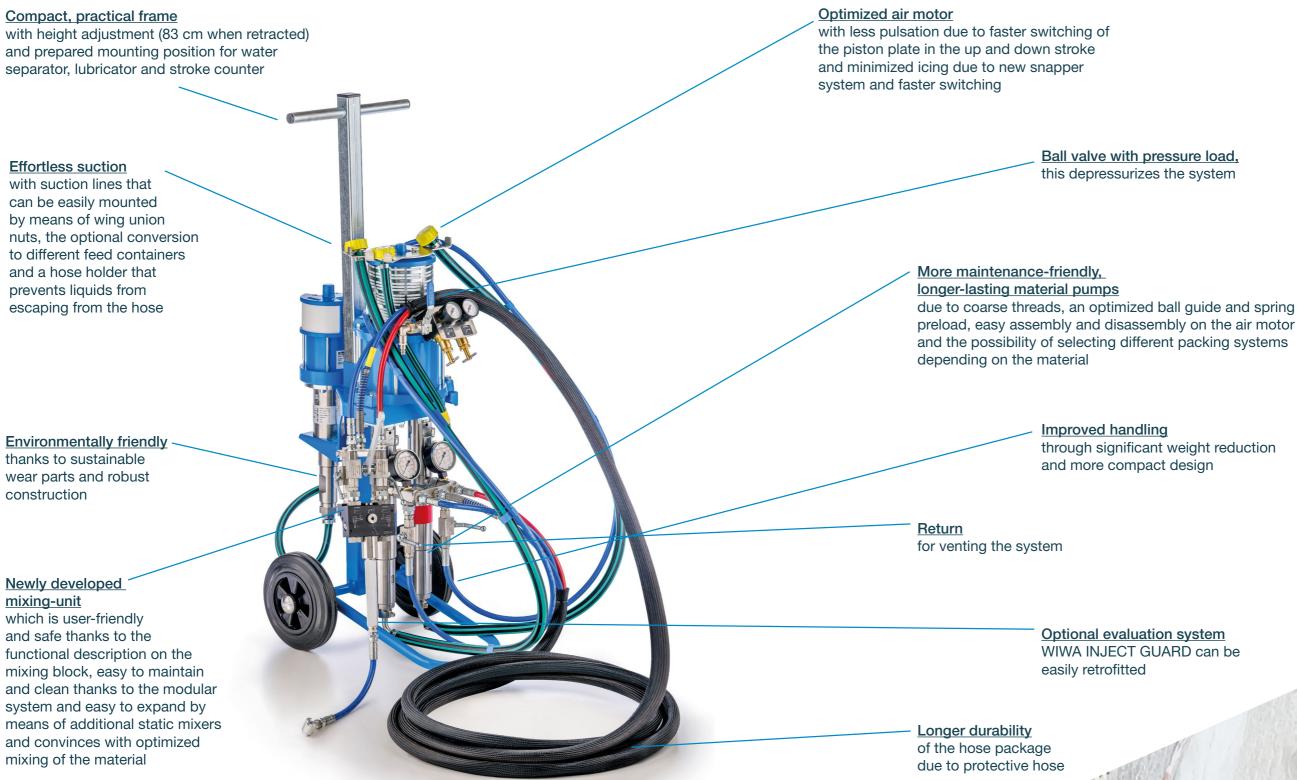


Your project deserves it.

#### ription

- ion line NW13 for double pump injection em - blue
- ion line NW13 for double pump injection em red
- ion line NW10 for flushing pump gel system
- el 6 I complete für PHOENIX GX, with cover and suction tube
- e pressure pump 14.33 RS PROFIT /e: acc. PUR / UHMW-PE w: acc. PUR / UHMW-PE
- sure gauge, lacquered brass, glycerine filling
- ble air pressure regulator complete G 1/4" 10 bar for gel
- nting kit filter for injection system mini
- e counter complete with holder
- e package unheated 7,5 m RS 1x 1/4" NPSM / 1x 1/4" NPSM red 1x 1/4" NPSM NW4 blue
- erial hose NW6 1/4" NPSM 7,5 m, 410 bar, blue
- erial hose NW6 1/4" NPSM 7,5 m, 410 bar, red
- erial hose NW 4/300-1/4" 7,5 m RS
- ng unit complete with separate flushing device omponent A and B for gel system
- nsion complete d=9.4 Static mixer for standard mixing unit
- erial hose NW 6/410-1/4" 0,30 RS
- tion gun complete WIWA 500D with adapter NPSM (A)
- ble nipple NPS 1/4"-M 10x1
- ng coupling angular 90°, for nipple M1 Aluminium
- ng coupling angular 90° for nipple M1 (16 mm) nection lateral) connection M10x1, with gasket blue sage bore: 4 mm
- ng coupling M10 x 1, straight version
- ng coupling straight for nipple M1 (16 mm) nection frontal) connection: M10x1, with gasket blue sage bore: 4 mm
- aulic mouthpiece M10x1 IG 4 jaws me-plated (replacement seal 0660477)
- k release pliers R1/4 (A), 4 mm

# The new features of the WIWA INJECT 2K 14025 GX





Ball valve with pressure load, this depressurizes the system

through significant weight reduction and more compact design

**Optional evaluation system** WIWA INJECT GUARD can be





## **WIWA INJECT 2K** 14015 GX

#### **OUR COMPACTS**

The small and compact WIWA INJECT 2K 14015 GX offers more flow rate due to the short design of the material pump. This makes it a strong alternative for 1:1 reaction resins and foams. The forcecontrolled system makes it process-safe even under hard conditions. As standard, it is equipped without a flush pump and the mixing unit is flushed via the A-component.

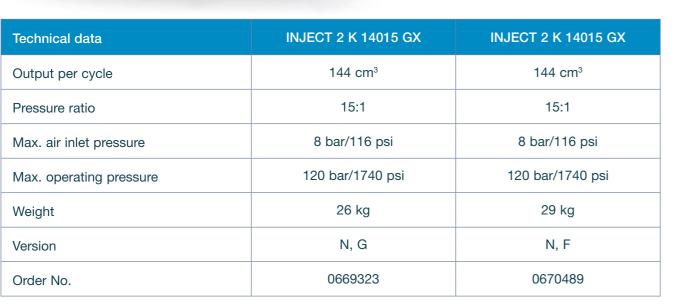
- Large material inlets and check valves for viscous materials
- Easy maintenance
- Easy and fast cleaning

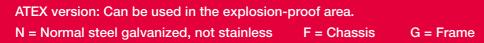
## MATERIALS

- 2K injection resins
- Polyurethane resins
- Silicate resins
- PUR injection foam resins
- PUR combination injection resins,
- PUR injection resins •
- PUR cast foam resins
- Injection foams •
- Acrylic gels (RS version)

#### **AREAS OF APPLICATION**

- Building pit waterproofing
- Subsoil injection/soil consolidation
- Cavity filling
- Subsequent horizontal barrier
- Sewer rehabilitation
- Surface and curtain injection (RS version)
- 2K crack injection









Chassis, height adjustable\_



## **BASIC EQUIPMENT**

- 2K high pressure dosing pump
- Maintenance unit
- Suction system
- 2 x Pressure gauge at material outlet
- 2 x Material hoses 7,5 m ¼"
- Relief for A and B component
- 2K mixing unit with flush function via component A consisting of:
- 2 x ball valve
- 2 x Large diameter check valves
- Mixing tube with 6 x grid mixer
- Whip 0,3 m
- Sliding coupling and hydraulic mouthpiece
- Bottle of release agent •
- Operating manual with spare parts list

