

Polyfex 2000

Oesestr. 68
58675 Hemer
Germany
Tel.: +49 2372 5579982
info@polyfex.de
www.polyfex.de

Product description



The Polyfex 2000 is a high-pressure dosing gun specifically for applying abrasive media. It is used, for example, in polishing machines.

The operating principle corresponds to the high-pressure dosing gun HDP-II and PoliSpray 2 sold by competitors. In addition, the spare parts are compatible.

Special features:

- wear-resistant steel cylinder for the pressure translator
- optional external spray head developed by Polyfex with flexible extension
- optional equipment with a disposable spray head ("OW head"), thus simplified maintenance

Technical Values

▪ Control:	3/2-way valve (G1/4)
▪ Air pressure:	4 - 6 bar
▪ Air connection:	G 1/8" (8/6)
▪ Paste pressure:	4 - 6 bar
▪ Paste connection:	LW 13
▪ Dispensing amount:	0,7 – 2,8 cm ³



Attention: Always observe the safety instructions on the last page!

Installation

In any interaction such as assembly, commissioning, disassembly, and cleaning, the drawing including the parts list must be used.



There is a through hole Ø 12 mm on the pistol body for mounting.



For compressed air supply, a pneumatic hose Ø 8/6 mm is connected to the Air-Connection (94). (Attention: Use only oiled compressed air!)

Pneumatic actuation via a 3/2-way valve:

- With electromagnetic actuation → closed when de-energized
- Opening time at least 0.5 seconds
- Pause time at least 1.5 seconds.

The valve must be located as close as possible to the pistol.



The hose connection (42) is factory-set for a hose with an inner diameter of 12 mm.

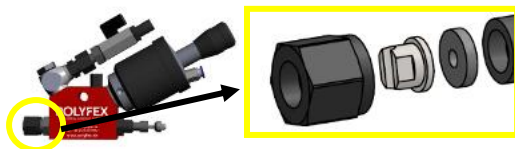


Attention: Always observe the safety instructions on the last page!

Commissioning

In any interaction such as assembly, commissioning, disassembly, and cleaning, the drawing including the parts list must be used.

The spray gun must be adjusted to the respective application.



Insert the required material nozzle into the spray head



Open paste stop cock (41)



Open the bleed valve (44) until paste emerges. Absolutely necessary for initial start-up!



Bleeding the material chamber by pulling the valve needle on the knurled nut (15) until paste flows out



Operate pneumatic valve

- Needle valve (06) suddenly opens the material chamber. The material then immediately flows out under high pressure!
- Needle valve (06) closes the material chamber when returning to the starting position



With the help of the compression screw (14), the preload of the compression spring (11) can be adjusted and thus the opening pressure regulated



Change of the injection quantity by turning the knurled knob (69)
(Injection quantities from 0.7 – 2.8 cm³ possible)



Attention: Always observe the safety instructions on the last page!

Possible sources of error

In any interaction such as assembly, commissioning, disassembly, and cleaning, the drawing including the parts list must be used.

No material is spraying from the nozzle

- *Air in the material chamber / paste line*
 - ⇒ Bleed as described under 'Commissioning' until paste comes out
- The nozzle is clogged
 - ⇒ Unscrew the retaining nut (02), remove the nozzle (03) and clean or replace it. When reassembling, tighten the retaining nut (02) and be sure to ensure the correct position of the valve seat (04)!
- Needle valve (06) does not move
 - Needle valve too strongly preloaded
 - ⇒ Correct pre-tension using compression screw (14)
 - or needle valve stuck
 - ⇒ Expansion of the needle valve
 1. After loosening the compression screw (14), unscrew the threaded bushing (13) and pull the needle valve (06) out of the pistol body (01)
 2. A replacement of the cup seal (08) is recommended here, this is done by loosening the grub screw (35) and pulling out the guide bushing (07). When assembling, attention must be paid to the correct position of the collar (10)! The valve seat (04) should in any case be turned, if necessary replaced.
- Check valve (43) does not close properly
 - ⇒ Check the operation of the non-return valve:
 1. Fill pistol chamber with medium
 2. Close stop cock (41)
 3. Operate pneumatic valve

Now sprays medium out, the check valve (43) is defective, it needs to be cleaned or replaced.

