



WIWA

DuoMix PFP

Presentation by



DuoMix PFP Presentation



WIWA DuoMix PFP - 2003

The WIWA DuoMix PFP unit has been developed in a continuous process out of realistic working situations.

- 14 years practical PFP field experience**
- Close cooperation with the big coating manufacturers**
- Over 500 units sold world wide**
- 60+ in Middle East only**

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The WIWA DuoMix PFP unit has been certified by the major PFP manufacturers.

**CHARTEK: FIREPROOFING SYSTEM
QUALIFIED EQUIPMENT CERTIFICATE**

The following Plural Spray equipment supplied by:
WIWA Wilhelm Wagner GmbH & Co.KG
 Is approved for use with Chartek Fireproofing materials:

DuoMix – PFP

Issue date: 12 February 2004 Issued by: 
Gary Chapman, Specialist Selling Manager, Protective Coatings

International Paint Ltd
 Stonegate Lane,
 Felling, Gateshead
 Tyne and Wear
 NE18 6JY
 United Kingdom





PPG Protective & Marine Coatings **CERTIFICATE**

WIWA

DUOMIX Series 333 PFP
Plural Component Spray Unit


Holds "Approved For Use Status"

For the Application of

PPG

Pitt-Char - XP®
Epoxy Passive Fire Protection

For PPG Protective & Marine Coatings: Date of Approval:
 PFP Project Support Manager **01/01/2008**



2150 Schwab Road
 St. Louis, MO 63146
 Phone: 314.644.1000
 Fax: 314.587.2001

December 13, 2013

Mr. Jeffrey Wold
 WIWA


Jeffrey,

As a result of our successful spray trials and field experience, we formally approve the use of WIWA standard airless and plural component spray equipment for the application of Pyroshield X1. This approval is valid worldwide.

Depending on the size of the job and customer requirements, the following WIWA systems are approved:

Standard Airless: WIWA Herkules PFP
 Plural Component: WIWA DuoMix 333PFP

Additional application specifications can be obtained through Carboline Technical Service.

Sincerely,

 General Manager Global Fireproofing

ISO 9001 Registered Company



Jotun Performance Coatings
Passive Fire Protection

Jotachar JF750
mark fire

**Jotachar Approval
Application Equipment**

This is to certify that the following equipment manufactured by Wilhelm Wagner GmbH & Co. KG Gewerbestrasse, 1-3D-35633 Lahnu, Germany, has been assessed and approved for application of Jotachar in accordance with Jotun requirements.

WIWA DUOMIX PFP

This certificate remains valid providing that the equipment has not been modified since the issue date of this certificate

Issue Date: 4th November, 2013

Signed for & behalf of Jotun Performance Coatings.


 Stephen Crowe
 Corporate Coating Advisor
 Epoxy Intumescent Coatings
 Jotun Performance Coatings

Jotun A/S
 Po Box 2021,
 N3202 Sandefjord
 Norway
 Email: tss.pfp@jotun.com

Jotun Protects Property

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Because of our strong relations with the PFP material producers, we work with them on many projects and are constantly updated on changes in their products.

And with practical situations varying all over the world, we can tailor a unit to meet individual requirements.

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**WIWA DuoMix
PFP - 2012**

- Ultra-compact multi-purpose frame
- Easier access to components
- Special designed water heating system
- Anti Icing kit



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Proportioning Unit - Main Pump -

Technical Specification

| | |
|-------------------------------|---------------------------|
| Vol. Mix: | 2.33:1 * |
| Pressure ratio: | 61:1 |
| Output per cycle: | 329 cm³ |
| Max. working pressure: | 427 bar |
| Max. air consumption: | 5000 l/min |
| Voltage: | 400V (50/60 Hz) |
| Electrical rating: | 22 kWA |