Chassis, height adjustable



Readable injection pressures for both components

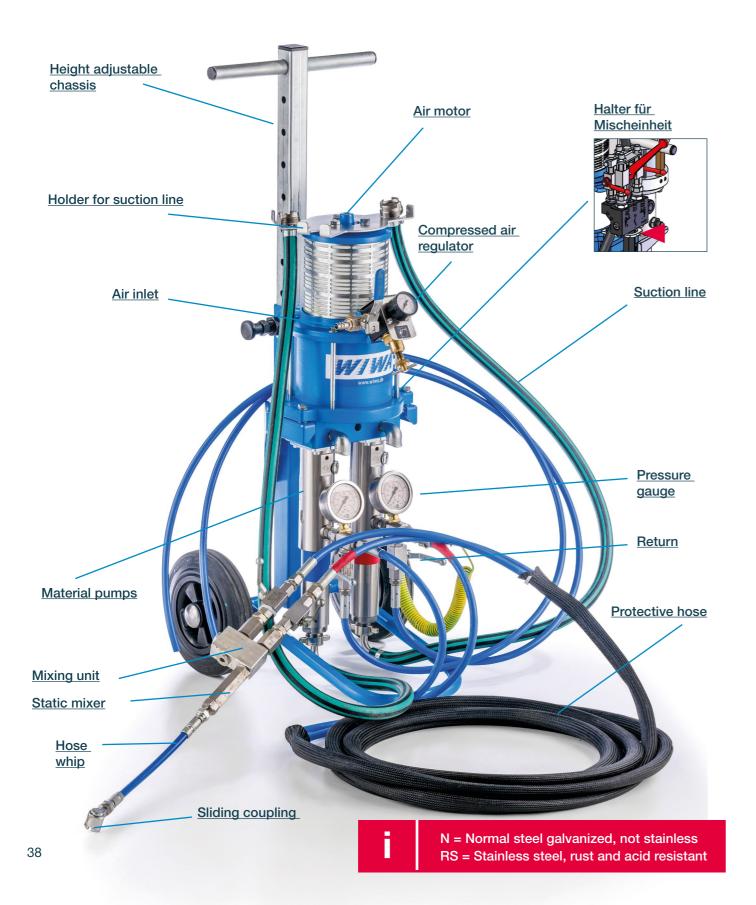
Handy and compact

#### Quick commissioning

37

High mixing accuracy due to force-controlled material conveying

# Accessories for WIWA INJECT 2K 14015 GX



Accessories	Order No.
Suction line	0669523
Suction line	0671169
Mounting kit funnel	0670546
Compressed air regulator	0663775
Mounting kit oiler / antifreeze	0671029
Mounting kit condensate- water separator	0668329
Stroke counter	0670950
Pressure gauge	0655128
Hose package	0669539
Hose 7,5 m 1/4" NPSM blue A-component	0613819
Hose 7,5 m 1/4" NPSM red B-component	0670246
Mixing unit 2K N	0669555
Ball valve for mixing unit 2K N	0646988
Extension mixing section	0671626
Mixing element	0645308
Whip 0,3 m	0669787
Connection nipple	0218820
Sliding coupling 90°	0669301
Sliding coupling 90°	0672169
Sliding coupling straight	0641199
Sliding coupling straight	0672168
Hydraulic mouthpiece	0411302
Gun	0668657
Quick release pliers	0668559
15.00	and the into



#### Your project deserves it.

#### Description

Suction line NW13 for double pump injection system - blue

Suction line NW13 for double pump injection system - red

Mounting kit feed tank for Inject

Compressed air regulator G 1/4" complete

Mounting kit oiler for injection system

Mounting kit filter for injection system mini

Stroke counter complete with holder

Pressure gauge V2A / neutral glycerine filling

Hose package unheated 7,5 m RS 1x 1/4" NPSM blue / 1x 1/4" NPSM red

Material hose NW6 1/4" NPSM 7,5 m, 410 bar, RS, blue

Material hose NW6 1/4" NPSM 7,5 m, 410 bar, RS, red

Mixing unit G1/4" - DN6 - with static mixer

Ball valve G 1/4" I/I

Extension complete d=9.4 Static mixer for standard mixing unit

Mixing element plastic

Material hose NW 6/410-1/4" - 0,30 RS

Double nipple NPS 1/4"-M 10x1

Sliding coupling angular 90°, for nipple M1 Aluminium

Sliding coupling angular 90° for nipple M1 (16 mm) (connection lateral) connection M10x1, with gasket blue passage bore: 4 mm

Sliding coupling M10 x 1 straight version

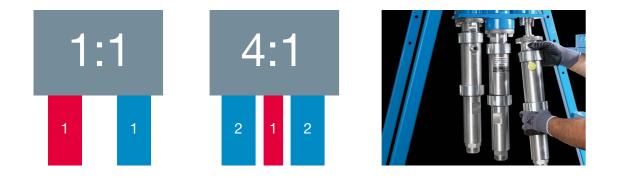
Sliding coupling straight for nipple M1 (16 mm) (connection frontal) connection: M10x1, with gasket blue passage bore: 4 mm

Hydraulic mouthpiece M10x1 IG 4 jaws chrome-plated (Replacement seal 0660477)

Injection gun complete WIWA Gun 250 D

Quick release pliers R1/4 (A), 4 mm

# The simple principle: individually flexible



With just a few actions it is possible to modify the system for almost all mixing ratios within a range of 1:1 to 10:1 (also in the decimal range, such as 5.6:1) by exchanging the hardener pump.

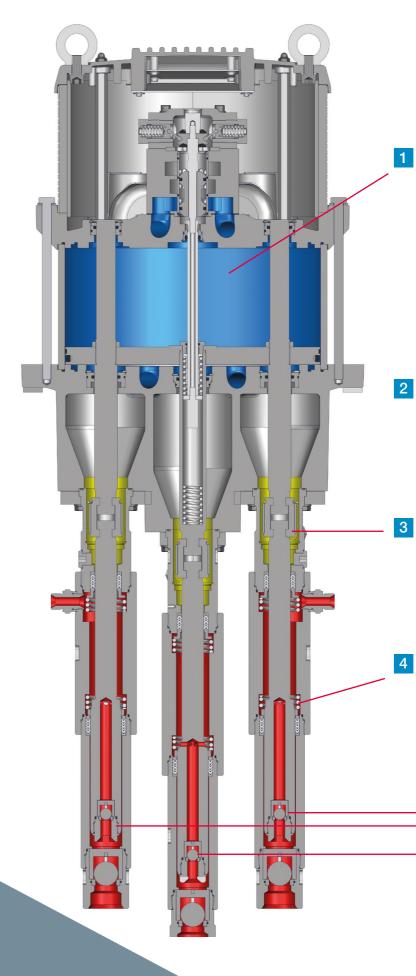
# <u>Simple</u> **Flexible** Assured

The guarantee for precise proportioning and variable mixing.

Flexibel: WIWA DUOMIX – the world's only 2K system that offers you the flexibility of a variably adjustable 2K system and the assurance of a fixed mixing ratio, and which can be used as a 3K system.

**Simple:** With just a few actions, you set the DUOMIX to the desired mixing ratio. Time-consuming ratio checking and adjustment are superfluous, and accidental adjustment is impossible.

Assured: The fixed mixing ratio provides you with process assurance. Accidental adjustment and resultant faulty coatings are impossible.





#### THE BASIC MODULES

#### Air motor

The air motor with de-icing system and maintenance unit in robust metal design. It is equipped with a piston rod and two guide axes, which are guided in the upper and lower section. This guarantees the non-tipping direct drive of all material pumps, whilst the wear of packing and piston rods is also minimised.

#### Material pump combination 2

If new fields of activity should require alternative performance parameters, this is possible by only replacing the material pumps.

#### A closed flushing media chamber

separates the air motor and material pumps. The flushing media prevents paint encrustation on the piston rods and protects the packing due to its lubricating effect.

4 All material pumps are equipped with fixed packing, which is automatically adjusted with packing tensioners. Manual adjustment of the packing is not necessary.

2 2

3

## 2K Configurator

#### Suction

- Suction line for small containers up to 200 I drum
- Suction line for IBC containers
- Suction line for 68 I plastic barrel with frame
- Feed pumps 200 I drum (quantity 2)

#### Version

#### • Chassis

Frame standing or lying

#### Dosing pump

INJE	ECT	2K	230	030	N GS	

- INJECT 2K 230030 N F
- INJECT 2K 333037 GX N GS
- INJECT 2K 333037 GX N F
- INJECT 2K 230030 RS
- INJECT 2K 230030 RS F
- INJECT 2K 333018 GX RS GS

#### Hose package

- 3/8" with flushing RS
- 1/2" with flushing RS
- 3/8" with flushing Inject Guard RS
- 1/2" with flushing Inject Guard RS
- 3/8" without flushing RS
- 1/2" without flushing RS
- 3/8" without flushing Inject Guard R
- I/2" without flushing inject Guard RS

Main components Versions



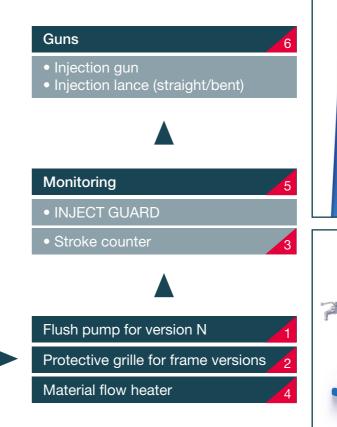
#### Mixing units

- For Inject 2K 230
- Standard 2K 3/8
- Standard 2K 3/8" with flushing
- Inject Guard with flushing 3/8" RS

For Inject 2K GX 333

- Standard 2K 1/2" N
- Standard 2K1/2" with flushing RS
- Inject Guard 2K 1/2" with flushing RS











If you have any questions about your individual configuration please do not hesitate to contact us. N = Normal steel galvanized, not stainless RS = Stainless steel, rust and acid resistant



# WIWA INJECT 2K 230

#### **ROBUST, POWERFUL, SAFE**

The WIWA INJECT 2K 230 is our versatile 2K injection system with high delivery rates and a maximum operating pressure of 240 bar. Due to the positive control and always the same switching points, you get the perfect dosage. In addition to the standard mixing ratio of 1:1, over 100 other mixing ratios are possible by exchanging the material pumps. Suitable for aqueous as well as viscous materials.