- Too low paste pressure
⇒ Bleed (see 'Commissioning'), neither air nor medium escapes, increase pressure in the paste line
- Medium supply line clogged
⇒ Bleed (see "Commissioning"), neither air nor medium escapes, clean the supply line
- Pneumatic piston does not move forward, pneumatic cylinder (60) is dirty
⇒ Open and clean cylinder
- Air pressure for pneumatic cylinder too low
⇒ Increase the air pressure in the supply line.
The setpoint is 4-6 bar.

Paste leakage at the ventilation holes in the cylinder flange (59)

- Cup seal (18) defective
⇒ Replace rod seal
 1. Loosen retaining nut (68)
 2. Remove cylinder cover (67)
 3. Remove cylinder (60) and plunger (22)
 4. Unscrew cylinder flange (59)
 5. Change cup seal (18)

Attention: Be sure to observe the installation position of the rod seal!
- Plunger (22) defective or stuck
⇒ Remove the plunger
 1. by loosening the retaining nut (68) remove the cylinder cover (67)
 2. pull out the piston (75)
 3. detach the plunger (22) from the piston (75) by unscrewing the countersunk screw (24)
 4. a simultaneous replacement of the cup seal (18) is recommended

During assembly, the countersunk screw is to be installed with medium-strength threadlocker.



Attention: Always observe the safety instructions on the last page!

Wear parts to be stocked

Designation	Position	Order Nr
Valve seat	4	2000 - 04
Needle valve	6	2000 - 06
Cup seal	8	2000 - 08
Compression spring	11	2000 - 11
Cup seal	18	2000 - 18
Compression spring	63	2000 - 63
Plunger	22	2000 - 22
Sealing ring for piston assembly	25	2000 - 25
Check valve assembly	43	2000 - 43

Safety Instructions

Be sure to observe the following instructions when commissioning, maintaining, or performing other activities on the spray gun:

- The spray gun must never be aimed at a person.
- Always wear safety goggles.
- Always depressurize the system, both on the air and paste sides.
- Close the shut-off valve of the paste supply.
- Before startup and after any repair or maintenance work, check the correct seating of screws and nuts as well as the correct connection of all supply lines.
- Use only original parts.
- Observe all warnings and instructions from the polishing compound manufacturer.

