

## Commissioning and Maintenance Manual



### Complete Spare Parts Catalog Elevators

Lift Control Valve, Oil-Immersed Power Unit, Plunger Telescopic and Pulling Cylinder

---

Published by

**Bucher Hydraulics AG**  
Industriestrasse 15  
CH-6345 Neuheim

Phone +41 41 757 03 33  
Email [info.ch@bucherhydraulics.com](mailto:info.ch@bucherhydraulics.com)  
Internet [www.bucherhydraulics.com](http://www.bucherhydraulics.com)

---

Classification: 420.245.

© 2024 by Bucher Hydraulics AG, CH-6345 Neuheim

All rights reserved. This documentation, in whole and/or in part, is protected by copyright. It may not be reproduced, nor may it be stored, processed, replicated or distributed by electronic means, without written permission from Bucher Hydraulics.

Data is provided for the purpose of product description only, and must not be construed as warranted characteristics in the legal sense. No assertion regarding either a particular property or the fitness for a particular intended purpose can be derived or deduced from this information. The information does not relieve users from the duty of conducting their own evaluations and tests.

Because the products are subject to continual improvement, we reserve the right to amend the product specifications contained in this catalogue. The original language and legal terminology of all Bucher Hydraulics documentation is exclusively German. Bucher Hydraulics cannot be held liable for any possible errors in translation.

**Contents**

Page

**Lift Control Valves**

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Lift Control Valve Type series iValve / VF-iValve</b> ..... | <b>6</b>  |
| 1.1      | iValve-i250 .....  | 6         |
| 1.2      | iValve-i500 .....  | 8         |
| 1.3      | VF-iValve-i250 .....   | 10        |
| 1.4      | VF-iValve-i500 .....   | 12        |
| 1.5      | Electronic .....   | 14        |
| 1.6      | iValve – i250 Spare parts kit .....                            | 16        |
| <b>2</b> | <b>Lift Control Valve series LRV / LRV...PM / VF-LRV</b> ..... | <b>18</b> |
| 2.1      | LRV .....  | 18        |
| 2.2      | LRV Pilot plate .....  | 20        |
| 2.3      | LRV Seal kits .....  | 22        |
| 2.4      | LRV...PM .....   | 24        |
| 2.5      | LRV...PM Pilot plate .....                                     | 26        |
| 2.6      | LRV...PM Seal kits .....                                       | 27        |
| 2.7      | VF-LRV .....   | 28        |
| 2.8      | VF-LRV Pilot plate .....                                       | 30        |
| 2.9      | VF-LRV Seal kits .....   | 31        |
| 2.10     | LRV / LRV...PM Electronic .....                                | 32        |
| 2.11     | VF-LRV Electronic .....  | 34        |
| 2.12     | LRV Spare parts kit .....                                      | 36        |
| 2.13     | VF-LRV Spare parts kit .....                                   | 37        |
| <b>3</b> | <b>Safety valve series DSV-A3</b> .....                        | <b>38</b> |
| 3.1      | DSV 175-A3 .....   | 38        |
| 3.2      | DSV 350-A3 .....   | 39        |
| 3.3      | DSV 350-A3 .....   | 40        |
| <b>4</b> | <b>Pipe-Rupture Valve series RSG</b> .....                     | <b>41</b> |
| 4.1      | RSG 55 / 70 / 90 .....   | 41        |

**Oil-Immersed Power Units**

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Electric motor</b> .....                                  | <b>44</b> |
| 1.1      | Saturn Beta .....  | 44        |
| 1.2      | Saturn Alpha .....   | 46        |
| 1.2.1    | Magnetic ring & sensor .....                                 | 47        |
| 1.2.2    | Mounting plate .....   | 47        |
| 1.3      | Orion Alpha .....  | 48        |
| 1.3.1    | Mounting plate .....   | 48        |
| <b>2</b> | <b>Main pumps</b> .....                                      | <b>50</b> |
| 2.1      | Saturn Beta / Comfort Line .....                             | 50        |
| 2.2      | Saturn / Orion Alpha / Eco Line .....                        | 52        |
| <b>3</b> | <b>Pulsation damper</b> .....                                | <b>54</b> |
| 3.1      | Pulsation damper standard .....                              | 54        |
| 3.2      | Pulsation damper VF-LRV .....                                | 56        |
| <b>4</b> | <b>Soft starter / Output unit / Frequency inverter</b> ..... | <b>58</b> |
| 4.1      | Soft starter complete incl. connection box .....             | 58        |
| 4.2      | Soft starter without housing .....                           | 58        |
| 4.3      | Output unit .....  | 59        |
| 4.4      | Soft starter to output unit .....                            | 59        |
| 4.5      | Frequency inverter .....                                     | 60        |
| 4.5.1    | Exchange .....   | 61        |
| 4.5.2    | Accessories .....  | 61        |
| 4.5.3    | Braking resistor .....                                       | 62        |
| 4.5.4    | RFI mains filter .....                                       | 64        |
| 4.5.5    | Power choke .....  | 65        |
| <b>5</b> | <b>Relevelling unit</b> .....                                | <b>66</b> |
| 5.1      | Motor for relevelling .....                                  | 66        |
| 5.2      | Cover for relevelling .....                                  | 67        |
| 5.3      | Basic setup plus hydraulic pipe .....                        | 68        |
| <b>6</b> | <b>Oil filler neck plus bleed screw</b> .....                | <b>69</b> |
| <b>7</b> | <b>Return</b> .....  | <b>70</b> |
| 7.1      | Return hose 1" .....   | 70        |
| 7.2      | Return hose 1½" .....  | 70        |
| 7.3      | Return hose 2" .....   | 71        |
| <b>8</b> | <b>Heating</b> .....   | <b>72</b> |
| <b>9</b> | <b>Cooler connections</b> .....                              | <b>74</b> |

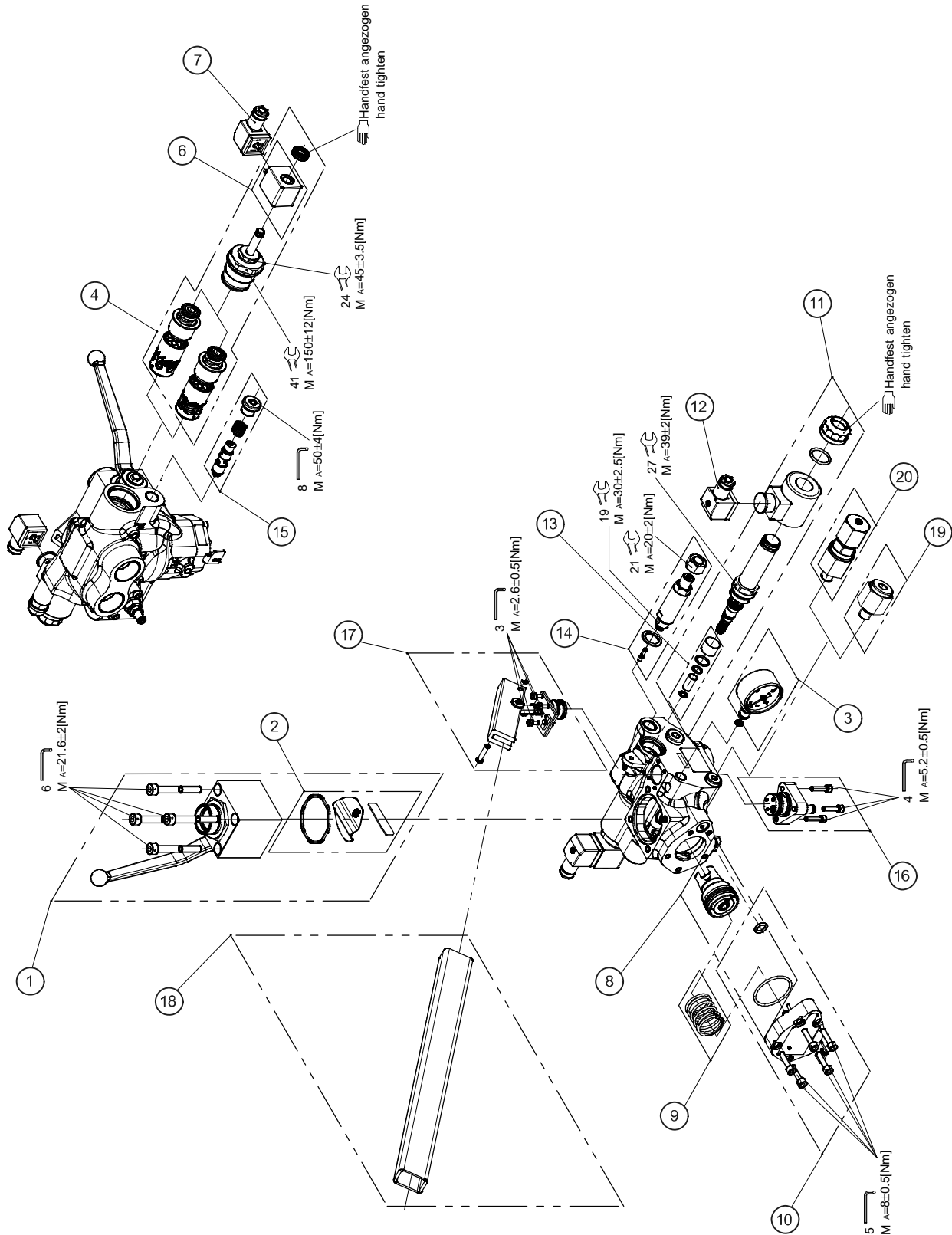
**Plunger, Telescopic- and Pulling Cylinder**

|          |  |            |
|----------|--|------------|
| <b>1</b> | <b>Plunger cylinder</b> .....          | <b>76</b>  |
| 1.1      | Type series BZH – BZG .....            | 76         |
| 1.1.1    | Seal Kit .....                         | 76         |
| 1.1.2    | Guide bush with rod seal complet ..... | 77         |
| 1.1.3    | Accessories .....                      | 77         |
| 1.2      | Type series BZML – BZML .....          | 78         |
| 1.2.1    | Seal Kit .....                         | 78         |
| 1.2.2    | Accessories .....                      | 79         |
| 1.3      | Type series BZP .....                  | 80         |
| 1.3.1    | Seal Kit .....                         | 80         |
| 1.4      | Type series BZE .....                  | 82         |
| 1.4.1    | Seal Kit .....                         | 82         |
| 1.5      | Type series BZO .....                  | 84         |
| 1.5.1    | Seal Kit .....                         | 84         |
| 1.6      | Type series BZK .....                  | 85         |
| 1.6.1    | Guide bush with rod seal complet ..... | 85         |
| 1.7      | Type series BZC .....                  | 86         |
| 1.7.1    | Seal Kit .....                         | 86         |
| 1.8      | Type series BZB .....                  | 87         |
| 1.8.1    | Seal Kit .....                         | 87         |
| 1.9      | Type series BZA .....                  | 88         |
| 1.9.1    | Seal Kit .....                         | 88         |
| 1.10     | Type series LZ .....                   | 89         |
| 1.10.1   | Seal Kit .....                         | 89         |
| <b>2</b> | <b>Telescopic cylinder</b> .....       | <b>90</b>  |
| 2.1      | Type series BGLZ .....                 | 90         |
| 2.1.1    | Seal kit / external 2-stage .....      | 90         |
| 2.1.2    | Seal kit / internal 2-stage .....      | 92         |
| 2.1.3    | Check valve .....                      | 93         |
| 2.1.4    | Accessories .....                      | 93         |
| 2.1.5    | Seal kit / external 3-stage .....      | 94         |
| 2.1.6    | Seal kit / internal 3-stage .....      | 96         |
| 2.1.7    | Check valve .....                      | 97         |
| 2.1.8    | Accessories .....                      | 98         |
| 2.2      | Type series BZBGL .....                | 100        |
| 2.2.1    | Seal kit / external 2-stage .....      | 100        |
| 2.2.2    | Seal kit / internal 2-stage .....      | 102        |
| 2.2.3    | Check valve .....                      | 103        |
| 2.2.4    | Seal kit / external 3-stage .....      | 104        |
| 2.2.5    | Seal kit / internal 3-stage .....      | 106        |
| 2.2.6    | Check valve .....                      | 107        |
| <b>3</b> | <b>Pulling cylinder</b> .....          | <b>108</b> |
| 3.1      | Type series BZZ .....                  | 108        |

# 1 Lift Control Valve Type series iValve / VF-iValve

## 1.1 iValve-i250

Release 2.3 - Type series off 1702-02179

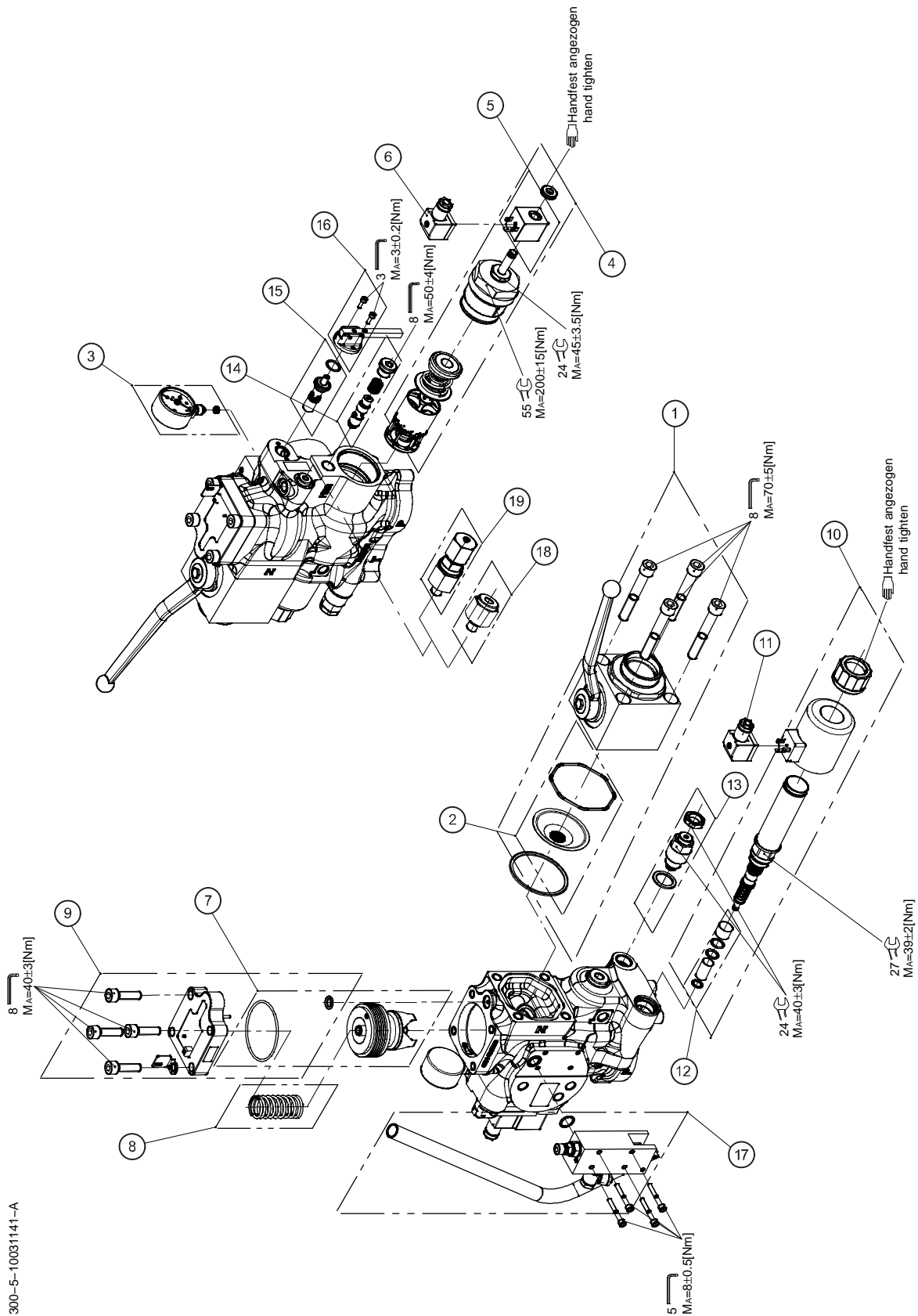


300-5-10028490-D

| Item | Part No.    | Description               | Type            | Dimension        |
|------|-------------|---------------------------|-----------------|------------------|
| 1    | 3007021108  | Ball valve and filter     | i250 / VF-i250  | 28 L             |
| 2    | 3007021107  | Main filter               | i250 / VF-i250  |                  |
| 3    | 3007021109  | Pressure gauge            | 0-160 Bar       | NG50             |
| 4    | 3007022839  | Main spool incl. A3 pilot | i250            | 160 l/min        |
| 4    | 3007022840  | Main spool incl. A3 pilot | i250            | 250 l/min        |
| 6    | 3007021255  | Solenoid coil             | A3 Pilot        | 24 V DC / 13.5 W |
| 7    | 3000040503+ | Solenoid plug             | black           |                  |
| 8    | 3007022763  | RSVQ piston               | i250 / VF-i250  |                  |
| 9    | 3007021257  | Compression spring        | RSVQ i250       |                  |
| 10   | 3007023575  | iBox                      | i250            | 160 l/min        |
| 10   | 3007023576  | iBox                      | i250            | 250 l/min        |
| 11   | 3007021238  | Pilot valve with solenoid | i250            |                  |
| 12   | 3000040504+ | Solenoid plug             | grey            |                  |
| 13   | 3007021239  | Pilot filter set          | i250            |                  |
| 14   | 3007021261  | Pressure relief valve     | i250            |                  |
| 15   | 3007021234  | Directional valve         | i250 / VF- i250 |                  |
| 16   | 3007021114  | Hand pump operation       | i250 / VF-i250  |                  |
| 17   | 3007021115  | Hand pump piston          | i250 / VF-i250  |                  |
| 18   | 3007021113  | Hand pump lever           | i250 / VF-i250  |                  |
| 19   | 3007021614  | Test connection           |                 | G ½"             |
| 20   | 3007021615  | Test nipple               |                 | M20 x 1.5        |

## 1.2 iValve-i500

Release 2.1 - Type series off 2202-01435



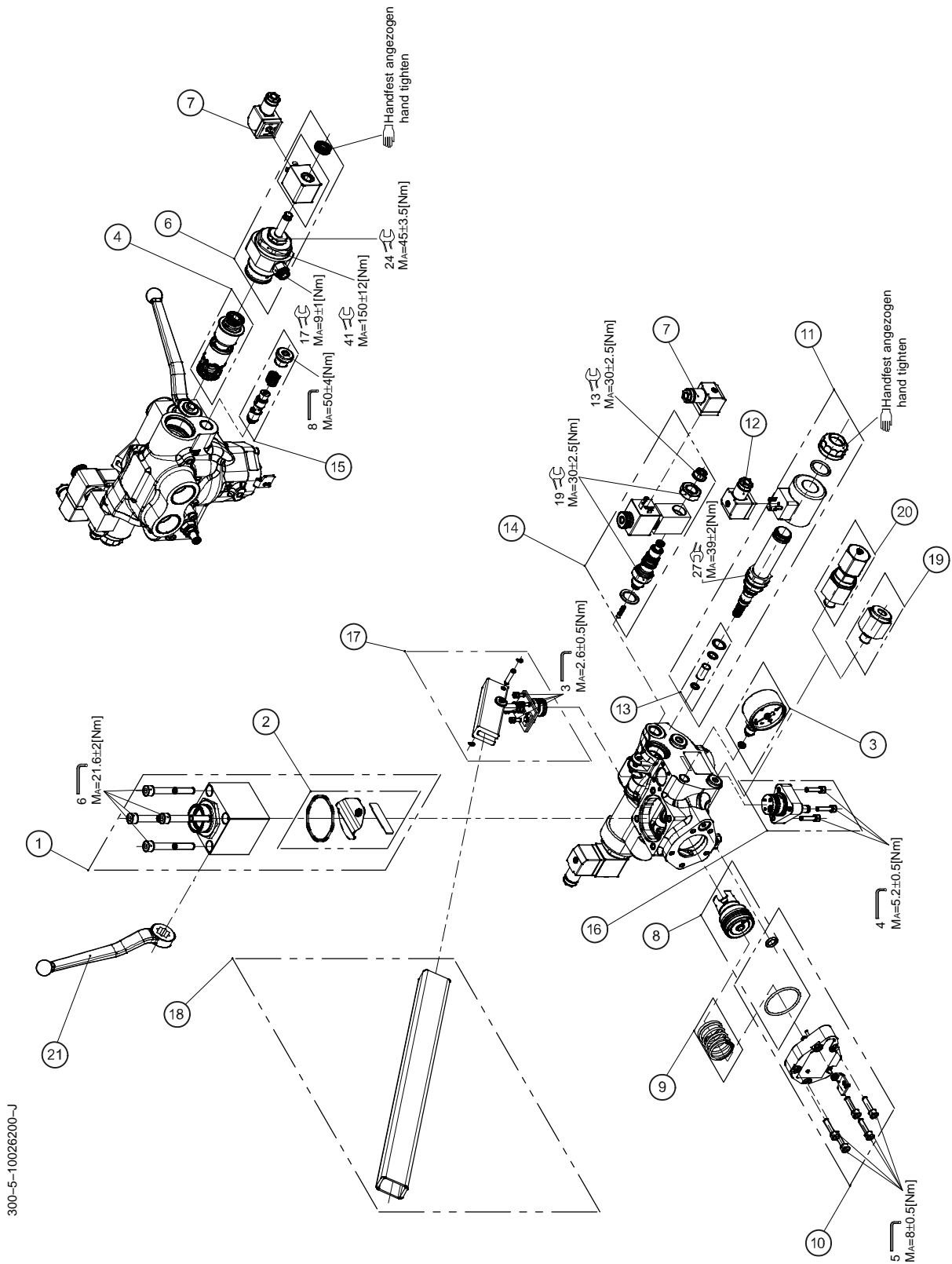
300-5-10031141-A



| Item | Part No.    | Description                  | Type           | Dimension        |
|------|-------------|------------------------------|----------------|------------------|
| 1    | 3007021246  | Ball valve and filter        | i500 / VF-i500 | 42 L             |
| 2    | 3007021245  | Main filter                  | i500 / VF-i500 |                  |
| 3    | 3007021109  | Pressure gauge               | 0-160 bar      | NG50             |
| 4    | 3007023453  | Main spool incl. pilot A3    | i500           | 500 l/min        |
| 5    | 3007021255  | Solenoid coil                | A3 Pilot       | 24 V DC / 13.5 W |
| 6    | 3000040503+ | Solenoid plug                | black          |                  |
| 7    | 3007021251  | RSVQ piston                  | i500 / VF-i500 |                  |
| 8    | 3007021256  | Compression spring           | RSVQ i500      |                  |
| 9    | 3007023578  | iBox                         | i500           |                  |
| 10   | 3007022128  | Pilot valve with solenoid    | i500           |                  |
| 11   | 3000040504+ | Solenoid plug                | grey           |                  |
| 12   | 3007021249  | Pilot filter set             | i500           |                  |
| 13   | 3007021248  | Pressure relief valve        | i500           |                  |
| 14   | 3007021242  | Directional valve            | i500 / VF-i500 |                  |
| 15   | 3007010142  | Cartridge emergency lowering | i500 / VF-i500 |                  |
| 16   | 3007010141  | Retainer emergency lowering  | i500 / VF-i500 |                  |
| 17   | 3007018192+ | Hand pump                    | i500 / VF-i500 |                  |
| 18   | 3007021614  | Test connection              |                | G ½"             |
| 19   | 3007021615  | Test nipple                  |                | M20 x 1.5        |

### 1.3 VF-iValve-i250

Release 1.2 - Type series off 1502-01768

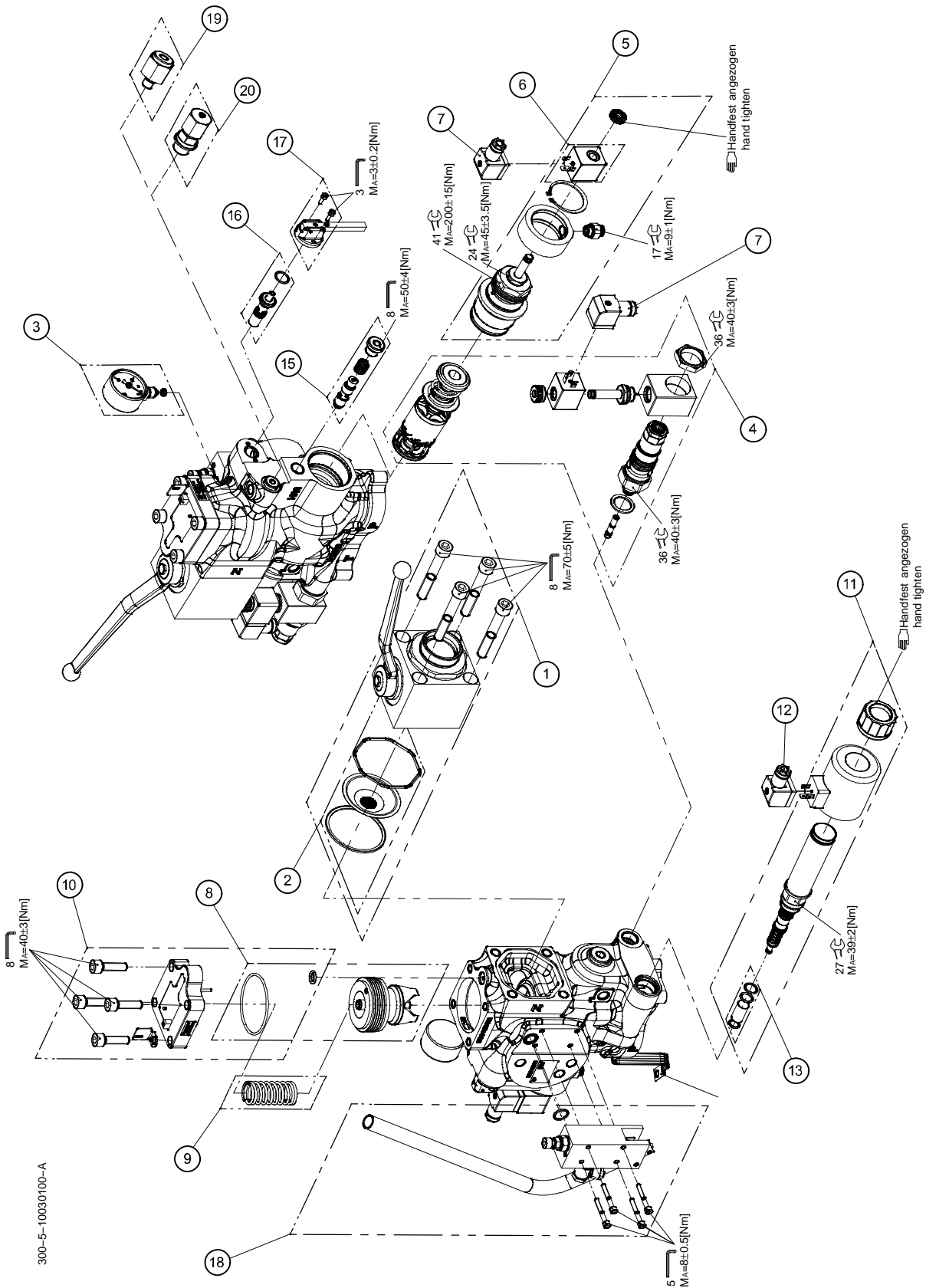


300-5-10026200-J

| Item | Part No.    | Description               | Type                      | Dimension        |
|------|-------------|---------------------------|---------------------------|------------------|
| 1    | 3007021108  | Ball valve and filter     | i250 / VF-i250            | 28 L             |
| 2    | 3007021107  | Main filter               | i250 / VF-i250            |                  |
| 3    | 3007021109  | Pressure gauge            | 0-160 Bar                 | NG50             |
| 4    | 3007022741  | Main spool                | VF-i250                   | 250 l/min        |
| 6    | 3007021236  | Valve cartridge pilot A3  | VF-i250                   | 24 V DC / 13.5 W |
| 7    | 3000040503+ | Solenoid plug             | black                     |                  |
| 8    | 3007022763  | RSVQ piston               | i250 / VF-i250            |                  |
| 9    | 3007021257  | Compression spring        | RSVQ i250                 |                  |
| 10   | 3007023577  | iBox                      | VF-i250                   |                  |
| 11   | 3007021974  | Pilot valve with solenoid | VF-i250                   |                  |
| 12   | 3000040504+ | Solenoid plug             | grey                      |                  |
| 13   | 3007021975  | Pilot filter set          | VF-i250                   |                  |
| 14   | 3007021237  | Pressure relief valve     | Emergency stop<br>VF-i250 | 24 V DC / 17 W   |
| 15   | 3007021234  | Directional valve         | i250 / VF-i250            |                  |
| 16   | 3007021114  | Hand pump operation       | i250 / VF-i250            |                  |
| 17   | 3007021115  | Hand pump piston          | i250 / VF-i250            |                  |
| 18   | 3007021113  | Hand pump lever           | i250 / VF-i250            |                  |
| 19   | 3007021614  | Test connection           |                           | G 1/2"           |
| 20   | 3007021615  | Test nipple               |                           | M20 x 1.5        |

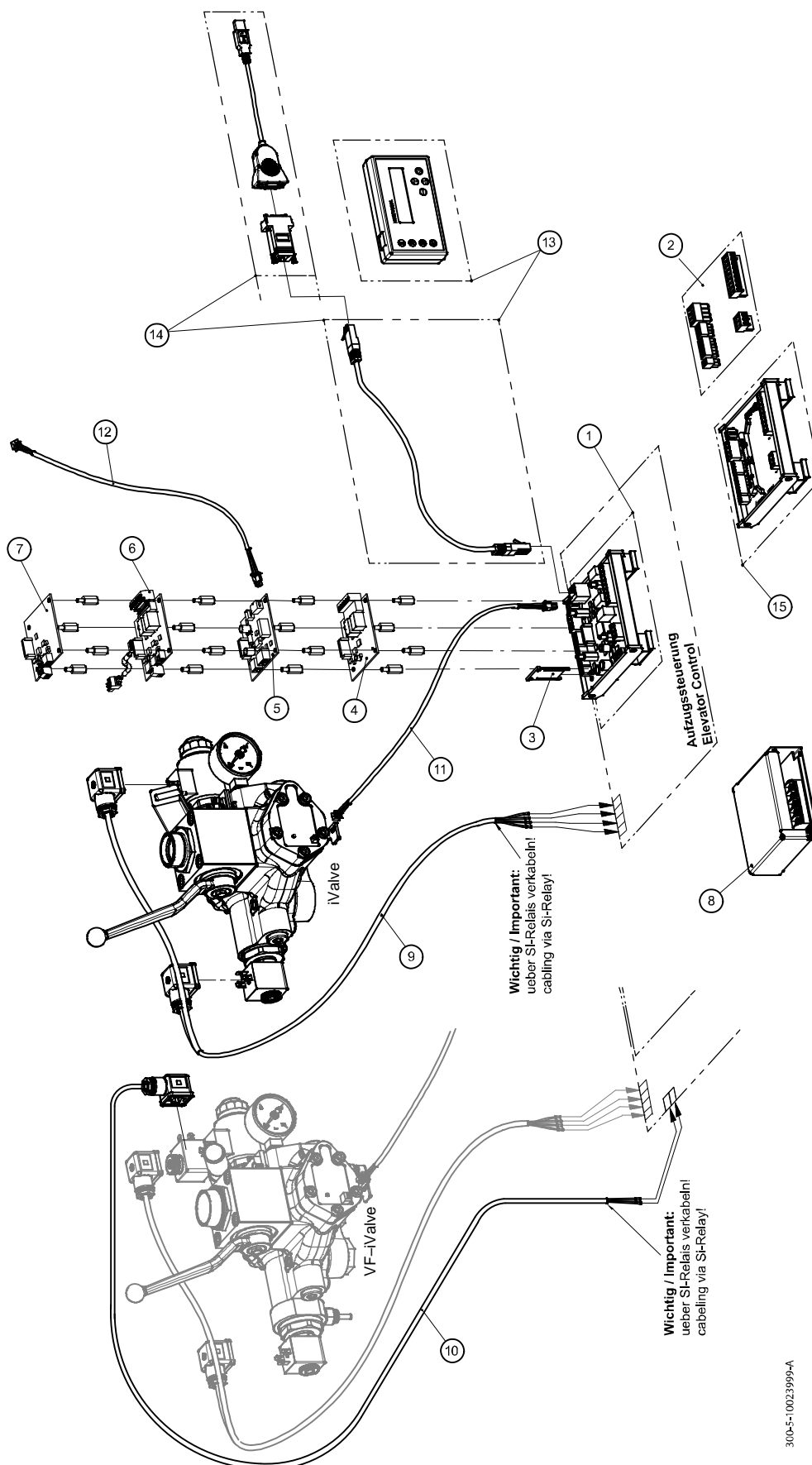
1.4 VF-iValve-i500

Release 1.1 - Type series off 1910-09070



| Item | Part No.    | Description                          | Type           | Dimension        |
|------|-------------|--------------------------------------|----------------|------------------|
| 1    | 3007021246  | Ball valve and filter                | i500 / VF-i500 | 42 L             |
| 2    | 3007021245  | Main filter                          | i500 / VF-i500 |                  |
| 3    | 3007021109  | Pressure gauge                       | 0-160 bar      | NG50             |
| 4    | 3007023344  | Main spool and pressure relief valve | VF-i500        |                  |
| 5    | 3007021685  | A3 Unlocking pilot complete          | VF-i500        |                  |
| 6    | 3007021255  | Solenoid coil                        | A3 Pilot       | 24 V DC / 13.5 W |
| 7    | 3000040503+ | Solenoid plug                        | black          |                  |
| 8    | 3007021251  | RSVQ piston                          | i500 / VF-i500 |                  |
| 9    | 3007021256  | Compression spring                   | RSVQ i500      |                  |
| 10   | 3007023579  | iBox                                 | VF-i500        |                  |
| 11   | 3007021987  | Pilot valve with solenoid            | VF-i500        |                  |
| 12   | 3000040504+ | Solenoid plug                        | grey           |                  |
| 13   | 3007021986  | Pilot filter set                     | VF-i500        |                  |
| 15   | 3007021242  | Directional valve                    | i500 / VF-i500 |                  |
| 16   | 3007010142  | Cartridge emergency lowering         | i500 / VF-i500 |                  |
| 17   | 3007010141  | Retainer emergency lowering          | i500 / VF-i500 |                  |
| 18   | 3007018192+ | Hand pump                            | i500 / VF-i500 |                  |
| 19   | 3007021614  | Test connection                      |                | G ½"             |
| 20   | 3007021615  | Test nipple                          |                | M20 x 1.5        |