- Fast commissioning, easy maintenance, easy and quick cleaning
- Long hose lengths can be adapted
- Large flow rate
- Large material inlets and check valves for viscous materials
- Low wear due to fixed packings
- Large selection of different suction systems configurable
- On request also available with Steck O components available



#### N-Version:

- 2K injection resins
- Polyurethane resins
- Silicate resins
- PUR injection foam resins
- PUR combination injection resins
- PUR injection resins
- PUR casting foam resins
- Injection foams

#### **RS-Version:**

- Acrylic gels
- 2K injection materials
- Injection foams

NUM I	
	AHR A

Version frame standing



Version frame lying



Version Chassis

ATEX version: Can be used in the explosion-proof area.N = Normal steel galvanized, not stainlessRS = Stainless steel, rust and acid resistantF = ChassisGS = Frame standingGL = Frame lying\* Without flush pump.

Technical data	INJECT 230030	INJECT 230030	INJECT 230032	INJECT 230030	INJECT 230030	INJECT 230040
Output per cycle	194 cm <sup>3</sup>	194 cm <sup>3</sup>	180 cm <sup>3</sup>	194 cm <sup>3</sup>	194 cm <sup>3</sup>	144 cm <sup>3</sup>
Pressure ratio	30:1	30:1	32:1	30:1	30:1	40:1
Max. air inlet pressure	8 bar/ 116 psi	6 bar/ 87 psi				
Max. operating pressure	240 bar/ 3480 bar	240 bar/ 3480 bar	256 bar/ 3712 psi	240 bar/ 3480 bar	240 bar/ 3480 bar	240 bar/ 3480 bar
Mixing ratio	1:1	1:1	4:1	1:1	1:1	1:1
Version	N, GS	N, F	RS; GS	RS, F	RS, GS	RS, GL*
Order No.	0669709	0669708	0669710	0669711	0669712	0669713
Order No. complete unit (complete unit with ASL, hose package, mixing unit)	on request	0669992	on request	0669993	on request	on request

R



## **AREAS OF APPLICATION**

- Building pit waterproofing
- Subsoil injection/soil consolidation
- Cavity filling
- Subsequent horizontal barrier
- Sewer rehabilitation
- Ideal for use in tunnels and underground for void filling and anchor bonding.

## **BASIC EQUIPMENT**

- 2K high pressure dosing pump in steel galvanized or stainless steel
- Maintenance unit
- Chassis or frame standing
- 2x Pressure gauge at material outlet
- Relief for A and B component
- Operating manual with spare parts list
- The stainless steel version includes a flush pump PROFIT

45

## Accessories for WIWA INJECT 2K 230



Accessories	Order No.
Suction line up to 200 I drum	0669820
Suction line IBC	0669847
Suction line for 68 I plastic barrel with frame	0670111
Feed pumps 200 I drum (quantity 2)	0663455
Flush pump PROFIT for N Version	0669718
Protective grille for frame versions	0669630
Attachment kit condensate- water separator	0670850
Stroke counter	0646640
INJECT GUARD	0669958
Hose package NW10 - (3/8") RS with flushing	0671007
Hose package NW10 - (3/8") RS with flushing for INJECT GUARD (230er)	0671008
Hose package NW10 - (3/8") RS	0669766
Mixing unit Standard 2K 3/8" N	0669748
Mixing unit Standard 2K 3/8" RS with flushing	0669611
Mixing unit Inject Guard with flushing 3/8" RS	0669600
Sliding coupling 90°	0672169
Sliding coupling straight	0672168



#### Your project deserves it.

#### Description

Suction line complete NW25 - PVC clear - G1 1/4" > Small/large containers

Suction line complete NW25 - PVC clear - G1 1/4" -> S60 x 6 (IBC)

Feed complete (1:1) with return, frame and 2 x 68 I drum, MP connection: 1 1/4"

Feed pump 146.03,7 N complete with connection hose 2,2 m  $\,$ 

Flush pump small containers 33:1 RS complete with DLR for Inject 230/333 (1 x Output)

Protective grille complete for mining system (width 635 mm)

Attachment kit filter for injection system (with air motor 230)

Stroke counter complete with holder

Electronic recording unit for 2K Inject systems

Hose package 15m unheated, 1 x NW 10 330 bar blue PA -RS- G3/8" (A-Comp.), 1 x NW 10 330 bar red PA -RS- G3/8" (B-Comp.), 1 x NW 6 410 bar blue PA -RS- 1/4" NPSM (flush), Protective hose

Hose package 15 m unheated, 1 x NW 10 330 bar blue PA -RS- G3/8" (A-Comp.), 1 x NW 10 330 bar red PA -RS- G3/8" (C-Komp.), 1 x NW 6 410 bar blue PA -RS- 1/4" NPSM (flush) with cable for sensor on the mixing unit

Hose package 15 m unheated, 1 x NW 10 330 bar blue PA -RS- G3/8" (A-Comp.), 1 x NW 10 330 bar red PA -RS- G3/8" (B-Comp.), Protective hose

Mixing unit complete -N- G3/8" - DN11 with hose and static mixer without flushing device for 2K injection system

Mixing unit complete with hose, static mixer, flushing device for component A and B for injection system

Mixing unit complete with static mixer and separate rinsing with volume recording for components A and B for 2K injection system

Sliding coupling angular 90° for nipple M1 (16 mm) (connection lateral) connection M10x1, with gasket blue passage bore: 4 mm

Sliding coupling straight for nipple M1 (16 mm) (connection frontal) connection: M10x1, with gasket blue passage bore: 4 mm



# **WIWA INJECT** 2K 333 GX

#### **IDEAL FOR LARGE CONSTRUCTION SITES**

The WIWA INJECT 333 GX is the most powerful 2-component injection system in the WIWA portfolio. In addition to the proven controlled DUOMIX system and the optimized, low icing 333 GX air motor, it can pump 70 l/minute of material. Thanks to its modular design up to 100 different mixing ratios can be generated by exchanging the material pumps. Even hose lengths over 200 m can be adapted. Therefore, it is excellently suited for large construction sites, in tunnels and underground. Both watery and viscous materials can be processed.

- Large material inlets and check valves for viscous materials
- Low wear due to fixed packings ٠
- Wide range of different suction systems configurable
- On request also available with Steck O ٠ components available

Technical data	INJECT 333037 GX	INJECT 333037 GX	INJECT 333037 GX	INJECT 333037 GX	INJECT 333018 GX
Output per cycle	536 cm <sup>3</sup>	536 cm <sup>3</sup>	536 cm <sup>3</sup>	536 cm <sup>3</sup>	1100 cm <sup>3</sup>
Pressure ratio	37:1	37:1	37:1	37:1	18:1
Max. air inlet pressure	8 bar/116 psi				
Max. operating pressure	296 bar/ 4293 psi	296 bar/ 4293 psi	296 bar/ 4293 psi	296 bar/ 4293 psi	144 bar/ 2088 psi
Mixing ratio	1:1	1:1	1:1	1:1	1:1
Version	N, F	RS, F	N, GS	RS, GS	RS, GS
Order No.	0669705	0670146	0669706	0670129	0669707





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Version frame standing

Version frame standing

#### MATERIALS

#### **N-Version:**

- 2K injection resins
- Polyurethane resins
- Silicate resins
- PUR injection foam resins •
- PUR combination injection resins
- PUR injection resins
- PUR Casting Foam Resins
- Injection foam

#### **RS-Version:**

- Acrylic gels
- 2K injection materials
- Injection foams



Your project deserves it.