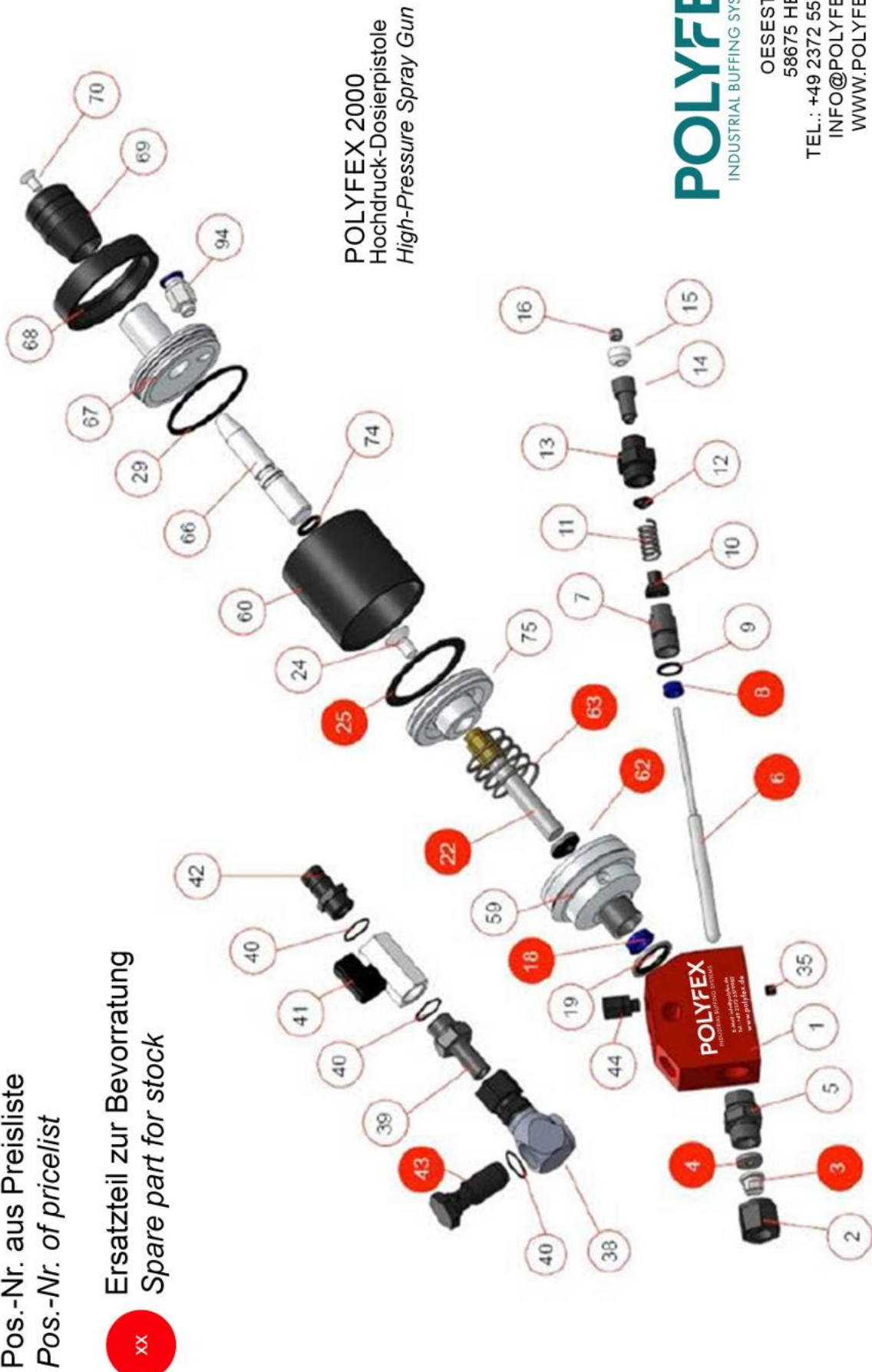
Changes in the interest of improvements and technical progress are reserved.

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESER UNTERLAGE, VERWERTUNG UND MITTEILUNG IHRES INHALTS NICHT GESTATTET, SOWEIT NICHT AUSDRÜCKLICH ZUGESTANDEN. ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FÜR DEN FALL DER PATENT-, GEBRAUCHSMUSTEREINTRAGUNG VORBEHALTEN.

COPYING OF THIS DOCUMENT AND GIVING IT TO OTHERS AND THE USE OR COMMUNICATION OF THE CONTENTS THEREFORE ARE FORBIDDEN WITHOUT EXPRESS AUTHORITY. OFFENDERS ARE LIABLE TO THE PAYMENT OF DAMAGES. ALL RIGHTS ARE RESERVED IN THE EVENT OF THE GRANT OF PATENT OR THE REGISTRATION OF A UTILITY MODEL OR DESIGN.