## 1.5 Electronic



300-S-10023999-A

| Item | Part No.    | Description                               | Type                   | Dimension    |
|------|-------------|---|------------------------|--------------|
| 1    | 3007023384  | Control card                              | iCon-2                 |              |
| 2    | 3007020030+ | Connector set for iCon                    |                        |              |
| 3    | 3007020455+ | ParamCard                                 |                        |              |
| 4    | 3007020445  | Option board additional switching outputs | SO                     |              |
| 5    | 3007020447  | Option board VF                           | VF                     |              |
| 6    | 3007022441  | Option board Multi Valve                  | MVS                    |              |
| 7    | 3007023388  | Option board - CAN                        | CAN                    |              |
| 8    | 3007020442+ | Power supply unit Multirange              | i250                   | 24 V / 50 W  |
| 8    | 3007022344+ | Power supply unit Multirange              | i500, VF-i250, VF-i500 | 24 V / 120 W |
| 9    | 3007010472+ | Connection cable                          | standard               | 1.5 m        |
| 9    | 3007018167+ | Connection cable                          | standard               | 6 m          |
| 9    | 3000009002+ | Connection cable                          | standard               | 12 m         |
| 9    | 3007011327+ | Connection cable                          | halogen free           | 6 m          |
| 9    | 3007020467+ | Connection cable                          | halogen free           | 20 m         |
| 10   | 3007011976  | Solenoid cable VF                         | standard               | 1.5 m        |
| 10   | 3000012213  | Solenoid cable VF                         | standard               | 6 m          |
| 10   | 3000012214  | Solenoid cable VF                         | standard               | 12 m         |
| 10   | 3007013023  | Solenoid cable VF                         | halogen free           | 6 m          |
| 10   | 3007010276  | Solenoid cable VF                         | halogen free           | 20 m         |
| 11   | 3007019644+ | iBox cable                                | standard               | 1.5 m        |
| 11   | 3007020460+ | iBox cable                                | standard               | 6 m          |
| 11   | 3007020461+ | iBox cable                                | standard               | 12 m         |
| 11   | 3007020462+ | iBox cable                                | halogen free           | 6 m          |
| 11   | 3007020463+ | iBox cable                                | halogen free           | 20 m         |
| 12   | 3007020468+ | Cable inverter                            | standard               | 6 m          |
| 12   | 3007020469+ | Cable inverter                            | standard               | 12 m         |
| 13   | 3007010231+ | Handterminal with cable                   |                        |              |
| 14   | 3007020027+ | IWin software set                         |                        |              |
| 15   | 3007019906  | iCon Dummy                                |                        |              |

## 1.6 iValve – i250 Spare parts kit

- your spare parts for immediate intervention always at hand
- reduced need for second interventions
- detailed installation instructions

### iValve – i250 Spare parts kit



#### Scope of delivery:

- Main spool complete incl. valve cartridge i250/160
- Main spool complete incl. valve cartridge i250/250
- Hand pump operation complete
- RSVQ piston complete
- Pilot filter complete
- Pilot valve complete incl. solenoid coil
- Directional valve complete
- Software iWin incl. cable and USB adapter

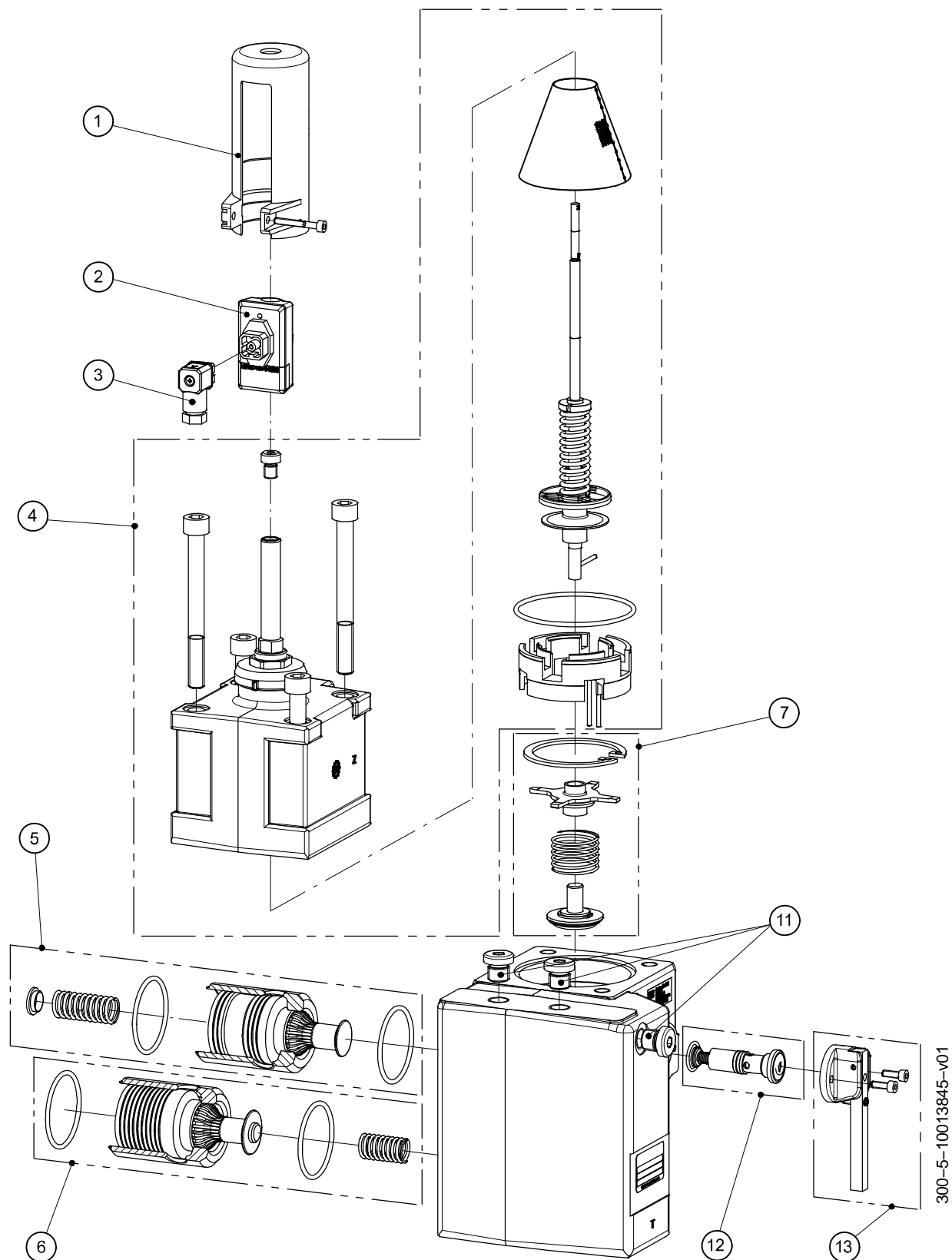
| Item | Part No.   | Description                 | Type        | Dimension |
|------|------------|-----------------------------|-------------|-----------|
| 1    | 3007023336 | iValve Spare parts kit i250 | Spare parts | 1         |





## 2 Lift Control Valve series LRV / LRV...PM / VF-LRV

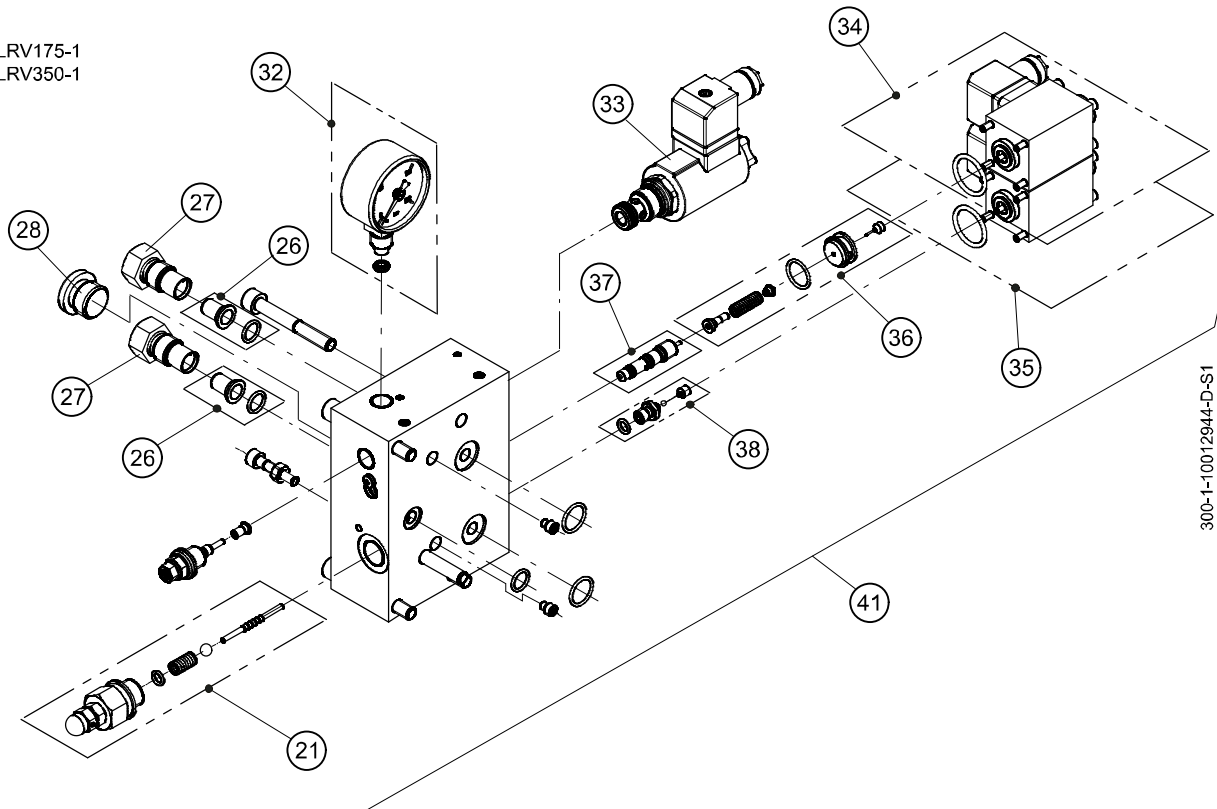
### 2.1 LRV



| Item | Part No.    | Description                                | Type            | Dimension |
|------|-------------|--|-----------------|-----------|
| 1    | 3007010206  | Protection cap with screw                  | 175 / 350 / 700 |           |
| 2    | 3007012009+ | Hall sensor, complete                      | 175 / 350 / 700 |           |
| 3    | 3000009015+ | Feedback cable with plug-in connectors     | 175 / 350 / 700 | 6 m       |
| 3    | 3000009016+ | Feedback cable with plug-in connectors     | 175 / 350 / 700 | 9 m       |
| 3    | 3000009017+ | Feedback cable with plug-in connectors     | 175 / 350 / 700 | 12 m      |
| 3    | 3000009958+ | Feedback cable with plug-in connectors     | 175 / 350 / 700 | 20 m      |
| 4    | 3007017850  | Valve top part (without Hall sensor / cap) | 175             | 45 l      |
| 4    | 3007017851  | Valve top part (without Hall sensor / cap) | 175             | 90 l      |
| 4    | 3007017852  | Valve top part (without Hall sensor / cap) | 175             | 175 l     |
| 4    | 3007017853  | Valve top part (without Hall sensor/ cap)  | 175             | 250 l     |
| 4    | 3007017854  | Valve top part (without Hall sensor / cap) | 350             | 250 l     |
| 4    | 3007017855  | Valve top part (without Hall sensor / cap) | 350             | 350 l     |
| 4    | 3007017856  | Valve top part (without Hall sensor / cap) | 350             | 500 l     |
| 4    | 3007017857  | Valve top part (without Hall sensor / cap) | 700             | 700 l     |
| 4    | 3007017858  | Valve top part (without Hall sensor / cap) | 700             | 1000 l    |
| 5    | 3007011147  | DOWN spool, complete                       | 175             | 90 l      |
| 5    | 3007011148  | DOWN spool, complete                       | 175             | 250 l     |
| 5    | 3007011149  | DOWN spool, complete                       | 350             | 500 l     |
| 5    | 3007011150  | DOWN spool, complete                       | 700             | 1000 l    |
| 6    | 3007011151  | UP spool, complete                         | 175             | 90 l      |
| 6    | 3007011152  | UP spool, complete                         | 175             | 250 l     |
| 6    | 3007011153  | UP spool, complete                         | 350             | 500 l     |
| 6    | 3007011155  | UP spool, complete                         | 700             | 1000 l    |
| 7    | 3000007128  | Check valve, complete                      | 175             |           |
| 7    | 3000007129  | Check valve, complete                      | 350             |           |
| 7    | 3000304512  | Check valve, complete                      | 700             |           |
| 11   | 3000065185  | Plug screw VSTI                            | 175 / 350 / 700 | G ¼ "     |
| 11   | 3000065219  | Plug screw VSTI                            | 700             | G ⅜ "     |
| 12   | 3007010142  | Cartridge emergency-lowering, preloaded    | 175 / 350 / 700 |           |
| 13   | 3007010141  | Emergency lowering handle kit, complete    | 175 / 350 / 700 |           |

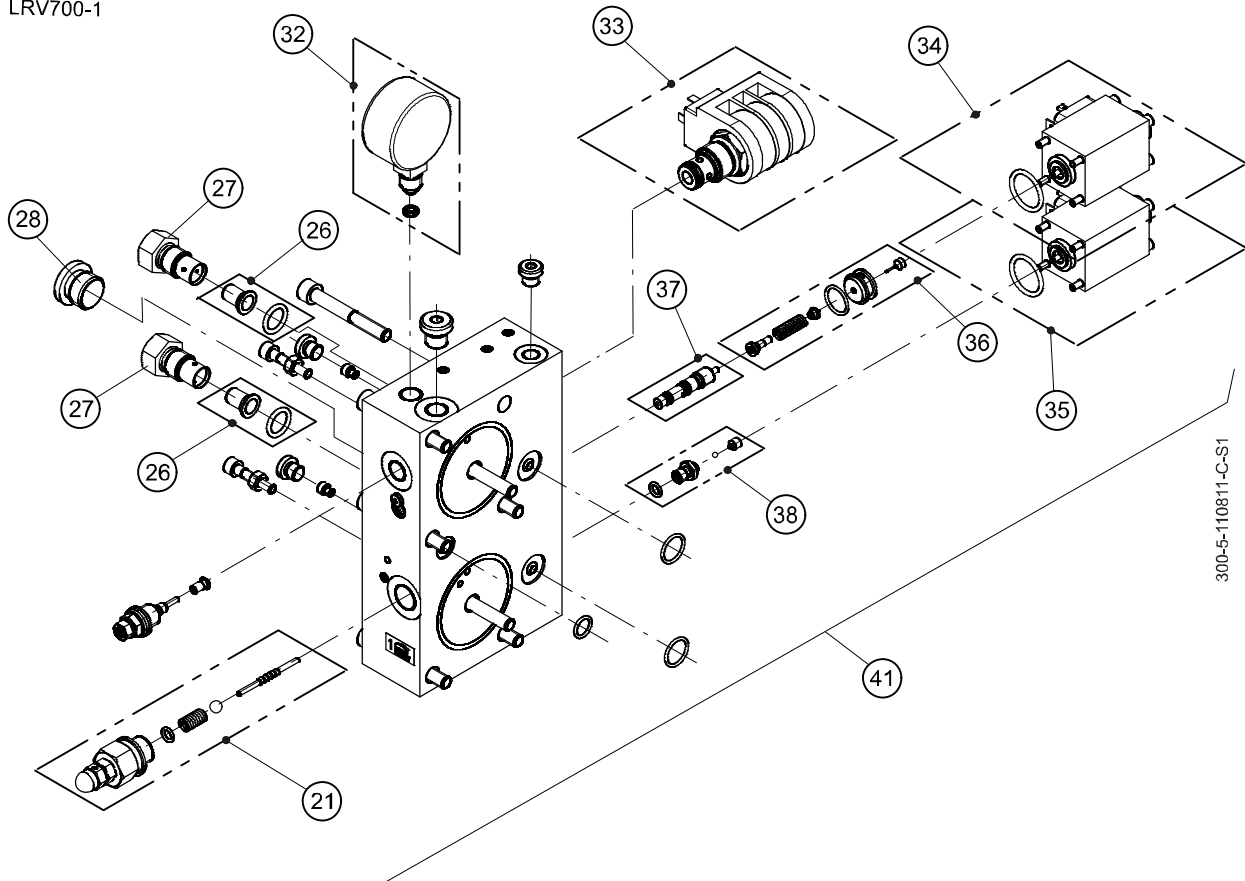
## 2.2 LRV Pilot plate

LRV175-1  
LRV350-1



300-1-10012944-D-S1

LRV700-1



300-5-110811-C-S1

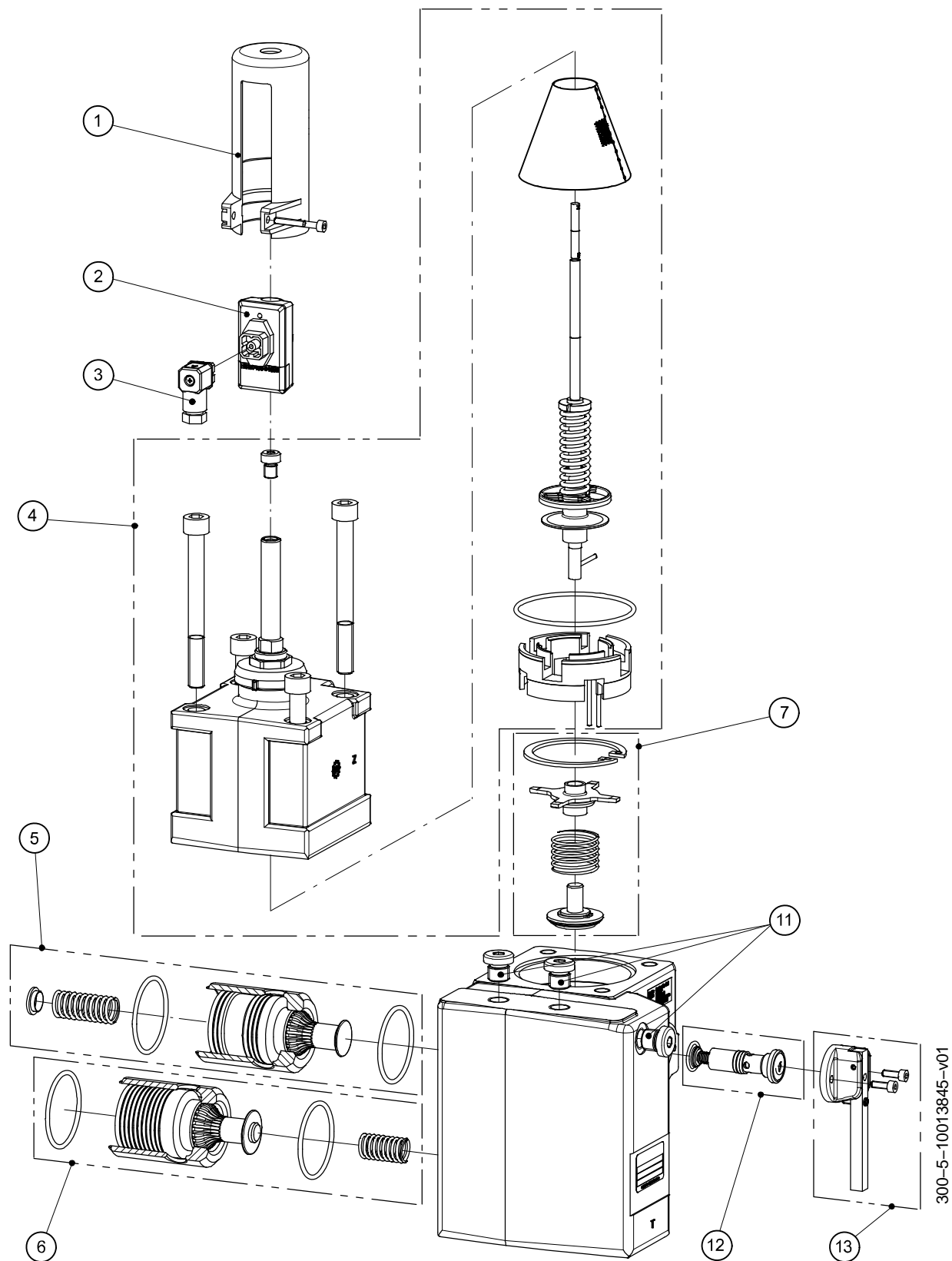
| Item | Part No.    | Description                             | Type            | Dimension  |
|------|-------------|---|-----------------|------------|
| 21   | 3007010140  | Pressure relief valve, complete         | 175 / 350 / 700 |            |
| 26   | 3007010158  | Pilot filter kit                        | 175 / 350 / 700 |            |
| 27   | 3007010195  | Pilot filter screw kit (without filter) | 175 / 350       | 2 Stk.     |
| 27   | 3007010184  | Pilot filter screw kit (without filter) | 700             | 2 Stk.     |
| 28   | 3007010196  | Test nipple complete                    | 175 / 350 / 700 |            |
| 32   | 3007010138  | Pressure gauge complete                 | 175 / 350 / 700 |            |
| 33   | 3007017602  | Electrical emergency lowering valve     | 175 / 350       | 12 V DC    |
| 33   | 3007017603  | Electrical emergency lowering valve     | 175 / 350       | 24 V DC    |
| 33   | 3007018580  | Electrical emergency lowering valve     | 700             | 12 V DC    |
| 33   | 3007018581  | Electrical emergency lowering valve     | 700             | 24 V DC    |
| 34   | 3007010131  | DOWN solenoid, complete (black plug)    | 175 / 350 / 700 |            |
| 35   | 3007010132  | UP solenoid, complete (grey plug)       | 175 / 350 / 700 |            |
| 36   | 3007010143  | DOWN pilot valve, complete              | 175 / 350       |            |
| 36   | 3007010148  | DOWN pilot valve, complete              | 700             |            |
| 37   | 3000007532+ | Adjusting spindle, complete             | 175 / 350       |            |
| 37   | 3000007675+ | Adjusting spindle, complete             | 700             |            |
| 38   | 3007010144  | UP pilot valve, complete                | 175 / 350       |            |
| 38   | 3007010145  | UP pilot valve, complete                | 700             |            |
| 41   | 3007015527  | Pilot plate, complete                   | 175             | EN 00      |
| 41   | 3007015528  | Pilot plate, complete                   | 350             | EN 00      |
| 41   | 3007015529  | Pilot plate, complete                   | 700             | EN 00      |
| 41   | 3007017552  | Pilot plate, complete                   | 175             | EN 12 V DC |
| 41   | 3007017554  | Pilot plate, complete                   | 350             | EN 12 V DC |
| 41   | 3007018933  | Pilot plate, complete                   | 700             | EN 12 V DC |
| 41   | 3007017553  | Pilot plate, complete                   | 175             | EN 24 V DC |
| 41   | 3007017555  | Pilot plate, complete                   | 350             | EN 24 V DC |
| 41   | 3007018934  | Pilot plate, complete                   | 700             | EN 24 V DC |
| 41   | 3007018930  | Pilot plate, complete (120 bar)         | 175             | EN 00      |
| 41   | 3007018931  | Pilot plate, complete (120 bar)         | 175             | EN 12 V DC |
| 41   | 3007018932  | Pilot plate, complete (120 bar)         | 175             | EN 24 V DC |

## 2.3 LRV Seal kits

| Item | Part No.   | Description                               | Type | Dimension |
|------|------------|---|------|-----------|
|      | 3007012334 | Seal kit complete, incl. DOWN pilot valve | 175  |           |
|      | 3007012335 | Seal kit complete, incl. DOWN pilot valve | 350  |           |
|      | 3007012336 | Seal kit complete, incl. DOWN pilot valve | 700  |           |



2.4 LRV...PM

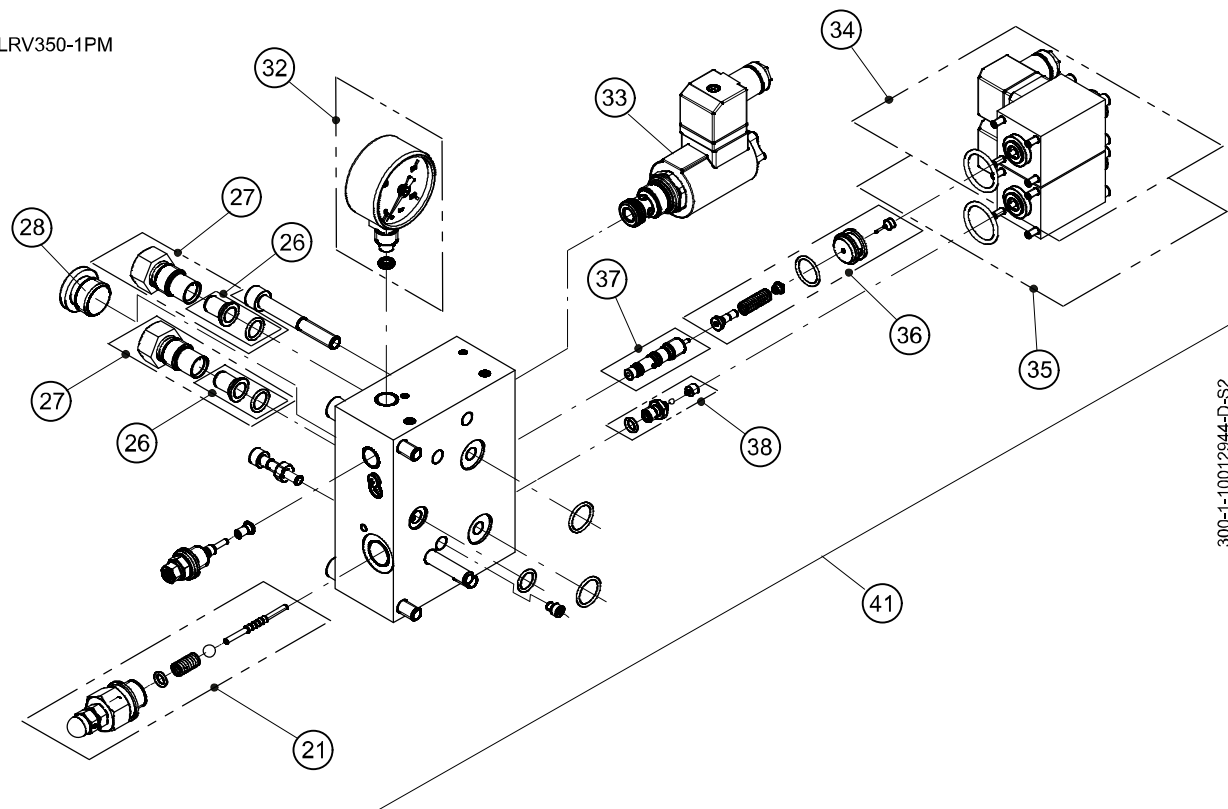




| Item | Part No.    | Description                                      | Type      | Dimension |
|------|-------------|--|-----------|-----------|
| 1    | 3007010206  | Protection cap with screw                        | 350 / 700 |           |
| 2    | 3007012009+ | Hall sensor, complete                            | 350 / 700 |           |
| 3    | 3000009015+ | Feedback cable with plug-in connectors           | 350 / 700 | 6 m       |
| 3    | 3000009016+ | Feedback cable with plug-in connectors           | 350 / 700 | 9 m       |
| 3    | 3000009017+ | Feedback cable with plug-in connectors           | 350 / 700 | 12 m      |
| 3    | 3000009958+ | Feedback cable with plug-in connectors           | 350 / 700 | 20 m      |
| 4    | 3007017856  | Valve top part (without Hall sensor / cap)       | 350 BSP   | 500 l     |
| 4    | 3007018574  | Valve top part (without Hall sensor / cap)       | 350 NPT   | 500 l     |
| 4    | 3007017858  | Valve top part (without Hall sensor / cap)       | 700 BSP   | 1000 l    |
| 4    | 3007018575  | Valve top part (without Hall sensor / cap)       | 700 NPT   | 1000 l    |
| 5    | 3007018576  | UP/DOWN spool, complete                          | 350       | 500 l     |
| 5    | 3007018577  | UP/DOWN spool, complete                          | 700       | 1000 l    |
| 6    | 3007018576  | UP/DOWN spool, complete                          | 350       | 500 l     |
| 6    | 3007018577  | UP/DOWN spool, complete                          | 700       | 1000 l    |
| 7    | 3000007129  | Check valve, complete                            | 350       |           |
| 7    | 3000304512  | Check valve, complete                            | 700       |           |
| 11   | 3000065185  | Plug screw VSTI                                  | 350 / 700 | G ¼ "     |
| 11   | 3000065219  | Plug screw VSTI                                  | 700 (1*)  | G ⅜ "     |
| 12   | 3007010142  | Cartridge, emergency-lowering, with preload (VN) | 350 / 700 |           |
| 12   | 3007018962  | Cartridge emergency lowering complete (SN)       | 350 / 700 |           |
| 13   | 3007010141  | Emergency lowering handle kit, complete          | 350 / 700 |           |