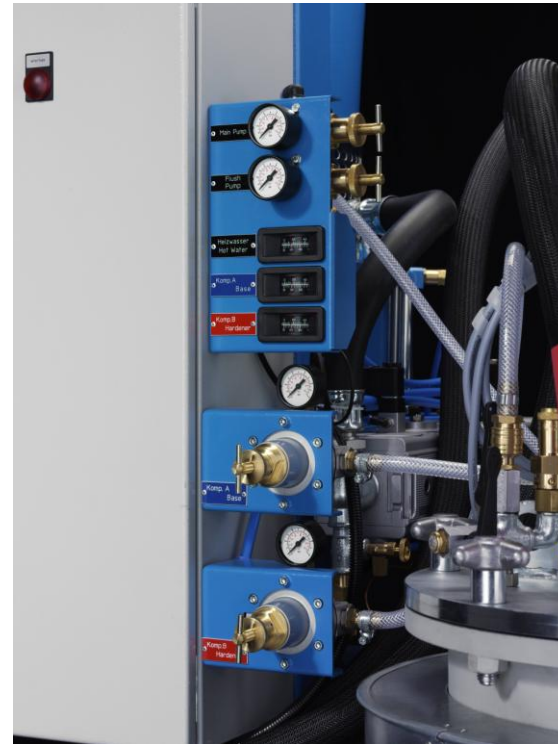
***more than 1000 alternative mixing ratios available, i.e. 1:1 (@71:1), 2:1 (@58:1)**

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Proportioning Unit - Control Panel -

- Centralized control
- Simple overview of controls
- Easy to make adjustments
- Designed for use while wearing work gloves



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Start Timer



The easy to adjust start timer allows pre-heating of the unit. The unit is ready to spray when you come to work.

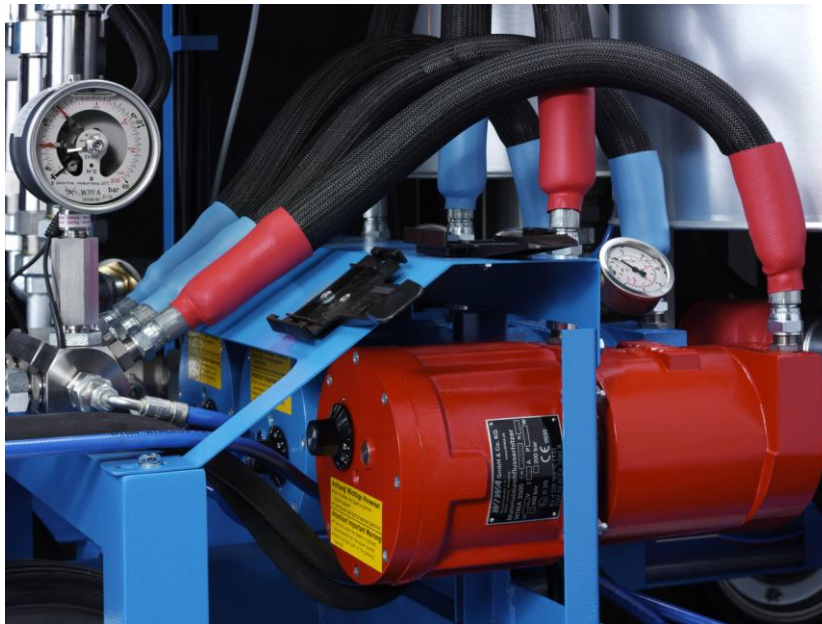


Pressure & Dosing Control



The pressure gauge shuts off the DuoMix automatically to prevent off-ratio work when a pressure above or below the adjusted tolerance is detected.