Suction line for 68 I plastic barrel with frame

## **AREAS OF APPLICATION**

- Building pit waterproofing
- Subsoil injection/soil consolidation
- Cavity filling
  - Subsequent horizontal barrier
  - Sewer rehabilitation
- Surface and curtain injections
  - (RS-Version)
- Water Stop

#### **BASIC EQUIPMENT**

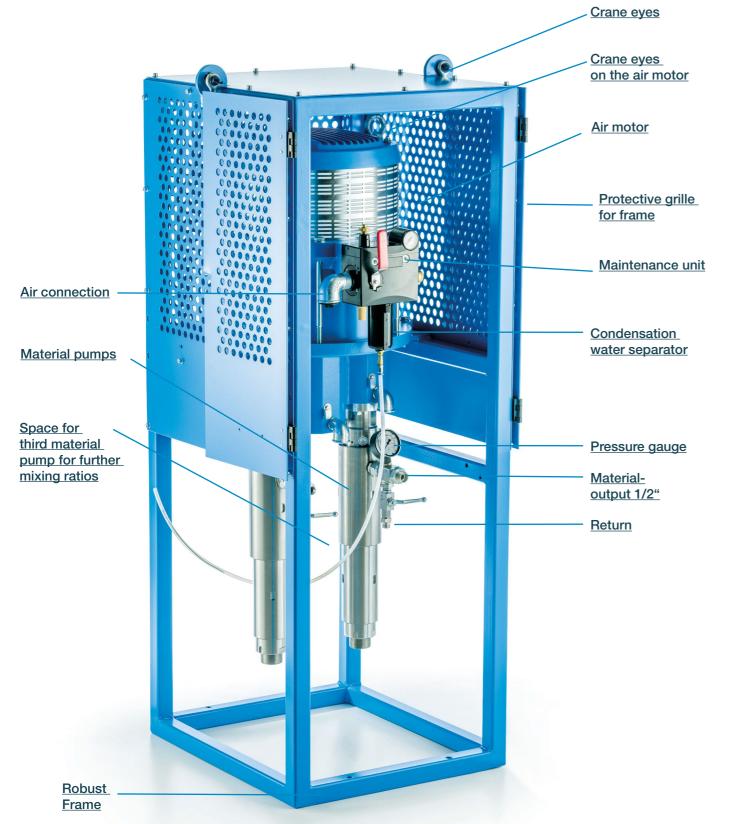
- 2K high pressure dosing pump
- Maintenance unit
  - Frame standing or Chassis
- 2x Pressure gauge at material outlet
  - Relief for A and B component
  - Operating manual with spare parts list
- The stainless steel version includes a
  - flush pump PROFIT

#### Large output volume

#### Long hose lengths can be adapted

#### Quick start-up, easy maintenance, easy and quick cleaning

## Accessories for WIWA INJECT 2K 333 GX



Accessories	Bestell- nummer	Description
Suction line up to 200 I drum	0669846	Suction line complete NW25 - PVC clear - G1 1/2"> Small/large containers
Suction line IBC	0669847	Suction line complete NW25 - PVC clear - G1 1/2"> S60x6 (IBC)
Suction line for 68 I plastic barrel with frame	0670115	Feed complete (1:1) with return, frame and 2 x 68 I drums MP connection: 1 1/2"
Flush pump PROFIT	0669718	Flush pump small containers 33:1 RS complete with DLR for Inject 230/333 (1 x Output)
Protective grille for frame versions	0669202	Protective grille complete for mining plant (width 535 mm)
Stroke counter	0646640	Stroke counter complete with holder
Mounting kit condensate- water separator	0670850	Mounting kit filter for injection system (with air motor 230)
Hose package NW13 - (1/2") with flushing	0669764	Hose package 15 m unheated, 1 x NW 13 470 bar blue PA -RS- G1/2" (A-Comp.), 1 x NW 13 470 bar red PA -RS- G1/2" (B-Comp.), 1 x NW 6 410 bar blue PA -RS- 1/4" NPSM (flush), Protective hose
Hose package NW13 - (1/2")	0669767	Hose package 15 m unheated, 1 x NW 13 470 bar blue PA -RS- G1/2" (A-Comp.), 1 x NW 13 470 bar red PA -RS- G1/2" (B-Comp.), Protective hose
Mixing unit Standard 2K 1/2"	0669620	Mixing unit G1/2" - DN12 - with static mixer
Mixing unit Standard 2K 1/2" with flushing RS	0670316	Mixing unit complete with hose, static mixer and flushing device for components A and B for injection system

ATEX version: Can be used in the explosion-proof area. N = Normal steel galvanized, not stainless RS = Stainless steel, rust and acid resistant



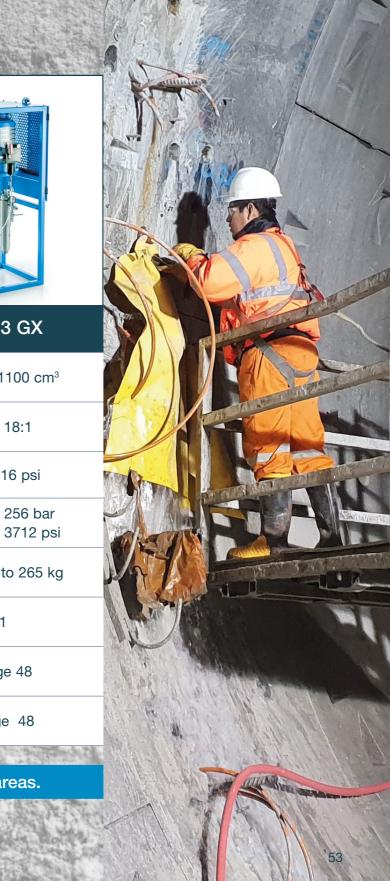
## The WIWA 2K INJECT series at a glance

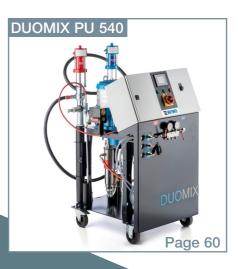
	Our systems 2K 230 and 2K 333 GX are also available in other mixing ratios.				
	Technische Daten	2K 14025 GX	2K 14015 GX	2K 230	2K 333
	Output per cycle	80 cm <sup>3</sup>	144 cm <sup>3</sup>	144 cm <sup>3</sup> - 194 cm <sup>3</sup>	536 cm <sup>3</sup> -110
	Pressure ratio	25:1	15:1	40:1 / 30:1	37:1 / 18
	Max. air inlet pressure	8 bar/116 psi	8 bar/116 psi	8 bar/116 psi	8 bar/116
	Max. operating pressure	200 bar/ 2900 psi	120 bar/ 1740 psi	240 bar - 256 bar 3480 psi - 3712 psi	144 bar - 25 2088 psi - 37
Ter	Weight	45 kg	26 kg	120 kg up to 175 kg	185 kg up to
	Mixing ratio	1:1	1:1	1:1/4:1	1:1
	Version	RS, F	N, G	at page 44	at page 4
	Order No.	0669067	0669323	at page 44	at page
		and the second second second			

ATEX version:

Can be used in explosion-proof areas.











## WIWA 2K PU/FOAM SOLUTIONS

The versatile WIWA technology is not only suitable for sealing, but also ideal for foaming. On the following pages you will find heatable WIWA systems for the processing of polyurea, PUR and injection foams.

The proven and patented WIWA heater heats the material gently and particularly economically. Only the required quantity of the individual components is efficiently and carefully brought up to the processing temperature in an extremely short time.



## WIWA SPF



EM

#### SIMPLICITY AT ITS BEST!

Spray foam applications redefined. WIWA DUOMIX SPF sprayers are user-friendly. Direct display of all measuring devices, simple software settings. Connect. Switch on. Spray.

#### MATERIALS

- PUR foams

#### **AREAS OF APPLICATION**

- Bridge waterproofing
- Concrete and building restoration
- Insulation of cavities •
- Foundations •
- Roof insulation and waterproofing •
- Pools, natural swimming pools ۲
- Pond linings, fish farms •
- Drinking water reservoirs •
- Catch basins (also chemical resistant) •
- Sewage treatment plants •
- Industrial floors and walls •
- Hangar floors ۲
- Parking decks ٠
- Sound insulation of track beds ٠
- Rail vehicle construction
- Ship and ferry decks ٠
- Container construction
- Pipes and pipelines •
- Wind energy
- Submarines •
- Buoys •

Powerful air motor

Individual heating for ISO, POLY and hose

Direct display of all measuring devices, simple software settings





User friendly control



Innovative interface with easy operation

# <u>WIWA SPF</u> Simplicity, perfection, freedom

With exactly the WIWA DUOMIX SPF 280 equipment that best supports your project. Depending on how much pressure your material needs to be processed with or how much output you require, we offer two different types of equipment with the SPF 240 or 280. With both models, you can choose between the mobile frame and the stationary stand frame. For the optimum temperature, the POLY and ISO components can be heated together in the hose package and separately beforehand using material flow heaters.