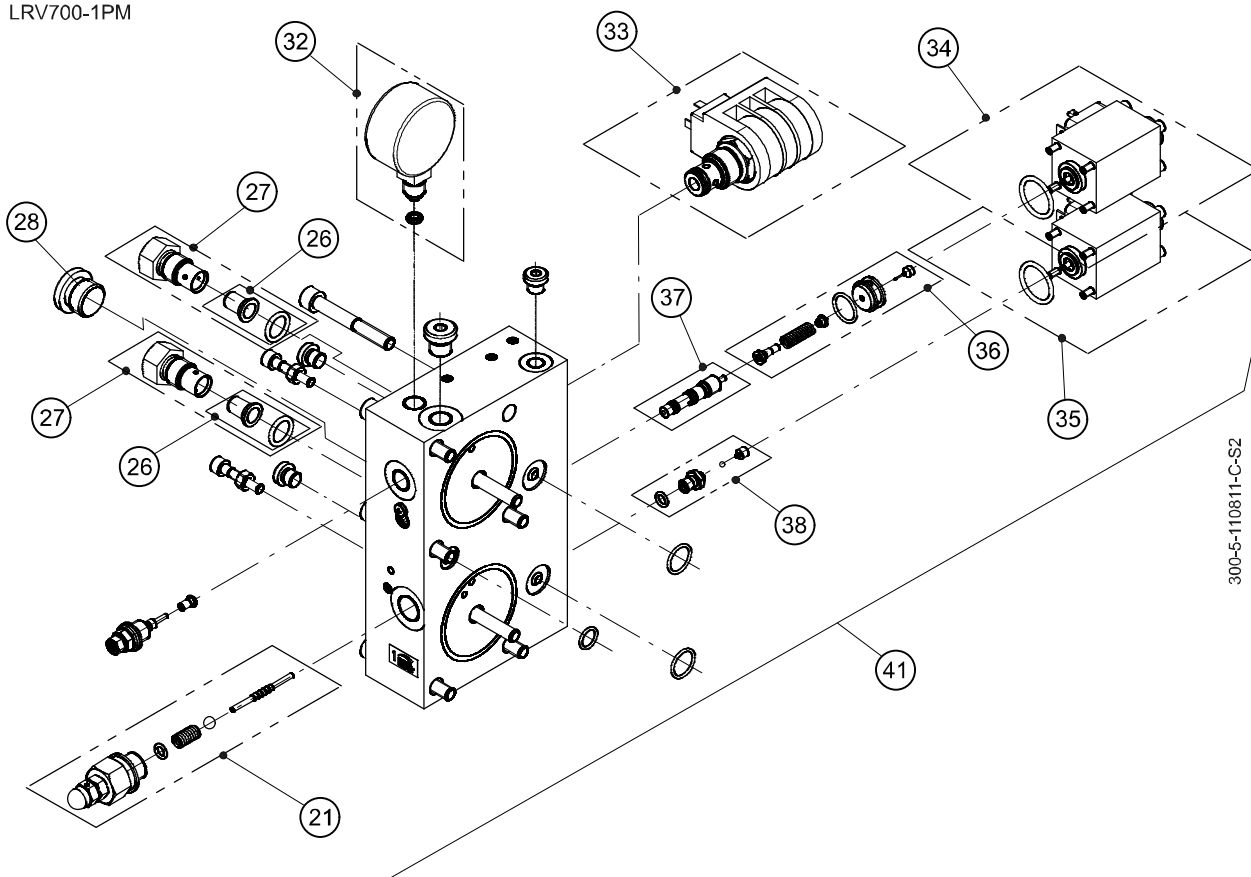
## 2.5 LRV...PM Pilot plate

LRV350-1PM



300-1-10012944-D-S2

LRV700-1PM



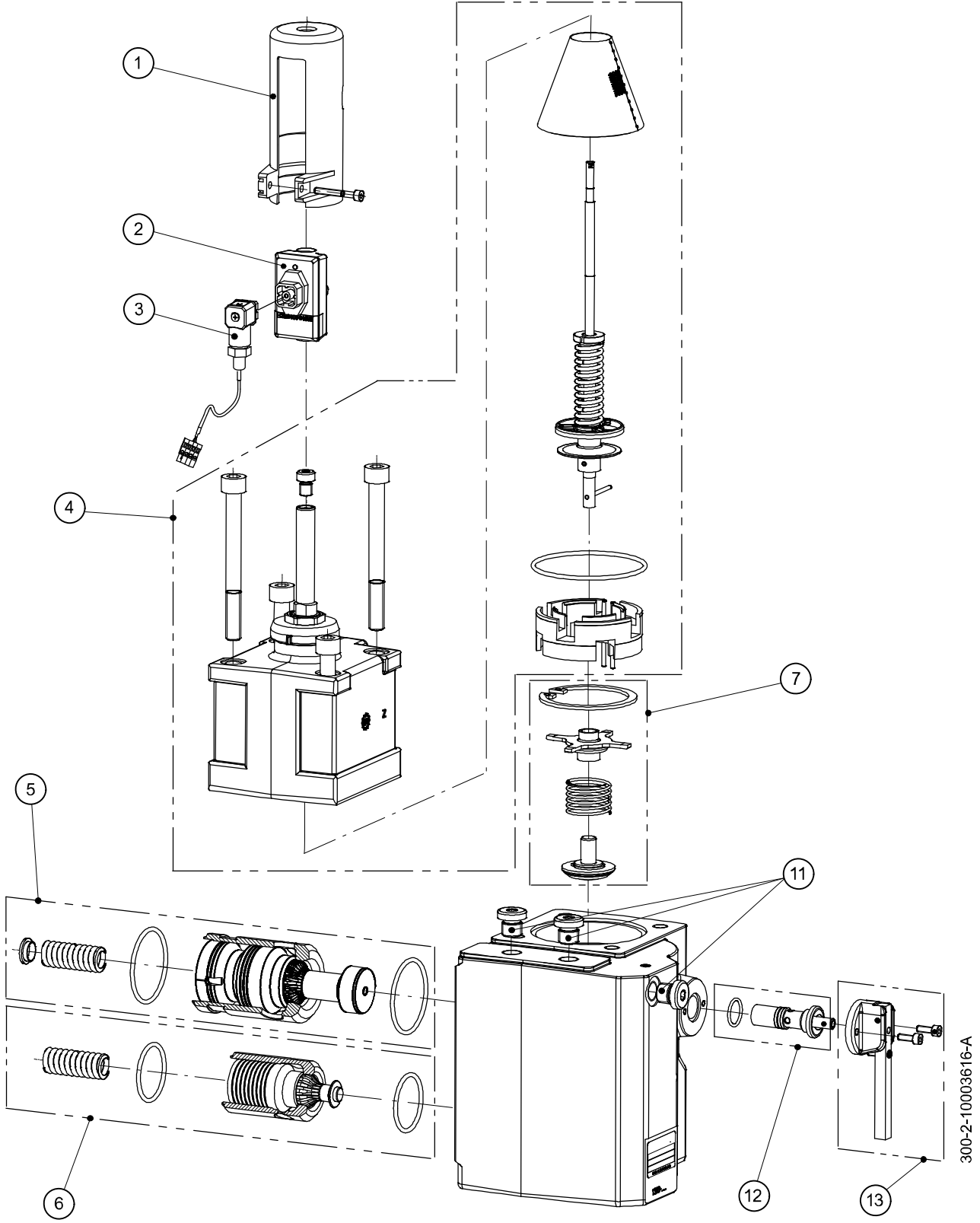
300-5-110811-C-S2

| Item | Part No.    | Description                          | Type            | Dimension    |
|------|-------------|--------------------------------------|-----------------|--------------|
| 21   | 3007010140  | Pressure relief valve, complete      | 350 / 700       |              |
| 26   | 3007010158  | Pilot filter kit                     | 350             |              |
| 26   | 3007018645  | Pilot filter kit                     | 700             |              |
| 27   | 3007018578  | Pilot filter screw kit               | 350             | incl. filter |
| 27   | 3007018578  | Pilot filter screw kit UP            | 700             | incl. filter |
| 27   | 3007018579  | Pilot filter screw kit DOWN          | 700             | incl. filter |
| 28   | 3007010196  | Test nipple, complete                | 350 / 700       |              |
| 32   | 3007018582  | Pressure gauge, complete             | 350 / 700       |              |
| 33   | 3007017602  | Electrical emergency lowering valve  | 350             | 12 V DC      |
| 33   | 3007017603  | Electrical emergency lowering valve  | 350             | 24 V DC      |
| 33   | 3007018580  | Electrical emergency lowering valve  | 700             | 12 V DC      |
| 33   | 3007018581  | Electrical emergency lowering valve  | 700             | 24 V DC      |
| 34   | 3007010131  | DOWN solenoid, complete (black plug) | 175 / 350 / 700 |              |
| 35   | 3007010132  | UP solenoid, complete (grey plug)    | 175 / 350 / 700 |              |
| 36   | 3007018583  | DOWN pilot valve, complete           | 350             |              |
| 36   | 3007018584  | DOWN pilot valve, complete           | 700             |              |
| 37   | 3000007675+ | Adjusting spindle, complete          | 350             |              |
| 37   | 3007018002+ | Adjusting spindle, complete          | 700             |              |
| 38   | 3007017321  | UP pilot valve, complete             | 350 / 700       |              |
| 41   | 3007018586  | Pilot plate, complete                | 350             | EN 00        |
| 41   | 3007018587  | Pilot plate, complete                | 700             | EN 00        |
| 41   | 3007018588  | Pilot plate, complete                | 350             | EN 12 V DC   |
| 41   | 3007018590  | Pilot plate, complete                | 700             | EN 12 V DC   |
| 41   | 3007018589  | Pilot plate, complete                | 350             | EN 24 V DC   |
| 41   | 3007018591  | Pilot plate, complete                | 700             | EN 24 V DC   |

## 2.6 LRV...PM Seal kits

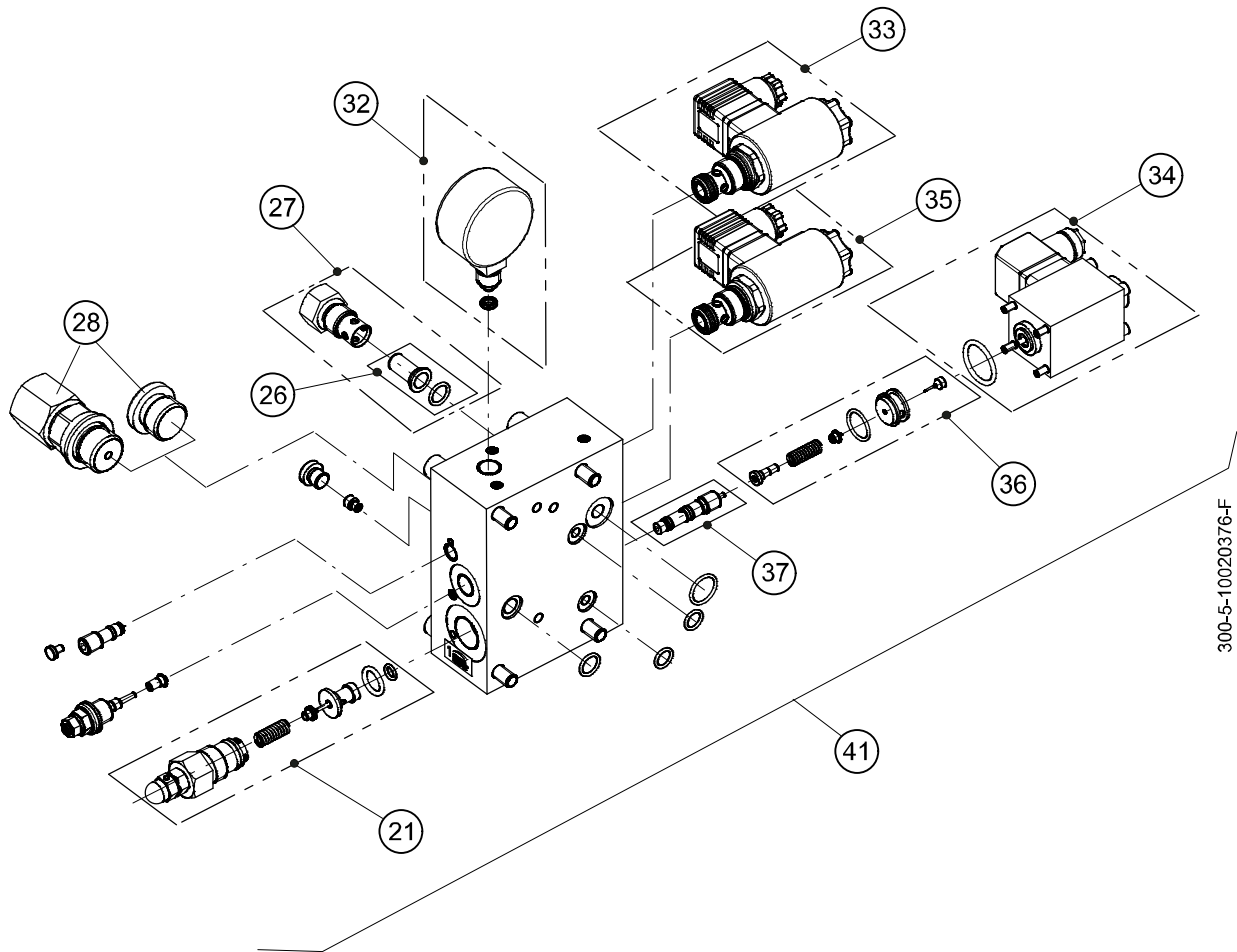
| Item | Part No.   | Description                               | Type | Dimension |
|------|------------|---|------|-----------|
|      | 3007019798 | Seal kit complete, incl. DOWN pilot valve | 350  |           |
|      | 3007019799 | Seal kit complete, incl. DOWN pilot valve | 700  |           |

2.7 VF-LRV



| Item | Part No.    | Description                                 | Type          | Dimension |
|------|-------------|---|---------------|-----------|
| 1    | 3007010206  | Protection cap with screw                   | VF350 / VF700 |           |
| 2    | 3007011055+ | Hall sensor, complete                       | VF350 / VF700 |           |
| 3    | 3000009015+ | Feedback cable with plug-in connectors      | VF350 / VF700 | 6 m       |
| 3    | 3000009016+ | Feedback cable with plug-in connectors      | VF350 / VF700 | 9 m       |
| 3    | 3000009017+ | Feedback cable with plug-in connectors      | VF350 / VF700 | 12 m      |
| 3    | 3000009958+ | Feedback cable with plug-in connectors      | VF350 / VF700 | 20 m      |
| 4    | 3007017854  | Valve top part (without Hall sensor / cap)  | VF350         | 250 l     |
| 4    | 3007017855  | Valve top part (without Hall sensor / cap)  | VF350         | 350 l     |
| 4    | 3007017856  | Valve top part (without Hall sensor / cap)  | VF350         | 500 l     |
| 4    | 3007017857  | Valve top part (without Hall sensor / cap)  | VF700         | 700 l     |
| 4    | 3007017858  | Valve top part (without Hall sensor / cap)  | VF700         | 1000 l    |
| 5    | 3007010963  | DOWN spool, complete                        | VF350         | 500 l     |
| 5    | 3007011609  | DOWN spool, complete                        | VF700         | 1000 l    |
| 6    | 3007010964  | Pressure relief valve cartridge, complete   | VF350         | 500 l     |
| 6    | 3007011610  | Pressure relief valve cartridge, complete   | VF700         | 1000 l    |
| 7    | 3000007129  | Check valve, complete                       | VF350         |           |
| 7    | 3000304512  | Check valve, complete                       | VF700         |           |
| 11   | 3000065185  | Plug screw VSTI                             | VF350 / VF700 | G ¼ "     |
| 11   | 3000065219  | Plug screw VSTI                             | VF700 (1*)    | G ⅜ "     |
| 12   | 3007010142  | Cartridge, emergency-lowering, with preload | VF350 / VF700 |           |
| 13   | 3007010141  | Emergency lowering handle kit, complete     | VF350 / VF700 |           |

2.8 VF-LRV Pilot plate



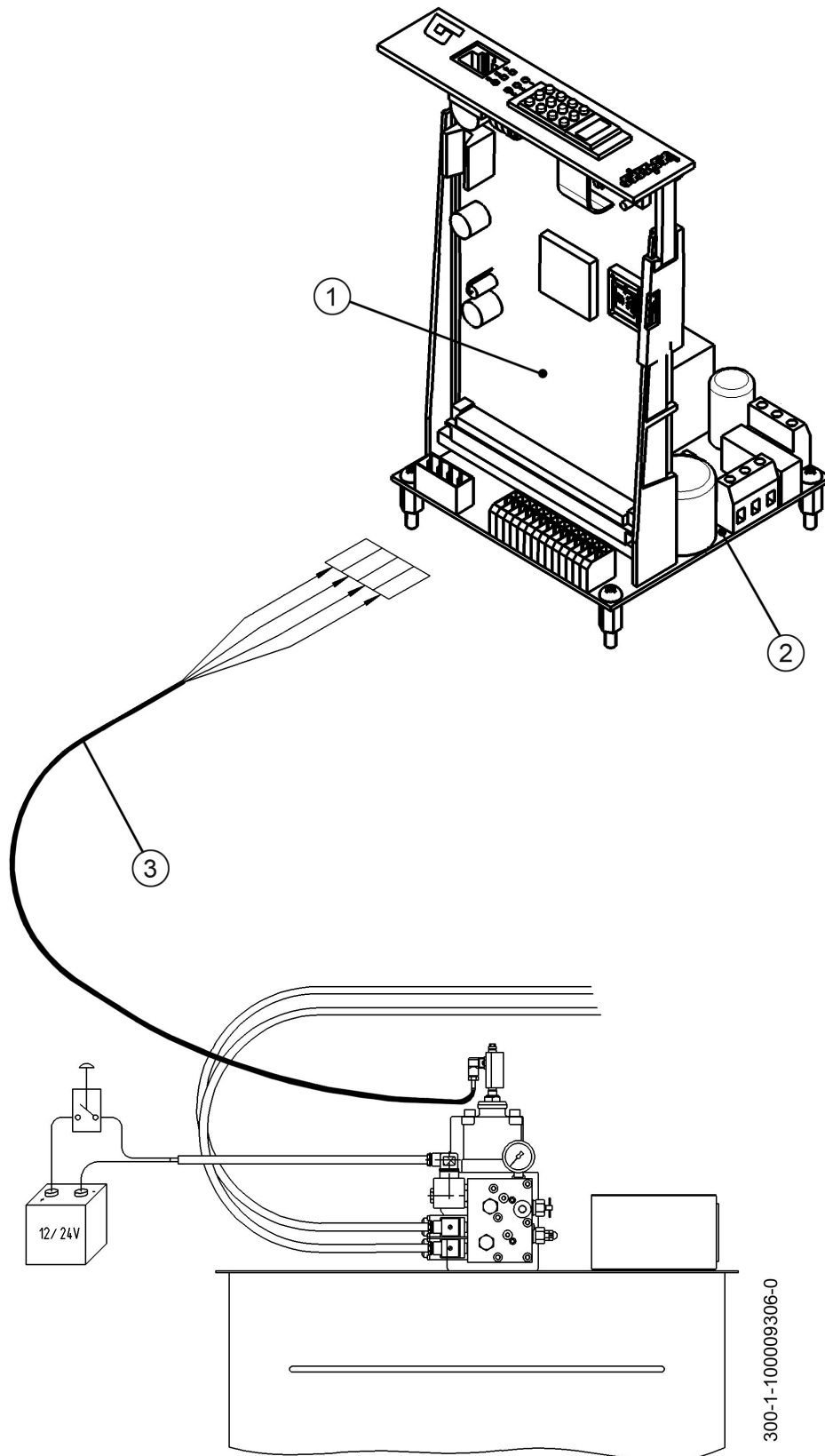
300-5-10020376-F

| Item | Part No.    | Description                          | Type          | Dimension  |
|------|-------------|--------------------------------------|---------------|------------|
| 21   | 3000305758+ | Pressure relief valve, complete      | VF350 / VF700 | VF         |
| 26   | 3007010975  | Filter pilotage                      | VF350 / VF700 | L 23       |
| 27   | 3007010974  | Pilot filter screw incl. filter      | VF350 / VF700 | 4 x Ø4     |
| 28   | 3007010196  | Test nipple, complete                | VF350 / VF700 |            |
| 32   | 3007010138  | Pressure gauge, complete             | VF350 / VF700 |            |
| 33   | 3007019807  | Electrical emergency stop valve      | VF350 / VF700 | 230 V AC   |
| 33   | 3007019806  | Electrical emergency stop valve      | VF350 / VF700 | 115 V AC   |
| 33   | 3007019805  | Electrical emergency stop valve      | VF350 / VF700 | 24 V DC    |
| 34   | 3007010131  | DOWN solenoid, complete (black plug) | VF350 / VF700 |            |
| 35   | 3007017602  | Electrical emergency lowering valve  | VF350         | 12 V DC    |
| 35   | 3007017603  | Electrical emergency lowering valve  | VF350         | 24 V DC    |
| 35   | 3007018580  | Electrical emergency lowering valve  | VF700         | 12 V DC    |
| 35   | 3007018581  | Electrical emergency lowering valve  | VF700         | 24 V DC    |
| 36   | 3007010978  | DOWN pilot valve, complete           | VF350         |            |
| 36   | 3007010148  | DOWN pilot valve, complete           | VF700         |            |
| 37   | 3000010345+ | Adjusting spindle, complete          | VF350         |            |
| 37   | 3000007675+ | Adjusting spindle, complete          | VF700         |            |
| 41   | 3007017766  | Pilot plate, complete                | VF350         | EN 00      |
| 41   | 3007018497  | Pilot plate, complete                | VF700         | EN 00      |
| 41   | 3007017767  | Pilot plate, complete                | VF350         | EN 12 V DC |
| 41   | 3007018498  | Pilot plate, complete                | VF700         | EN 12 V DC |
| 41   | 3007017768  | Pilot plate, complete                | VF350         | EN 24 V DC |
| 41   | 3007018499  | Pilot plate, complete                | VF700         | EN 24 V DC |

## 2.9 VF-LRV Seal kits

| Item | Part No.   | Description                               | Type  | Dimension |
|------|------------|---|-------|-----------|
|      | 3007018602 | Seal kit complete incl. DOWN pilot valve  | VF350 |           |
|      | 3007018603 | Seal kit complete, incl. DOWN pilot valve | VF700 |           |

2.10 LRV / LRV...PM Electronic

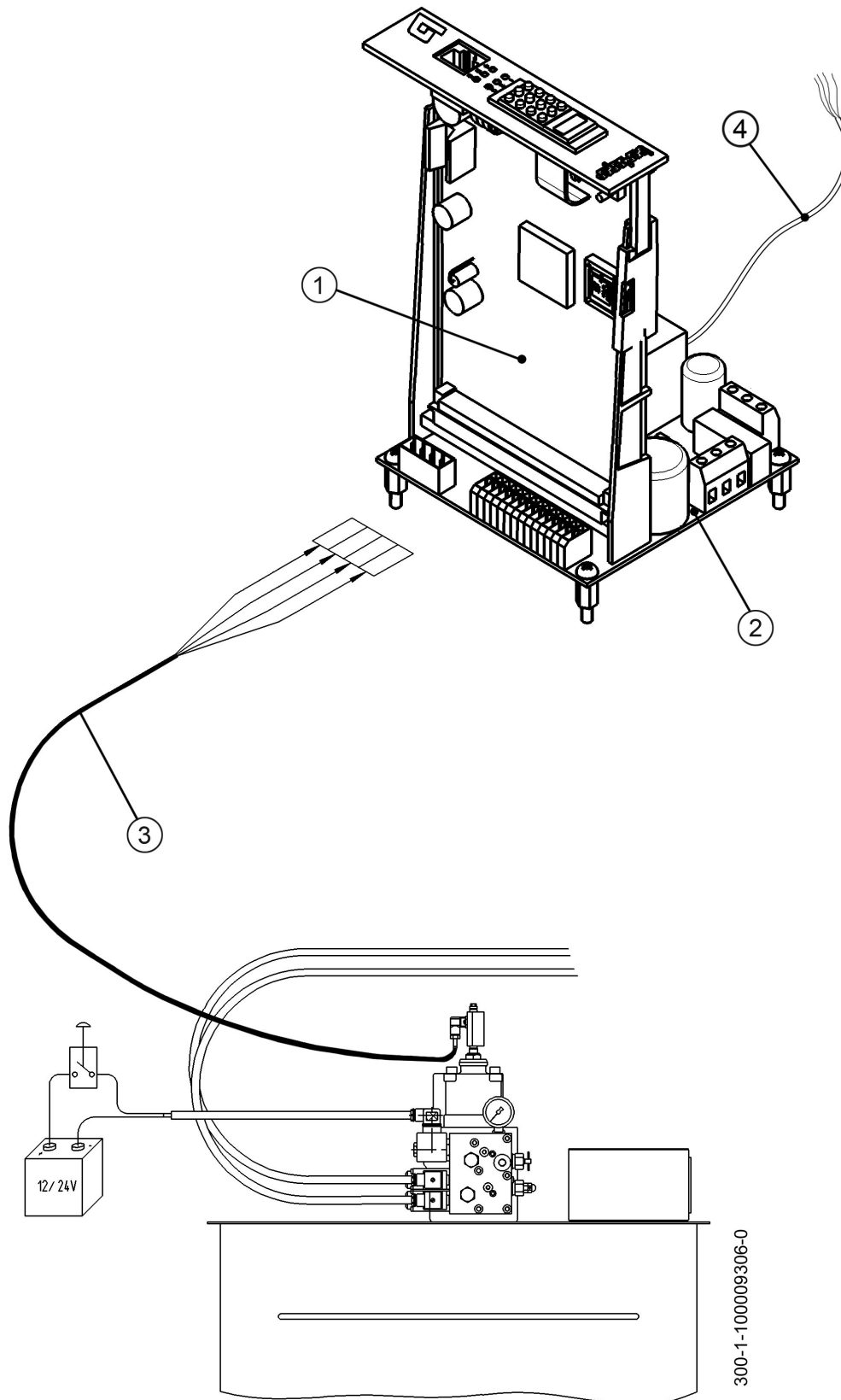


300-1-100009306-0



| Item | Part No.    | Description                   | Type              | Dimension         |
|------|-------------|-------------------------------|-------------------|-------------------|
| 1    | 3007010590+ | Control card Delta Controller | 175 / 350 / 700   |                   |
| 2    | 3007013534+ | Power supply unit NTA-2       | 115 V             | 100 / 115 / 120 V |
| 2    | 3007013535+ | Power supply unit NTA-2       | 230 V             | 220 / 230 / 240 V |
| 2    | 3007013536+ | Power supply unit NTA-2       | 400 V             | 380 / 400 / 440 V |
| 2    | 3007018437+ | Power supply unit NTA-2 CSA   | 115 V             | 100 / 115 / 120 V |
| 2    | 3007018438+ | Power supply unit NTA-2 CSA   | 230 V             | 220 / 230 / 240 V |
| 3    | 3007018167+ | Connection cable              |                   | 6 m               |
| 3    | 3007010472+ | Connection cable              |                   | 1.5 m             |
| 3    | 3000009002+ | Connection cable              |                   | 12 m              |
| 3    | 3007015988+ | Connection cable              |                   | 20 m              |
| 3    | 3007011327+ | Connection cable              | halogen free      | 6 m               |
| 3    | 3007011329+ | Connection cable              | halogen free      | 12 m              |
| 3    | 3007020467+ | Connection cable              | halogen free      | 20 m              |
|      | 3007020027+ | Software and cable            | iWin / WinDelta32 |                   |

2.11 VF-LRV Electronic



300-1-100009306-0

| Item | Part No.    | Description                      | Type              | Dimension         |
|------|-------------|----------------------------------|-------------------|-------------------|
| 1    | 3000305012+ | Control card VF Delta Controller | VF350 / VF700     |                   |
| 2    | 3007013537+ | Power supply unit VF-NTA-2       | 115 V             | 100 / 115 / 120 V |
| 2    | 3007013538+ | Power supply unit VF-NTA-2       | 230 V             | 220 / 230 / 240 V |
| 2    | 3007013539+ | Power supply unit VF-NTA-2       | 400 V             | 380 / 400 / 440 V |
| 3    | 3007018167+ | Connection cable                 |                   | 6 m               |
| 3    | 3007010472+ | Connection cable                 |                   | 1.5 m             |
| 3    | 3007009002+ | Connection cable                 |                   | 12 m              |
| 3    | 3000015988+ | Connection cable                 |                   | 20 m              |
| 3    | 3007011327+ | Connection cable                 | halogen free      | 6 m               |
| 3    | 3007011329+ | Connection cable                 | halogen free      | 12 m              |
| 3    | 3007020467+ | Connection cable                 | halogen free      | 20 m              |
|      | 3007020027+ | Software and cable               | iWin / WinDelta32 |                   |
| 4    | 3007013502+ | Cable inverter                   | VF-NTA-2          | 6 m               |

## 2.12 LRV Spare parts kit

- your spare parts for immediate intervention always at hand
- reduced need for second interventions

LRV Spare parts kit Mechanical



LRV Spare parts kit Electrical



**Scope of delivery:**

- DOWN spool to 250 litre, LRV 175
- DOWN spool to 500 litre, LRV 350
- Set of pilot filter
- Seal kit with DOWN pilot valve LRV 175
- Seal kit with DOWN pilot valve LRV 350
- Seal kit with DOWN pilot valve LRV 700
- Non-return valve EHP hand pump
- Emergency lowering cartridge with handle
- Complete documentation

**Scope of delivery:**

- Electronic card DELCON
- Power supply NTA-2
- Feedback cable 9 m
- Hallsensor
- UP / DOWN solenoid complete
- Complete documentation

| Item | Part No.   | Description                         | Type        | Dimension |
|------|------------|-------------------------------------|-------------|-----------|
| 1    | 3007014930 | LRV Spare parts kit Mechanical      | Spare parts | 1         |
| 2    | 3007014998 | LRV Spare parts kit Electrical 115V | Spare parts | 1         |
| 2    | 3007014931 | LRV Spare parts kit Electrical 230V | Spare parts | 1         |
| 2    | 3007014932 | LRV Spare parts kit Electrical 400V | Spare parts | 1         |

## 2.13 VF-LRV Spare parts kit

- your spare parts for immediate intervention always at hand
- reduced need for second interventions

VF-LRV Spare parts kit Mechanical



**Scope of delivery:**

- Pressure relief valve cartridge VF-LRV 350
- DOWN spool to 500 litre, VF-LRV 350
- Pilot filter VF-LRV 350
- Seal kit with DOWN pilot valve VF-LRV 350
- Non-return valve EHP hand pump
- Emergency lowering cartridge with handle
- Complete documentation

VF-LRV Spare parts kit Electrical



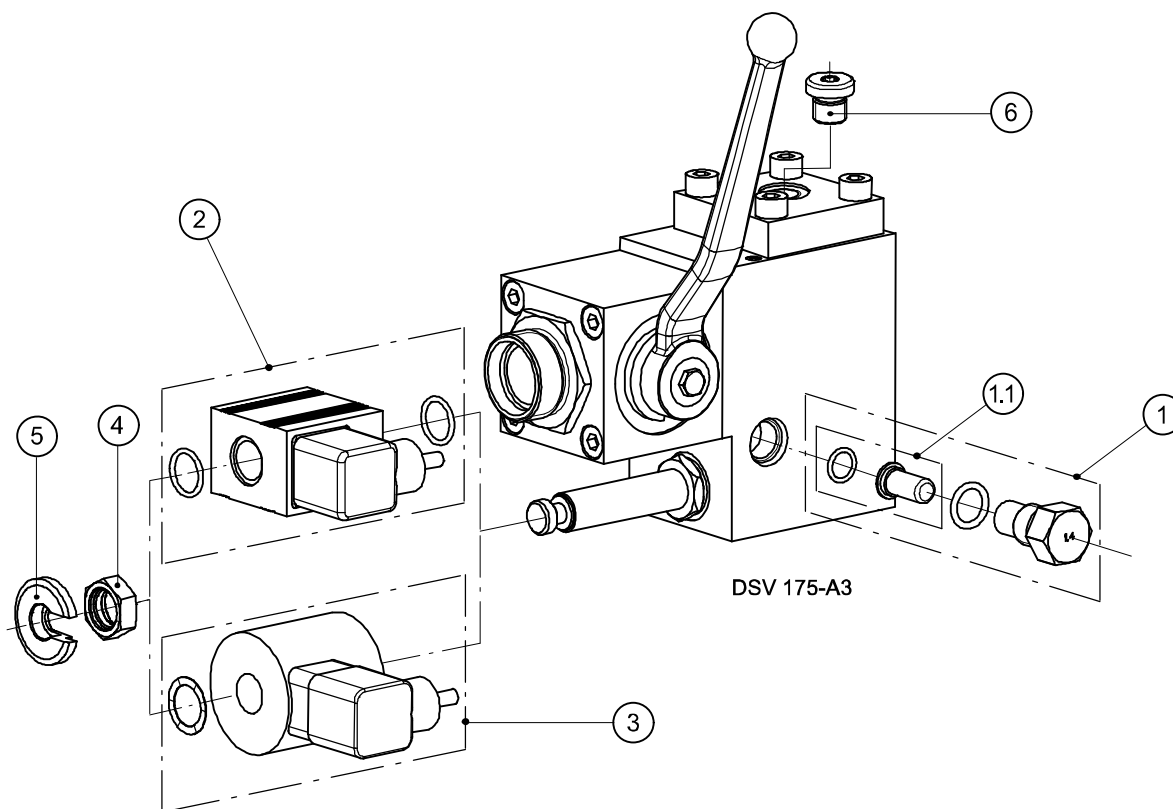
**Scope of delivery:**

- Electronic card VF-DELCON
- Power supply VF-NTA-2
- Feedback cable 9 m
- Hallsensor VF-LRV
- DOWN solenoid complete
- Complete documentation

| Item | Part No.   | Description                     | Type        | Dimension |
|------|------------|---------------------------------|-------------|-----------|
| 1    | 3007018166 | Spare parts kit Mechanical      | Spare parts | 1         |
| 2    | 3007019304 | Spare parts kit Electrical 230V | Spare parts | 1         |
| 2    | 3007018157 | Spare parts kit Electrical 400V | Spare parts | 1         |