Pos.-Nr. aus Preisliste
Pos.-Nr. of pricelist

xx Ersatzteil zur Bevorratung
Spare part for stock



POLYFEX 2000
Hochdruck-Dosierpistole
High-Pressure Spray Gun

POLYFEX
INDUSTRIAL BUFFING SYSTEMS

OESESTR. 68
58675 HEMER
TEL.: +49 2372 5579982
INFO@POLYFEX.DE
WWW.POLYFEX.DE

Polyfex 2000

Hochdruck - Dosierpistole
High-Pressure Spray Gun



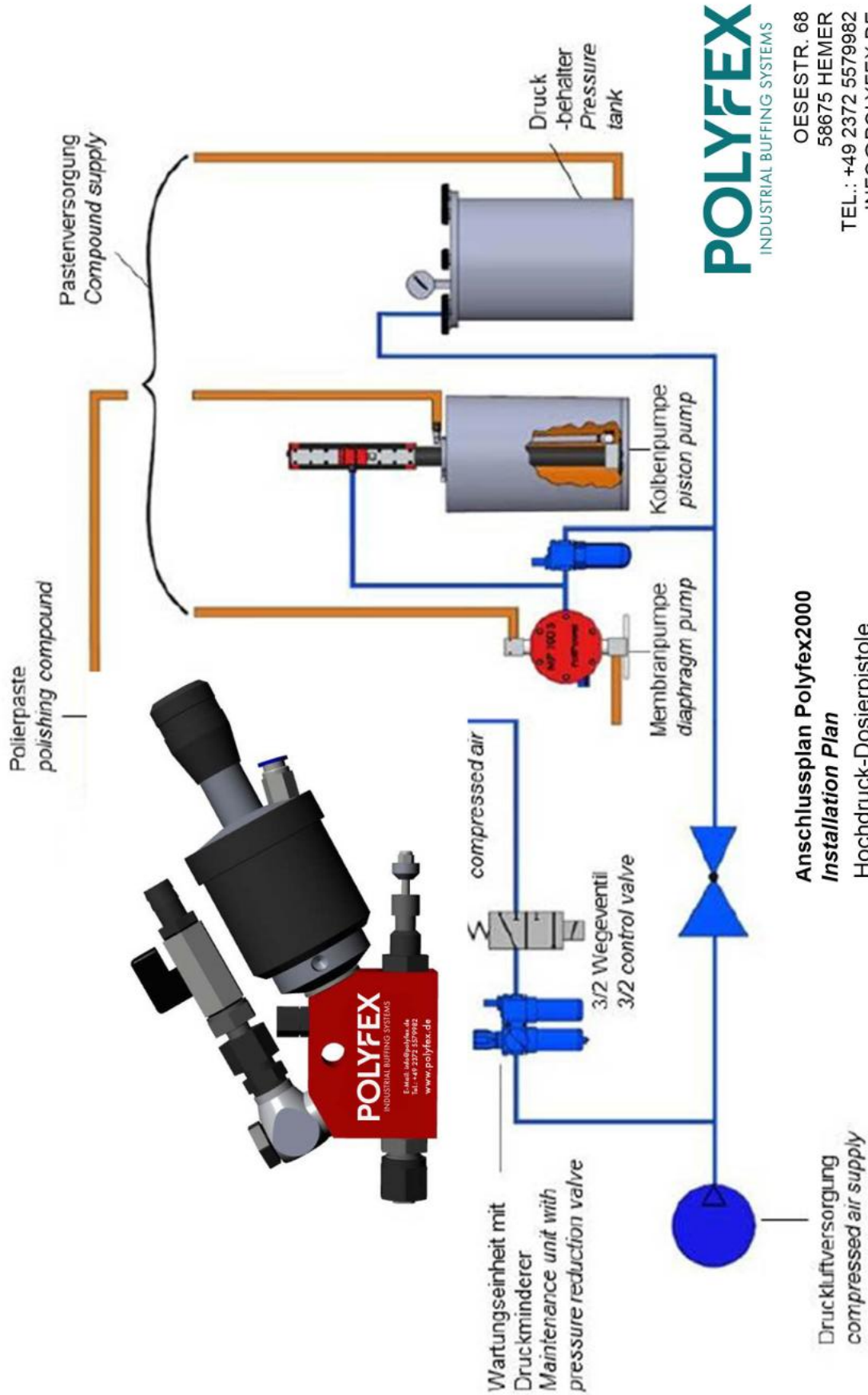
POLYFEX
INDUSTRIAL BUFFING SYSTEMS

Oesestr. 68
58675 Hemer
Tel.: +49 2372 5579982
info@polyfex.de
www.polyfex.de

Pos.-Nr. Pos.-No.	Artikel-Bezeichnung Article description	Teile-Nr. Part-No.
1	Gehäuse / Body	2000 - 01
2	Überwurfmutter / Retaining nut	2000 - 02
3	Düse / Nozzle	2000 - 03
4	Ventilsitz / Valve seat	2000 - 04
5	Stutzen / Insert assembly	2000 - 05
6	Ventilnadel / Needle valve	2000 - 06
7	Führungsbuchse / Guide bushing	2000 - 07
8	Nutring / Cup seal	2000 - 08
9	O-Ring	2000 - 09
10	Anschlagring / Collar	2000 - 10
11	Druckfeder / Compression spring	2000 - 11
12	Federteller / Spring plate	2000 - 12
13	Nippel / Threaded bushing	2000 - 13
14	Druckschraube / Compression screw	2000 - 14
15	Rändelmutter / Knurled nut	2000 - 15
16	Sechskantmutter / Hexagon nut	2000 - 16
18	Nutring / Cup seal	2000 - 18
19	Usitring / Usit sealing ring	2000 - 19
22	Stößel / Plunger	2000 - 22
24	Senkschraube / Countersunk screw	2000 - 24
25	Flachdichtung für Kolben / Sealing ring for piston assembly	2000 - 25
29	O-Ring	2000 - 29
35	Gewindestift / Grub screw	2000 - 35
38	Schwenkverschraubung / Banjo connection	2000 - 38
39	Stutzen / Connection piece	2000 - 39
40	Dichtring / Sealing ring	2000 - 40