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Material Heaters

- Heating of both components using three inline heaters
- Replaceable heat exchangers
- Equipped with pressure gauges



Feed Pumps and Ram Presses

- Low-maintenance filling station with robust twin-post lifts
- Large feed pumps for lower wear and tear
- Low noise operating air motor

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Pressure Tanks and Agitators

- Double-wall insulated pressure tanks with highly efficient water heating
- Smooth running agitators with optimized mixing paddles
- Reliable pneumatically-operated level sensors for automatic refilling of the tanks

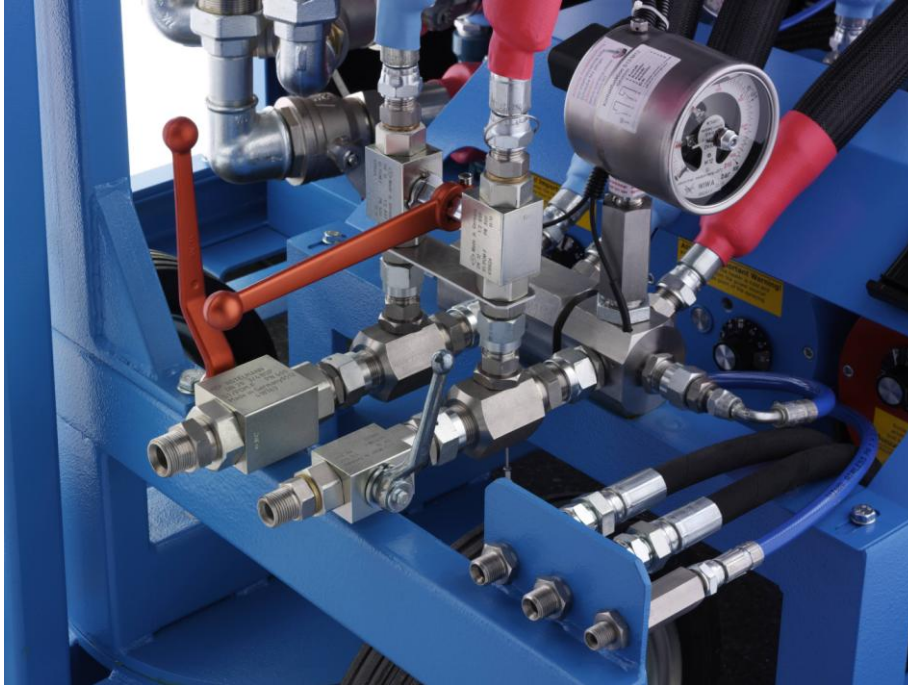
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Flushing Unit and Water Heating Tanks

- Separate water heating circuits for the tanks and hose package
- Regulator for controlling the temperature of the tanks
- Start-up timer for timesaving preheating of the unit
- Automatic refilling of flush water tank

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Material Outlet Manifold

- Easy access to hose connections
- Valves for internal circulation (rapid heating at low pressure for less pump wear)

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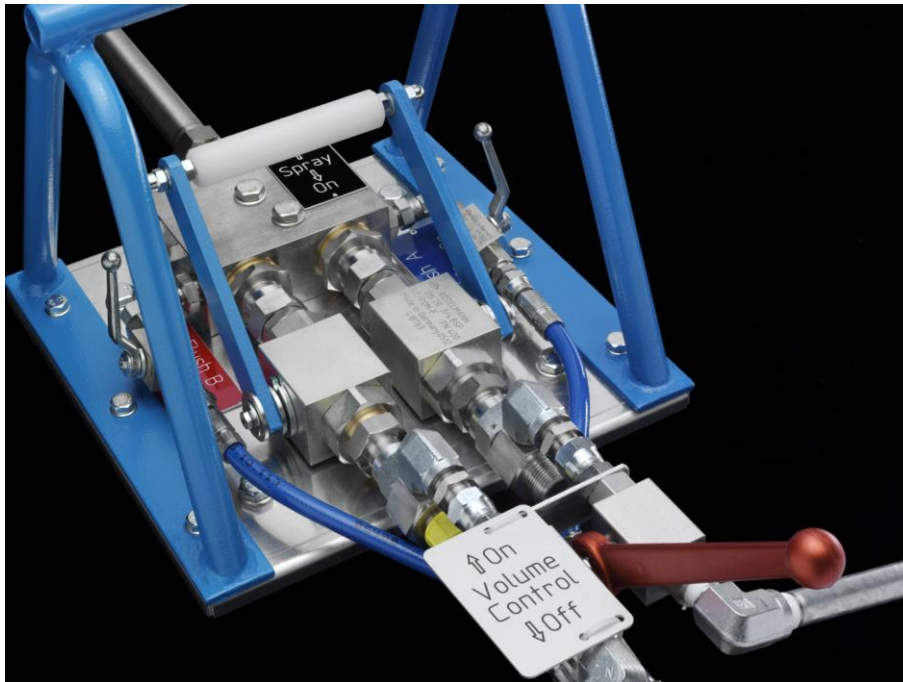