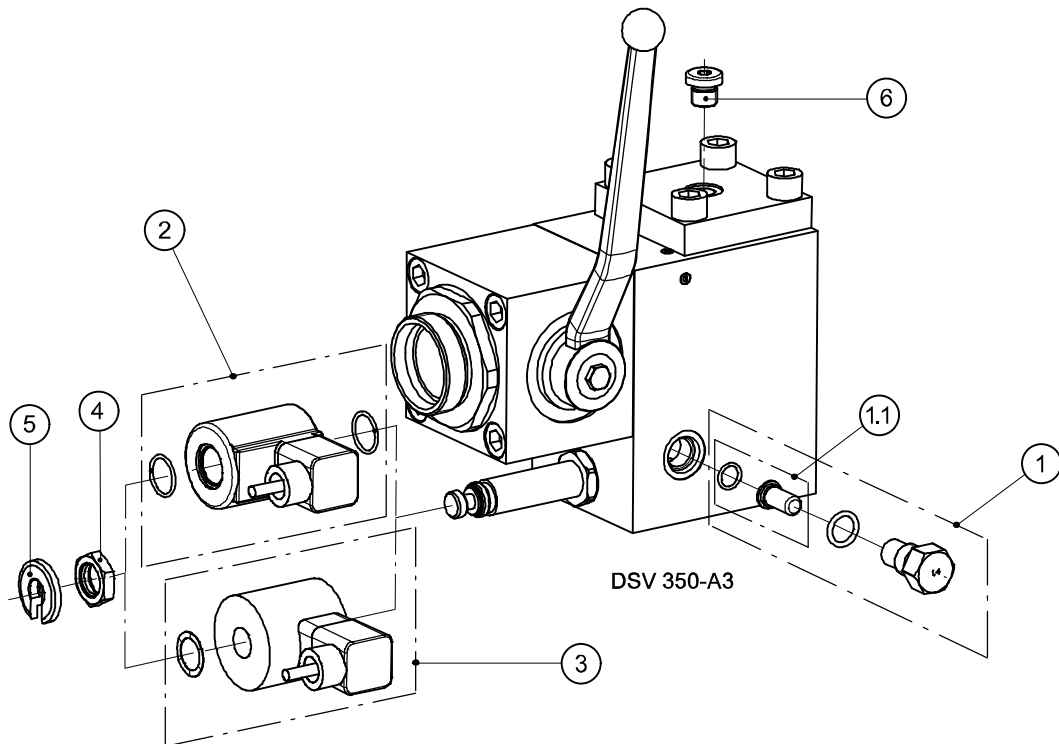
### 3 Safety valve series DSV-A3

#### 3.1 DSV 175-A3



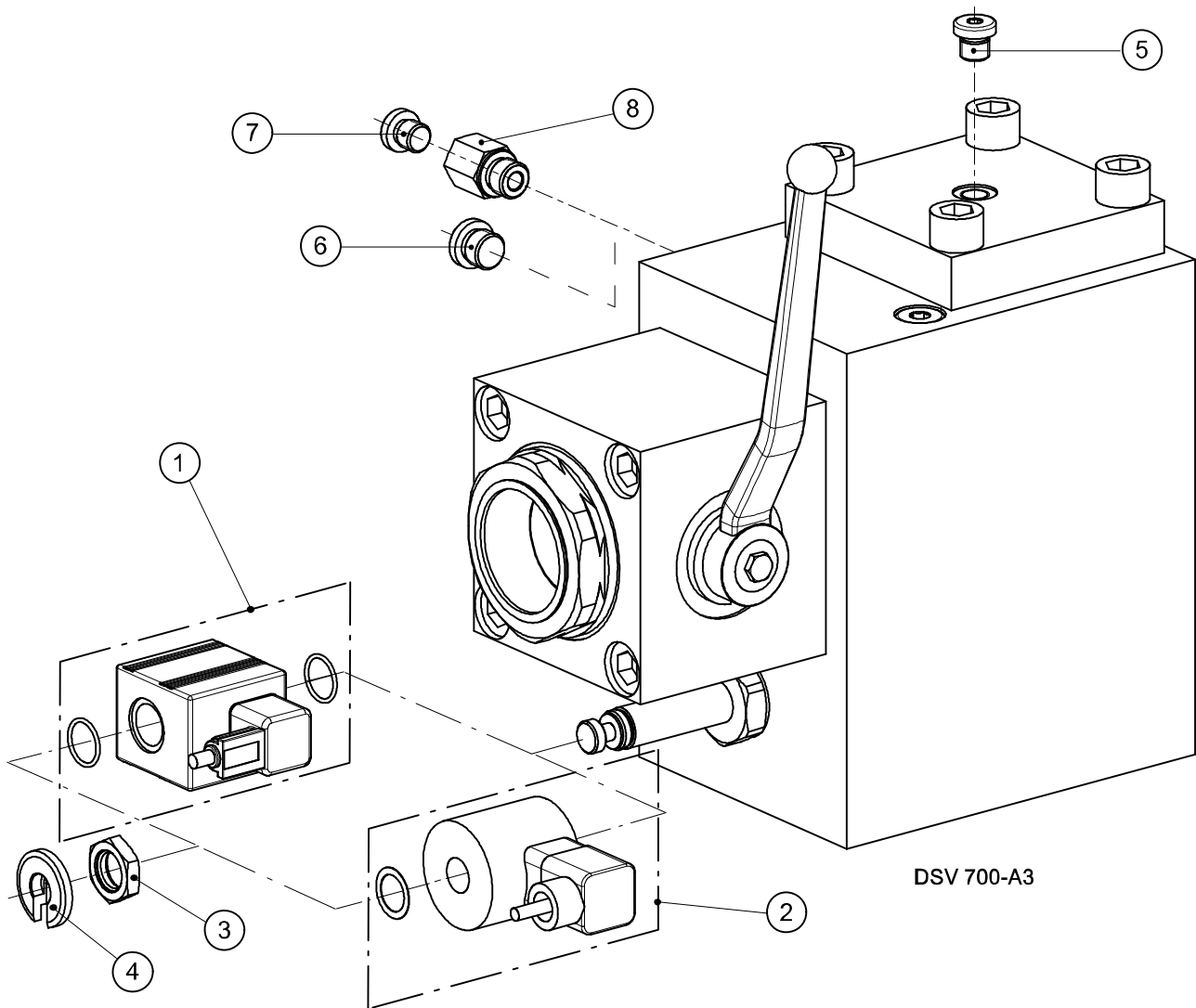
| Item | Part No.    | Description                | Type       | Electrical characteristics |
|------|-------------|----------------------------|------------|----------------------------|
| 1    | 3007019494  | Filter screw, complete     | DSV 175-A3 |                            |
| 1.1  | 3007010975  | Strainer/filter, complete  | DSV 175-A3 |                            |
| 2    | 3007019334+ | Solenoid coil, complete    | DSV 175-A3 | 230 V AC 50 Hz / —         |
| 3    | 3007019330+ | Solenoid coil, complete    | DSV 175-A3 | 230 V AC 50 Hz / 12 V DC   |
| 3    | 3007019331+ | Solenoid coil, complete    | DSV 175-A3 | 230 V AC 50 Hz / 24 V DC   |
| 4    | 3007019658  | Nut M16x1                  | DSV 175-A3 |                            |
| 5    | 3007019654  | Emergency lowering adapter | DSV 175-A3 |                            |
| 6    | 3007018508  | Plug screw G ¼             | DSV 175-A3 |                            |

### 3.2 DSV 350-A3



| Item | Part No.    | Description                | Type       | Electrical characteristics |
|------|-------------|----------------------------|------------|----------------------------|
| 1    | 3007019494  | Filter screw, complete     | DSV 350-A3 |                            |
| 1.1  | 3007010975  | Strainer/filter, complete  | DSV 350-A3 |                            |
| 2    | 3007019666+ | Solenoid coil, complete    | DSV 350-A3 | 230 V AC 50 Hz / —         |
| 3    | 3007019571+ | Solenoid coil, complete    | DSV 350-A3 | 230 V AC 50 Hz / 12 V DC   |
| 3    | 3007019572+ | Solenoid coil, complete    | DSV 350-A3 | 230 V AC 50 Hz / 24 V DC   |
| 4    | 3007019703  | Nut M18x1,5                | DSV 350-A3 |                            |
| 5    | 3007019654  | Emergency lowering adapter | DSV 350-A3 |                            |
| 6    | 3007018508  | Plug screw G ¼             | DSV 350-A3 |                            |

3.3 DSV 350-A3

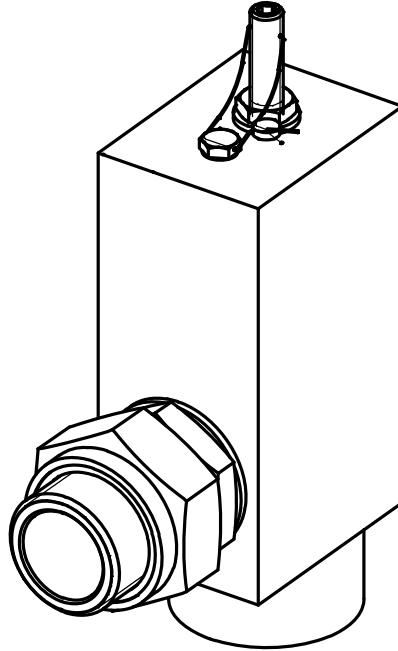


| Item | Part No.    | Description                  | Type       | Electrical characteristics |
|------|-------------|------------------------------|------------|----------------------------|
| 1    | 3007019666+ | Solenoid coil, complete      | DSV 700-A3 | 230 V AC 50 Hz / —         |
| 2    | 3007019571+ | Solenoid coil, complete      | DSV 700-A3 | 230 V AC 50 Hz / 12 V DC   |
| 2    | 3007019572+ | Solenoid coil, complete      | DSV 700-A3 | 230 V AC 50 Hz / 24 V DC   |
| 3    | 3007019703  | Nut M18x1,5                  | DSV 700-A3 |                            |
| 4    | 3007019654  | Emergency lowering adapter   | DSV 700-A3 |                            |
| 5    | 3007018508  | Plug screw G ¼               | DSV 700-A3 |                            |
| 6    | 3000065219  | Plug screw G ⅜ (standard)    | DSV 700-A3 |                            |
| 7    | 3007018508  | Plug screw G ¼ (option)      | DSV 700-A3 |                            |
| 8    | 3007018146  | Fitting RI ⅜ ED x ¼ (option) | DSV 700-A3 |                            |



## 4 Pipe-Rupture Valve series RSG

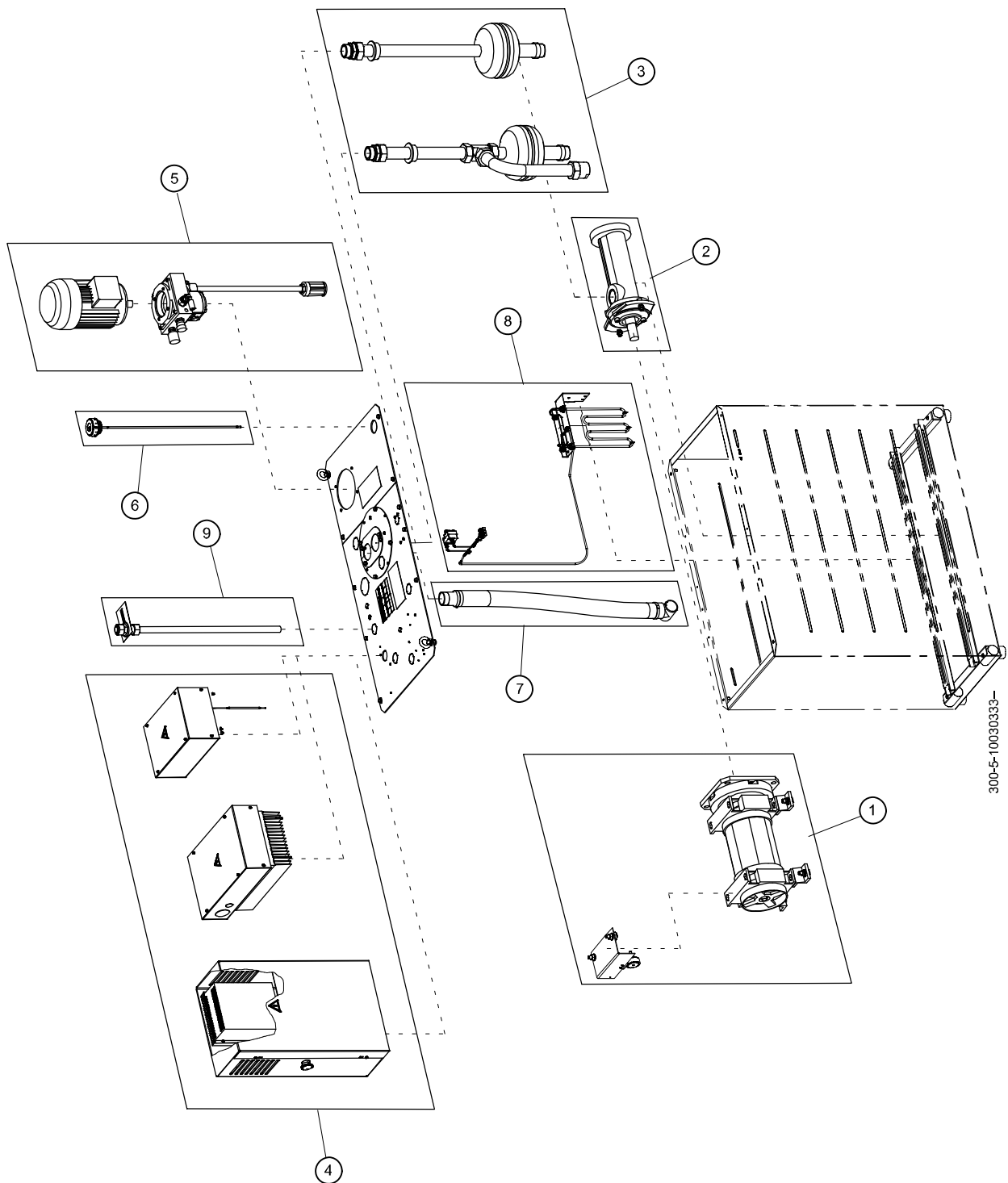
### 4.1 RSG 55 / 70 / 90



| Item | Part No.   | Description                    | Type                    |  |
|------|------------|--------------------------------|-------------------------|--|
|      | 3007023470 | Pipe rupture valve replacement | SPP RSG55-P1 / M1       |  |
|      | 3007023471 | Pipe rupture valve replacement | SPP RSG55-P11 / 4 / M1  |  |
|      | 3007023472 | Pipe rupture valve replacement | SPP RSG55-P11 / 2 / M1  |  |
|      | 3007023473 | Pipe rupture valve replacement | SPP RSG70-P11 / 4 / M1½ |  |
|      | 3007023474 | Pipe rupture valve replacement | SPP RSG70-P11 / 2 / M1½ |  |
|      | 3007023475 | Pipe rupture valve replacement | SPP RSG70-P2 / M1½      |  |
|      | 3007023476 | Pipe rupture valve replacement | SPP RSG90-P2 / M2       |  |
|      | 3007023477 | Pipe rupture valve replacement | SPP RSG90-P2 / M1½      |  |



Overview Power Unit Parts  
Comfort Line / Eco Line

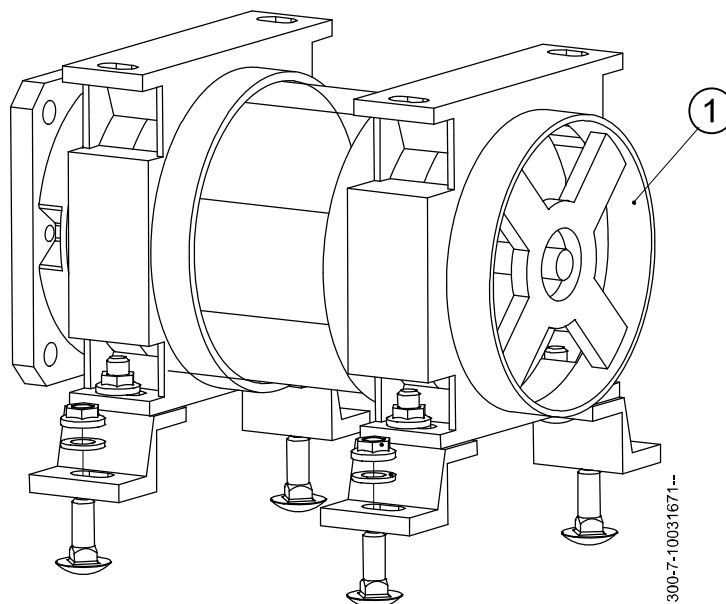


300-5-10030333-

|   |                  |   |                            |   |                    |
|---|------------------|---|----------------------------|---|--------------------|
| ① | Motor            | ④ | Soft starter / output unit | ⑦ | Return             |
| ② | Pump             | ⑤ | Relevelling unit           | ⑧ | Heating            |
| ③ | Pulsation damper | ⑥ | Oil filler neck            | ⑨ | Cooler connections |

# 1 Electric motor

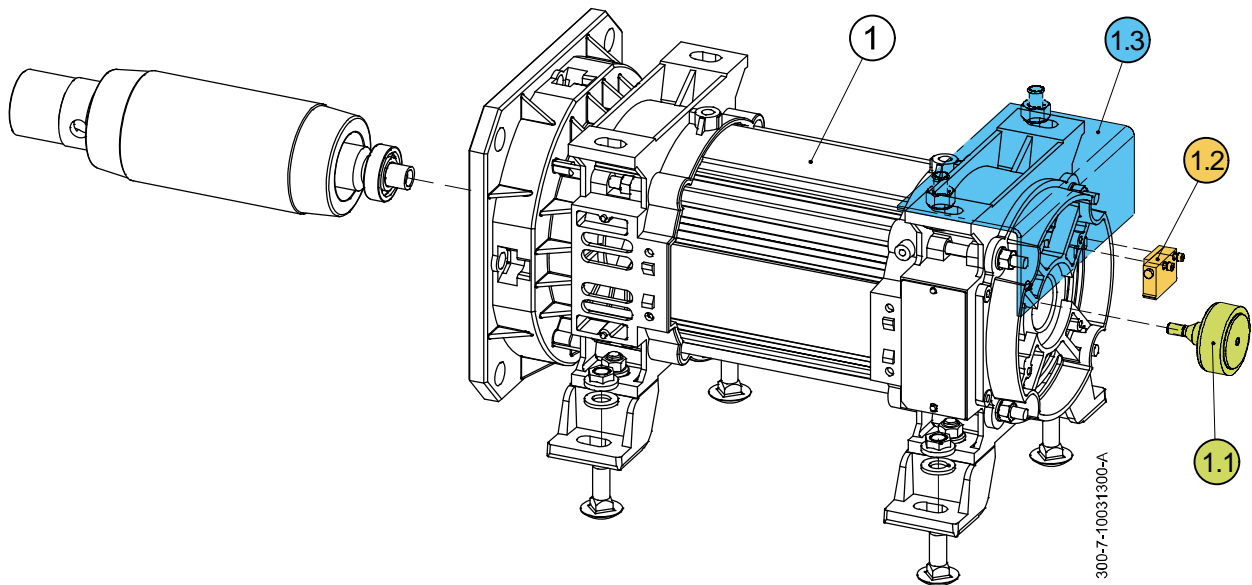
## 1.1 Saturn Beta



| Item | Part No.    | Description    | Output  | Description | Frequency | Flange |
|------|-------------|----------------|---------|-------------|-----------|--------|
| 1    | 3007015990+ | Electric motor | 3.0 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007015991+ | Electric motor | 4.4 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007015992+ | Electric motor | 6.0 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007015993+ | Electric motor | 7.7 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007015994+ | Electric motor | 9.5 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007019152+ | Electric motor | 9.5 kW  | 400 V       | 50 Hz     | C      |
| 1    | 3007019155+ | Electric motor | 9.5 kW  | 400 V       | 50 Hz     | AC     |
| 1    | 3007015995+ | Electric motor | 11.0 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007019153+ | Electric motor | 11.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007019156+ | Electric motor | 11.0 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007018158+ | Electric motor | 12.5 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007019154+ | Electric motor | 12.5 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007019157+ | Electric motor | 12.5 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007012029+ | Electric motor | 14.7 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007012034+ | Electric motor | 14.7 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007015354+ | Electric motor | 14.7 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007012030+ | Electric motor | 16.0 kW | 400 V       | 50 Hz     | A      |

| Item | Part No.    | Description    | Output  | Description | Frequency | Flange |
|------|-------------|----------------|---------|-------------|-----------|--------|
| 1    | 3007011836+ | Electric motor | 16.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007015354+ | Electric motor | 16.0 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007012030+ | Electric motor | 16.0 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007011836+ | Electric motor | 16.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007015355+ | Electric motor | 16.0 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007011791+ | Electric motor | 20.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007015356+ | Electric motor | 20.0 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007011837+ | Electric motor | 24.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007015357+ | Electric motor | 24.0 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007011808+ | Electric motor | 28.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007015358+ | Electric motor | 28.0 kW | 400 V       | 50 Hz     | AC     |
| 1    | 3007012035+ | Electric motor | 33.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007012036+ | Electric motor | 40.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007012037+ | Electric motor | 47.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007012038+ | Electric motor | 60.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007012039+ | Electric motor | 77.0 kW | 400 V       | 50 Hz     | C      |

1.2 Saturn Alpha



| Item | Part No.   | Description    | Output  | Description | Frequency | Flange |
|------|------------|----------------|---------|-------------|-----------|--------|
| 1    | 3007018619 | Electric motor | 4.4 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007018621 | Electric motor | 6.0 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007018622 | Electric motor | 7.7 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007018623 | Electric motor | 9.5 kW  | 400 V       | 50 Hz     | A      |
| 1    | 3007018628 | Electric motor | 9.5 kW  | 400 V       | 50 Hz     | C      |
| 1    | 3007018624 | Electric motor | 11.0 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007018629 | Electric motor | 11.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018625 | Electric motor | 12.5 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007018630 | Electric motor | 12.5 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018626 | Electric motor | 14.7 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007018631 | Electric motor | 14.7 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018627 | Electric motor | 16.0 kW | 400 V       | 50 Hz     | A      |
| 1    | 3007018632 | Electric motor | 16.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018633 | Electric motor | 20.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018634 | Electric motor | 24.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018635 | Electric motor | 28.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018636 | Electric motor | 33.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018637 | Electric motor | 40.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018638 | Electric motor | 47.0 kW | 400 V       | 50 Hz     | C      |

| Item | Part No.   | Description    | Output  | Description | Frequency | Flange |
|------|------------|----------------|---------|-------------|-----------|--------|
| 1    | 3007018639 | Electric motor | 60.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018640 | Electric motor | 77.0 kW | 400 V       | 50 Hz     | C      |

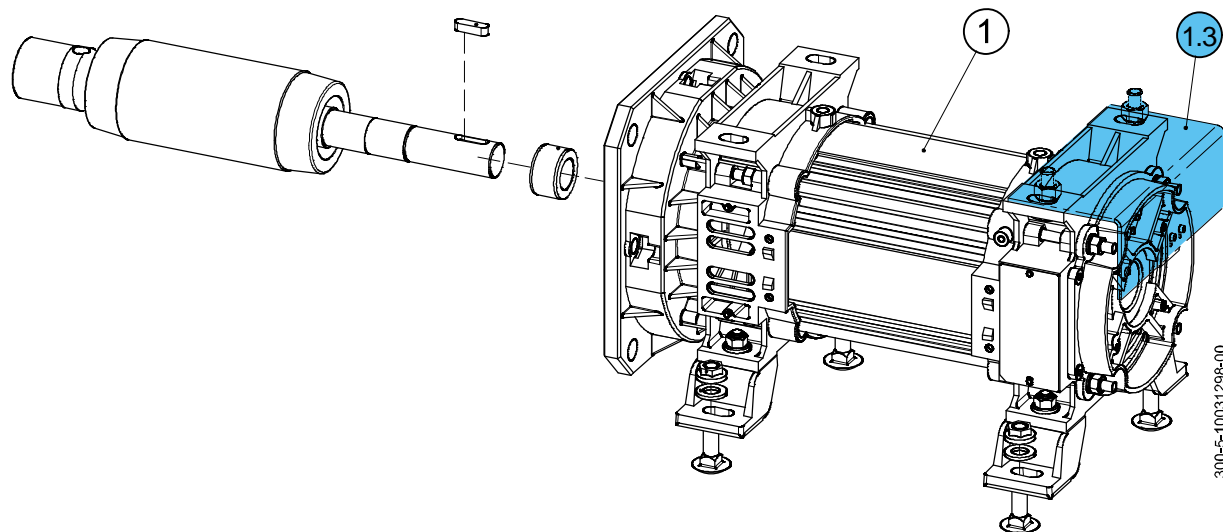
### 1.2.1 Magnetic ring & sensor

| Item | Part No.    | Description                |  |
|------|-------------|----------------------------|--|
| 1.1  | 3007011833+ | Magnetic ring with support |  |
| 1.2  | 3000010882+ | Magnetic sensor            |  |

### 1.2.2 Mounting plate

| Item | Part No. | Description               |  |
|------|----------|---------------------------|--|
| 1.3  | –        | Mounting plate on request |  |

## 1.3 Orion Alpha



| Item | Part No.   | Description    | Output  | Description | Frequency | Flange |
|------|------------|----------------|---------|-------------|-----------|--------|
| 1    | 3007018208 | Electric motor | 9.5 kW  | 400 V       | 50 Hz     | C      |
| 1    | 3007018209 | Electric motor | 11.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018210 | Electric motor | 14.7 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018212 | Electric motor | 16.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018213 | Electric motor | 20.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018214 | Electric motor | 24.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018215 | Electric motor | 28.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018216 | Electric motor | 33.0 kW | 400 V       | 50 Hz     | C      |
| 1    | 3007018217 | Electric motor | 40.0 kW | 400 V       | 50 Hz     | C      |

### 1.3.1 Mounting plate

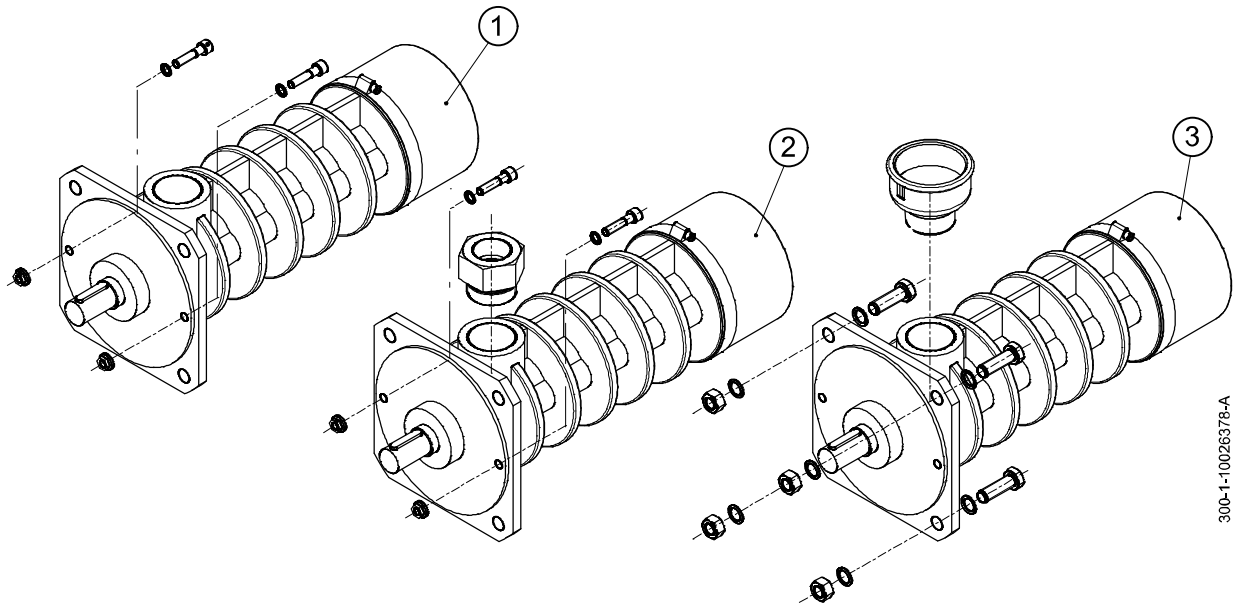
| Item | Part No. | Description               |
|------|----------|---------------------------|
| 1.3  | –        | Mounting plate on request |





## 2 Main pumps

### 2.1 Saturn Beta / Comfort Line

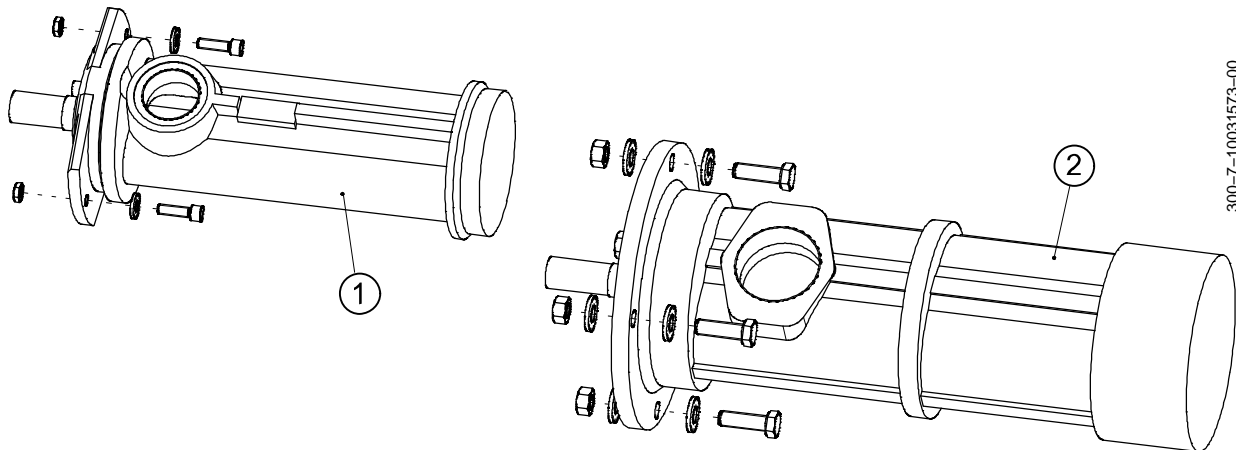


300-1-10026378-A

| Item | Part No.    | Description      | Type      | Replacement RUC/RUA | Connection | Flange |
|------|-------------|------------------|-----------|---------------------|------------|--------|
| 1    | 3007021717  | Pump             | GR25-25L  | 20-38               | ½"         | A      |
| 1    | 3007021718  | Pump             | GR25-30L  | 20-46               | ½"         | A      |
| 1    | 3007015149+ | Pump             | GR32-35L  |                     | 1"         | A      |
| 1    | 3007015150+ | Pump             | GR32-35L  |                     | 1"         | A      |
| 1    | 3007021719  | Pump             | GR32-55L  | 40-41               | 1"         | A      |
| 1    | 3007021720  | Pump             | GR32-75L  | 40-49               | 1"         | A      |
| 2    | 3007021721  | Pump             | GR40-100L | 80-36               | 1"         | A      |
| 2    | 3007021722  | Pump             | GR40-125L | 80-42               | 1"         | A      |
| 2    | 3007021723  | Pump             | GR40-150L | 80-46               | 1"         | A      |
| 3    | 3007018066+ | Pump spec. Tiger | GR45-150L |                     | 1 ½"       | AC     |
| 1    | 3007021724  | Pump             | GR45-180L | 140-37              | 1 ½"       | C      |
| 1    | 3007021725  | Pump             | GR45-210L | 140-39              | 1 ½"       | C      |
| 1    | 3007021726  | Pump             | GR45-210L | 140-43              | 1 ½"       | C      |
| 1    | 3007018495+ | Pump             | GR55-252L |                     | 1 ½"       | C      |
| 1    | 3007021727  | Pump             | GR55-270L | 140-46              | 1 ½"       | C      |
| 3    | 3007018070+ | Pump             | GR55-300L |                     | 1 ½"       | AC     |

| Item | Part No.    | Description | Type      | Replacement<br>RUC/RUA | Connection | Flange |
|------|-------------|-------------|-----------|------------------------|------------|--------|
| 1    | 3007021218+ | Pump        | GR55-300L |                        | 1 ½"       | C      |
| 2    | 3007021728  | Pump        | GR55-330L | 210-40                 | 1 ½"       | C      |
| 2    | 3007021729  | Pump        | GR55-330L | 210-43                 | 1 ½"       | C      |
| 2    | 3007021730  | Pump        | GR55-380L | 210-46                 | 1 ½"       | C      |
| 1    | 3007021731  | Pump        | GR60-440L | 280-43                 | 2"         | C      |
| 1    | 3007021222+ | Pump        | GR60-500L |                        | 2"         | C      |
| 3    | 3007021732  | Pump        | GR70-560L | 280-46                 | 2"         | C      |
| 3    | 3007021224+ | Pump        | GR70-600L |                        | 2"         | C      |
| 3    | 3007021733  | Pump        | GR70-660L | 440-40                 | 2"         | C      |
| 3    | 3007021734  | Pump        | GR70-800L | 440-46                 | 2"         | C      |

2.2 Saturn / Orion Alpha / Eco Line

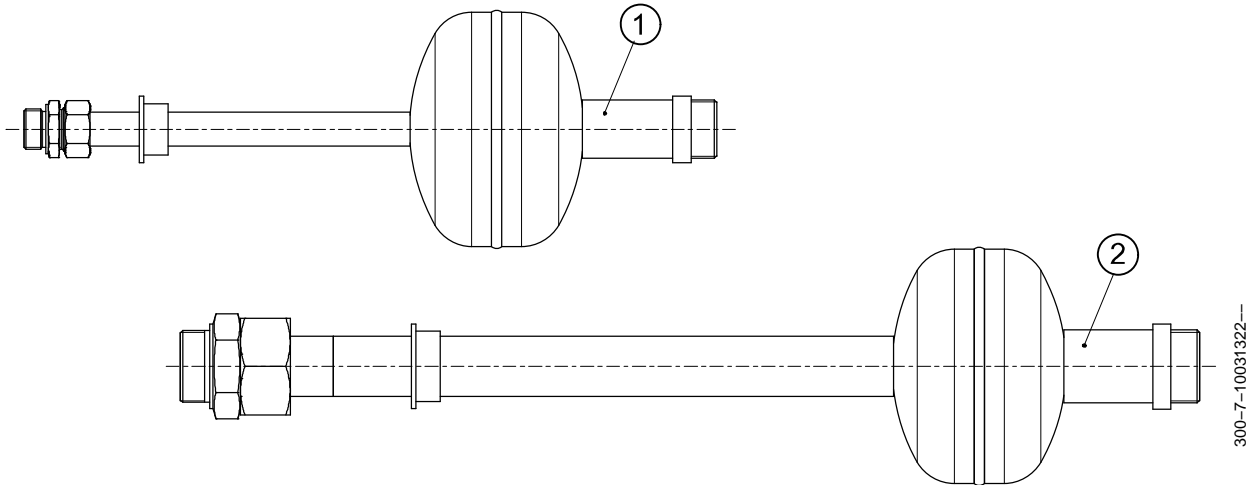


| Item | Part No.    | Description | Type       | Connection | Flange |
|------|-------------|-------------|------------|------------|--------|
| 1    | 3000045298+ | Pump        | SUC 20-38  | 1"         | A      |
| 1    | 3000045299+ | Pump        | SUC 20-46  | 1"         | A      |
| 1    | 3000045300+ | Pump        | SUC 40-41  | 1"         | A      |
| 1    | 3000045301+ | Pump        | SUC 40-49  | 1"         | A      |
| 1    | 3000045303+ | Pump        | SUA 80-36  | 1 ½"       | A      |
| 1    | 3000045304+ | Pump        | SUA 80-42  | 1 ½"       | A      |
| 1    | 3000045305+ | Pump        | SUA 80-46  | 1 ½"       | A      |
| 1    | 3000045307+ | Pump        | SUC 140-39 | 1 ½"       | C      |
| 1    | 3000045308+ | Pump        | SUC 140-43 | 1 ½"       | C      |
| 1    | 3000045309+ | Pump        | SUC 140-46 | 1 ½"       | C      |
| 1    | 3000045311+ | Pump        | SUC 210-40 | 2"         | C      |
| 1    | 3000045312+ | Pump        | SUC 210-43 | 2"         | C      |
| 1    | 3000045313+ | Pump        | SUC 210-46 | 2"         | C      |
| 1    | 3000045315+ | Pump        | SUC 280-43 | 2"         | C      |
| 1    | 3000045316+ | Pump        | SUC 280-46 | 2"         | C      |
| 2    | 3000045317+ | Pump        | SUC 440-40 | 3"         | C      |
| 2    | 3000045318+ | Pump        | SUC 440-46 | 3"         | C      |