Model	Base (A) - POLY	Hardener (B) - ISO	Pressure ratio	Mixing ratio	Output per cycle	Max. hose length	Max. air inlet pressure	Max. operating pressure	Max. material temperature	Weight	Equipment	Order-No.
SPF 240	43 cm <sup>3</sup>	43 cm <sup>3</sup>	25:1	1:1	86 cm <sup>3</sup>	48 m	8 bar	200 bar	80 °C	77 kg	Basic equipment (F)	0671177
SPF 240	43 cm <sup>3</sup>	43 cm <sup>3</sup>	25:1	1:1	86 cm <sup>3</sup>	48 m	8 bar	200 bar	80 °C	67 kg	Basic equipment (GS)	0671176
SPF 240	43 cm <sup>3</sup>	43 cm <sup>3</sup>	25:1	1:1	86 cm <sup>3</sup>	48 m	8 bar	200 bar	80 °C	118 kg	Full equipment (F)	0671179
SPF 240	43 cm <sup>3</sup>	43 cm <sup>3</sup>	25:1	1:1	86 cm <sup>3</sup>	48 m	8 bar	200 bar	80 °C	108 kg	Full equipment (GS)	0671178
SPF 280	72 cm <sup>3</sup>	72 cm <sup>3</sup>	15:1	1:1	144 cm <sup>3</sup>	48 m	8 bar	128 bar	80 °C	81 kg	Basic equipment (F)	0668976
SPF 280	72 cm <sup>3</sup>	72 cm <sup>3</sup>	15:1	1:1	144 cm <sup>3</sup>	48 m	8 bar	128 bar	80 °C	67 kg	Basic equipment (GS)	0668975
SPF 280	72 cm <sup>3</sup>	72 cm <sup>3</sup>	15:1	1:1	144 cm <sup>3</sup>	48 m	8 bar	128 bar	80 °C	122 kg	Full equipment (F)	0668978
SPF 280	72 cm <sup>3</sup>	72 cm <sup>3</sup>	15:1	1:1	144 cm <sup>3</sup>	48 m	8 bar	128 bar	80 °C	110 kg	Full equipment (GS)	0668977





F = Cart

#### GS = Stand frame

The full equipment additionally includes the WIWA PU GUN 4040 with case, the hose package as well as the feed pumps including connecting hoses and attachment kit for the corresponding holder.

## **WIWA DUOMIX PU 540**



#### **PROTECT · SEAL · INSULATE**

The mixing ratioses can be changed by replacing the material pumps.

#### The WIWA DUOMIX PU 540 is another member of the DUOMIX PU series. This pneumatic, compact, mobile and versatile unit processes almost all polyurethane foams and fast reacting polyurea.

The clearly structured design of the new WIWA DUOMIX PU 540 allows the user to work quickly and conveniently. The new design of the dosing pumps ensures an even better material flow. The large output of the WIWA DUOMIX PU 540 makes it optimally suited for high application rates.

Feed pumps can be easily transported and stored in the integrated holder. The change from the stand frame to the cart can be realized within minutes by means of a conversion kit. The WIWA DATALOGGER offers an ideal supplement for quality management. All processing parameters, setting values and the alarm history can be read out and saved customer-specifically with commercially available smartphones, tablets or PCs via Wi-Fi.

#### MATERIALS

- Polyurethane foams
- Polyurea
- Injection foams

## **OPTIONAL ACCESSORIES**

- Hose holder
- Holder for feed pumps
- Conversion kit to cart
- WIWA DATALOGGER •
- Feed pump 146.03,7 N-L complete with connecting hose 2,2 m and suction angle
- Membrane pump G 1/2" complete with suction pipe, suction angle and connecting hose 2.2 m

#### **AREAS OF APPLICATION**

- Waste water treatment plants
- PU tank coatings and linings
- Pipes and pipelines
- Manholes and sewers
- Floors and parking decks
- Rail vehicles and covering of track beds
- Fuel storage and containment systems
- Desalination plants
- Roof coatings
- Chemical protection (biogas reactors, sewage treatment plants)
- Flat roof waterproofing



Technical data	DUOMIX PU 540					
Output per cycle	264 cm <sup>3</sup>					
Theoretical pressure ratio	31:1					
Mixing ratio	1:1 (others on request)					
Max. air inlet pressure	8 bar/116 psi					
Max. operating pressure	248 bar/3596 psi					
Material flow heater	12 kW					
Heating capacity hose package	47 kW					
Max. hose length	138 m					
Voltage / phases	400 V/3 P					
Max. power consumption	16.5 kW					
WIWA DUOMIX PU 540						
Description	Order No.					
DUOMIX PU 540 (without accessori	es)					
230 V, 3-Phases, 60 Hz	0665041					
400 V, 3-Phases, 50 Hz	0664250					
DUOMIX PU 540 incl. 18 m hose package, PU GUN 4040 spray gun						
230 V, 3-Phases, 60 Hz	0665040					
400 V, 3-Phases, 50 Hz	0664300					

Optimal for high application rate

More than 200 different mixing ratios can be realized within minutes

Processes almost all polyurethane foams and fast reacting polyurea

# **WIWA DUOMIX PU HX**

#### **PROTECT · SEAL · INSULATE**

The WIWA DUOMIX PU HX completes our DUOMIX PU series with a hydraulic drive. This compact, mobile and versatile unit processes almost all polyurethane foams and fast reacting polyurea.



The WIWA DUOMIX PU HX is extremely quiet and allows the user to work comfortably without pulsation.

It is equipped with an energy-saving mode as standard. This detects the system status during coating and automatically switches off consumers that are not currently required.

The new design of the dosing pumps ensures even better material flow. The large output of the WIWA DUOMIX PU HX makes it ideal for high application rates.

Feed pumps can be easily transported and stored in the integrated holder. The change from stand frame to chassis can be realized within minutes by a conversion kit. The WIWA DATALOGGER offers an ideal supplement for quality management. All processing parameters, setting values and the alarm history can be read out and saved customer-specifically with commercially available smartphones, tablets or PCs via Wi-Fi.

#### **MATERIALS**

- Polyurethane foams
- Polyurea •
- Injection foams

#### **AREAS OF APPLICATION**

- Sewage treatment plants •
- Pipe and tank coatings •
- Pipes and pipelines
- Manholes and sewers •
- Parking decks
- Fuel storage and retention systems desalination plants
- Roof coatings
- Ship and ferry decks
- Shipbuilding
- Chemical protection (biogas reactors, sewage treatment plants)
- Machine and vehicle construction •
- Water parks and playgrounds

For 400 V versions, neutral and ground wires (five wires total) are required. Note: In the standard version, the WIWA DUOMIX PU HX is only suitable for 50 Hz. 60 Hz versions are also available on request.



Your project deserves it.

Technical data	DUOMIX PU HX				
Delivery rate per cycle	194 cm <sup>3</sup>				
Max. output	6,6 l/min.				
Mixing ratio	1:1				
Max. air inlet pressure	8 bar/116 psi				
Max. operating pressure	250 bar/3625 psi				
Material flow heater	12 kW				
Max. heating capacity hose packag	e 47 W/m				
Max. Hose length at 400 V	138 m				
Heating power hydraulic unit	4 kW/5 Ps				
Voltage	230-400 V				
Max. power consumption	23 kW				
WIWA DUOMIX PU HX					
Description	Order No.				
DUOMIX PU HX Pumpe (without	accessories)				
230 V, 3-Phases, 60 Hz	0664247				
380 V, 3-Phases, 60 Hz	0664258				
400 V, 3-Phases, 50 Hz*	0664150				
DUOMIX PU HX pump incl. 18 m hose package, PU GUN 4040 spray gun					
230 V, 3-Phases, 60 Hz	0664421				
380 V, 3-Phases, 60 Hz	0664200				
400 V, 3-Phases, 50 Hz*	0664210				

Equipped with an energy saving mode as standard

More than 200 different mixing ratios possible

Processes almost all polyurethane foams and fast reacting polyurea



## WIWA INJECT ACCESSORIES

In analogy to the modular design of our injection equipment, we also offer an extensive range of high-quality accessories. You will find a selection on the following pages:

From the agitator to our evaluation unit INJECT GUARD to the economical material fluid heater, the mixing unit to the injection gun and a large selection of packers.

WIWA offers the right, durable equipment for every challenge.





Page 71

#### Hand lever injection press



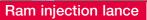
**INJECT GUARD** 

Page 72

#### **INJECT Guns**







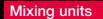


Page 88



Material fluid heaters







## **WIWA INJECT AGITATORS**





Agitator for 20 I drum Order No. 0665248

Agitator for 216 I drum Order No. 0665618



Agitator for 216 I drum Order No. 0630657

#### Agitator for 216 I drum Order No. 0665721

#### TAILOR-MADE SOLUTIONS FOR ALL MATERIALS TO BE AGITATED

Return-on-investment and reliability of agitators always come first, regardless of size and complexity. From the broad portfolio of our highly efficient mixers, you will always find the optimal mixing system for almost every mixing task.

