POLYFEX
INDUSTRIAL BUFFING SYSTEMS

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Polyfex 3000

Product description



The Polyfex 3000 is a high-pressure dosing gun specifically for applying abrasive media. It is used, for example, in polishing machines.

The functional principle corresponds to the high-pressure dosing gun HDP-II and PoliSpray 2 with OW head 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
- equipment with a disposable spray head („OW head“), thereby 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 quantity:	0,7 – 2,8 cm³

⚠ 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.



On the pistol body, there is a through hole Ø 12 mm for mounting.



For the 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 is to be positioned as close as possible to the gun.



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

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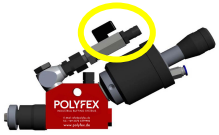
Commissioning

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!



To bleed the OW head, insert a screwdriver into the gap between the nozzle nut and the injection head and push the nozzle nut forward until all the air has escaped. For detailed description, see also the OW head test instruction.



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 nozzle nut, remove the nozzle and clean or replace it

- OW-Head defective
  ⇒ OW-Head must be 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

  If Medium now sprays 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.

OW-Head leaking

- Drops from the nozzle,
- Material comes out of the vent holes
  ⇒ The OW-head must be replaced.

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

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

  Attention: Be sure to pay attention to the installation position of the rod seal!

- Plunger (22) defective or jammed
  ⇒ Expansion of the plunger
  1. remove the cylinder cover (67) by loosening the retaining nut (68)
  2. pull out the piston (75)
  3. separate 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 number
OW-Heas	97	3000 - 97
Cup seal	18	3000 - 18
Compression spring	63	3000 - 63
Plunger	22	3000 - 22
Sealing ring for piston assembly	25	3000 - 25
Check valve assembly	43	3000 - 43

Safety Instructions

The following instructions must be observed 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 commissioning 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 agent manufacturer

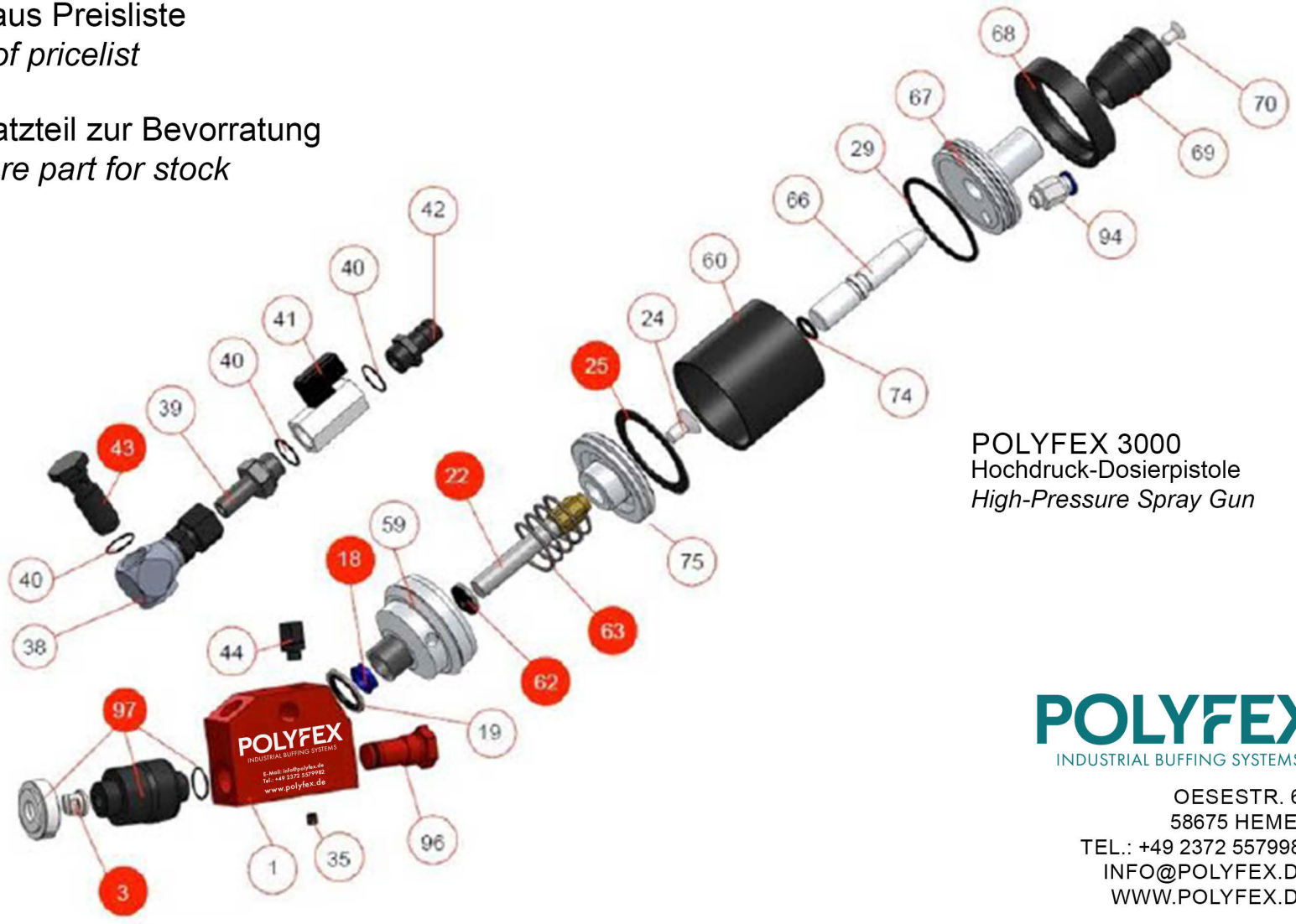
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Pos.-Nr. aus Preisliste
Pos.-Nr. of pricelist