### 3 Pulsation damper

#### 3.1 Pulsation damper standard

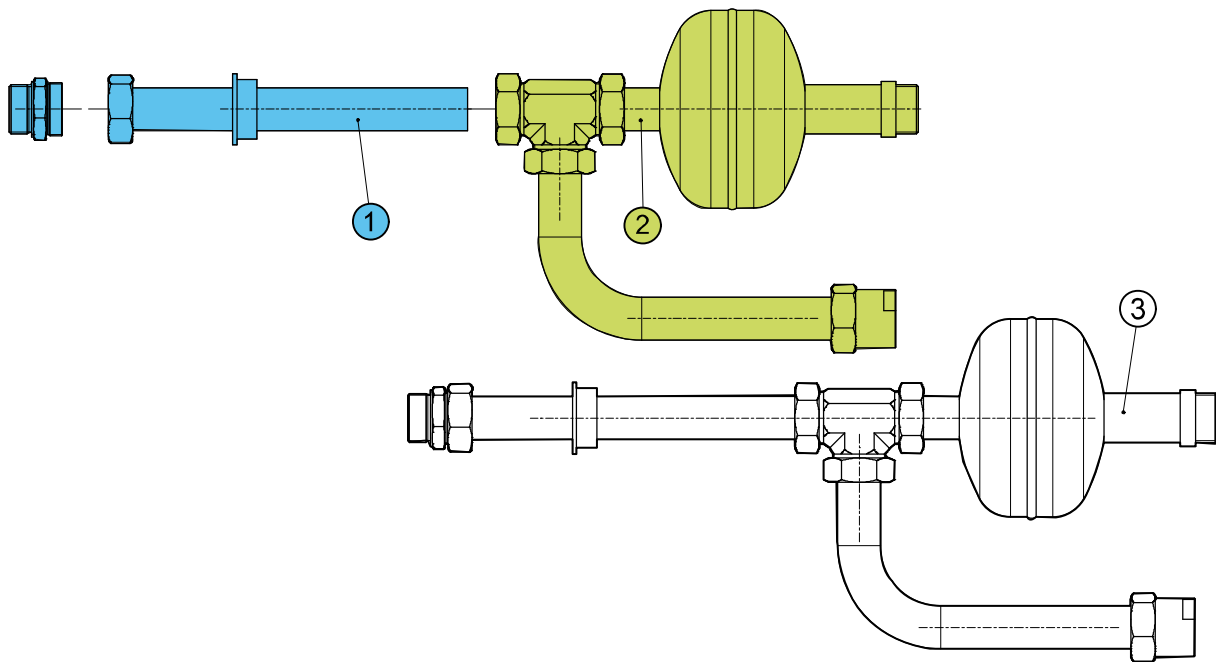


300-7-10031322--

| Item | Part No.    | Description      | Tank type        | Pump   | Valve   |
|------|-------------|------------------|------------------|--------|---------|
| 1    | 3007018542+ | Pulsation damper | C-UDA            | G 1 ½" | 175/250 |
| 1    | 3007014266+ | Pulsation damper | UDA 150          | G 1 ½" | 175/250 |
| 1    | 3007017789+ | Pulsation damper | UDA 150          | G 1"   | 175/250 |
| 1    | 3007017790+ | Pulsation damper | UDA 230          | G 1"   | 175/250 |
| 1    | 3007015068+ | Pulsation damper | UDA 230          | G 1 ½" | 350/500 |
| 1    | 3007023479+ | Pulsation damper | UEA 200          | G 1 ½" | 175/250 |
| 1    | 3000010810+ | Pulsation damper | UD 200 / UDA 230 | G 1 ½" | 175/250 |
| 1    | 3000010483+ | Pulsation damper | UD 350           | G 1 ½" | 175/250 |
| 1    | 3007017791+ | Pulsation damper | UD 350           | G 1"   | 175/250 |
| 1    | 3000010467+ | Pulsation damper | UD 350           | G 1 ½" | 350/500 |
| 1    | 3000010472+ | Pulsation damper | UD 350           | G 2"   | 350/500 |
| 1    | 3000010484+ | Pulsation damper | UD 500           | G 1 ½" | 175/250 |
| 1    | 3007017792+ | Pulsation damper | UD 500           | G 1"   | 175/250 |
| 1    | 3000010468+ | Pulsation damper | UD 500           | G 1 ½" | 350/500 |
| 1    | 3000010473+ | Pulsation damper | UD 500           | G 2"   | 350/500 |
| 2    | 3007023355+ | Pulsation damper | UD 500           | G 2"   | 700     |
| 2    | 3007023360+ | Pulsation damper | UD 500           | G 3"   | 700     |

| Item | Part No.    | Description      | Tank type | Pump   | Valve   |
|------|-------------|------------------|-----------|--------|---------|
| 1    | 3000011053+ | Pulsation damper | UC 250    | G 1 ½" | 175/250 |
| 1    | 3000011046+ | Pulsation damper | UC 250    | G 1 ½" | 350/500 |
| 1    | 3000011048+ | Pulsation damper | UC 250    | G 2"   | 350/500 |
| 1    | 3000011047+ | Pulsation damper | UC 500    | G 1 ½" | 350/500 |
| 1    | 3000011050+ | Pulsation damper | UC 500    | G 2"   | 350/500 |
| 1    | 3000010482+ | Pulsation damper | UC 500    | G 1 ½" | 175/250 |
| 1    | 3000010485+ | Pulsation damper | UC 750    | G 1 ½" | 175/250 |
| 1    | 3000010469+ | Pulsation damper | UC 750    | G 1 ½" | 350/500 |
| 1    | 3000010474+ | Pulsation damper | UC 750    | G 2"   | 350/500 |
| 2    | 3007023356+ | Pulsation damper | UC 750    | G 2"   | 700     |
| 2    | 3007023361+ | Pulsation damper | UC 750    | G 3"   | 700     |
| 1    | 3000010486+ | Pulsation damper | UC 1000   | G 1 ½" | 175/250 |
| 1    | 3000010471+ | Pulsation damper | UC 1000   | G 1 ½" | 350/500 |
| 1    | 3000010475+ | Pulsation damper | UC 1000   | G 2"   | 350/500 |
| 2    | 3007023357+ | Pulsation damper | UC 1000   | G 2"   | 700     |
| 2    | 3007023362+ | Pulsation damper | UC 1000   | G 3"   | 700     |
| 1    | 3000012317+ | Pulsation damper | UC 1200   | G 1 ½" | 350/500 |
| 1    | 3000012315+ | Pulsation damper | UC 1200   | G 2"   | 350/500 |
| 2    | 3007023358+ | Pulsation damper | UC 1200   | G 2"   | 700     |
| 2    | 3007023363+ | Pulsation damper | UC 1200   | G 3"   | 700     |
| 1    | 3000012318+ | Pulsation damper | UC 1400   | G 1 ½" | 350/500 |
| 1    | 3000012316+ | Pulsation damper | UC 1400   | G 2"   | 350/500 |
| 2    | 3007023359+ | Pulsation damper | UC 1400   | G 2"   | 700     |
| 2    | 3007023364+ | Pulsation damper | UC 1400   | G 3"   | 700     |

### 3.2 Pulsation damper VF-LRV



300-7-10031397-

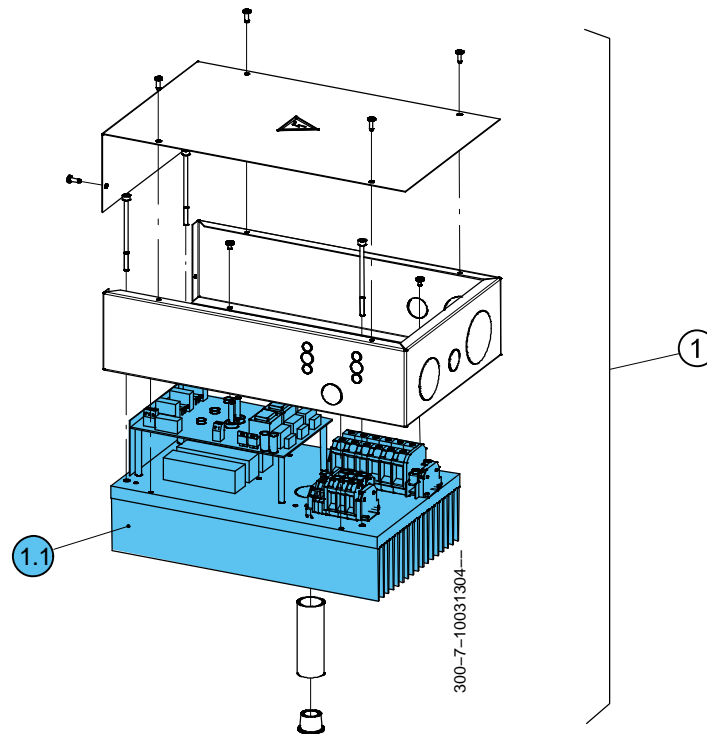
| Item | Part No.<br>(Pos. 1) | Description | Length<br>[mm] | Basic structure<br>(Pos. 2) | Tank type  | Pump   | Valve  |
|------|----------------------|-------------|----------------|-----------------------------|--|--------|--------|
| 3    | 3007019751           | Riser pipe  | 135            | 3007011075+                 | UDA 150  | G 1 ½" | VF-LRV |
| 3    | 3000057491*          | Riser pipe  | 192            | 3007011075+                 | UD 300A<br>UD 450A                               | G 1 ½" | VF-LRV |
| 3    | 3007019752           | Riser pipe  | 300            | 3007011075+                 | UDA 200<br>UD 200<br>UD 300<br>UDA 230<br>UD 470 | G 1 ½" | VF-LRV |
| 3    | 3007019753           | Riser pipe  | 345            | 3007011075+                 | UD 350   | G 1 ½" | VF-LRV |
| 3    | 3007019755           | Riser pipe  | 368            | 3007011075+                 | UC 750   | G 1 ½" | VF-LRV |
| 3    | 3007019754           | Riser pipe  | 510            | 3007011075+                 | UDA 400<br>UD 500<br>UD 600                      | G 1 ½" | VF-LRV |
| 3    | 3000057491*          | Riser pipe  | 192            | 3007011076+                 | UD 300A<br>UD 450A                               | G 2"   | VF-LRV |
| 3    | 3007019752           | Riser pipe  | 300            | 3007011076+                 | UD 400<br>UD 470                                 | G 2"   | VF-LRV |
| 3    | 3007019753           | Riser pipe  | 345            | 3007011076+                 | UD 350   | G 2"   | VF-LRV |
| 3    | 3007019755           | Riser pipe  | 368            | 3007011076+                 | UC 750   | G 2"   | VF-LRV |



| Item | Part No.<br>(Pos. 1) | Description | Length<br>[mm]    | Basic structure<br>(Pos. 2) | Tank type                             | Pump | Valve  |
|------|----------------------|-------------|-------------------|-----------------------------|---------------------------------------|------|--------|
| 3    | 3007019754           | Riser pipe  | 510               | 3007011076+                 | UDA 400<br>UD 480<br>UD 500<br>UD 600 | G 2" | VF-LRV |
| 3    | 3000057491*          | Riser pipe  | 576<br>776<br>976 | 3007011076+                 | UC 1000<br>UC 1200<br>UC 1400         | G 2" | VF-LRV |
| 3    | 3007019754           | Riser pipe  | 510               | 3007017108+                 | UD 500                                | G 3" | VF-LRV |

\* Article with variable length

## 4 Soft starter / Output unit / Frequency inverter

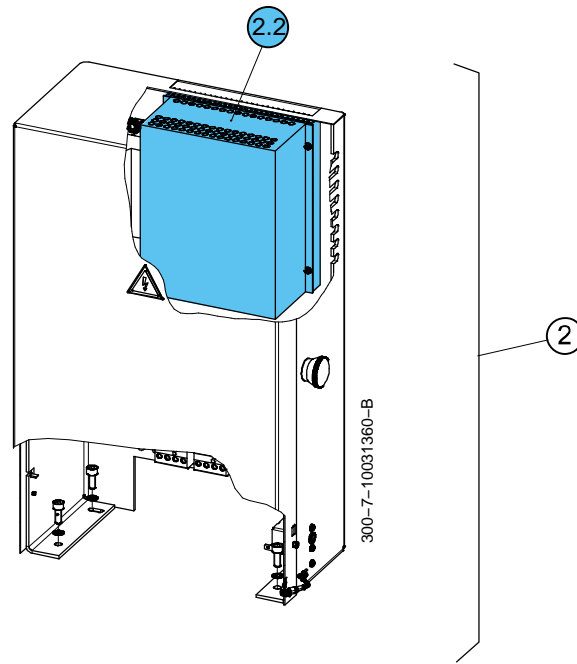


### 4.1 Soft starter complete incl. connection box

| Item | Part No.   | Description            | Output   | Voltage | Frequency |
|------|------------|------------------------|----------|---------|-----------|
| 1    | 3007017507 | Soft starter BE1 UDA   | 3-15 kW  | 400 V   | 50 Hz     |
| 1    | 3007017508 | Soft starter BE1 UD/UC | 3-15 kW  | 400 V   | 50 Hz     |
| 1    | 3007017509 | Soft starter BE3 UDA   | 16-29 kW | 400 V   | 50 Hz     |
| 1    | 3007017510 | Soft starter BE3 UD/UC | 16-29 kW | 400 V   | 50 Hz     |
| 1    | 3007017511 | Soft starter BE4 UDA   | 30-40 kW | 400 V   | 50 Hz     |
| 1    | 3007017513 | Soft starter BE5 UD/UC | 41-60 kW | 400 V   | 50 Hz     |
| 1    | 3007022467 | Soft starter BE6 UD/UC | 61-93 kW | 400 V   | 50 Hz     |

### 4.2 Soft starter without housing

| Item | Part No.    | Description      | Output   | Voltage | Frequency |
|------|-------------|------------------|----------|---------|-----------|
| 1.1  | 3000010375+ | Soft starter BE1 | 3-15 kW  | 400 V   | 50 Hz     |
| 1.1  | 3000010376+ | Soft starter BE3 | 16-29 kW | 400 V   | 50 Hz     |
| 1.1  | 3000010377+ | Soft starter BE4 | 30-40 kW | 400 V   | 50 Hz     |
| 1.1  | 3000010379+ | Soft starter BE5 | 41-60 kW | 400 V   | 50 Hz     |
| 1.1  | 3000010809+ | Soft starter BE6 | 61-93 kW | 400 V   | 50 Hz     |

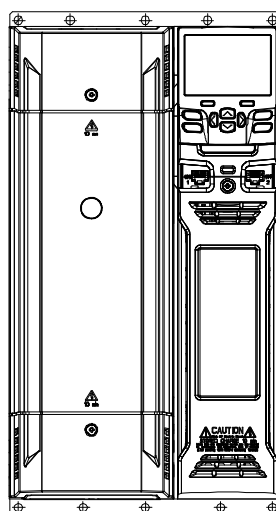


### 4.3 Output unit

| Item | Part No.    | Description    | Output   | Voltage | Frequency |
|------|-------------|----------------|----------|---------|-----------|
| 2    | 3007022834+ | Power unit LC1 | 3-15 kW  | 400 V   | 50 Hz     |
| 2    | 3007022835+ | Power unit LC4 | 16-40 kW | 400 V   | 50 Hz     |
| 2    | 3007022836+ | Power unit LC5 | 41-60 kW | 400 V   | 50 Hz     |

### 4.4 Soft starter to output unit

| Item | Part No.   | Description      | Output   | Voltage | Frequency |
|------|------------|------------------|----------|---------|-----------|
| 2.2  | 3007011389 | Soft starter LC1 | 3-15 kW  | 400 V   | 50 Hz     |
| 2.2  | 3007011391 | Soft starter LC4 | 16-40 kW | 400 V   | 50 Hz     |
| 2.2  | 3007011392 | Soft starter LC5 | 41-60 kW | 400 V   | 50 Hz     |



## 4.5 Frequency inverter

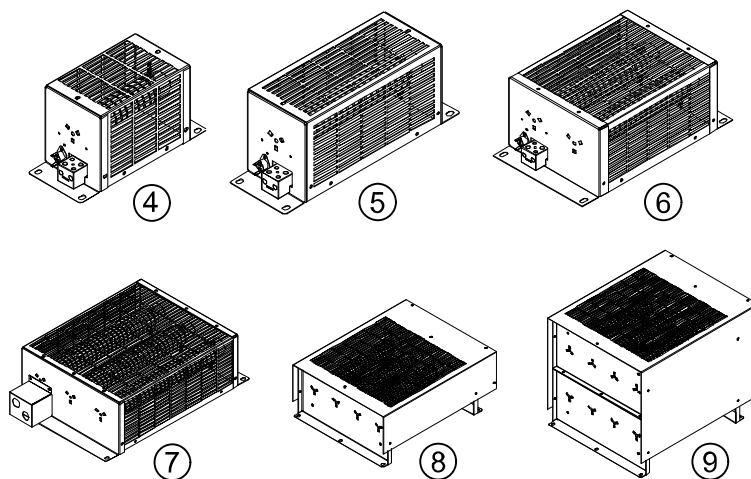
| Item | Part No.    | Description        | Type     | Output           | Voltage | Frequency    |
|------|-------------|--------------------|----------|------------------|---------|--------------|
| 3    | 3007022029+ | Frequency inverter | M701-044 | 5.5 kW/15.0 A    | 400 V   | 50 ... 60 Hz |
| 3    | 3007022030+ | Frequency inverter | M701-054 | 11.0 kW/27.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022031+ | Frequency inverter | M701-064 | 15.0 kW/35.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022032+ | Frequency inverter | M701-064 | 18.5 kW/42.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022033+ | Frequency inverter | M701-064 | 22.0 kW/47.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022034+ | Frequency inverter | M701-074 | 30.0 kW/66.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022035+ | Frequency inverter | M701-074 | 37.0 kW/77.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022036+ | Frequency inverter | M701-074 | 45.0 kW/100.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022037+ | Frequency inverter | M701-084 | 55.0 kW/134.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022038+ | Frequency inverter | M701-084 | 75.0 kW/157.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022039+ | Frequency inverter | M701-094 | 90.0 kW/200.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022040+ | Frequency inverter | M701-094 | 110.0 kW/224.0 A | 400 V   | 50 ... 60 Hz |

**4.5.1 Exchange**

| Item | Part No.    | Description        | Type     | Output           | Voltage | Frequency    |
|------|-------------|--------------------|----------|------------------|---------|--------------|
| 3    | 3007022029A | Frequency inverter | M701-044 | 5.5 kW/15.0 A    | 400 V   | 50 ... 60 Hz |
| 3    | 3007022030A | Frequency inverter | M701-054 | 11.0 kW/27.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022031A | Frequency inverter | M701-064 | 15.0 kW/35.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022032A | Frequency inverter | M701-064 | 18.5 kW/42.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022033A | Frequency inverter | M701-064 | 22.0 kW/47.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022034A | Frequency inverter | M701-074 | 30.0 kW/66.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022035A | Frequency inverter | M701-074 | 37.0 kW/77.0 A   | 400 V   | 50 ... 60 Hz |
| 3    | 3007022036A | Frequency inverter | M701-074 | 45.0 kW/100.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022037A | Frequency inverter | M701-084 | 55.0 kW/134.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022038A | Frequency inverter | M701-084 | 75.0 kW/157.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022039A | Frequency inverter | M701-094 | 90.0 kW/200.0 A  | 400 V   | 50 ... 60 Hz |
| 3    | 3007022040A | Frequency inverter | M701-094 | 110.0 kW/224.0 A | 400 V   | 50 ... 60 Hz |

**4.5.2 Accessories**

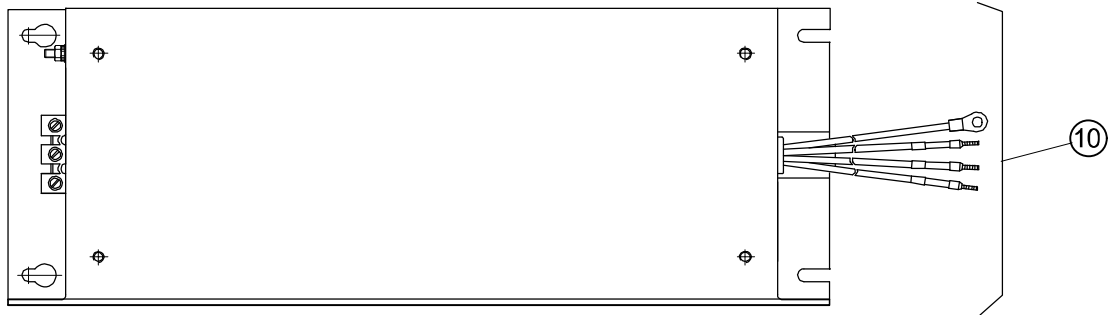
| Item | Part No.    | Description           | Type                     |
|------|-------------|-----------------------|--------------------------|
| -    | 3007023550  | Mounting bracket      | 3470-0074-00             |
| -    | 3007023352+ | Smartcard programmed  | AC SMARTCARD             |
| -    | 3007022421  | Certificate of origin |                          |
| -    | 3007022041+ | Keypad                | AC KI-KEYPAD LCD ZU M701 |



### 4.5.3 Braking resistor

| Item | Part No.    | Description      | Type              | to Unidrive<br>M701-...  |
|------|-------------|------------------|-------------------|--|
| 4    | 3007022115+ | Braking resistor | ESH-35R-S-B-6004  | 044 5.5 kW<br>054 11.0 kW  |
| 5    | 3007023085+ | Braking resistor | DBR3-1000W-40R-TS | 044 5.5 kW<br>054 11.0 kW<br>064 15.0 kW<br>064 18.5 kW                                |
| 6    | 3007023086+ | Braking resistor | DBR3-2000W-40R-TS | 064 15.0 kW<br>064 18.5 kW<br>064 22.0 kW<br>074 30.0 kW<br>074 37.0 kW<br>074 45.0 kW |
| 7    | 3007023087+ | Braking resistor | DBR3-4500W-20R-TS | 074 30.0 kW<br>074 37.0 kW<br>074 45.0 kW<br>084 55.0 kW                               |
| 8    | 3007023088+ | Braking resistor | DBR3-6000W-20R-TS | 074 30.0 kW<br>074 37.0 kW<br>074 45.0 kW<br>084 55.0 kW<br>084 75.0 kW                |
| 9    | 3007022058+ | Braking resistor | ES8-11R-S-B- 9000 | 074 30.0 kW<br>074 37.0 kW<br>074 45.0 kW<br>084 55.0 kW<br>084 75.0 kW<br>094 90.0 kW |

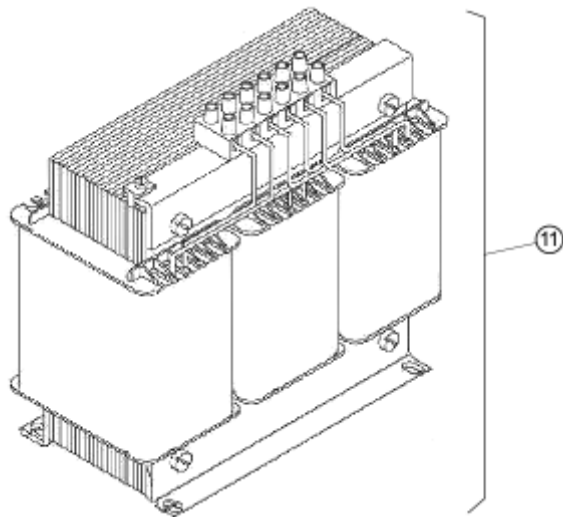
| Item | Part No.    | Description      | Type            | to Unidrive<br>M701-...  |
|------|-------------|------------------|-----------------|--|
| -    | 3007013242+ | Braking resistor | DBR24-12R-12000 | 074 30.0 kW<br>074 37.0 kW<br>074 45.0 kW<br>084 55.0 kW<br>084 75.0 kW<br>094 90.0 kW<br>094 110.0 kW |
| -    | 3007019265+ | Braking resistor | DBR36-12R-18000 | 074 30.0 kW<br>074 37.0 kW<br>074 45.0 kW<br>084 55.0 kW<br>084 75.0 kW<br>094 90.0 kW<br>094 110.0 kW |



#### 4.5.4 RFI mains filter

| Item | Part No.    | Description      | Type         | to Frame |
|------|-------------|------------------|--------------|----------|
| 10   | 3007022042+ | RFI mains filter | RFI4200-0252 | F4       |
| 10   | 3007021812+ | RFI mains filter | RFI4200-0402 | F5       |
| 10   | 3007022043+ | RFI mains filter | RFI4200-4800 | F6       |
| 10   | 3007022044+ | RFI mains filter | RFI4200-1132 | F7       |
| 10   | 3007022045+ | RFI mains filter | RFI4200-1972 | F8       |
| 10   | 3007022046+ | RFI mains filter | RFI4200-4460 | F9       |

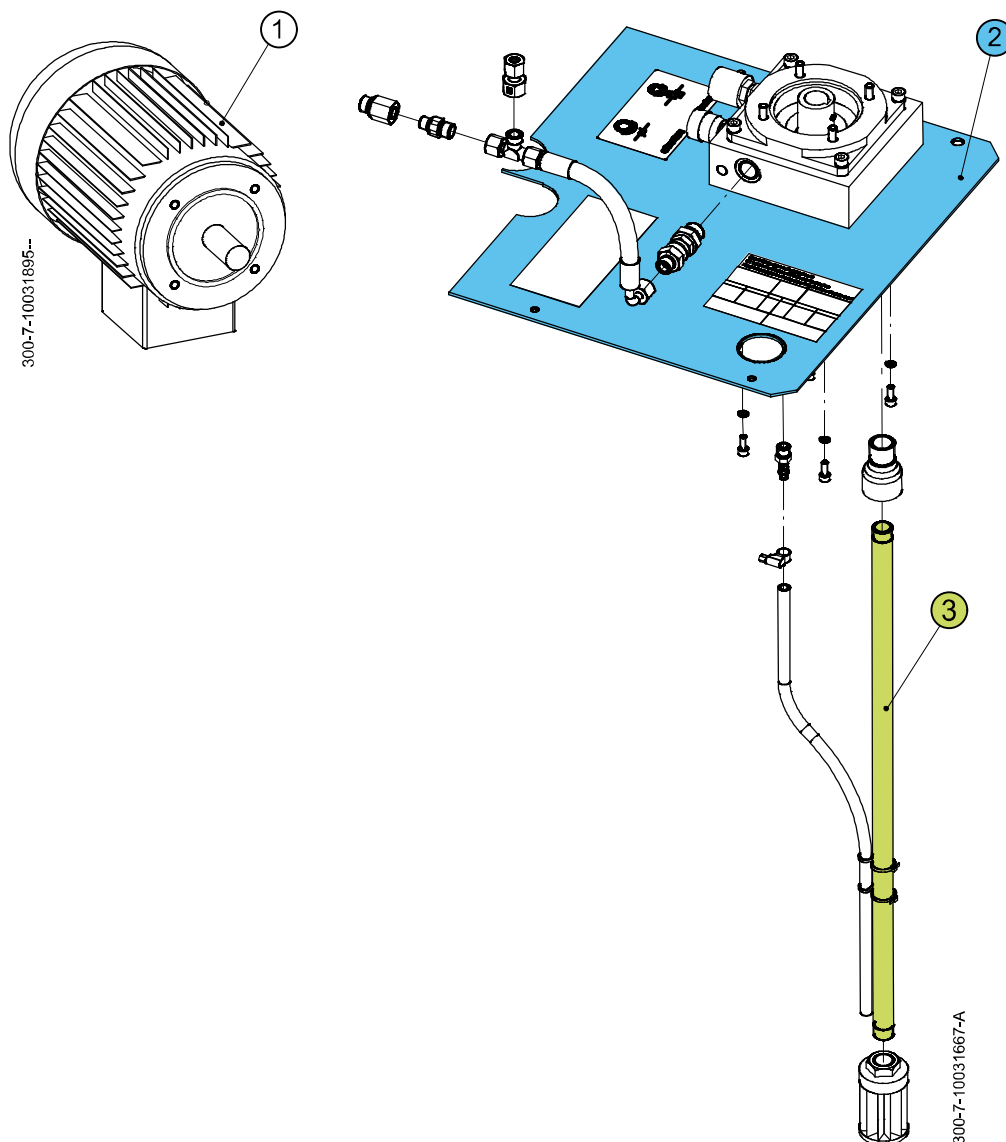




#### 4.5.5 Power choke

| Item | Part No.    | Description | Type                       | to Unidrive M701-... |
|------|-------------|-------------|----------------------------|----------------------|
| 11   | 3007021813+ | Power choke | DDLI3-5.5KW 12.6A/3X2.6MH  | 044 5.5 kW           |
| 11   | 3007021814+ | Power choke | DDLI3-11KW 22A/3X1.5MH     | 054 11.0 kW          |
| 11   | 3007022047+ | Power choke | DDLI3-15KW H 29A/3X0.8MH   | 064 15.0 kW          |
| 11   | 3007022048+ | Power choke | DDLI3-18.5KW 34.5A/3X0.8MH | 064 18.5 kW          |
| 11   | 3007022049+ | Power choke | DDLI3-22KW 38.4A/3X0.8MH   | 064 22.0 kW          |
| 11   | 3007022050+ | Power choke | DDLI3-30KW 56A/3X0.3MH     | 074 30.0 kW          |
| 11   | 3007022051+ | Power choke | DDLI3-37KW 65A/3X0.2MH     | 074 37.0 kW          |
| 11   | 3007022052+ | Power choke | DDLI3-45KW 83A/3X0.2MH     | 074 45.0 kW          |
| 11   | 3007022053+ | Power choke | DDLI3-55KW 118A/3X0.065MH  | 084 55.0 kW          |
| 11   | 3007022054+ | Power choke | DDLI3-75KW 136A/3X0.065MH  | 084 75.0 kW          |
| 11   | 3007022055+ | Power choke | DDLI3-90KW 180A/3X0.063MH  | 094 90.0 kW          |
| 11   | 3007022056+ | Power choke | DDLI3-110KW 197A/3x0.063MH | 094 110.0 kW         |

## 5 Relevelling unit



### 5.1 Motor for relevelling

| Item | Part No.    | Description                    | Output | Voltage     | Frequency    | Pump |
|------|-------------|--------------------------------|--------|-------------|--------------|------|
| 1    | 3000040996+ | Electric motor for relevelling | 1.1 kW | 230 / 400 V | 50 Hz        | N10  |
| 1    | 3000040997+ | Electric motor for relevelling | 1.5 kW | 230 / 400 V | 50 Hz        | N16  |
| 1    | 3007017605+ | Electric motor for relevelling | 1.5 kW | 230 V       | 50 Hz / 1 PH | N16  |
| 1    | 3000040998+ | Electric motor for relevelling | 2.2 kW | 230 / 400 V | 50 Hz        | N25  |
| 1    | 3000040981+ | Electric motor for relevelling | 4.0 kW | 230 / 400 V | 50 Hz        | N50  |

## 5.2 Cover for releveling

| Item | Part No.                 | Description    | Tank type | Valve                         |  |  |
|------|--------------------------|----------------|-----------|-------------------------------|--|--|
| –    | 3007022916               | Rotating disc* | UDA 230   |                               |  |  |
| 2    | 3007015063               | Cover          | UDA 230   | LRV 175                       |  |  |
| 2    | 3007015064               | Cover          | UDA 230   | LRV 350                       |  |  |
| –    | 3007022892               | Rotating disc* | UDA 350   |                               |  |  |
| 2    | 3007023091               | Cover          | UDA 350   | i250                          |  |  |
| 2    | 3007021290               | Cover          | UDA 350   | i500                          |  |  |
| 2    | 3000010511               | Cover          | UDA 350   | LRV 175                       |  |  |
| 2    | 3000010513               | Cover          | UDA 350   | LRV 350                       |  |  |
| –    | 3007022895               | Rotating disc* | UDA 400   |                               |  |  |
| 2    | 3007016112               | Cover          | UDA 400   | LRV 700                       |  |  |
| 2    | 3000008015               | Cover          | UC 500    | LRV 175<br>LRV 350<br>LRV 700 |  |  |
| –    | 3007022898               | Rotating disc* | UD 500    |                               |  |  |
| 2    | 3000010514               | Cover          | UD 500    | LRV 175                       |  |  |
| 2    | 3000010516<br>3007023195 | Cover          | UD 500    | LRV 700                       |  |  |
| 2    | 3007021297               | Cover          | UC 750    | i500                          |  |  |
| 2    | 3000008069               | Cover          | UC 750    | LRV 175<br>LRV 350<br>LRV 700 |  |  |
| 2    | 3007021553<br>3007022950 | Cover          | UD 800    | i500                          |  |  |
| 2    | 3007022503               | Cover          | UC 1000   | i500                          |  |  |
| 2    | 3000008070<br>3007013271 | Cover          | UC 1000   | LRV 175<br>LRV 350<br>LRV 700 |  |  |
| 2    | 3000008070               | Cover          | UC 1200   | LRV 175<br>LRV 350<br>LRV 700 |  |  |
| 2    | 3007021553               | Cover          | UD 1300   | i500                          |  |  |
| 2    | 3000008070               | Cover          | UC 1400   | LRV 175<br>LRV 350<br>LRV 700 |  |  |