We are continuously working on expanding our product range. The regular influx of increased performance requirements compels us to further optimize our products. All wetted parts are made of stainless steel.

Pneumatic tank agitators	25 l feed tank	50 + 70 l feed tank	95 I contain	er / 30 l drum
Agitator	Propeller	Propeller	Inclined blade	Inclined blade
Agitator diameter (mm)	150	150	300	300
Speed (rpm)	max. 170	max. 170	max. 170	max. 220
Power (watt)	400	400	400	700
ATEX (inside + outside) zone 1**	-	-	0666352	0666063
ATEX (inside) zone 0* ATEX (outside) zone 1**	0665088	0665089	0665200	0666064

Pneumatic tank agitators							
		216 l drum			1000 I IBC		
Agitator	Inclined blade	Inclined blade	Disc	Inclined, blade hinged	Disc	Inclined blade	
Agitator diameter (mm)	400	400	260	350/140	500	400	
Speed (rpm)	max. 170	max. 220	max. 170	max. 220	max. 220	max. 220	
Power (watt)	400	700	400	700	700	700	
ATEX (inside + outside) zone 1**	0666354	0666061	-	0666065	-	-	
ATEX (inside) zone 0* ATEX (outside) zone 1**	0663560	0666062	0660506	0666066	0663028	0665053	

#### Pneumatic tank aditato

Pheumatic tank agitators							
	20 l drum	20 I + 30 I Small containers	216 l drum	216 l dru	ım bunghole		
Agitator	Helix spiral	Propeller	Propeller	Corkscrew	Inclined, hinged blade		
Agitator diameter (mm)	90	150	150	50	200		
Speed (rpm)	500-6000	220	300-3000	300-3000	300-3000		
Power (watt)	300	700	700	700	700		
		ATEX zone	e 1**				
Order No.	0665248	0668049	0667331	0665618	0665721		
Pneumatic hand mixer	ſS						
Agitator	jitator Helix spiral						
Agitator diameter (mm)	Agitator diameter (mm) 110			90			
Speed (rpm)	;	300-3000		500-6000			

AT	ΈX
/ \1	L/1

700

0664911

Order No.

Power (watt)

ATEX Zone 0 refers to the inner part of the agitator that is limited by the mounting flange. ATEX Zone 1 describes the area around the motor including the gear box and flange. \*ATEX Zone 0 = II1GcIIBT3 \*\*ATEX Zone 1 = II2GcIIBT3



Your	project	deserves	it.
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Helix	spiral
	90
	500-6000
	300
zone 1**	
	0664918





Agitator for 216 l drum Order No. 0666355

Agitator for 216 I drum Order No. 0661873

Agitator for 1000 I IBC Order No. 0663027

Electric tank agitators 400 V					
			216 l drum		
Agitator		Inclined blade		Disc	Propeller
Agitator diameter (mm)	400	400	400	260	350
Speed (rpm)	95	300	50-300	95	95
Power (watt)	370	750	750	370	370
ATEX (inside + outside) zone 1**	-	-	0666550	-	-
ATEX (inside) zone 0* ATEX (outside) zone 1**	0666355	0666358	-	-	0641291
ATEX (innen Zone 0* ATEX (außen) Zone 1**	0665049	0666359	0666551	0666551	0661873
	800   IBC		1000   IBC		1000 l
					Containe
Rührorgan	Schrägblatt klappbar	Schrägblatt kla		Disc klappbar	
-		Schrägblatt klap 350/140			
Rührorgan Durchmesser (mm)	klappbar		opbar	klappbar	Containe Schrägblatt 400 170
Rührorgan Durchmesser (mm) Drehzahl (U/min)	klappbar 350/140	350/140	opbar 350/140	klappbar 500	Schrägblatt 400
Rührorgan Durchmesser (mm) Drehzahl (U/min) Leistung (Watt)	klappbar 350/140 170	350/140 170	opbar 350/140 95-300	klappbar 500 170	Schrägblatt 400 170
Rührorgan Durchmesser (mm) Drehzahl (U/min) Leistung (Watt) Ohne ATEX ATEX (innen+ außen) Zone 1**	klappbar 350/140 170 750	350/140 170 750	opbar 350/140 95-300 1500	klappbar 500 170 750	Schrägblatt 400 170

ATEX Zone 0 refers to the inner part of the agitator that is limited by the mounting flange. ATEX Zone 1 describes the area around the motor including the gear box and flange. \*ATEX Zone 0 = II1GcIIBT3 \*\*ATEX Zone 1 = II2GcIIBT3

## <u>WIWA INJECT</u> agitator elements

The WIWA agitator elements are suitable for mixing epoxy resin, PU resin and acrylic gel. There are three different sizes and lengths.

They are simply inserted into a standard drill.

#### WIWA INJECT agitator elements

Disc agitator Ø 45mm with shaft 8 x 300mm
Disc agitator Ø 45mm with shaft 8 x 500mm
Disc agitator Ø 75mm with shaft 8 x 300mm
Disc agitator Ø 75mm with shaft 8 x 500mm
Disc agitator Ø 100mm with shaft 10 x 300mm
Disc agitator Ø 100mm with shaft 10 x 500mm
Disc agitator Ø 45mm
Disc agitator Ø 75mm
Disc agitator Ø 100mm
Shaft 8 x 300mm
Shaft 8 x 500mm
Shaft 10 x 300mm
Shaft 10 x 500mm







Order No.	
0672479	
0672480	
0672481	
0672482	
0672483	
0672484	
0672475	
0672476	
0672477	
0672471	
0672472	
0672473	
0672474	

# **WIWA Hand lever Injection press**



## FOR CRACK INJECTION AND GROUTING

The WIWA high-pressure hand press was specially developed for grouting cracks. It is suitable for epoxy and PU resins.

Technical data	
Output per stroke	1,4 cm <sup>3</sup>
Max. pressure	400 bar
Container capacity	500 cm <sup>3</sup>
Length	400 mm
Connection thread	M10x1
Description	Order No.
Hand lever injection press	0672466
Hand lever injection press with 300 mm hose and grip coupling	0672467
Hand lever injection press with pressure gauge, 500 mm hose and grip coupling	0672468



Pumping station with low-wear seal



Sturdy steel design



Hydraulic coupling



High pressure armored hose



High pressure armored hose hydraulic coupling

# WIWA Stroke counter



#### THE OUTPUT ALWAYS IN VIEW

read off the strokes during injection tasks, we offer 3 versions of WIWA stroke counters: directly on the rack, on the mixing unit or with 3 m cable and hooks for hanging up on a packer, for example.





## WIWA INJECT GUARD

## FULL COST CONTROL

Provides you with process reliability and cost optimization by recording and documenting injection processes.

The INJECT GUARD monitors set parameters and documents them. In addition to recording pressures and volumes per packer, the system warns of malfunctions or shifts in the mixing ratio. The data can be displayed directly on the 4" Siemens display or directly via the browser of a WLAN-enabled end device.

To protect your sensitive data, the end device and INJECT GUARD communicate via a password-protected WLAN connection, so that only authorized employees can change and view the parameters.

#### **DOCUMENTATION OF:**

- Volume per packer
- Volume per packer A and B
- Pressure per packer
- Charge numbers for A and B
- Volume per batch and day
- Date
- Time

#### SCOPE OF DELIVERY

- Control cabinet with control and
- touch display
- Datalogger (documents the specified parameters)
- Flow cells up to 400 bar/5801 psi
- Pressure sensor

WIWA INJECT GUARD Basic un Electronic recording unit for 2K IN WIWA INJECT GUARD for INJE INJECT GUARD complete - Elect systems for INJECT 2K 140 Hose package Mixing unit WIWA INJECT GUARD for INJE INJECT GUARD complete - Elect

systems for INJECT 2K 230

Hose package

Mixing unit

**Optimized workflows** 

Suitable for all WIWA 2K injection units

For injections up to 400 bar



Technical Data	
Rated voltage	230 V
Frequency	50/60 Hz
Number of phases	1
Rated current	1,6 A
Wide	369 mm
Height	494 mm
Depth	557 mm
Weight	33 kg
Max. operating pressure	400 bar/5801 psi
Max. air inlet pressure	8 bar/116 psi

unit	Order No.
INJECT systems	0671606
JECT 2K 140	Order No.
ectronic recording unit for 2K INJECT	0671607
	0671605
	0670750
IECT 2K 230	Order No.
ectronic recording unit for 2K INJECT	0669958
	0671008
	0669600



## **WIWA INJECT GUARD**

When a previously defined pressure or volume is reached, this is indicated to the operator by a light signal or the unit switches off on request. The operator can terminate the end of the injection process and switch to the next packer. This has the advantage that the operator can continue working and the unit remains in operation. In addition to the pressure per packer, the volume per packer and post-injections, volumes of component A and B, the product batch of

the injected material, the user, the time and the duration of the injections. The temperature of the material can also be displayed.