Hose Package



- High-volume hoses minimize pressure loss
- Insulated against heat loss
- Hose package with heating system is explosion-proof
- Circulation through the hose package for maintaining the temperature of the material
- Hose length up to 90 mtrs.

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External Mixing Unit

- Compact and easy to operate
- Large valves and passages
- Ratio check valves at mixer for maximum accuracy

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Spray Gun WIWA 500 PFP

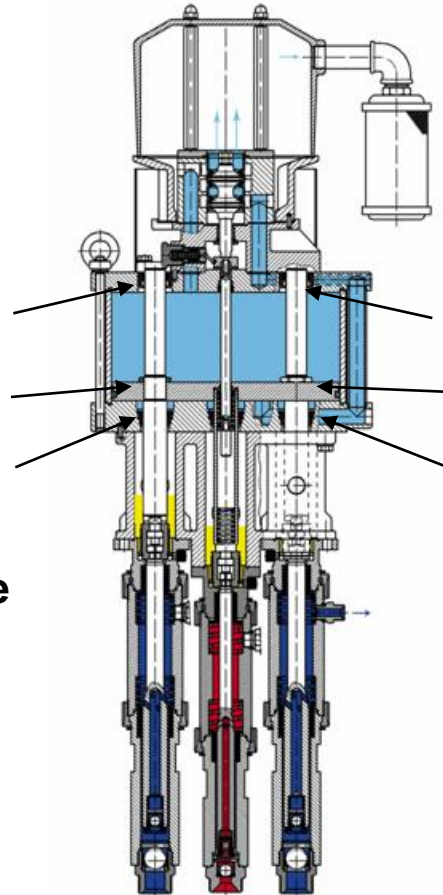
- Long-proven **WIWA** design
- Large diameter swivel for high-volume applications

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Multiple guided shafts

High Pressure Dosing Pump



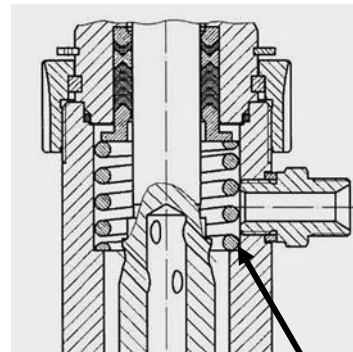
Mechanical Structure

**The WIWA DuoMix air motor has multiple precision guided shafts connecting the piston plate directly to the material pumps, which prevents the piston plate from tilting
-> lower wear and maintenance**

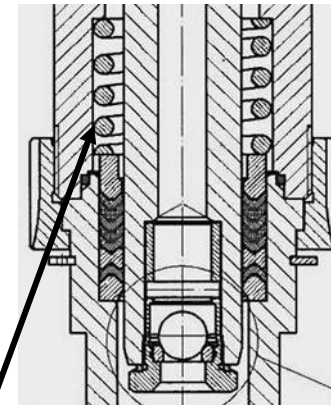
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Material Pumps w/ Fixed Upper & Lower Packings



Upper Packing



Lower Packing

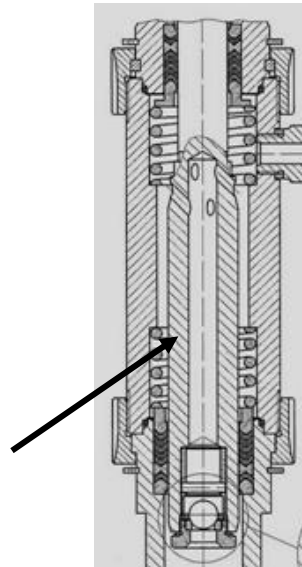
Tensioning springs maintain the proper preload on the packings -> no manual adjustment necessary, low wear



Material Pump - Wear Parts

The double piston has a thick, extra-hard chromed coating for long life.