\* At all cover versions from as of 2022

### 5.3 Basic setup plus hydraulic pipe

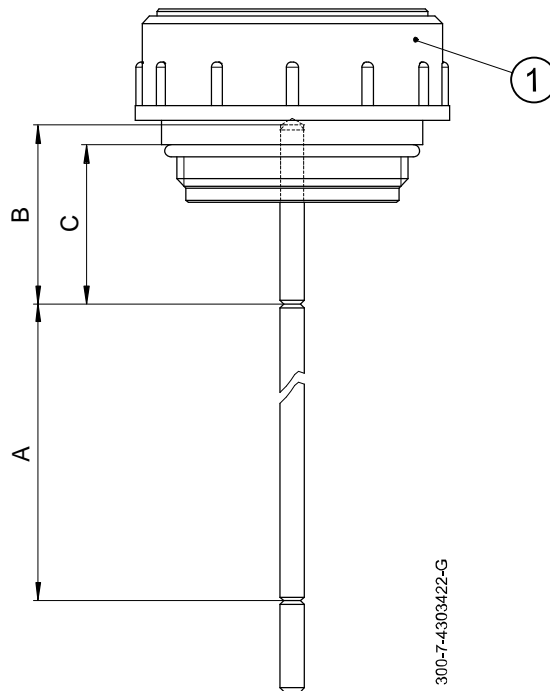
| Pump | Basic setup | Valve                  | Item | UD 200     | UDA 200    | UEA 200    | UDA 230    | UC 250     |
|------|-------------|------------------------|------|------------|------------|------------|------------|------------|
| N10  | 3000008036+ | i250 /<br>LRV 175-1    | 3    | 3000008073 | 3000008073 | 3000008073 | 3000008073 | 3000008072 |
| N16  | 3000008038+ | i500 /<br>LRV 350-1    | 3    | –          | –          | –          | 3000008073 | 3000008072 |
| N25  | 3000008039+ | 2x i500 /<br>LRV 700-1 | 3    | –          | –          | –          | –          | –          |
| N50  | 3000011162+ | 2x i500 /<br>LRV 700-1 | 3    | –          | –          | –          | –          | –          |

| Pump | Basic setup | Valve                  | Item | UD 300A    | UD 350     | UDA 400    | UDA 450A   | UC 500     |
|------|-------------|------------------------|------|------------|------------|------------|------------|------------|
| N10  | 3000008036+ | i250 /<br>LRV 175-1    | 3    | –          | 3000008074 | 3007011242 | –          | 3000008073 |
| N16  | 3000008038+ | i500 /<br>LRV 350-1    | 3    | 3000008073 | 3000008074 | 3007011242 | 3000008073 | 3000008073 |
| N25  | 3000008039+ | 2x i500 /<br>LRV 700-1 | 3    | –          | 3000008074 | 3007011242 | 3000008073 | 3000008073 |
| N50  | 3000011162+ | 2x i500 /<br>LRV 700-1 | 3    | –          | –          | –          | –          | –          |

| Pump | Basic setup | Valve                  | Item | UD 500     | UC 750     | UD 800     | UC 1000    | UC 1200                  |
|------|-------------|------------------------|------|------------|------------|------------|------------|--------------------------|
| N10  | 3000008036+ | i250 /<br>LRV 175-1    | 3    | 3007011242 | 3000008074 | 3000008074 | 3000008075 | –                        |
| N16  | 3000008038+ | i500 /<br>LRV 350-1    | 3    | 3007011242 | 3000008074 | –          | 3000008075 | 3007017215               |
| N25  | 3000008039+ | 2x i500 /<br>LRV 700-1 | 3    | 3007011242 | 3000008074 | 3000008074 | 3000008075 | –                        |
| N50  | 3000011162+ | 2x i500 /<br>LRV 700-1 | 3    | 3000011160 | 3000011160 | 3000011160 | 3000011161 | 3007017234<br>3000055812 |

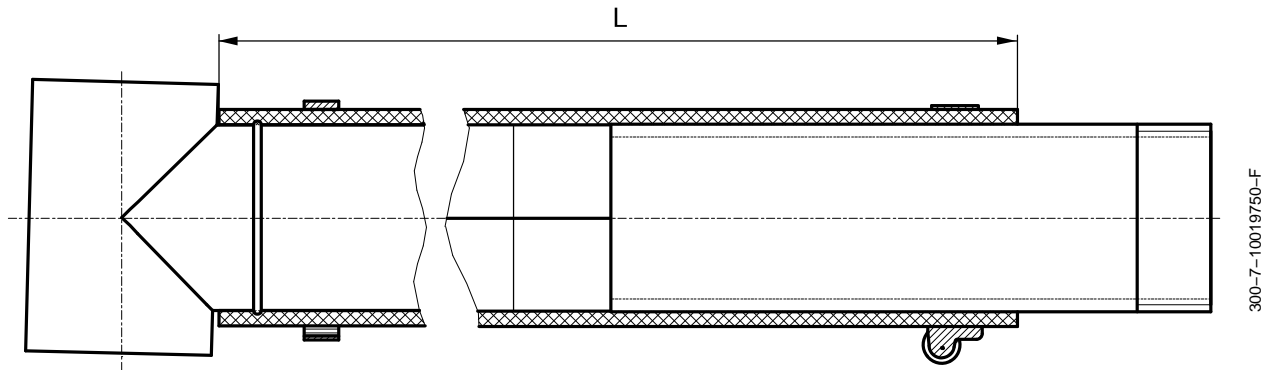
| Pump | Basic setup | Valve                  | Item | UD 1300    | UC 1300                  |  |
|------|-------------|------------------------|------|------------|--------------------------|--|
| N10  | 3000008036+ | i250 /<br>LRV 175-1    | 3    | –          | 3007017216               |  |
| N16  | 3000008038+ | i500 /<br>LRV 350-1    | 3    | –          | 3007017216               |  |
| N25  | 3000008039+ | 2x i500 /<br>LRV 700-1 | 3    | 3007022454 | –                        |  |
| N50  | 3000011162+ | 2x i500 /<br>LRV 700-1 | 3    | 3007022455 | 3007017235<br>3007014091 |  |

## 6 Oil filler neck plus bleed screw



| Item | Part No.    | Description                      | Tank type                           | A [mm] | B [mm] | C [mm] |
|------|-------------|----------------------------------|-------------------------------------|--------|--------|--------|
| 1    | 3007014292+ | Oil filler neck plus bleed screw | UDA 150 / C-UDA 150                 | 361    | 46     | 42     |
| 1    | 3007015069+ | Oil filler neck plus bleed screw | UDA 230 / UD 350                    | 513    | 48     | 44     |
| 1    | 3007017244+ | Oil filler neck plus bleed screw | UDA 400 / UD 500<br>UD 600 / UD 800 | 640    | 64     | 53     |
| 1    | 3007018675+ | Oil filler neck plus bleed screw | UD 470                              | 410    | 64     | 53     |
| 1    | 3007022289+ | Oil filler neck plus bleed screw | UD 1300                             | 1100   | 64     | 53     |
| 1    | 3000000855+ | Oil filler neck plus bleed screw | UC 750                              | 554    | 37     | 33     |
| 1    | 3000000856+ | Oil filler neck plus bleed screw | UC 1000                             | 754    | 37     | 33     |
| 1    | 3000010715+ | Oil filler neck plus bleed screw | UC 1200                             | 934    | 57     | 53     |
| 1    | 3000010716+ | Oil filler neck plus bleed screw | UC 1400                             | 1134   | 57     | 53     |
| 1    | 3007018087+ | Oil filler neck plus bleed screw | TG2-15 MK2                          | 712    | 46     | 42     |
| 1    | 3007015445+ | Oil filler neck plus bleed screw | TG2-25 MK2                          | 712    | 46     | 42     |
| 1    | 3007018448+ | Oil filler neck plus bleed screw | ISA 130                             | 858    | 66     | 62     |

## 7 Return



### 7.1 Return hose 1"

| Spare parts article | Tank type                 | L [mm] | Valve         |
|---------------------|---------------------------|--------|---------------|
| 3007015932+         | C-UDA 150                 | 530    | LRV 175 / 250 |
| 3007015102+         | UDA 150                   | 610    | LRV 175 / 250 |
| 3000003078+         | UDA 230                   | 800    | LRV 175 / 250 |
| 3000010948+         | UD 350                    | 800    | LRV 175 / 250 |
| 3000010949+         | UDA 400 / UD 500 / UD 600 | 980    | LRV 175 / 250 |
| 3000006872+         | UC 250                    | 535    | LRV 175 / 250 |
| 3000006875+         | UC 500                    | 715    | LRV 175 / 250 |
| 3000006878+         | UC 750                    | 800    | LRV 175 / 250 |
| 3000006881+         | UC 1000                   | 980    | LRV 175 / 250 |

### 7.2 Return hose 1½"

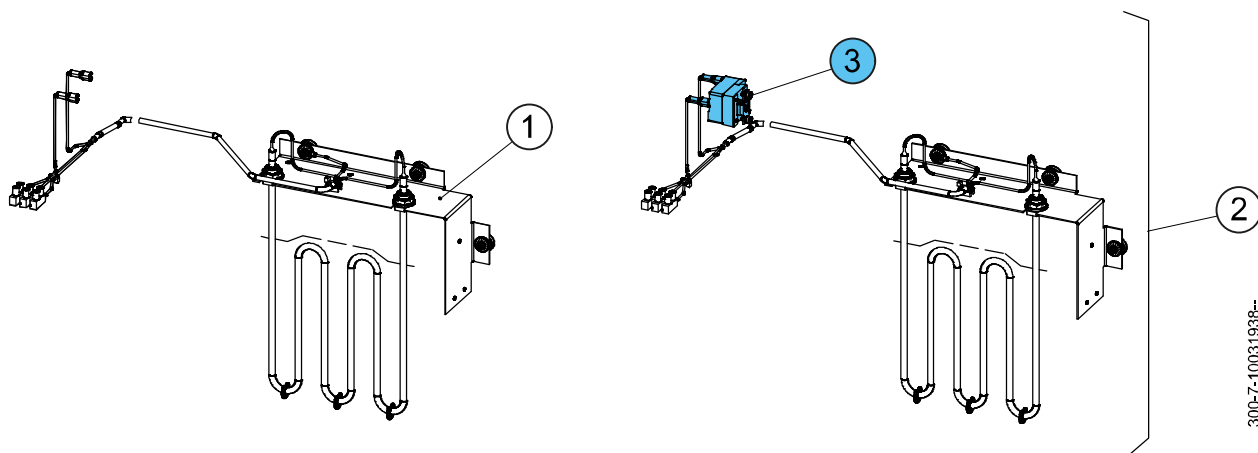
| Spare parts article | Tank type                 | L [mm] | Valve          |
|---------------------|---------------------------|--------|----------------|
| 3007015067+         | UDA 230                   | 780    | LRV 350 / i500 |
| 3000010790+         | UD 350                    | 830    | LRV 350 / i500 |
| 3000010791+         | UDA 400 / UD 500 / UD 600 | 1020   | LRV 350 / i500 |
| 3000006873+         | UC 250                    | 520    | LRV 350 / i500 |
| 3000006876+         | UC 500                    | 700    | LRV 350 / i500 |
| 3000006879+         | UC 750                    | 830    | LRV 350 / i500 |
| 3007022239+         | UD 800                    | 1020   | LRV 350 / i500 |
| 3000006883+         | UC 1000                   | 1020   | LRV 350 / i500 |

| Spare parts article | Tank type      | L [mm] | Valve          |
|---------------------|----------------|--------|----------------|
| 3007022244+         | UD 1300        | 1420   | LRV 350 / i500 |
| 3007022746+         | UC 1400 / i500 | 1420   | LRV 350 / i500 |

### 7.3 Return hose 2"

| Spare parts article | Tank type | L [mm] | Valve   |
|---------------------|-----------|--------|---------|
| 3000010792+         | UD 500    | 1000   | LRV 700 |
| 3000006877+         | UC 500    | 680    | LRV 700 |
| 3000006880+         | UC 750    | 830    | LRV 700 |
| 3000006884+         | UC 1000   | 1000   | LRV 700 |
| 3000010683+         | UC 1200   | 1230   | LRV 700 |
| 3000010684+         | UC 1400   | 1430   | LRV 700 |

## 8 Heating

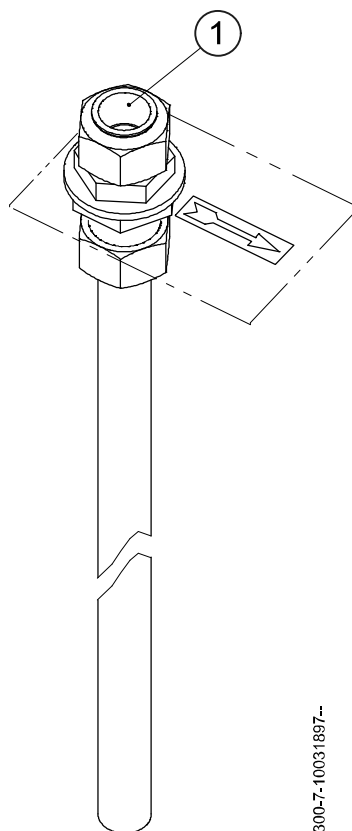


| Item | Part No.    | Description                | Tank type | Voltage |  |
|------|-------------|----------------------------|-----------|---------|--|
| 1    | 3007018855+ | Heating without thermostat | UD / UC   | 400 VAC |  |
| 2    | 3007018557+ | Heating incl. thermostat   | UD / UC   | 230 VAC |  |
| 2    | 3007018975+ | Heating incl. thermostat   | UD / UC   | 400 VAC |  |
| 2    | 3007019024+ | Heating incl. thermostat   | TG2       | 400 VAC |  |
| 3    | 3000009524+ | Thermostat                 |           |         |  |





## 9 Cooler connections



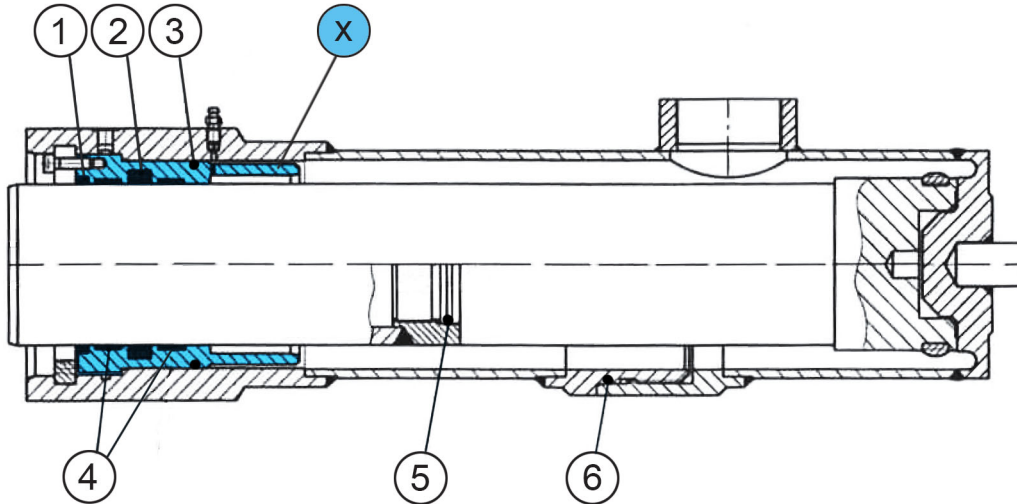
300-7-10031897--

| Item | Part No.    | Description       | Dimension | Tank type                 |
|------|-------------|-------------------|-----------|---------------------------|
| 1    | 3000304621+ | Cooler connection | K22       | UD 350 / UC 750           |
| 1    | 3000304623+ | Cooler connection | K22       | UD 500 / UD 800 / UC 1000 |
| 1    | 3000303752+ | Cooler connection | K22       | UD 200 (230)              |
| 1    | 3000303871+ | Cooler connection | K22       | UD 100                    |
| 1    | 3000302734+ | Cooler connection | K22       | UC 500                    |
| 1    | 3007014341+ | Cooler connection | K22       | UDA 150                   |
| 1    | 3007017206+ | Cooler connection | K22       | UC 1200                   |
| 1    | 3007017211+ | Cooler connection | K22       | UC 1400 / UD 1300         |
| 1    | 3000305165+ | Cooler connection | K28       | UD 200 (230)              |
| 1    | 3000304622+ | Cooler connection | K28       | UD 350 / UC 750           |
| 1    | 3000304624+ | Cooler connection | K28       | UD 500 / UD 800 / UC 1000 |
| 1    | 3000302738+ | Cooler connection | K28       | UC 500                    |
| 1    | 3007014093+ | Cooler connection | K28       | UC 1400 / UD 1300         |
| 1    | 3007017207+ | Cooler connection | K28       | UC 1200                   |

| Item | Part No.    | Description       | Dimension | Tank type                 |
|------|-------------|-------------------|-----------|---------------------------|
| 1    | 3000304670+ | Cooler connection | K35       | UD 500 / UD 800 / UC 1000 |
| 1    | 3007017208+ | Cooler connection | K35       | UC 1200                   |
| 1    | 3007010288+ | Cooler connection | K35       | UC 750                    |
| 1    | 3007017212+ | Cooler connection | K35       | UC 1400 / UD 1300         |
| 1    | 3000305271+ | Cooler connection | K50 / 42  | UC 750                    |
| 1    | 3007010620+ | Cooler connection | K50 / 42  | UD 500 / 800, UC 1000     |
| 1    | 3007017210+ | Cooler connection | K50 / 42  | UC 1200                   |
| 1    | 3007017214+ | Cooler connection | K50 / 42  | UC 1400 / UD 1300         |

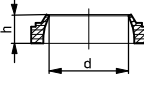
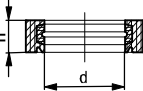
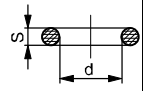
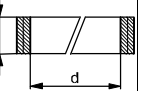
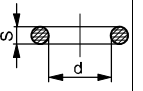
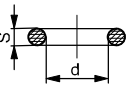
# 1 Plunger cylinder

## 1.1 Type series BZH – BZG




### 1.1.1 Seal Kit

| Item            |            | ①          | ②        | ③      | ④          | ⑤      | ⑥      |     |      |       |      |        |      |
|-----------------|------------|------------|----------|--------|------------|--------|--------|-----|------|-------|------|--------|------|
| Quantity        |            | 1          | 1        | 1      | 2          | 1      | 1      |     |      |       |      |        |      |
| Description     |            | Wiper seal | Rod seal | O-ring | Guide ring | O-ring | O-ring |     |      |       |      |        |      |
|                 |            |            |          |        |            |        |        |     |      |       |      |        |      |
| Cylinder type   | Part No.   | d          | h        | d      | h          | d      | S      | d   | h    | d     | S    | d      | S    |
| BZH/BZG 50 NBR  | 3007013901 | 50         | 7        | 50     | 7.5        | 64.77  | 2.62   | 50  | 9.6  | –     | –    | 82.22  | 2.62 |
| BZH/BZG 56 NBR  | 3007013902 | 56         | 7        | 56     | 12         | 75.87  | 2.62   | 56  | 9.6  | –     | –    | 94.92  | 2.62 |
| BZH/BZG 60 NBR  | 3007013903 | 60         | 7        | 60     | 10         | 75.87  | 2.62   | 60  | 12.8 | 39.34 | 2.62 | 94.92  | 2.62 |
| BZH/BZG 63 NBR  | 3007013904 | 63         | 7        | 63     | 12         | 82.22  | 2.62   | 63  | 12.8 | 39.34 | 2.62 | 101.27 | 2.62 |
| BZH/BZG 70 NBR  | 3007013905 | 70         | 7        | 70     | 10         | 88.57  | 2.62   | 70  | 12.8 | 39.34 | 2.62 | 107.62 | 2.62 |
| BZH/BZG 80 NBR  | 3007013906 | 80         | 7        | 80     | 10         | 94.92  | 2.62   | 80  | 12.8 | 39.34 | 2.62 | 113.97 | 2.62 |
| BZH/BZG 85 NBR  | 3007013907 | 85         | 7        | 85     | 12         | 107.62 | 2.62   | 85  | 12.8 | 45.69 | 2.62 | 126.67 | 2.62 |
| BZH/BZG 90 NBR  | 3007013908 | 90         | 7        | 90     | 12         | 107.62 | 2.62   | 90  | 12.8 | 45.69 | 2.62 | 126.67 | 2.62 |
| BZH/BZG 95 NBR  | 3007013909 | 95         | 7        | 95     | 12         | 120.32 | 2.62   | 95  | 12.8 | 45.69 | 2.62 | 139.37 | 2.62 |
| BZH/BZG 100 NBR | 3007013910 | 100        | 7        | 100    | 12         | 120.32 | 2.62   | 100 | 12.8 | 45.25 | 2.62 | 139.37 | 2.62 |
| BZH/BZG 110 NBR | 3007013911 | 110        | 10       | 110    | 12         | 126.67 | 2.62   | 110 | 12.8 | 55.25 | 2.62 | 145.72 | 2.62 |
| BZH/BZG 120 NBR | 3007013912 | 120        | 10       | 120    | 16         | 145.72 | 2.62   | 120 | 12.8 | 63.17 | 2.62 | 164.77 | 2.62 |
| BZH/BZG 125 NBR | 3007013913 | 125        | 10       | 125    | 16         | 145.72 | 2.62   | 125 | 12.8 | 63.17 | 2.62 | 164.77 | 2.62 |

| Item            |            | ①   | ②   | ③   | ④  | ⑤   | ⑥   |     |      |        |      |        |      |
|-----------------|------------|---|---|---|--|---|---|-----|------|--------|------|--------|------|
| Quantity        |            | 1   | 1   | 1   | 2  | 1   | 1   |     |      |        |      |        |      |
| Description     |            | Wiper seal<br> | Rod seal<br> | O-ring<br> | Guide ring<br> | O-ring<br> | O-ring<br> |     |      |        |      |        |      |
| Cylinder type   | Part No.   | d   | h   | d   | h  | d   | S   | d   | h    | d      | S    | d      | S    |
| BZH/BZG 130 NBR | 3007013914 | 130   | 10  | 130   | 12   | 145.72  | 2.62  | 130 | 12.8 | 63.17  | 2.62 | 164.77 | 2.62 |
| BZH/BZG 140 NBR | 3007013915 | 140   | 10  | 130   | 16   | 164.77  | 2.62  | 130 | 12.8 | 75.87  | 2.62 | 190.17 | 2.62 |
| BZH/BZG 150 NBR | 3007013916 | 150   | 10  | 150   | 16   | 171.12  | 2.62  | 150 | 12.8 | 75.87  | 2.62 | 190.17 | 2.62 |
| BZH/BZG 160 NBR | 3007013917 | 160   | 10  | 160   | 16   | 190.17  | 2.62  | 160 | 19.2 | 94.92  | 2.62 | 215.57 | 2.62 |
| BZH/BZG 170 NBR | 3007013918 | 170   | 10  | 170   | 16   | 209.22  | 2.62  | 170 | 19.2 | 113.97 | 2.62 | 240.97 | 2.62 |
| BZH/BZG 180 NBR | 3007013919 | 180   | 10  | 180   | 16   | 209.22  | 2.62  | 180 | 19.2 | 113.97 | 2.62 | 240.97 | 2.62 |
| BZH/BZG 185 NBR | 3007013920 | 185   | 9   | 185   | 16   | 209.22  | 2.62  | 185 | 19.2 | 113.97 | 2.62 | 240.97 | 2.62 |
| BZH/BZG 200 NBR | 3007013921 | 200   | 10.2  | 200   | 16   | 240.89  | 3.53  | 200 | 25   | 151.99 | 3.53 | 266.29 | 3.53 |
| BZH/BZG 210 NBR | 3007013922 | 210   | 10.2  | 210   | 16   | 240.89  | 3.53  | 210 | 25   | 164.69 | 3.53 | 266.29 | 3.53 |
| BZH/BZG 220 NBR | 3007013923 | 220   | 10.2  | 220   | 16   | 253.37  | 5.33  | 220 | 25   | 171.04 | 3.53 | 291.47 | 5.33 |
| BZH/BZG 230 NBR | 3007013924 | 230   | 10.2  | 230   | 16   | 253.37  | 5.33  | 230 | 25   | 183.74 | 3.53 | 291.47 | 5.33 |
| BZH/BZG 240 NBR | 3007013925 | 240   | 10.2  | 240   | 16   | 278.77  | 5.33  | 240 | 25   | 190.09 | 3.53 | 316.87 | 6.99 |
| BZH/BZG 290 NBR | 3007013928 | 290   | 10.2  | 290   | 16   | 316.87  | 6.99  | 290 | 25   | 240.89 | 3.53 | 354.97 | 6.99 |

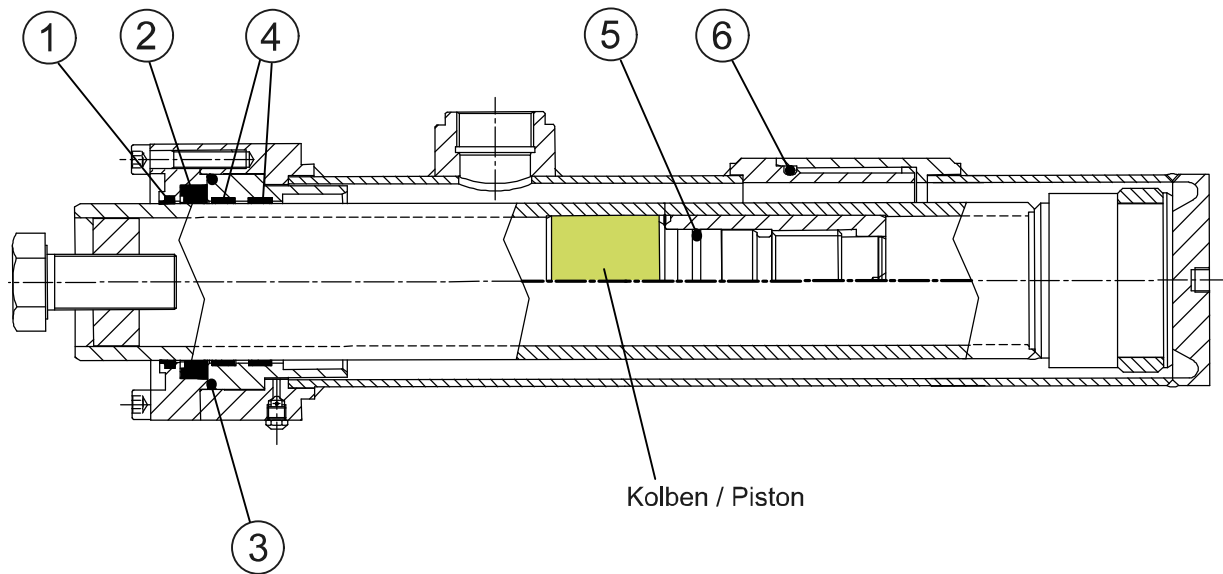
### 1.1.2 Guide bush with rod seal complet

| Item  |            |               |            |               |            |
|--|------------|---------------|------------|---------------|------------|
| Cylinder type  | Part no.   | Cylinder type | Part no.   | Cylinder type | Part no.   |
| SLV BZG 60   | 3000010547 | SLV BZG 95    | 3000010554 | SLV BZG 130   | 3000010559 |
| SLV BZG 80   | 3000010550 | SLV BZG 100   | 3000010555 | SLV BZG 170   | 3000010564 |
| SLV BZG 85   | 3000010551 | SLV BZG 110   | 3000010556 | SLV BZG 180   | 3000010565 |
| SLV BZG 90   | 3000010552 | SLV BZG 120   | 3000010557 |               |            |

### 1.1.3 Accessories

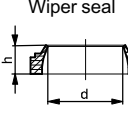
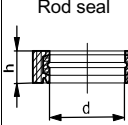
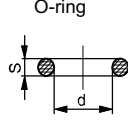
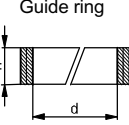
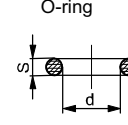
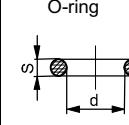
| Cylinder type        | Description      | Part no.   |
|----------------------|------------------|------------|
| SCW M 8 BZH          | Bleed screw      | 3000009459 |
| CON WES 8/R1/8 PA 6  | Hose connection  | 3000053873 |
| HOS PVC 8/12 L= 10 M | Hose transparent | 3007018466 |
| HOS PVC 8/12 L= 15 M | Hose transparent | 3007018467 |

## 1.2 Type series BZML – BZML



### 1.2.1 Seal Kit

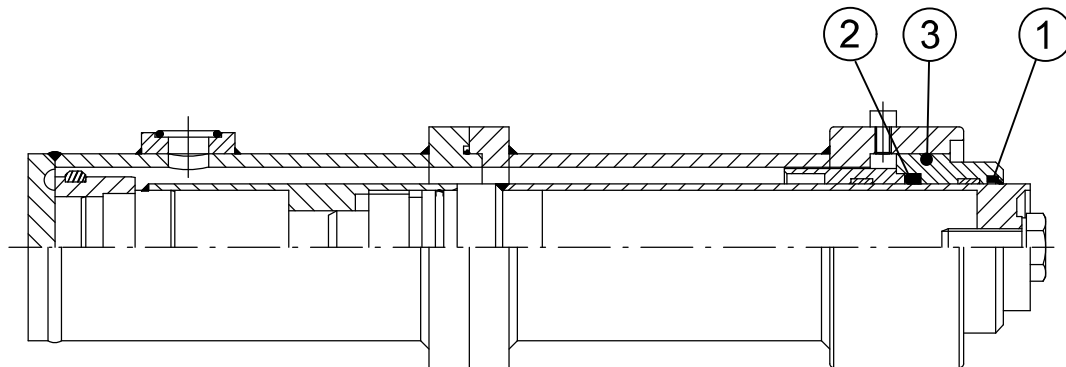
| Item          |            | ①          |     | ②        |      | ③      |      | ④          |      | ⑤              |                |              | ⑥      |      |
|---------------|------------|------------|-----|----------|------|--------|------|------------|------|----------------|----------------|--------------|--------|------|
| Quantity      |            | 1          |     | 1        |      | 1      |      | 2          |      | 1              |                |              | 1      |      |
| Description   |            | Wiper seal |     | Rod seal |      | O-ring |      | Guide ring |      | O-ring         |                |              | O-ring |      |
|               |            |            |     |          |      |        |      |            |      |                |                |              |        |      |
| Cylinder type | Part No.   | d          | h   | d        | h    | d      | S    | d          | h    | Ø<br>Piston    | d              | S            | d      | S    |
| BZML/BZMH 50  | 3007018044 | 50         | 5.3 | 50       | 11   | 91.67  | 3.53 | 50         | 9.7  | -              | -              | -            | -      | -    |
| BZML/BZMH 60  | 3007018045 | 60         | 5.3 | 60       | 13   | 91.67  | 3.53 | 60         | 12.8 | -              | -              | -            | -      | -    |
| BZML/BZMH 70  | 3007018046 | 70         | 5.3 | 70       | 12.5 | 101.2  | 3.53 | 70         | 12.8 | 5<br>7.5       | 39.69          | 3.53         | 113.7  | 5.34 |
| BZML/BZMH 80  | 3007018047 | 80         | 5.3 | 80       | 14.5 | 110.7  | 3.53 | 80         | 12.8 | 5<br>7.5<br>12 | 49.21<br>39.69 | 3.53<br>3.53 | 113.7  | 5.34 |
| BZML/BZMH 85  | 3007018048 | 85         | 5.3 | 85       | 14.5 | 110.7  | 3.53 | 85         | 12.8 | 7.5            | 49.21          | 3.53         | 113.7  | 5.34 |
| BZML/BZMH 90  | 3007018049 | 90         | 7.1 | 90       | 12.5 | 120.2  | 3.53 | 90         | 12.8 | 5<br>7.5<br>12 | 49.21          | 3.53         | 133.4  | 5.34 |
| BZML/BZMH 100 | 3007018050 | 100        | 7.1 | 100      | 12   | 129.8  | 3.53 | 100        | 12.8 | 5<br>7.5<br>12 | 63.50<br>49.21 | 3.53<br>3.53 | 142.9  | 5.34 |
| BZML/BZMH 110 | 3007018051 | 110        | 7.1 | 110      | 12.5 | 139.3  | 3.53 | 110        | 12.8 | 5<br>7.5<br>12 | 73.03<br>63.50 | 3.53<br>3.53 | 164.5  | 6.99 |

| Item          |            | ①   |      | ②   |      | ③   |      | ④  |      | ⑤   |       |      | ⑥   |      |
|---------------|------------|---|------|---|------|---|------|--|------|---|-------|------|---|------|
| Quantity      |            | 1   |      | 1   |      | 1   |      | 2  |      | 1   |       |      | 1   |      |
| Description   |            | <br>Wiper seal |      | <br>Rod seal |      | <br>O-ring |      | <br>Guide ring |      | <br>O-ring |       |      | <br>O-ring |      |
| Cylinder type | Part No.   | d   | h    | d   | h    | d   | S    | d  | h    | Ø<br>Piston   | d     | S    | d   | S    |
| BZML/BZMH 120 | 3007018052 | 120   | 7.1  | 120   | 12.5 | 148.8   | 3.53 | 120  | 12.8 | 5   | 62.14 | 3.53 | 164.5   | 6.99 |
|               |            |   |      |   |      |   |      |  |      | 7.5   |       |      |   |      |
|               |            |   |      |   |      |   |      |  |      | 12  |       |      |   |      |
| BZML/BZMH 130 | 3007018053 | 130   | 7.1  | 130   | 15   | 158.8   | 3.53 | 130  | 12.8 | 5   | 91.67 | 3.53 | 177.2   | 6.99 |
|               |            |   |      |   |      |   |      |  |      | 7.5   |       |      |   |      |
|               |            |   |      |   |      |   |      |  |      | 12  |       |      |   |      |
| BZML/BZMH 150 | 3007018054 | 150   | 7.1  | 150   | 13   | 183.7   | 3.53 | 150  | 12.8 | 6<br>10   | 98.02 | 3.53 | 200.0   | 6.99 |
| BZML/BZMH 160 | 3007018055 | 160   | 10.1 | 160   | 16   | 190.1   | 3.53 | 160  | 19.2 | 10  | 98.02 | 3.53 | 221.6   | 6.99 |
| BZML/BZMH 180 | 3007018056 | 180   | 10.1 | 180   | 12.5 | 209.1   | 3.53 | 180  | 19.2 | 10  | 129.8 | 3.53 | 247.0   | 6.99 |
| BZML/BZMH 200 | 3007018057 | 200   | 10.1 | 200   | 14.5 | 234.5   | 3.53 | 200  | 19.2 | 10  | 148.8 | 3.53 | 272.4   | 6.99 |