xx Ersatzteil zur Bevorratung
Spare part for stock



POLYFEX 3000
Hochdruck-Dosierpistole
High-Pressure Spray Gun

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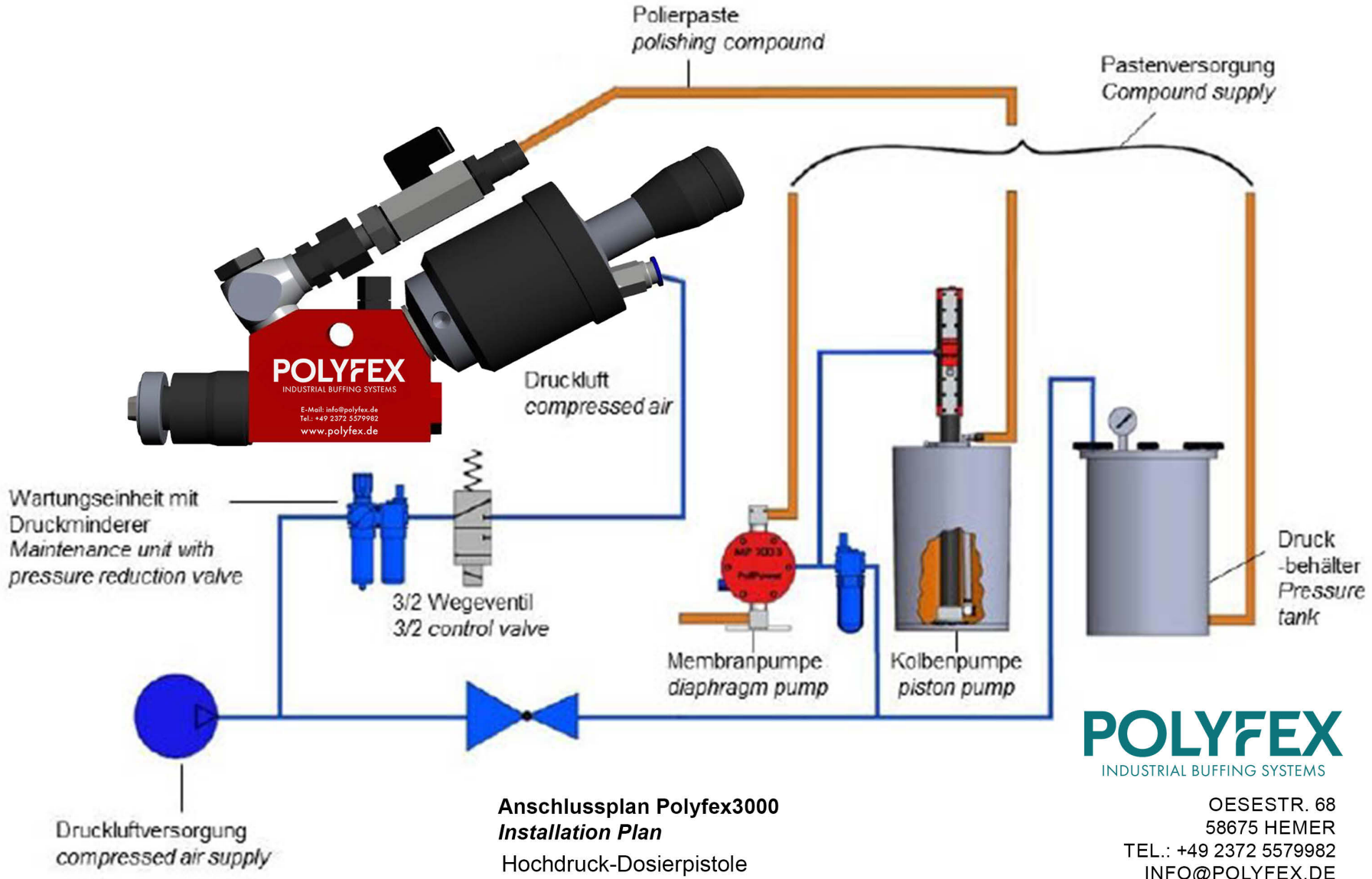
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Pos.-Nr. Pos.-No.	**Artikel-Bezeichnung** Article description	**Teile-Nr.** Part-No.
1	Gehäuse / Body	3000 - 01
3	Düse / Nozzle	3000 - 03
18	Nutring / Cup seal	3000 - 18
19	Usitring / Usit sealing ring	3000 - 19
22	Stößel / Plunger	3000 - 22
24	Senkschraube / Countersunk screw	3000 - 24
25	Flachdichtung für Kolben / Sealing ring for piston asse	3000 - 25
29	O-Ring	3000 - 29
38	Schwenkverschraubung / Banjo connection	3000 - 38
39	Stutzen / Connection piece	3000 - 39
40	Dichtring / Sealing ring	3000 - 40
41	Absperrhahn / Stop cock	3000 - 41
42	Schlauchtülle / Hose connection	3000 - 42
43	Rückschlagventil / Check valve assembly	3000 - 43
44	Entlüftung komplett / Bleed valve assembly	3000 - 44
59	Zylinderflansch / Cylinder flange	3000 - 59
62	Abstreifring / Strip ring	3000 - 62
63	Druckfeder / Compression spring	3000 - 63
66	Regulierspindel / Spindle	3000 - 66
67	Zylinderdeckel / Cylinder cover	3000 - 67
60	Zylinder / Cylinder	3000 - 60
68	Überwurfmutter / Retaining nut	3000 - 68
69	Regulierknopf / Knurled knob	3000 - 69
70	Senkkopfschraube / Flat head screw	3000 - 70
72	Dichtung / Sealing ring 1/8"	3000 - 72
74	O-Ring	3000 - 74
75	Kolben / Piston assembly	3000 - 75
94	Luftanschluß / Air-Connection 1/8"-8/6	3000 - 94
96	Stopfen / Plug f. Polyfex 2000 (System HDP)	3000 - 96
97	OW-Ausspritzkopf / OW-Head	3000 - 97
	Polyfex 3000	
	kompl. ohne Düse / compl. without nozzle	**3000 - 00**

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Anschlussplan Polyfex3000
Installation Plan

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