Double Piston



Because the packings are fixed, the **PUMP CYLINDER** is a **NON-wearing** part



Spare parts prices
(Please compare)

Material pump:

Material pump repair kit:

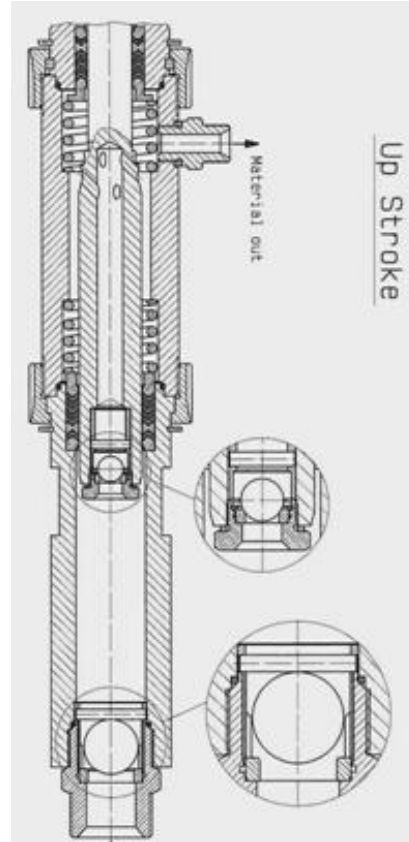
Piston:

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Material Pump Combinations

| | | | | | | |
|-----|-------|-------|------|-----|-----|--------|
| 433 | 50 | 50 | 2,00 | 110 | 137 | 150,00 |
| 434 | 71,75 | 71,5 | 2,01 | 75 | 93 | 215,00 |
| 435 | 72,57 | 71,75 | 2,02 | 75 | 93 | 216,83 |
| 436 | 72,57 | 71,5 | 2,03 | 75 | 93 | 216,64 |
| 437 | 63 | 65 | 2,03 | 79 | 98 | 206,00 |
| 438 | 34 | 32 | 2,04 | 58 | 72 | 280,00 |
| 439 | 73,00 | 77 | 2,05 | 69 | 86 | 235,00 |
| 500 | 40,5 | 39,5 | 2,05 | 134 | 167 | 120,50 |
| 501 | 68 | 66 | 2,06 | 80 | 100 | 202,00 |
| 502 | 32 | 33 | 2,06 | 59 | 73 | 273,00 |
| 503 | 138 | 134 | 2,07 | 39 | 49 | 410,00 |
| 504 | 184,5 | 179 | 2,07 | 29 | 36 | 548,00 |
| 505 | 46 | 44,5 | 2,07 | 118 | 147 | 136,50 |
| 506 | 71,5 | 69 | 2,07 | 76 | 95 | 212,00 |
| 507 | 51 | 50 | 2,08 | 108 | 134 | 152,00 |
| 508 | 54,00 | 52 | 2,08 | 101 | 126 | 160,00 |
| 509 | 63,5 | 61 | 2,08 | 86 | 107 | 188,00 |
| 510 | 71,75 | 69 | 2,08 | 76 | 95 | 212,50 |
| 511 | 39 | 35,27 | 2,08 | 55 | 68 | 293,27 |
| 512 | 66 | 63,5 | 2,08 | 83 | 103 | 195,50 |
| 513 | 42 | 40,5 | 2,09 | 130 | 161 | 124,50 |
| 514 | 39,5 | 38 | 2,09 | 139 | 172 | 117,00 |
| 515 | 69 | 66 | 2,09 | 79 | 99 | 204,00 |
| 516 | 85 | 79 | 2,09 | 66 | 82 | 249,00 |
| 517 | 82,5 | 79 | 2,09 | 66 | 82 | 244,00 |
| 518 | 89 | 85 | 2,10 | 61 | 76 | 263,00 |
| 519 | 72,57 | 69 | 2,10 | 76 | 94 | 214,14 |
| 520 | 94 | 89 | 2,10 | 58 | 72 | 277,00 |
| 521 | 71,5 | 68 | 2,11 | 77 | 95 | 211,00 |
| 522 | 44,5 | 42 | 2,11 | 129 | 153 | 191,00 |
| 523 | 39 | 34 | 2,11 | 55 | 69 | 292,00 |
| 524 | 134 | 127 | 2,11 | 41 | 51 | 395,00 |
| 525 | 71,75 | 68 | 2,11 | 76 | 95 | 211,50 |
| 526 | 61 | 58 | 2,12 | 90 | 112 | 180,00 |
| 527 | 50 | 46 | 2,12 | 112 | 140 | 146,00 |
| 528 | 77 | 72,57 | 2,12 | 71 | 89 | 226,57 |
| 529 | 54,00 | 51 | 2,13 | 102 | 127 | 159,00 |
| 530 | 58 | 54 | 2,14 | 96 | 119 | 170,00 |
| 531 | 52 | 54 | 2,14 | 96 | 119 | 158,00 |
| 532 | 72,57 | 68 | 2,14 | 76 | 94 | 213,14 |
| 533 | 68 | 63,5 | 2,14 | 81 | 101 | 199,50 |
| 534 | 42 | 39,5 | 2,14 | 131 | 162 | 129,50 |
| 535 | 40,5 | 38 | 2,14 | 136 | 170 | 119,00 |
| 536 | 85 | 77 | 2,14 | 67 | 83 | 247,00 |
| 537 | 82,5 | 77 | 2,14 | 67 | 83 | 242,00 |
| 538 | 77 | 71,75 | 2,15 | 72 | 89 | 225,75 |
| 539 | 39 | 32 | 2,15 | 56 | 69 | 290,00 |
| 540 | 77 | 71,5 | 2,15 | 72 | 89 | 225,50 |
| 541 | 66 | 61 | 2,16 | 84 | 104 | 193,00 |
| 542 | 71,5 | 66 | 2,17 | 77 | 96 | 209,00 |
| 543 | 89 | 82,5 | 2,17 | 62 | 77 | 260,50 |
| 544 | 32 | 35 | 2,17 | 60 | 75 | 269,00 |
| 545 | 71,75 | 66 | 2,17 | 77 | 96 | 209,50 |



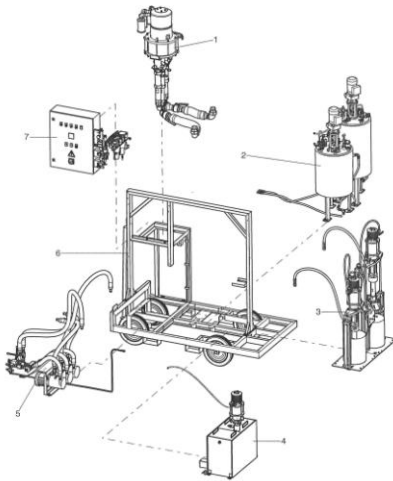
More than 40 pump sizes are available. This enables more than 1000 different interchangeable mixing ratios between 0.1:1 and 14:1

DuoMix PFP Presentation



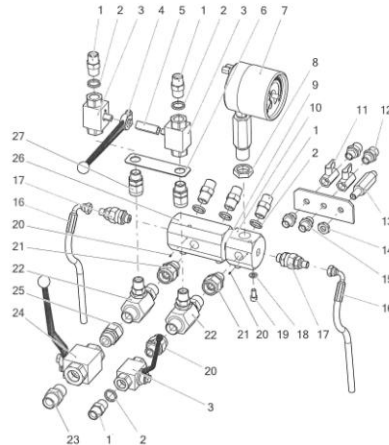
Spares lists with detailed drawings for easy identification of parts