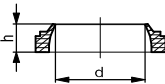
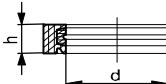
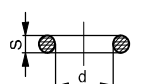
## 1.2.2 Accessories

| Cylinder type        | Description      | Part no.   |
|----------------------|------------------|------------|
| ET SCW BZMH/BZML M10 | Bleed screw      | 3007018238 |
| CON WES 8/R1/8 PA 6  | Hose connection  | 3000053873 |
| HOS PVC 8/12 L= 10 M | Hose transparent | 3007018466 |
| HOS PVC 8/12 L= 15 M | Hose transparent | 3007018467 |

### 1.3 Type series BZP



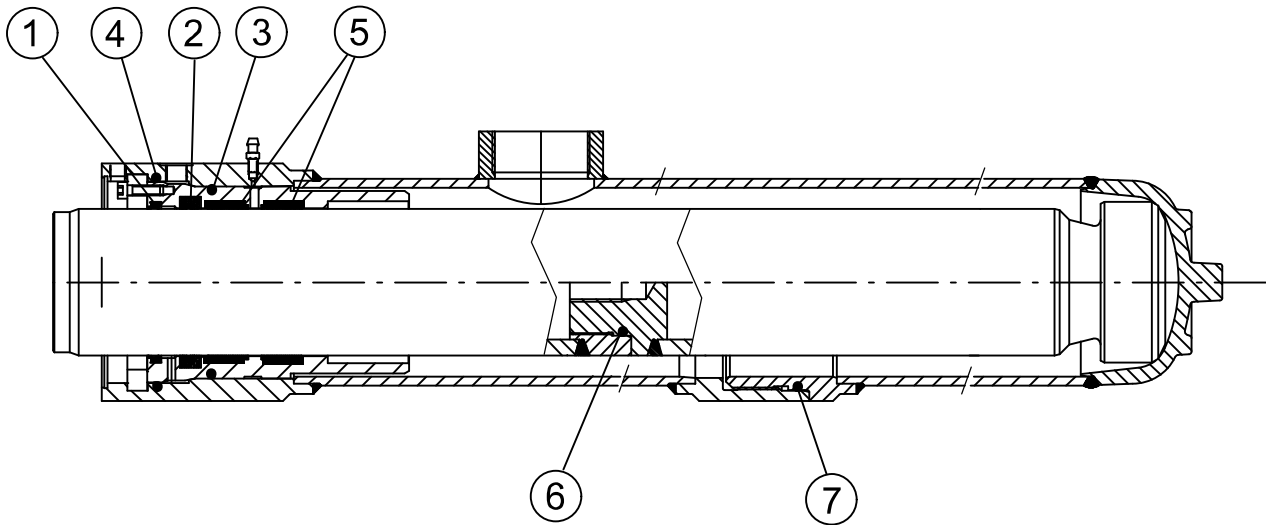
#### 1.3.1 Seal Kit

| Item          |            | ①  |      | ②   |      | ③  |      |
|---------------|------------|--|------|---|------|--|------|
| Quantity      |            | 1  |      | 1   |      | 1  |      |
| Description   |            | Wiper seal   |      | Rod seal  |      | O-ring   |      |
|               |            |  |      |  |      |  |      |
| Cylinder type | Part No.   | d  | h    | d   | h    | d  | S    |
| BZP 50 NBR    | 3007015031 | 50   | 11   | 50  | 5.3  | 78.97  | 3.53 |
| BZP 60 NBR    | 3007015032 | 60   | 13   | 60  | 5.3  | 88.5   | 3.53 |
| BZP 70 NBR    | 3007015033 | 70   | 12   | 70  | 5.3  | 98.02  | 3.53 |
| BZP 80 NBR    | 3007015034 | 80   | 12   | 80  | 5.3  | 113.9  | 3.53 |
| BZP 90 NBR    | 3007015035 | 90   | 12.5 | 90  | 7.1  | 123.4  | 3.53 |
| BZP 100 NBR   | 3007015036 | 100  | 12   | 100   | 7.1  | 132.9  | 3.53 |
| BZP 110 NBR   | 3007015037 | 110  | 12.5 | 110   | 7.1  | 142.5  | 3.53 |
| BZP 120 NBR   | 3007015038 | 120  | 12.5 | 120   | 7.1  | 152  | 3.53 |
| BZP 130 NBR   | 3007015039 | 130  | 16   | 130   | 7.1  | 164.7  | 3.53 |
| BZP 150 NBR   | 3007015040 | 150  | 14.5 | 150   | 7.1  | 183.7  | 3.53 |
| BZP 180 NBR   | 3007015041 | 180  | 21   | 180   | 10.1 | 227.96   | 5.34 |
| BZP 200 NBR   | 3007015042 | 200  | 14.5 | 200   | 10.1 | 247.01   | 5.34 |
| BZP 230 NBR   | 3007015043 | 230  | 20.5 | 230   | 10.1 | 278.76   | 5.34 |



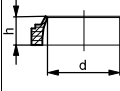
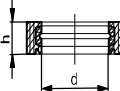
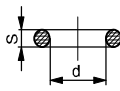
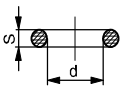
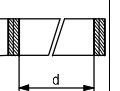
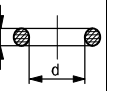
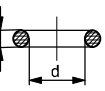


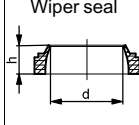
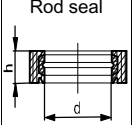
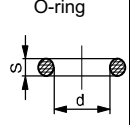
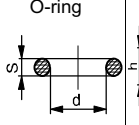
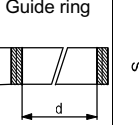
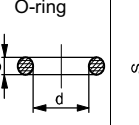
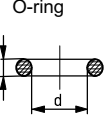
## 1.4 Type series BZE



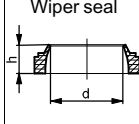
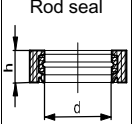
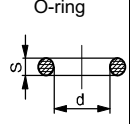
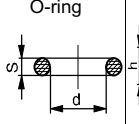
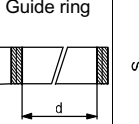
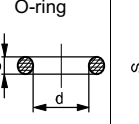
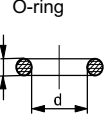
### 1.4.1 Seal Kit

Yellow rod seal from year of production 1.1.1992

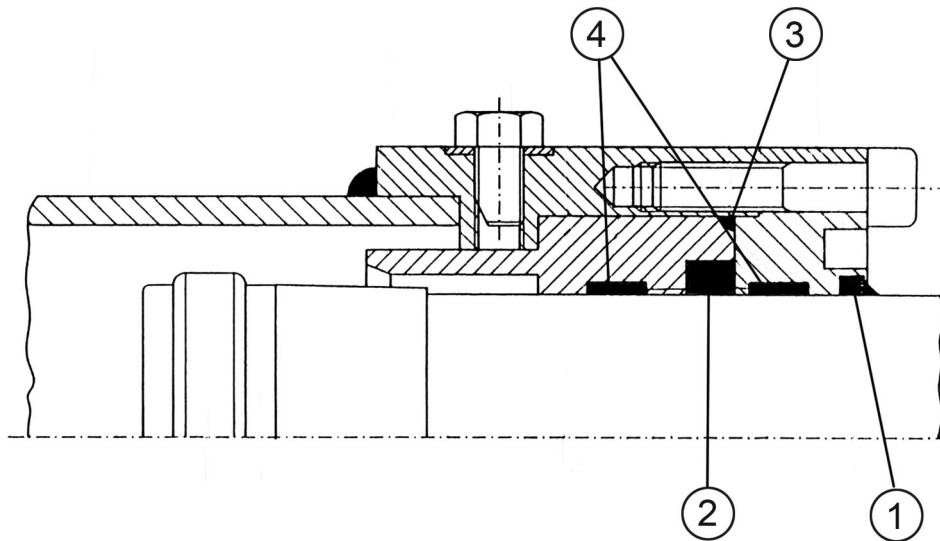
| Item          |            | ①   | ②   | ③   | ④  | ⑤   | ⑥   | ⑦   |      |     |      |        |      |        |      |
|---------------|------------|---|---|---|--|---|---|---|------|-----|------|--------|------|--------|------|
| Quantity      |            | 1   | 1   | 1   | 1  | 2   | 1   | 1   |      |     |      |        |      |        |      |
| Description   |            | Wiper seal<br> | Rod seal<br> | O-ring<br> | O-ring<br> | Guide ring<br> | O-ring<br> | O-ring<br> |      |     |      |        |      |        |      |
| Cylinder type | Part No.   | d   | h   | d   | h  | d   | S   | d   | S    | d   | h    | d      | S    | d      | S    |
| BZE 50        | 3000004995 | 50  | 6   | 50  | 10   | 63.17   | 2.62  | 75.87   | 2.62 | 50  | 14.8 | -      | -    | 88.57  | 2.62 |
| BZE 56        | 3000004996 | 56  | 6   | 56  | 12   | 72.69   | 2.62  | 88.57   | 2.62 | 56  | 14.8 | -      | -    | 94.92  | 2.62 |
| BZE 63        | 3000004997 | 63  | 6   | 63  | 12   | 82.22   | 2.62  | 94.92   | 2.62 | 63  | 14.8 | 39.34  | 2.62 | 101.27 | 2.62 |
| BZE 70        | 3000004998 | 70  | 6   | 70  | 12   | 88.57   | 2.62  | 101.27  | 2.62 | 70  | 14.8 | 44.12  | 2.62 | 107.62 | 2.62 |
| BZE 80        | 3000004999 | 80  | 6   | 80  | 12   | 101.27  | 2.62  | 113.97  | 2.62 | 80  | 24.5 | 52.07  | 2.62 | 113.97 | 2.62 |
| BZE 90        | 3000005000 | 90  | 6   | 90  | 12   | 107.62  | 2.62  | 126.67  | 2.62 | 90  | 24.5 | 59.99  | 2.62 | 126.67 | 2.62 |
| BZE 100       | 3000005001 | 100   | 6   | 100   | 14   | 126.67  | 2.62  | 139.37  | 2.62 | 100 | 24.5 | 59.99  | 2.62 | 139.37 | 2.62 |
| BZE 110       | 3000005002 | 110   | 8.2   | 110   | 12   | 133.02  | 2.62  | 145.72  | 2.62 | 110 | 24.5 | 67.95  | 2.62 | 152.07 | 2.62 |
| BZE 125       | 3000005003 | 125   | 8.2   | 125   | 16   | 151.99  | 3.53  | 164.69  | 3.53 | 126 | 24.5 | 82.22  | 2.62 | 177.47 | 2.62 |
| BZE 140       | 3000005004 | 140   | 8.2   | 140   | 16   | 171.04  | 3.53  | 183.74  | 3.53 | 140 | 24.5 | 94.92  | 2.62 | 190.09 | 3.53 |
| BZE 160       | 3000005005 | 160   | 8.2   | 160   | 16   | 196.44  | 3.53  | 209.14  | 3.53 | 160 | 24.5 | 113.97 | 2.62 | 215.49 | 3.53 |
| BZE 180       | 3000005006 | 180   | 8.2   | 180   | 16   | 215.49  | 3.53  | 228.19  | 3.53 | 180 | 24.5 | 133.02 | 2.62 | 240.89 | 3.53 |

| Item          |            | ①   | ②   | ③   | ④  | ⑤   | ⑥   | ⑦   |      |     |      |        |      |        |      |
|---------------|------------|---|---|---|--|---|---|---|------|-----|------|--------|------|--------|------|
| Quantity      |            | 1   | 1   | 1   | 1  | 2   | 1   | 1   |      |     |      |        |      |        |      |
| Description   |            | Wiper seal<br> | Rod seal<br> | O-ring<br> | O-ring<br> | Guide ring<br> | O-ring<br> | O-ring<br> |      |     |      |        |      |        |      |
| Cylinder type | Part No.   | d   | h   | d   | h  | d   | S   | d   | S    | d   | h    | d      | S    | d      | S    |
| BZE 200       | 3000005007 | 200   | 8.2   | 200   | 16   | 240.89  | 3.53  | 253.37  | 5.33 | 200 | 24.5 | 151.99 | 3.53 | 266.29 | 3.53 |
| BZE 220       | 3000005008 | 220   | 9.5   | 220   | 16   | 253.37  | 5.33  | 278.77  | 5.33 | 220 | 24.5 | 171.04 | 3.53 | 291.69 | 3.53 |

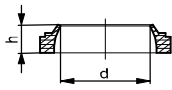
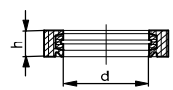
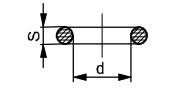
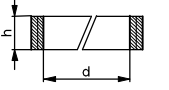
**Green rod seal until year of production 31.12.1991**

| Item          |            | ①  | ②  | ③  | ④   | ⑤  | ⑥  | ⑦  |      |     |      |        |      |        |      |
|---------------|------------|--|--|--|---|--|--|--|------|-----|------|--------|------|--------|------|
| Quantity      |            | 1  | 1  | 1  | 1   | 2  | 1  | 1  |      |     |      |        |      |        |      |
| Description   |            | Wiper seal<br> | Rod seal<br> | O-ring<br> | O-ring<br> | Guide ring<br> | O-ring<br> | O-ring<br> |      |     |      |        |      |        |      |
| Cylinder type | Part No.   | d  | h  | d  | h   | d  | S  | d  | S    | d   | h    | d      | S    | d      | S    |
| BZE 50        | 3000006545 | 50   | 6  | 50   | 7.3   | 63.17  | 2.62   | 75.87  | 2.62 | 50  | 14.8 | –      | –    | 88.57  | 2.62 |
| BZE 56        | 3000006546 | 56   | 6  | 56   | 11.4  | 72.69  | 2.62   | 88.57  | 2.62 | 56  | 14.8 | –      | –    | 94.92  | 2.62 |
| BZE 63        | 3000006547 | 63   | 6  | 63   | 11.4  | 82.22  | 2.62   | 94.92  | 2.62 | 63  | 14.8 | 39.34  | 2.62 | 101.27 | 2.62 |
| BZE 70        | 3000006548 | 70   | 6  | 70   | 11.4  | 88.57  | 2.62   | 101.27   | 2.62 | 70  | 14.8 | 44.12  | 2.62 | 107.62 | 2.62 |
| BZE 80        | 3000006549 | 80   | 6  | 80   | 11.4  | 101.27   | 2.62   | 113.97   | 2.62 | 80  | 24.5 | 52.07  | 2.62 | 113.97 | 2.62 |
| BZE 90        | 3000006550 | 90   | 6  | 90   | 11.4  | 107.62   | 2.62   | 126.67   | 2.62 | 90  | 24.5 | 59.99  | 2.62 | 126.67 | 2.62 |
| BZE 100       | 3000006552 | 100  | 6  | 100  | 14.5  | 126.67   | 2.62   | 139.37   | 2.62 | 100 | 24.5 | 59.99  | 2.62 | 139.37 | 2.62 |
| BZE 110       | 3000006553 | 110  | 8.2  | 110  | 14.5  | 133.02   | 2.62   | 145.72   | 2.62 | 110 | 24.5 | 67.95  | 2.62 | 152.07 | 2.62 |
| BZE 125       | 3000006554 | 125  | 8.2  | 125  | 14.5  | 151.99   | 3.53   | 164.69   | 3.53 | 126 | 24.5 | 82.22  | 2.62 | 177.47 | 2.62 |
| BZE 140       | 3000006555 | 140  | 8.2  | 140  | 14.5  | 171.04   | 3.53   | 183.74   | 3.53 | 140 | 24.5 | 94.92  | 2.62 | 190.09 | 3.53 |
| BZE 160       | 3000006556 | 160  | 8.2  | 160  | 18.2  | 196.44   | 3.53   | 209.14   | 3.53 | 160 | 24.5 | 113.97 | 2.62 | 215.49 | 3.53 |
| BZE180        | 3000006557 | 180  | 8.2  | 180  | 18.2  | 215.49   | 3.53   | 228.19   | 3.53 | 180 | 24.5 | 133.02 | 2.62 | 240.89 | 3.53 |
| BZE 200       | 3000006558 | 200  | 8.2  | 200  | 18.2  | 240.89   | 3.53   | 253.37   | 5.33 | 200 | 24.5 | 151.99 | 3.53 | 266.29 | 3.53 |
| BZE 220       | 3000006559 | 220  | 9.5  | 220  | 22.7  | 253.37   | 5.33   | 278.77   | 5.33 | 220 | 24.5 | 171.04 | 3.53 | 291.69 | 3.53 |

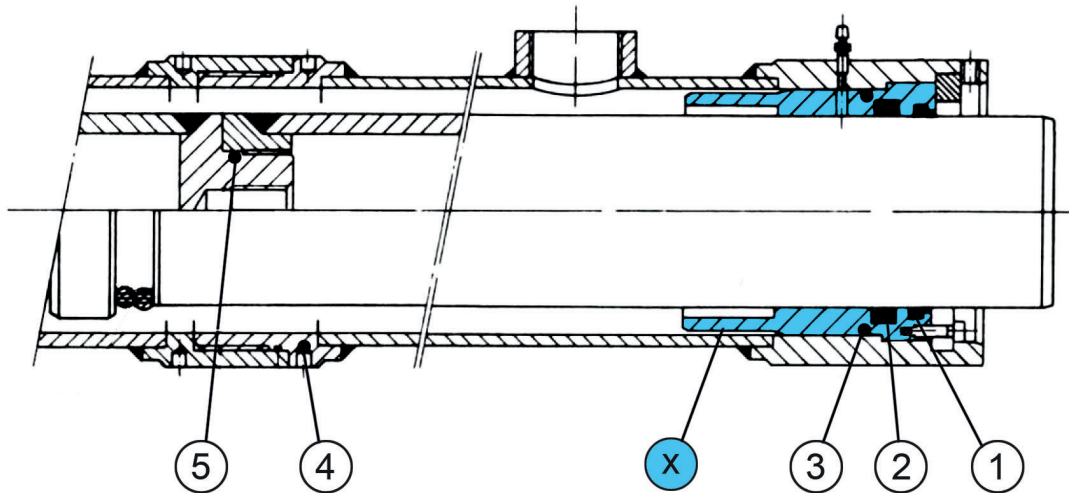
## 1.5 Type series BZO



### 1.5.1 Seal Kit

| Item          |            | ①   | ②   | ③   | ④   |        |      |     |      |
|---------------|------------|---|---|---|---|--------|------|-----|------|
| Quantity      |            | 1   | 1   | 1   | 2   |        |      |     |      |
| Description   |            | Wiper seal<br> | Rod seal<br> | O-ring<br> | Guide ring<br> |        |      |     |      |
| Cylinder type | Part No.   | d   | h   | d   | h   | d      | S    | d   | h    |
| BZO 60        | 3000008935 | 60  | 5.3   | 60  | 13  | 85.32  | 3.53 | 60  | 12.8 |
| BZO 70        | 3000008936 | 70  | 5.3   | 70  | 12  | 94.84  | 3.53 | 70  | 12.8 |
| BZO 80        | 3000008937 | 80  | 5.3   | 80  | 12  | 107.54 | 3.53 | 80  | 12.8 |
| BZO 90        | 3000008938 | 90  | 7.1   | 90  | 12.5  | 113.89 | 3.53 | 90  | 12.8 |
| BZO 100       | 3000008939 | 100   | 7.1   | 100   | 11.5  | 123.42 | 3.53 | 100 | 12.8 |
| BZO 110       | 3000008940 | 110   | 7.1   | 110   | 12.5  | 139.29 | 3.53 | 110 | 12.8 |
| BZO 120       | 3000008941 | 120   | 7.1   | 120   | 12.5  | 148.82 | 3.53 | 120 | 12.8 |
| BZO 130       | 3000008942 | 130   | 7.1   | 130   | 18.8  | 164.69 | 3.53 | 130 | 12.8 |
| BZO 150       | 3000008943 | 150   | 7.1   | 150   | 14.5  | 183.74 | 3.53 | 150 | 19.2 |
| BZO 200       | 3000008945 | 200   | 10.1  | 200   | 14.5  | 234.54 | 3.53 | 200 | 19.2 |
| BZO 230       | 3000008947 | 230   | 10.1  | 230   | 20.5  | 278.77 | 3.53 | 230 | 19.2 |

## 1.6 Type series BZK

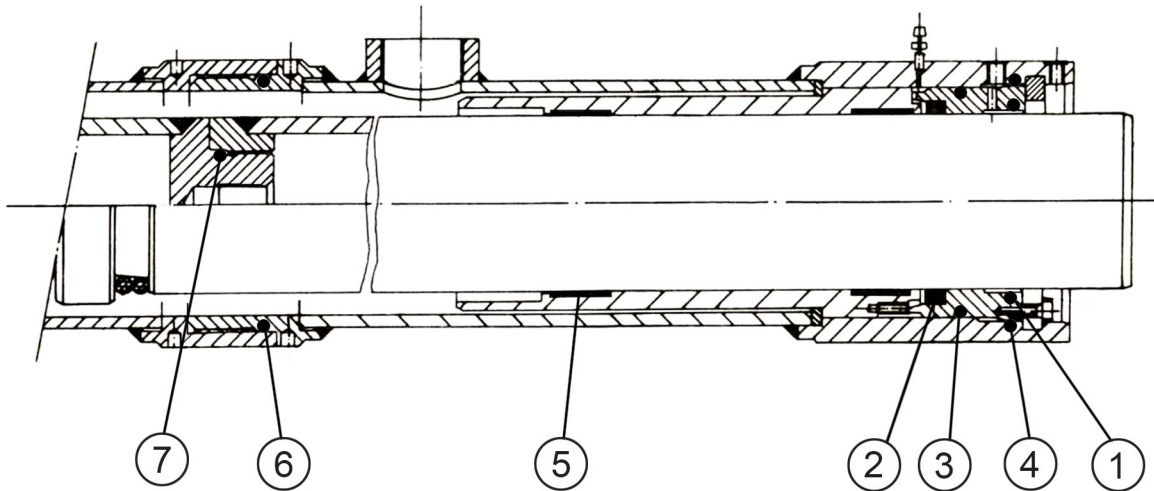


### 1.6.1 Guide bush with rod seal complet

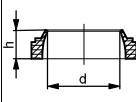
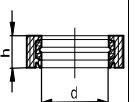
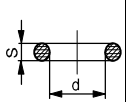
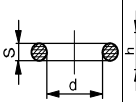
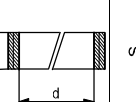
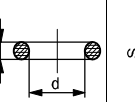
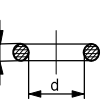
| Item <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">X</span> |            |            |    |          |     |        |      |        |      |        |      |
|--|------------|------------|----|----------|-----|--------|------|--------|------|--------|------|
| Item   |            | ①          |    | ②        |     | ③      |      | ④      |      | ⑤*     |      |
| Quantity   |            | 1          |    | 1        |     | 1      |      | 1      |      | 1      |      |
| Description  |            | Wiper seal |    | Rod seal |     | O-ring |      | O-ring |      | O-ring |      |
|  |            |            |    |          |     |        |      |        |      |        |      |
| Cylinder type  | Part No.   | d          | h  | d        | h   | d      | S    | d      | S    | d      | S    |
| SPP SLV BZK 50   | 3007023436 | 50         | 7  | 50       | 7.5 | 64.77  | 2.62 | 82.22  | 2.62 | –      | –    |
| SPP SLV BZK 60   | 3007023437 | 60         | 7  | 60       | 10  | 75.87  | 2.62 | 94.92  | 2.62 | –      | –    |
| SPP SLV BZK 70   | 3007023438 | 70         | 7  | 70       | 10  | 88.57  | 2.62 | 107.62 | 2.62 | –      | –    |
| SPP SLV BZK 80   | 3007023439 | 80         | 7  | 80       | 10  | 94.92  | 2.62 | 113.97 | 2.62 | 39.34  | 2.62 |
| SPP SLV BZK 90   | 3007023440 | 90         | 7  | 90       | 12  | 107.62 | 2.62 | 126.67 | 2.62 | 45.69  | 2.62 |
| SPP SLV BZK 100  | 3007023441 | 100        | 7  | 100      | 12  | 120.32 | 2.62 | 139.37 | 2.62 | 55.25  | 2.62 |
| SPP SLV BZK 110  | 3007023442 | 110        | 10 | 110      | 12  | 126.67 | 2.62 | 145.72 | 2.62 | 55.25  | 2.62 |
| SPP SLV BZK 120  | 3007023443 | 120        | 10 | 120      | 16  | 145.72 | 2.62 | 164.77 | 2.62 | 63.17  | 2.62 |
| SPP SLV BZK 140  | 3007023444 | 140        | 10 | 140      | 16  | 164.77 | 2.62 | 190.17 | 2.62 | 75.87  | 2.62 |
| SPP SLV BZK 160  | 3007023445 | 160        | 10 | 160      | 16  | 190.17 | 2.62 | 215.57 | 2.62 | 94.92  | 2.62 |
| SPP SLV BZK 180  | 3007023446 | 180        | 10 | 180      | 16  | 209.22 | 2.62 | 240.97 | 2.62 | 113.97 | 2.62 |

\* Piston rod, two-part, made of solid material has no o-ring (BZK 80, 90, 100)

## 1.7 Type series BZC

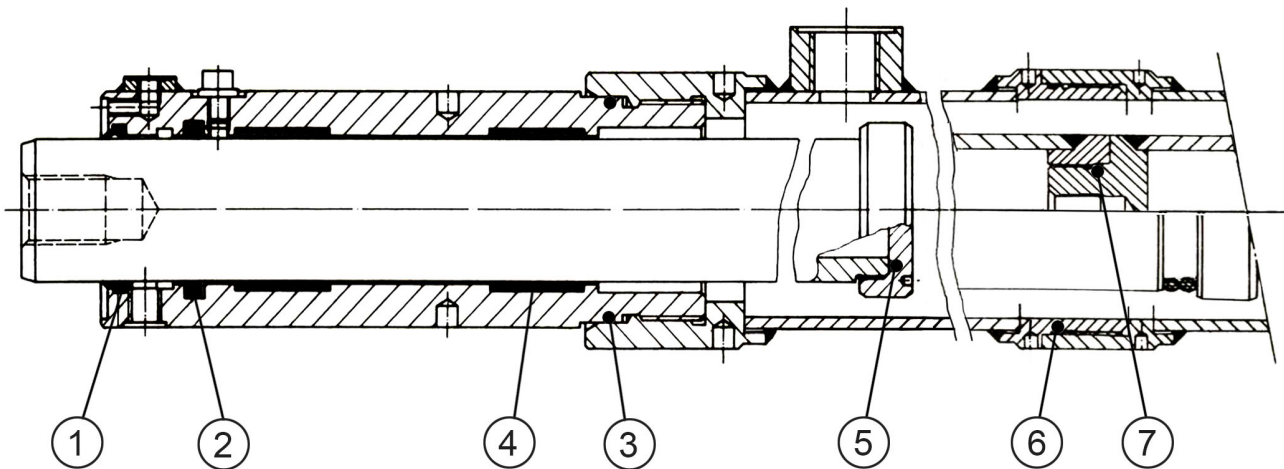


### 1.7.1 Seal Kit

| Item          | ①   | ②   | ③   | ④  | ⑤   | ⑥   | ⑦*  |        |      |     |    |        |      |        |      |
|---------------|---|---|---|--|---|---|---|--------|------|-----|----|--------|------|--------|------|
| Quantity      | 1   | 1   | 1   | 1  | 2   | 1   | 1   |        |      |     |    |        |      |        |      |
| Description   | Wiper seal<br> | Rod seal<br> | O-ring<br> | O-ring<br> | Guide ring<br> | O-ring<br> | O-ring<br> |        |      |     |    |        |      |        |      |
| Cylinder type | Part No.  | d   | h   | d  | h   | d   | S   | d      | S    | d   | h  | d      | S    | d      | S    |
| BZC 50        | 3000053166  | 50  | 8   | 50   | 7.5   | 69.52   | 2.62  | 75.87  | 2.62 | 50  | 35 | 82.22  | 2.62 | -      | -    |
| BZC 60        | 3000053174  | 60  | 8   | 60   | 10  | 82.22   | 2.62  | 88.57  | 2.62 | 60  | 35 | 94.92  | 2.62 | -      | -    |
| BZC 70        | 3000053182  | 70  | 8   | 70   | 10  | 88.57   | 2.62  | 101.27 | 2.62 | 70  | 35 | 107.62 | 2.62 | -      | -    |
| BZC80         | 3000053200  | 80  | 8   | 80   | 10  | 101.27  | 2.62  | 113.97 | 2.62 | 80  | 35 | 113.97 | 2.62 | 39.34  | 2.62 |
| BZC 90        | 3000053208  | 90  | 8   | 90   | 12  | 113.97  | 2.62  | 126.67 | 2.62 | 90  | 35 | 126.67 | 2.62 | 45.69  | 2.62 |
| BZC 100       | 3000053216  | 100   | 8   | 100  | 12  | 120.32  | 2.62  | 133.02 | 2.62 | 100 | 35 | 139.37 | 2.62 | 55.25  | 2.62 |
| BZC 110       | 3000053224  | 110   | 11  | 110  | 12  | 133.02  | 2.62  | 145.72 | 2.62 | 110 | 35 | 145.72 | 2.62 | 55.25  | 2.62 |
| BZC 120       | 3000053232  | 120   | 11  | 120  | 16  | 145.72  | 2.62  | 164.77 | 2.62 | 120 | 35 | 164.77 | 2.62 | 63.17  | 2.62 |
| BZC 140       | 3000053242  | 140   | 11  | 140  | 16  | 171.12  | 2.62  | 183.82 | 2.62 | 140 | 35 | 190.17 | 2.62 | 75.87  | 2.62 |
| BZC 160       | 3000053257  | 160   | 11  | 160  | 16  | 190.17  | 2.62  | 209.22 | 2.62 | 160 | 35 | 215.57 | 2.62 | 94.92  | 2.62 |
| BZC 180       | 3000053265  | 180   | 11  | 180  | 16  | 215.57  | 2.62  | 234.62 | 2.62 | 180 | 35 | 240.97 | 2.62 | 113.97 | 2.62 |

\* Piston rod, two-part, made of solid material has no o-ring (BZC 80, 90, 100)

## 1.8 Type series BZB

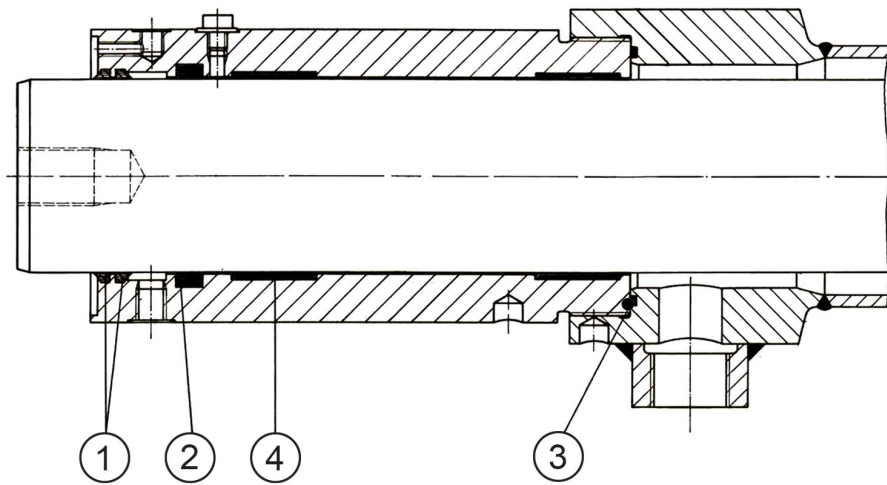


### 1.8.1 Seal Kit

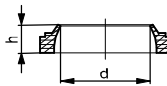
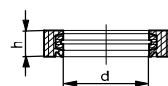
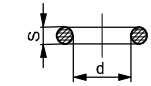
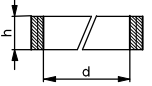
| Item          |            | ①          | ②        | ③      | ④          | ⑤      | ⑥*     | ⑦*     |    |        |      |        |      |        |      |
|---------------|------------|------------|----------|--------|------------|--------|--------|--------|----|--------|------|--------|------|--------|------|
| Quantity      |            | 1          | 1        | 1      | 2          | 1      | 1      | 1      |    |        |      |        |      |        |      |
| Description   |            | Wiper seal | Rod seal | O-ring | Guide ring | O-ring | O-ring | O-ring |    |        |      |        |      |        |      |
|               |            |            |          |        |            |        |        |        |    |        |      |        |      |        |      |
| Cylinder type | Part No.   | d          | h        | d      | h          | d      | S      | d      | h  | d      | S    | d      | S    | d      | S    |
| BZB 50        | 3000053165 | 50         | 8        | 50     | 7.5        | 69.52  | 2.62   | 50     | 35 | -      | -    | 82.22  | 2.62 | -      | -    |
| BZB 60        | 3000053173 | 60         | 8        | 60     | 10         | 82.22  | 2.62   | 60     | 35 | -      | -    | 94.92  | 2.62 | -      | -    |
| BZB 70        | 3000053181 | 70         | 8        | 70     | 10         | 88.57  | 2.62   | 70     | 35 | -      | -    | 107.62 | 2.62 | -      | -    |
| BZB 80        | 3000053199 | 80         | 8        | 80     | 10         | 101.27 | 2.62   | 80     | 35 | -      | -    | 113.97 | 2.62 | -      | -    |
| BZB 90        | 3000053207 | 90         | 8        | 90     | 12         | 113.97 | 2.62   | 90     | 35 | -      | -    | 126.67 | 2.62 | -      | -    |
| BZB 100       | 3000053215 | 100        | 8        | 100    | 12         | 120.32 | 2.62   | 100    | 35 | -      | -    | 139.37 | 2.62 | -      | -    |
| BZB 110       | 3000053223 | 110        | 11       | 110    | 12         | 133.02 | 2.62   | 110    | 35 | 88.57  | 2.62 | 145.72 | 2.62 | 55.25  | 2.62 |
| BZB 120       | 3000053231 | 120        | 11       | 120    | 16         | 145.72 | 2.62   | 120    | 35 | 101.27 | 2.62 | 158.42 | 2.62 | 63.17  | 2.62 |
| BZB 140       | 3000053250 | 140        | 11       | 140    | 12         | 158.42 | 2.62   | 140    | 35 | 120.32 | 2.62 | 183.82 | 2.62 | 82.22  | 2.62 |
| BZB 180       | 3000053264 | 180        | 11       | 180    | 16         | 202.87 | 2.62   | 180    | 35 | 158.42 | 2.62 | 234.62 | 2.62 | 107.62 | 2.62 |

\* Items 6 + 7 are only installed on 2-part cylinders.