The reports can be retrieved depending on the previous definition of a trade, such as a tunnel section. The documentation of the work of the day or the entire construction section are continuous.

Documentation example	18.05.2021		
Number of injections	6		
Total consumption	25,10		
Duration of the injection	00:03:00		
Trade protocol (site A)			
Borehole/Packer	1	2	3
Date	2021-05-18	2021-05-18	2021-05-18
Start time	09:08:32	09:10:32	09:12:32
Duration of the injection	00:01:00	00:01:00	00:01:00
Consumption component A	5,30 I	3,20 I	4,00 I
Consumption component B	5,29 I	3,22	4,09 I
Consumption component A + B	10,59 l	6,42 I	8,09 I
Injection pressure (bar)	50.0,60.0	43.0,50.0	20.0,50.0
Number of injections	2	2	2
Charge	1.0,1.0	1.0,1.0	1.0,1.0
Operator	1.0,1.0	1.0,2.0	2.0,2.0
Construction stage (trade)	1		
Duration of the injection	00:30:00	1	
Daily protocol			
Date	2021-05-11	2021-05-12	2021-05-13
Duration of the injection	00:10:00	00:10:00	00:10:00
Consumption component A	5,30 I	3,20	4,00 I
Consumption component B	5,29 I	3,22	4,09 I
Consumption component A + B	10,59 l	6,42 I	8,09 l
Number of injections	8	2	2
Construction stage (trade)	1	1	1
Operator	1.0,1.0	1.0,2.0	2.0,2.0





On request you can configure a pressure hold function.



# **WIWA MATERIAL FLUID HEATER**

The WIWA material fluid heater with ATEX approval is the optimal addition for cold working environments. It ensures a constant temperature of the injection materials and can bring the container to be processed up to temperature by means of optional circulation.

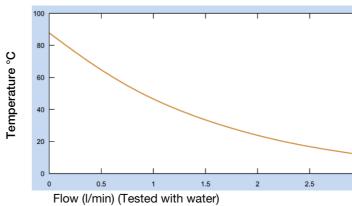
If required, heat can be used to the material to a shorter reaction time and thus accelerate the injection process.

Preheating of the material at the construction site is saved.

	Technical Data	Power Rating				er No. d inside ø		er No. nside ø
Manuel .	Voltage (V)	Watts	Phasen	Ampere (A)	9 mm	14 mm	9 mm	14 mm
S SPECIAL	115	1800	1	16	0663917	0663923	-	-
いるが	230	3500	1	16	0663907	0663908	0663918	0663919
Ser Print	230	3800	3	10	0663915	0663916	-	-
	230	2000	1	9	0664671	-	-	-
No. of Sec.	400	3800	3	6	0663909	0663910	0663920	0663921
1	440**	3500	1	8	0663911	0663912	-	-
	440* **	3500	3	5	0663913	0663914	-	-

\* Available without ATEX - external control not required. \*\* With ATEX version - external control required.

Temperature diagram - Material Fluid Heater



#### **FEATURES**

- Extended application possibilities in outdoor area
- Replacing the heat exchanger is simple and easy
- Operating voltages up to 690 V for ATEX Zone I
- T4 temperature classification
- Includes air passages to heat air for spray guns
- Approved to ATEX Directive 2014/34/EU
- Max. pressure 500 bar / 7250 psi
- Insulation jacket available •
- Remote thermostat control optional
- All fluid wetted parts in stainless steel

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### **OPTIMAL PROCESSING OF THE MATERIAL FOR:**

- Higher efficiency
- Energy savings
  - Reduced use of solvents
  - The shortest possible drying times
  - Problem-free processing of high
  - viscosity materials
- A smooth uniform layer even on
- vertical surfaces
- Outstanding surface finish

#### ACCESSORIES

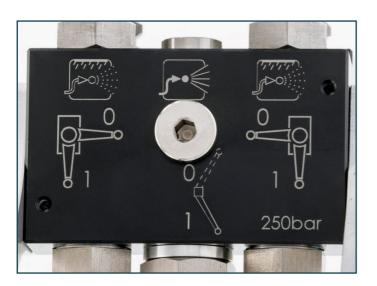
- Support frame with all necessary attachments
- Return control valve
  - Temperature display
- Wall bracket
- Attachment kit air heating (on request)
- External control for 440 V ATEX versions
- (on request)
- External temperature controller RFA (on request)

#### For high viscosity / high solids products

#### Output temperatures up to 120° C possible without ATEX

Helps save energy, reduces material consumption

## WIWA 2K INJECT MIXING UNITS



#### **OPTIMAL MIXTURE**

Operation of the newly developed mixing unit is very simple thanks to the function description on the mixing block and thus offers you process reliability in your daily work.

The mixing of the material has been optimized. Large check valves reduce wear and allow easy cleaning.

Adaptation of the WIWA INJECT GUARD kit is possible.





#### Large passages

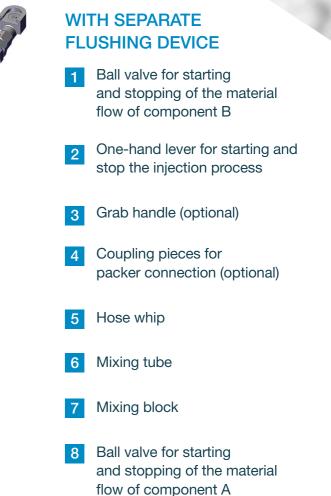
Completely dismountable for easy maintenance

Simple extension of the mixing section by adding further static mixers



	Accessories	Order No.	Descri
	Mixing unit 2K 14025 GX	0669666	Mixing for com
	Mixing unit standard 2K 3/8" with flushing RS	0669611	Mixing device
	Mixing unit standard 2K 1/2" with flushing RS	0670316	Mixing and flus for injec





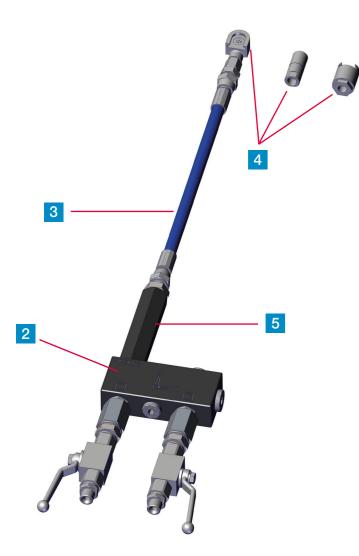
#### ription

g unit complete with separate rinsing device mponent A and B for gel plant

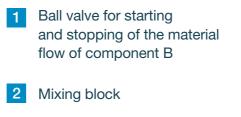
g unit complete with hose, static mixer, flushing e for component A and B for Injection unit

g unit complete with hose, static mixer ushing device unit for components A and B ection unit

# WIWA 2K INJECT MIXING UNITS



#### WITHOUT SEPARATE FLUSHING DEVICE



- 3 Hose whip
- 4 Coupling pieces for packer connection
- 5 Mixing tube
- 6 Ball valve for starting and stopping of the material flow of component A

Accessories	Order No.	Des
Mixing unit 2K N	0669555	Mixi
Mixing unit standard 2K 3/8" N	0669748	Mixi hose for 2
Mixing unit standard 2K 1/2"	0669620	Mixi





#### Large passages

Completely dismountable for easy maintenance

Simple extension of the mixing section by adding further static mixers



#### escription

xing unit G1/4" - DN6 - with static mixer

xing unit complete -N- G3/8" - DN11 with se and static mixer without flushing device 2K injection system

xing unit G1/2" - DN12 - with static mixer

Order No.	Description attachments	Gun (0668657)	Lance (0641948)
0631406	Whip 0.3 m	•	
0669411	Mounting Kit straight lance		
0669410	Mounting kit bent lance		
0218820	Connection nipple		
0669301	Sliding coupling 90		
0641199	Sliding coupling straight		
0411302	Hydraulic mouthpiece		
0668559	Quick release pliers		
0646988	Ball valve 1/4" N		

## WIWA INJECT GUNS



#### WIWA INJECT GUNS

The WIWA injection gun is designed for 300 bar. All material-carrying parts are made of stainless steel. It is equipped with swivel joint, pressure gauge, hose whip 0.3 m, a 4-jaw hydraulic mouthpiece and a 90° sliding coupling.

You can select further attachments from the table.



#### WIWA INJECTION LANCE

The WIWA injection lance is made of steel and consists of a ¼" ball valve, a bent lance and a 4-jaw hydraulic mouthpiece. Yo fr



You can select further attachments from the table.