1 Baugruppen • Modules • Modules



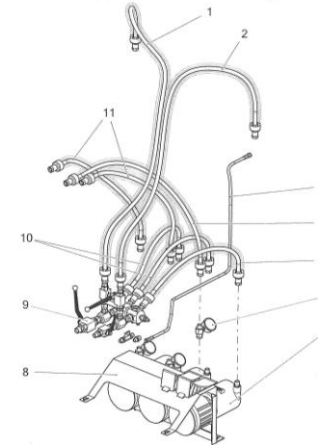
| Pos. | Baugruppe | Module | Module |
|------|-------------------|------------------|----------------------------|
| 1 | Hauptpumpe | Main pump | Pompe principale |
| 2 | Druckbehälter | Pressure vessels | Réservoirs |
| 3 | Zuführereinheit | Feed unit | Unité d'alimentation |
| 4 | Spülenheit | Flushing unit | Unité de engage |
| 5 | Materialförderung | Material feed | Transport de matériau |
| 6 | Fahrgestell | Cart | Chariot |
| 7 | Anlagensteuerung | System control | Commande de l'installation |

6.5 Zwischenstück • Intermediate piece • Pièce intermédiaire



| Pos. | Number | Qty. | V/D/RH | Artikelbezeichnung | Part description | Désignation des articles |
|------|---------|------|--------|----------------------------|-------------------------|-----------------------------|
| 1 | 0472883 | 6 | | Doppelstoppel | male adaptor | roccord double mâle |
| 2 | 0497894 | 6 | | Dichtung | seal | joint |
| 3 | 0500289 | 3 | | Kugelhahn | ball valve | vanne |
| 3.1 | 0647118 | 1 | | Dichtungssatz f. Kugelhahn | seal kit for ball valve | kit de joints pour vanne |
| 3.2 | 0647119 | 1 | | Kugel für Kugelhahn | ball for ball valve | balle pour vanne |
| 4 | 0546855 | 1 | | Schaltgriff f. Kugelhahn | lever for ball valve | manette de changement |
| 5 | 0546867 | 1 | | Verbindungsstück | connecting piece | pièce de jonction |
| 6 | 0056491 | 1 | | Halblech | retainer for hopper | blat d'arrêt pour entonnoir |
| 7 | 0546691 | 1 | V | Manometer | pressure gauge | manomètre |