41	Absperrhahn / Stop cock	2000 - 41
42	Schlauchtülle / Hose connection	2000 - 42
43	Rückschlagventil / Check valve assembly	2000 - 43
44	Entlüftung komplett / Bleed valve assembly	2000 - 44
59	Zylinderflansch / Cylinder flange	2000 - 59
60	Zylinder / Cylinder	2000 - 60
62	Abstreifring / Strip ring	2000 - 62
63	Druckfeder / Compression spring	2000 - 63
66	Regulierspindel / Spindle	2000 - 66
67	Zylinderdeckel / Cylinder cover	2000 - 67
68	Überwurfmutter / Retaining nut	2000 - 68
69	Regulierknopf / Knurled knob	2000 - 69
70	Senkkopfschraube / Flat head screw	2000 - 70
74	O-Ring	2000 - 74
75	Kolben / Piston assembly	2000 - 75
94	Luftanschluß / Air-Connection 1/8"-8/6	2000 - 94
	Polyfex 2000	2000 - 00
	kompl. ohne Düse / compl. without nozzle	

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESER UNTERLAGE, VERWERTUNG UND MITTEILUNG IHRES INHALTS NICHT GESTATTET, SOWEIT NICHT AUSDRÜCKLICH ZUGESTANDEN. ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FÜR DEN FALL DER PATENT-, GEBRAUCHSMUSTEREINTRAGUNG VORBEHALTEN.

COPYING OF THIS DOCUMENT AND GIVING IT TO OTHERS AND THE USE OR COMMUNICATION OF THE CONTENTS THEREFORE ARE FORBIDDEN WITHOUT EXPRESS AUTHORITY. OFFENDERS ARE LIABLE TO THE PAYMENT OF DAMAGES. ALL RIGHTS ARE RESERVED IN THE EVENT OF THE GRANT OF PATENT OR THE REGISTRATION OF A UTILITY MODEL OR DESIGN.



POLYFEX
INDUSTRIAL BUFFING SYSTEMS

OESESTR. 68
58675 HEMER
TEL.: +49 2372 5579982
INFO@POLYFEX.DE
WWW.POLYFEX.DE

Anschlussplan Polyfex2000
Installation Plan
Hochdruck-Dosierpistole
High-Pressure Spray Gun