Suitable for all injections

Designed for injections up to 300 bar

Extensive range of attachment kits available

## **WIWA INJECT** PACKER





#### FOR BUILDING RENOVATION

On the following pages you will you will find a comprehensive overview of our high-quality plastic packers and steel packers.

WIWA INJECT PACKER are used in both the 1K and the 2K range, depending on the model.



#### **AREAS OF APPLICATION**

- Wood consolidation
- Sponge protection
- Pest control
- Horizontal barriers
- Silicification •
- Borehole suspension •
- Microcement
- Anchor mortar
- Milk of lime
- Packers for mineral fillers

molla impact n	ackor

Lamella impact packer, Order No. 0668433



Locking piece, Order No. 0668437



Quick release pliers, Order No. 0668559



Lamella impact packer, Order No. 0668430



Progressive packer, Order No. 0668431



- iiiiiiiiii - <mark>EP</mark>





Progressive packer,



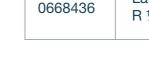
Lamella R 1/4, fre

Progressive packer, Order No. 0668011

Order No. 0668432



Lamella impact packer, Order No. 0668436



Order No.

0668433

0668437

0668559

0668430

0668431

0668432

0668011



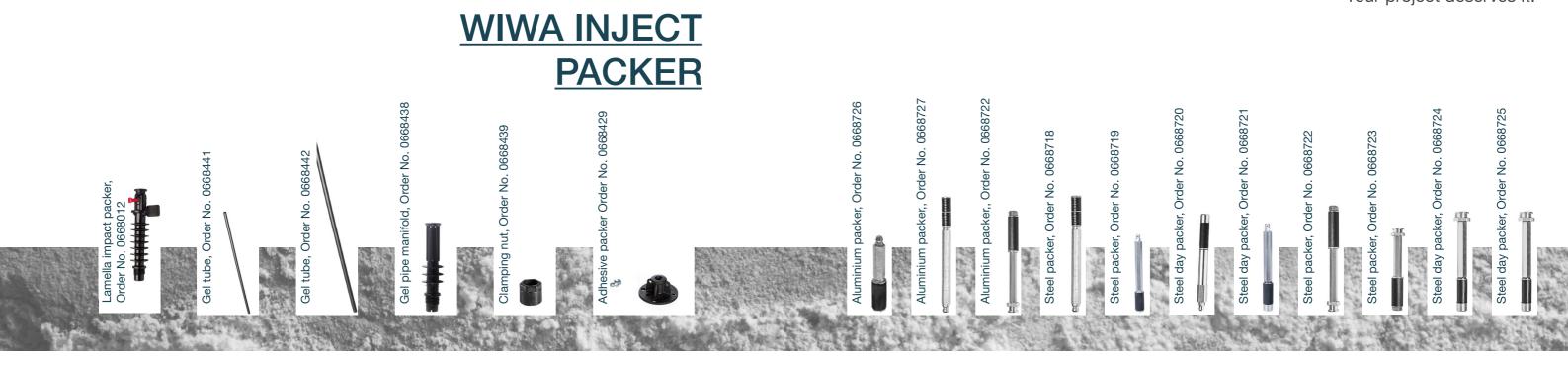
#### WIWA INJECT PLASTIC PACKER

Description	Size
Lamella impact packer SSV with sealing lip valve, connection Quick snap closure	18 x 120 mm
Locking piece with cross slide, internal thread R 1/4	
Quick release pliers 17 Connection R ¼, max. passage 4 mm	
Lamella impact packer made of plastic with screwed-in HP conical nipple	10 x 100 mm
Progressive packer made of plastic With screwed-in HP conical nipple	10 x 75 mm
Progressive packer made of plastic With screwed-in HP conical nipple	12 x 75mm
Lamella impact packer Flat head nipple 16 mm, with cross slider, passage 4 mm	14 x 100 mm
Lamella impact packer external thread R ¼, free passage 7 mm	14 x 100 mm

Plastic and steel packers

Extensive selection available

Suitable for 1K and 2K injections



#### WIWA INJECT PLASTIC PACKER

Order No.	Discription	Size
0668012	Lamella impact packer Flat head nipple 16 mm, with cross slider, passage 4 mm	18 x 120 mm
0668441	Gel tube 10 x 1.5 mm, HDPE	300 mm
0668442	Gel tube 10 x 1.5 mm, HDPE	500 mm
0668438	Gel pipe manifold 18 Threaded clamp for gel pipe 10 mm	M 15 x 1,5mm
0668439	Clamping nut for gel tube 10 mm	
0668429	Adhesive packer Ø 50 with internal thread M8	Height 26 mm

## WIWA INJECT ALUMINIUM AND STEEL PACKERS

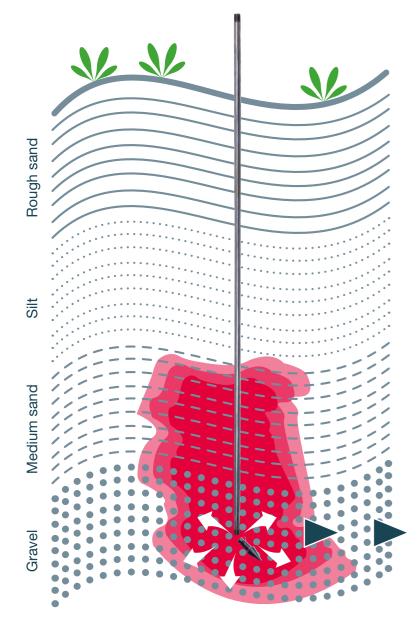
Order No.	Discription	Size
0668726	Aluminium packer with single adhesive rubber and conical nipple	13 x 80 mm
0668727	Aluminium packer with double adhesive rubber and conical nipple	10 x 115 mm
0668727	Steel packer with flat head nipple	10 x 115 mm
0668718	Steel packer with flat head nipple	10 x 115 mm
0668719	Steel packer with flat head nipple	13 x 115 mm
0668720	Steel day packer with cone nipple	10 x 115 mm
0668721	Steel day packer with cone nipple	13 x 115 mm
0668722	Steel packer with flat head nipple	10 x 115 mm
0668723	Steel packer with flat head nipple	13 x 115 mm
0668724	Steel day packer with flat head nipple	10 x 115 mm
0668725	Steel day packer with flat head nipple	13 x 115 mm
- Day	v packers have a foot valve. Therefore, immed	liately after the injecti-





backers have a foot valve. Therefore, immediately after the injection, the pressure piece can be removed and the and the borehole can

# WIWA INJECT RAMM INJECTION LANCES



## FOR GROUND INJECTION

WIWA INJECT ram injection lances have been specially developed for building ground. They serve to seal, stabilize, consolidate and lift building ground.

The ram injection lances with lost tip are driven into the ground and pulled back approx. 10 cm so that the tip can detach from the lance. The material flows out at the end of the lance. If necessary, the lance can be pulled up again and inject at a different height. For injections under floor slabs, the slabs must be pre-drilled accordingly. Injection packers with a connecting sleeve are used for sealing.

Stepwise injection feasible

Easy handling without the use of large machines

Targeted injection at a defined depth can be implemented

The method is suitable for shallow depths in easily penetrable soils. Ram injection lances can be individually assembled depending on the injection depth. There is no annular gap on the outer diameter during penetration, thus no uncontrolled leakage of injection material.

#### MATERIALIS

- Mineral fillers
- PU and silicate resins
- Acrylic gels

## AREAS OF APPLICATION

- Subsoil rehabilitation for existing objects, drinking water tanks, etc.
- Fill cavities and fissures
- Increase the load-bearing capacity of the foundation soil
- Close fissures and cracks in the subsoil for near-surface, underground construction measures
- Lifting of building ground





Technical data	
Version	Stahl
Length	1000 mm
Diameter	NW6
Thread	1⁄4"
1 Order No.	0672446
Accessories	Order No.
	Order No. 0672447
<ul> <li>Accessories</li> <li>Connecting sleeve ¼"</li> <li>Lost tip with O-ring for ram grouting lance with 1/4"</li> </ul>	

Perforated ram injection lances on request.





#### 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 retardent 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. 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.

For bonding and sealing, as well as conveying highly viscous materials, speed and precision are particularly important.

With the robust and user-friendly systems designed by WIWA, these applications can be achieved easily. Custom solutions are also possible to meet individual customer requirements. Let our expertise benefit you in ensuring the reliability of your process and enable trouble-free, pinpoint application.







WWW.WIWA.COM/NEWSLETTER

#### The WIWA website leaves no questions unanswered

On our website you will find all three WIWA business units Protective Coatings, Injection/Building Protection and Extrusion/Material Handling. So that you do not miss any WIWA news, you can also register there for our WIWA News newsletter.

If you have any questions, you have the possibility to contact a WIWA employee directly via chat.





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