6 Materialförderung • Material feed • Transport de matériau

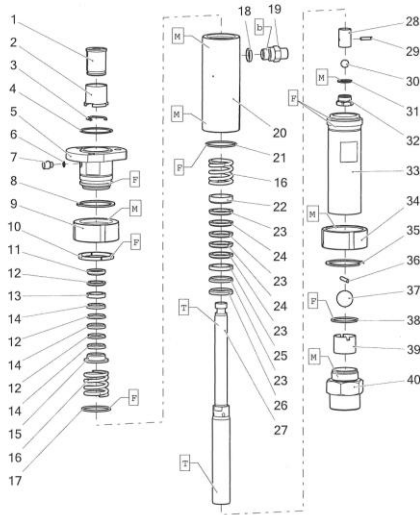


| Pos. | Number | Qty. | Length | V/D/RH | Artikelbezeichnung | Part Description | Désignation des articles |
|------|---------|------|--------|--------|---|----------------------|-------------------------------|
| 1 | 067828 | 1 | 2m | V | Materialschlauch lgt. blau | fluid hose cpl. blue | flexible de fluide cpl. bleu |
| 2 | 067827 | 1 | 2m | V | Materialschlauch lgt. rot | fluid hose cpl. red | flexible de fluide cpl. rouge |
| 3 | 063493 | 1 | | V | Materialschlauch | fluid hose | flexible de fluide |
| 4 | 067825 | 1 | 1,05m | V | Materialschlauch lgt. rot | fluid hose cpl. red | flexible de fluide cpl. rouge |
| 5 | 067823 | 1 | 0,75m | V | Materialschlauch lgt. rot | fluid hose cpl. red | flexible de fluide cpl. rouge |
| 6 | 0648169 | 3 | | V | Manometer lgt. | gauge cpl. | manomètre cpl. |
| 7a | 067716 | 3 | | | Materialdrehflussschützer 3500-F-3,5kW/400V | fluid heater | chauffe-matériau |
| 7b | 067724 | 3 | | | Materialdrehflussschützer 3500-F-3,5kW/400V | fluid heater | chauffe-matériau |
| 7c | 067725 | 3 | | | Materialdrehflussschützer 3500-F-3,5kW/400V | fluid heater | chauffe-matériau |
| | | | | | Materialdrehflussschützer 3500-F-3,5kW/230V | fluid heater | chauffe-matériau |

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2.4 Materialpumpe • Material Pump • Section fluide HD 115,1/120 -R-



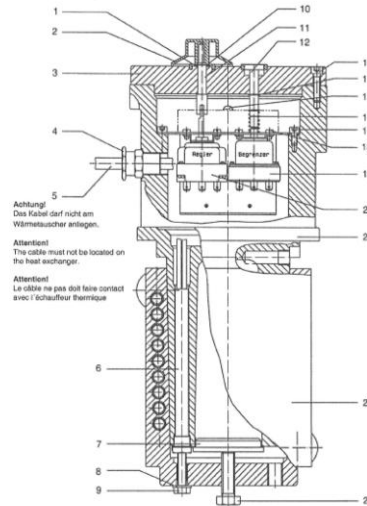
Buchstabensymbole siehe Kap. 10 • Letter symbols see chap. 10 • Symboles littéraux cf. chap. 10

| Pos. | Number | Qty | V/D/R | Artikelbezeichnung | Part Description | Désignation des articles |
|------|---------|-----|-------|--------------------|--------------------|--------------------------|
| 1 | 0632257 | 1 | | Kupplungsstück | coupling piece | pièce d'accouplement |
| 2 | 0632258 | 1 | | Hülse | sleeve | baguette de retenue |
| 3 | 0632193 | 1 | | Sicherungsring | retaining ring | cecro |
| 4 | 0638303 | 1 | D, R | Dichtring | gasket | joint |
| 5 | 0630054 | 1 | | Hochdruckkopf | high pressure head | tête à haute pression |

Ersatzteilliste • Spare parts list • Liste de pièces de rechange 800MX 333 PFP
PFP_Version 2_ETL_de_en_k_1211 -rs

15

6.2 Materialdurchflusserhitzer • Fluid Heater • Chauffre-matériaux WIWA 3500-R-3,5kW/440V



Achtung!
Das Kabel darf nicht am
Wärmetauscher anliegen.

Attention!
The cable must not be located on
the heat exchanger.

Attention!
Le câble ne pas doit faire contact
avec l'échangeur thermique

52

Ersatzteilliste • Spare parts list • Liste de pièces de rechange 800MX 333 PFP
PFP_Version 2_ETL_de_en_k_1211 -rs

Spare parts are not limited to complete assemblies, i.e. the heater is available in individual parts to lower your repair costs.

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WIWA “Made in Germany“

The quality of WIWA equipment is also in its own hands, with production being done fully in Germany at the highest quality control standards.



Customer experience with competitive as well as WIWA units has helped us to design our units for maximum efficiency and minimal service requirements.

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The design of the WIWA DuoMix PFP minimizes the use of electronic components wherever possible for flexible, low problem use around the globe under severe jobsite conditions.

The unit is easily repaired on site, minimizing costly downtime.

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By choosing the WIWA DuoMix PFP, the operator can take on projects knowing he has a unit which can be fully relied upon to successfully and economically apply intumescent fire protective coatings which meet the highest standards, for example in the offshore & marine, oil & gas, building and paper industries.