1.9 Type series BZA

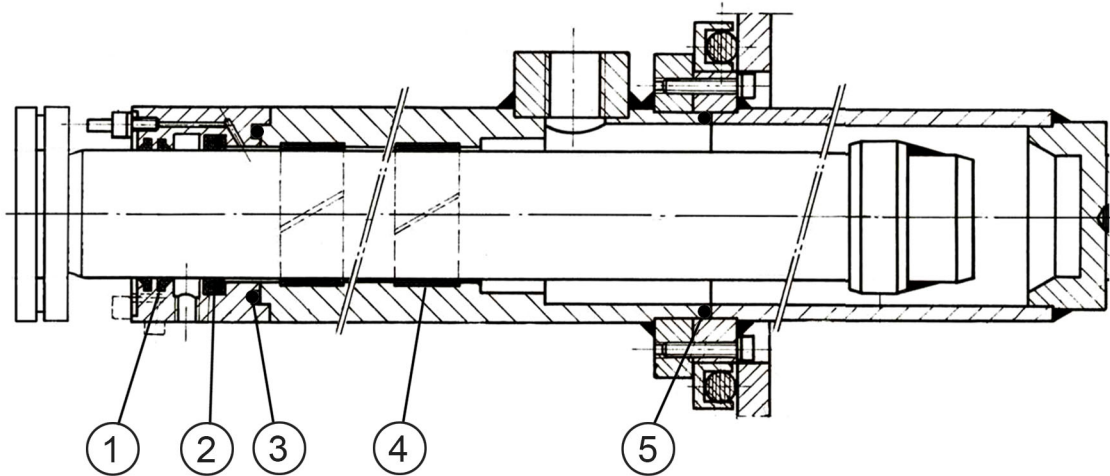


1.9.1 Seal Kit

| Item          |            | ①   | ②   | ③   | ④   |        |      |     |      |
|---------------|------------|---|---|---|---|--------|------|-----|------|
| Quantity      |            | 1   | 1   | 1   | 2   |        |      |     |      |
| Description   |            | Wiper seal<br> | Rod seal<br> | O-ring<br> | Guide ring<br> |        |      |     |      |
| Cylinder type | Part No.   | d   | h   | d   | h   | d      | S    | d   | h    |
| BZA 50        | 3000053058 | 50  | 7   | 50  | 7.5   | 64.77  | 2.62 | 35  | 12.8 |
| BZA 60        | 3000053066 | 60  | 7   | 60  | 10  | 75.87  | 2.62 | 35  | 12.8 |
| BZA 70        | 3000053074 | 70  | 7   | 70  | 10  | 88.57  | 2.62 | 35  | 12.8 |
| BZA 80        | 3000053082 | 80  | 7   | 80  | 10  | 94.92  | 2.62 | 80  | 12.8 |
| BZA 90        | 3000053090 | 90  | 7   | 90  | 12  | 107.62 | 2.62 | 90  | 12.8 |
| BZA 100       | 3000053108 | 100   | 7   | 100   | 12  | 120.32 | 2.62 | 100 | 12.8 |
| BZA 110       | 3000053116 | 110   | 10  | 110   | 12  | 133.02 | 2.62 | 110 | 12.8 |
| BZA 120       | 3000053124 | 120   | 10  | 120   | 16  | 139.37 | 2.62 | 120 | 12.8 |
| BZA 140       | 3000053132 | 140   | 10  | 140   | 12  | 164.77 | 2.62 | 140 | 19.2 |
| BZA 160       | 3000053140 | 160   | 10  | 160   | 16  | 202.87 | 2.62 | 160 | 19.2 |



## 1.10 Type series LZ

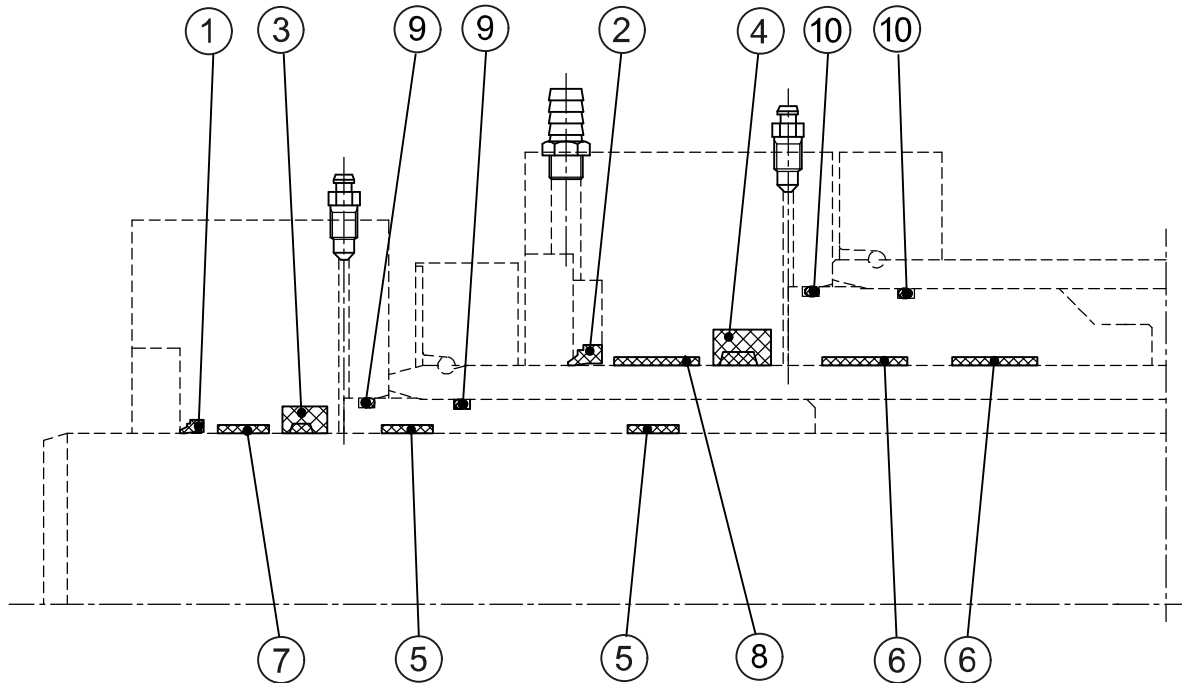


### 1.10.1 Seal Kit

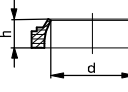
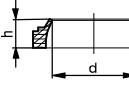
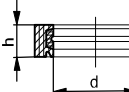
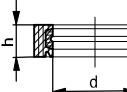
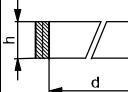
| Item          |            | ①              |    | ②            |     | ③          |      | ④              |    | ⑤          |     |
|---------------|------------|----------------|----|--------------|-----|------------|------|----------------|----|------------|-----|
| Quantity      |            | 1              |    | 1            |     | 1          |      | 2              |    | 1          |     |
| Description   |            | Wiper seal<br> |    | Rod seal<br> |     | O-ring<br> |      | Guide ring<br> |    | O-ring<br> |     |
| Cylinder type | Part No.   | d              | h  | d            | h   | d          | S    | d              | h  | d          | S   |
| LZ 50         | 3000053272 | 50             | 7  | 50           | 7.5 | 54         | 3    | 50             | 50 | 73         | 2.4 |
| LZ 60         | 3000053280 | 60             | 8  | 60           | 10  | 66         | 3    | 60             | 50 | 83         | 2.4 |
| LZ 70         | 3000053280 | 70             | 8  | 70           | 10  | 76         | 3    | 70             | 50 | 93         | 2.4 |
| LZ 80         | 3000053280 | 80             | 8  | 80           | 10  | 88         | 3    | 80             | 50 | 101        | 2.4 |
| LZ 90         | 3000053280 | 90             | 9  | 90           | 12  | 100        | 3    | 90             | 50 | 113        | 2.4 |
| LZ 100        | 3000053280 | 100            | 9  | 100          | 12  | 108        | 3    | 100            | 50 | 120        | 2.4 |
| LZ 110        | 3000053280 | 110            | 11 | 110          | 12  | 118        | 4    | 110            | 50 | 133        | 2.4 |
| LZ 120        | 3000053280 | 120            | 11 | 120          | 16  | 130        | 4    | 120            | 50 | 143        | 2.4 |
| LZ 140        | 3000053280 | 140            | 11 | 140          | 12  | 145.72     | 2.62 | 140            | 50 | 169        | 2.4 |

## 2 Telescopic cylinder

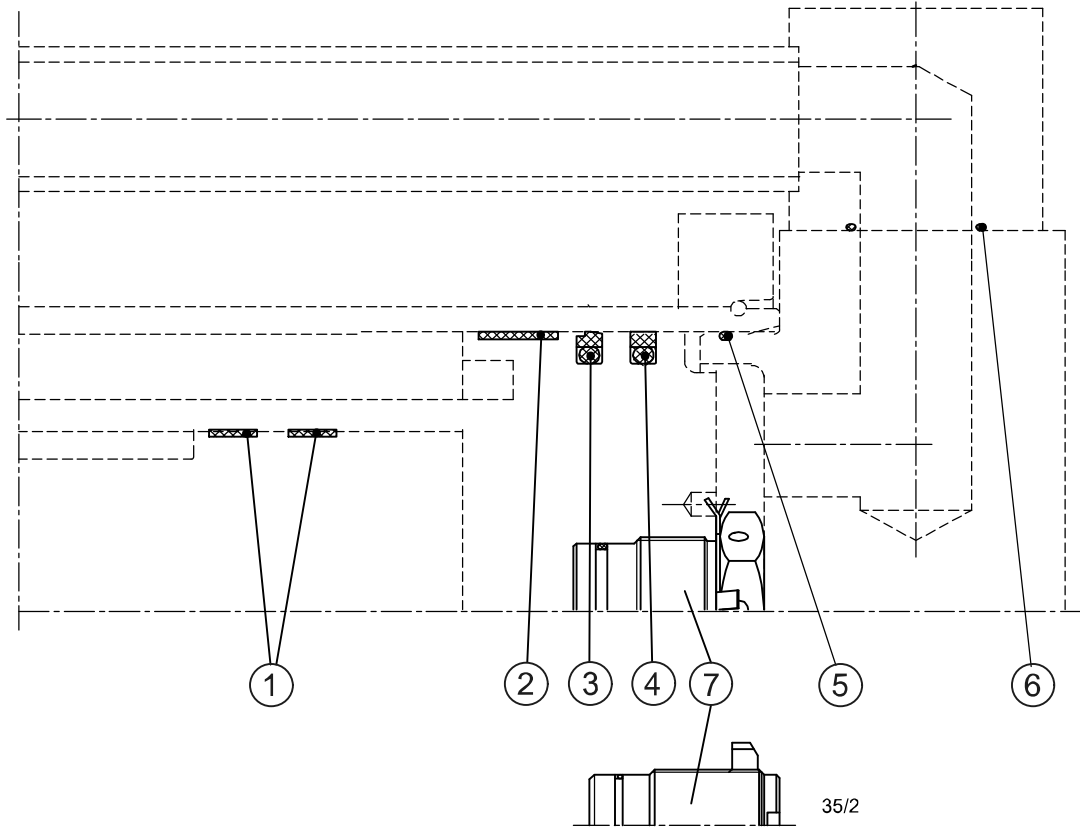
### 2.1 Type series BGLZ



#### 2.1.1 Seal kit / external 2-stage

| Item          |            |                  | ①   |    | ②   |      | ③  |    | ④   |    | ⑤   |    |
|---------------|------------|------------------|---|----|---|------|--|----|---|----|---|----|
| Quantity      |            |                  | 1   |    | 1   |      | 1  |    | 1   |    | 3   |    |
| Description   |            |                  | <br>Wiper seal |    | <br>Wiper seal |      | <br>Rod seal |    | <br>Rod seal |    | <br>Guide ring |    |
| Cylinder type | Part No.   | external 2-stage | d   | h  | d   | h    | d  | h  | d   | h  | d   | h  |
| BGLZ 35/2     | 3000011258 | 35/2 35/50       | 35  | 7  | 50  | 7    | 35   | 10 | 50  | 10 | 35  | 15 |
| BGLZ 50/2     | 3000011259 | 50/2 50/70       | 50  | 7  | 70  | 7    | 50   | 10 | 70  | 12 | 50  | 15 |
| BGLZ 63/2     | 3000011260 | 63/2 63/85       | 63  | 7  | 85  | 7    | 63   | 12 | 85  | 12 | 63  | 15 |
| BGLZ 70/2     | 3000011261 | 70/2 70/100      | 70  | 7  | 100   | 7    | 70   | 12 | 100   | 12 | 70  | 15 |
| BGLZ 85/2     | 3000011263 | 85/2 85/120      | 85  | 7  | 120   | 10   | 85   | 12 | 120   | 16 | 85  | 15 |
| BGLZ 100/2    | 3000011264 | 100/2 100/140    | 100   | 7  | 140   | 10   | 100  | 12 | 140   | 16 | 100   | 25 |
| BGLZ 120/2    | 3000011265 | 120/2 120/170    | 120   | 10 | 170   | 10   | 120  | 16 | 170   | 16 | 120   | 25 |
| BGLZ 140/2    | 3000011266 | 140/2 140/200    | 140   | 10 | 200   | 10.2 | 140  | 16 | 200   | 16 | 140   | 25 |
| BGLZ 170/2    | 3000011267 | 170/2 170/240    | 170   | 10 | 240   | 10.2 | 170  | 16 | 240   | 16 | 170   | 25 |

| Item          |            |                  |         | ⑥   |    | ⑦   |    | ⑧   |    | ⑨      |      | ⑩      |      |
|---------------|------------|------------------|---------|-----|----|-----|----|-----|----|--------|------|--------|------|
| Quantity      |            |                  |         | 2   |    | 1   |    | 1   |    | 2      |      | 2      |      |
| Description   |            |                  |         |     |    |     |    |     |    |        |      |        |      |
| Cylinder type | Part No.   | external 2-stage |         | d   | h  | d   | h  | d   | h  | d      | S    | d      | S    |
| BGLZ 35/2     | 3000011258 | 35/2             | 35/50   | 50  | 15 | –   | –  | –   | –  | 37.77  | 2.62 | 53.57  | 3.53 |
| BGLZ 50/2     | 3000011259 | 50/2             | 50/70   | 70  | 15 | –   | –  | –   | –  | 53.57  | 3.53 | 78.97  | 3.53 |
| BGLZ 63/2     | 3000011260 | 63/2             | 63/85   | 85  | 15 | –   | –  | –   | –  | 66.27  | 3.53 | 98.02  | 3.53 |
| BGLZ 70/2     | 3000011261 | 70/2             | 70/100  | 100 | 15 | –   | –  | –   | –  | 78.97  | 3.53 | 113.89 | 3.53 |
| BGLZ 85/2     | 3000011263 | 85/2             | 85/120  | 120 | 15 | –   | –  | –   | –  | 91.67  | 3.53 | 139.29 | 3.53 |
| BGLZ 100/2    | 3000011264 | 100/2            | 100/140 | 140 | 25 | 100 | 15 | 140 | 15 | 113.89 | 3.53 | 164.69 | 3.53 |
| BGLZ 120/2    | 3000011265 | 120/2            | 120/170 | 170 | 25 | 120 | 15 | 170 | 15 | 132.94 | 3.53 | 196.44 | 3.53 |
| BGLZ 140/2    | 3000011266 | 140/2            | 140/200 | 200 | 25 | –   | –  | 200 | 15 | 158.34 | 3.53 | 234.54 | 3.53 |
| BGLZ 170/2    | 3000011267 | 170/2            | 170/240 | 240 | 25 | –   | –  | –   | –  | 202.79 | 3.53 | 278.99 | 3.53 |



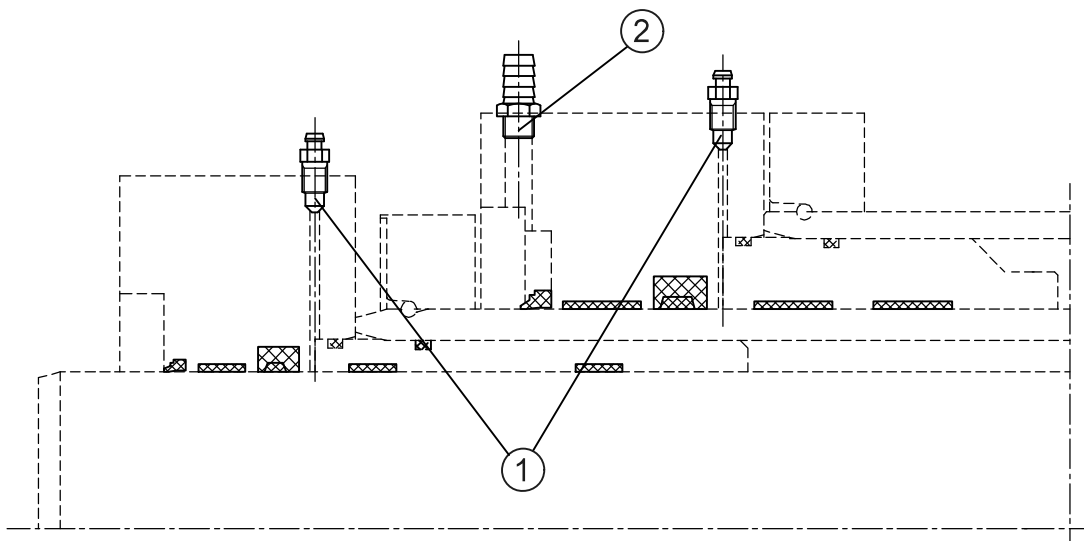
### 2.1.2 Seal kit / internal 2-stage

| Item          |            |                  |         | ①          | ②          | ③                      | ④                   | ⑤      | ⑥      |       |     |        |      |       |      |
|---------------|------------|------------------|---------|------------|------------|------------------------|---------------------|--------|--------|-------|-----|--------|------|-------|------|
| Quantity      |            |                  |         | 1          | 1          | 1                      | 1                   | 2      | 2      |       |     |        |      |       |      |
| Description   |            |                  |         | Guide ring | Guide ring | Sliding ring<br>O-ring | Step Seal<br>O-ring | O-ring | O-ring |       |     |        |      |       |      |
|               |            |                  |         |            |            |                        |                     |        |        |       |     |        |      |       |      |
| Cylinder type | Part No.   | internal 2-stage |         | d          | h          | d                      | h                   | d      | S      | d     | S   | d      | S    | d     | S    |
| BGLZ 35/2     | 3000011269 | 35/2             | 35/50   | 37         | 15         | 55                     | 25                  | 49     | 3.9    | 49    | 3.7 | 53.57  | 3.53 | 23.47 | 2.62 |
| BGLZ 50/2     | 3000011270 | 50/2             | 50/70   | 55         | 15         | 80                     | 25                  | 69.9   | 6      | 69.5  | 5.8 | 87.97  | 3.53 | 28.24 | 2.62 |
| BGLZ 63/2     | 3000011271 | 63/2             | 63/85   | 68         | 15         | 101                    | 25                  | 90.9   | 6      | 90.5  | 5.8 | 98.02  | 3.53 | 39.34 | 2.62 |
| BGLZ 70/2     | 3000011272 | 70/2             | 70/100  | 80         | 15         | 115                    | 25                  | 104.9  | 6      | 104.5 | 5.8 | 113.89 | 3.53 | 39.34 | 2.62 |
| BGLZ 85/2     | 3000011273 | 85/2             | 85/120  | 95         | 15         | 142                    | 25                  | 126    | 7.8    | 126   | 7.6 | 139.29 | 3.53 | 39.34 | 2.62 |
| BGLZ 100/2    | 3000011274 | 100/2            | 100/140 | 115        | 25         | 167                    | 25                  | 151    | 7.8    | 151   | 7.6 | 164.69 | 3.53 | 39.34 | 2.62 |
| BGLZ 120/2    | 3000011275 | 120/2            | 120/170 | 135        | 25         | 203                    | 25                  | 187    | 7.8    | 187   | 7.6 | 196.44 | 3.53 | 55.25 | 2.62 |
| BGLZ 140/2    | 3000011276 | 140/2            | 140/200 | 165        | 25         | 239                    | 25                  | 223    | 7.8    | 223   | 7.6 | 234.55 | 3.53 | 55.25 | 2.62 |
| BGLZ 170/2    | 3000011277 | 170/2            | 170/240 | 205        | 25         | 289                    | 25                  | 273    | 7.8    | 273   | 7.6 | 278.99 | 3.53 | 55.25 | 2.62 |

### 2.1.3 Check valve

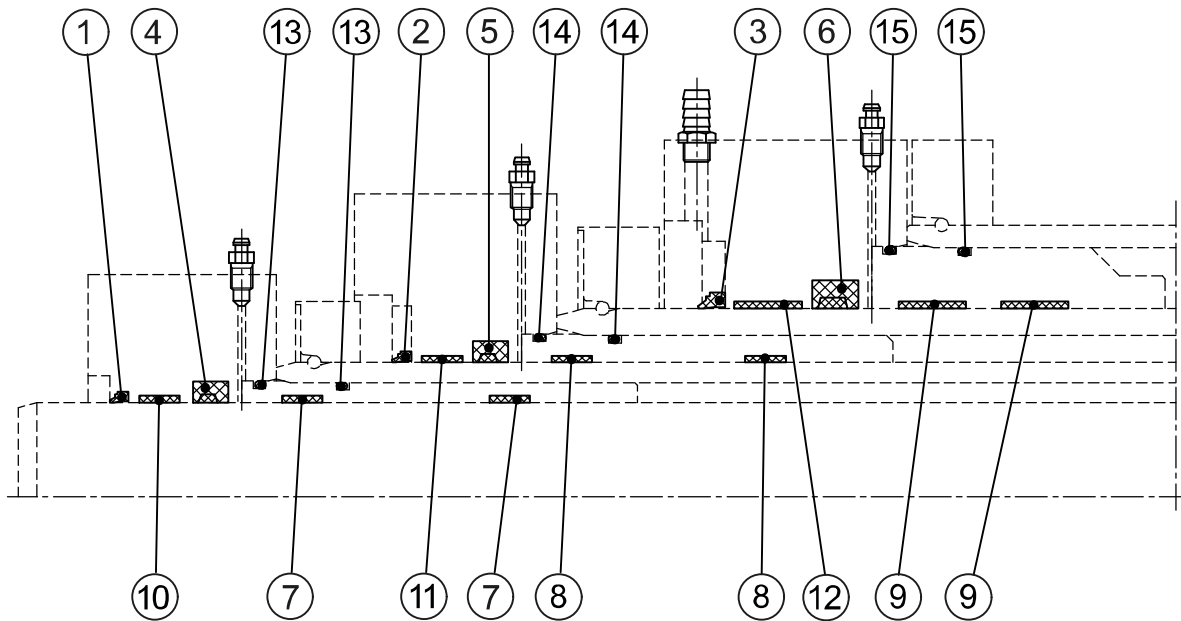
|                  |            |                 |
|------------------|------------|-----------------|
| Item             | ⑦          |                 |
| Quantity         | 1          |                 |
| Cylinder type    | Part No.   | Cylinder type * |
| CKV BGLZ 35/2    | 3000011299 | 35/2            |
| CKV BGLZ ab 50/2 | 3000011300 | as of 50/2      |

\* 2 stage = 1 x check valve



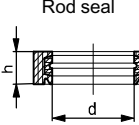
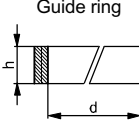
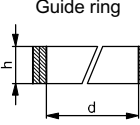
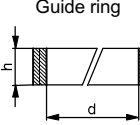
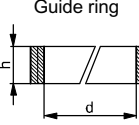
### 2.1.4 Accessories

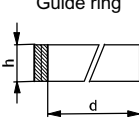
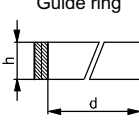
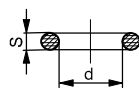
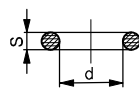
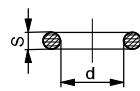
| Item ①          |            |             | Item ②             |            |                 |
|-----------------|------------|-------------|--------------------|------------|-----------------|
| Cylinder type   | Part No.   | Description | Cylinder type      | Part No.   | Description     |
| SWC M8 BHZ/BGLZ | 3000009459 | Bleed screw | CON WES 8/R1/8 PA6 | 3000053873 | Hose connection |

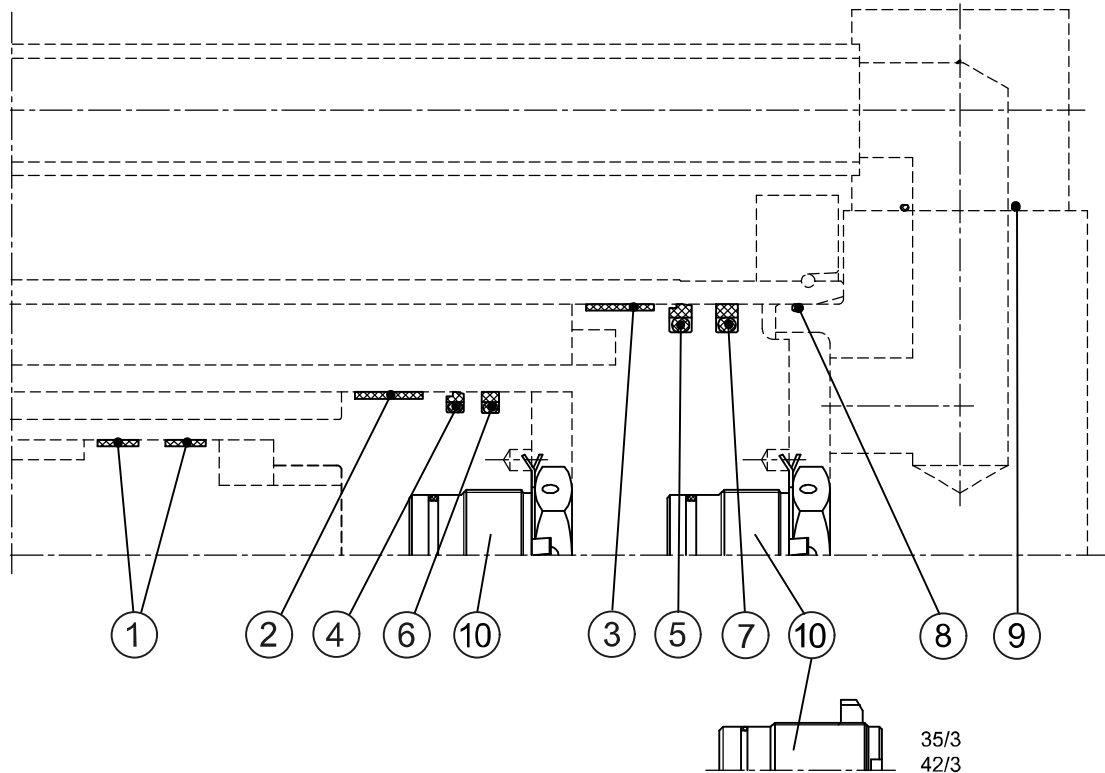


**2.1.5 Seal kit / external 3-stage**

| Item          |            |                   | ①          |    | ②          |      | ③          |      | ④        |    | ⑤        |    |
|---------------|------------|-------------------|------------|----|------------|------|------------|------|----------|----|----------|----|
|               |            |                   | 1          |    | 1          |      | 1          |      | 1        |    | 1        |    |
| Description   |            |                   | Wiper seal |    | Wiper seal |      | Wiper seal |      | Rod seal |    | Rod seal |    |
|               |            |                   |            |    |            |      |            |      |          |    |          |    |
| Cylinder type | Part No.   | external 3-stage  | d          | h  | d          | h    | d          | h    | d        | h  | d        | h  |
| BGLZ 35/3     | 3000011279 | 35/3 35/50/70     | 35         | 7  | 50         | 7    | 70         | 7    | 35       | 7  | 50       | 10 |
| BGLZ 42/3     | 3000011280 | 42/3 42/60/85     | 42         | 7  | 60         | 7    | 85         | 7    | 42       | 8  | 60       | 10 |
| BGLZ 50/3     | 3000011281 | 50/3 50/70/100    | 50         | 7  | 70         | 7    | 100        | 7    | 50       | 10 | 70       | 12 |
| BGLZ 63/3     | 3000011282 | 63/3 63/85/120    | 63         | 7  | 85         | 7    | 120        | 10   | 63       | 12 | 85       | 12 |
| BGLZ 70/3     | 3000011283 | 70/3 70/100/140   | 70         | 7  | 100        | 7    | 140        | 10   | 70       | 12 | 100      | 12 |
| BGLZ 85/3     | 3000011284 | 85/3 85/120/170   | 85         | 7  | 120        | 10   | 170        | 10   | 85       | 12 | 120      | 16 |
| BGLZ 100/3    | 3000011285 | 100/3 100/140/200 | 100        | 7  | 140        | 10   | 200        | 10.2 | 100      | 12 | 140      | 16 |
| BGLZ 120/3    | 3000011286 | 120/3 120/170/240 | 120        | 10 | 170        | 10   | 240        | 10.2 | 120      | 16 | 170      | 16 |
| BGLZ 140/3    | 3000011287 | 140/3 140/200/285 | 140        | 10 | 200        | 10.2 | 290        | 10.2 | 140      | 16 | 200      | 16 |

| Item          |            |                  |             | ⑥   |    | ⑦   |    | ⑧  |    | ⑨   |    | ⑩   |    |
|---------------|------------|------------------|-------------|---|----|---|----|--|----|---|----|---|----|
| Quantity      |            |                  |             | 1   |    | 1   |    | 1  |    | 1   |    | 1   |    |
| Description   |            |                  |             |  |    |  |    |  |    |  |    |  |    |
| Cylinder type | Part No.   | external 3-stage |             | d   | h  | d   | h  | d  | h  | d   | h  | d   | h  |
| BGLZ 35/3     | 3000011279 | 35/3             | 35/50/70    | 70  | 12 | 35  | 15 | 50   | 15 | 70  | 15 | -   | -  |
| BGLZ 42/3     | 3000011280 | 42/3             | 42/60/85    | 85  | 12 | 42  | 15 | 60   | 15 | 85  | 15 | -   | -  |
| BGLZ 50/3     | 3000011281 | 50/3             | 50/70/100   | 100   | 12 | 50  | 15 | 70   | 15 | 100   | 15 | -   | -  |
| BGLZ 63/3     | 3000011282 | 63/3             | 63/85/120   | 120   | 16 | 63  | 15 | 85   | 15 | 120   | 15 | -   | -  |
| BGLZ 70/3     | 3000011283 | 70/3             | 70/100/140  | 140   | 16 | 70  | 15 | 100  | 15 | 140   | 25 | -   | -  |
| BGLZ 85/3     | 3000011284 | 85/3             | 85/120/170  | 170   | 16 | 85  | 15 | 120  | 25 | 170   | 25 | -   | -  |
| BGLZ 100/3    | 3000011285 | 100/3            | 100/140/200 | 200   | 16 | 100   | 25 | 140  | 25 | 200   | 25 | 100   | 15 |
| BGLZ 120/3    | 3000011286 | 120/3            | 120/170/240 | 240   | 16 | 120   | 25 | 170  | 25 | 240   | 25 | 120   | 15 |
| BGLZ 140/3    | 3000011287 | 140/3            | 140/200/285 | 290   | 16 | 140   | 25 | 200  | 25 | 290   | 25 | -   | -  |

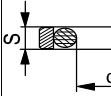
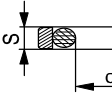
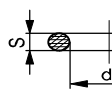
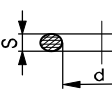
| Item          |            |                  |             | ⑪   |    | ⑫   |    | ⑬  |      | ⑭   |      | ⑮   |      |
|---------------|------------|------------------|-------------|---|----|---|----|--|------|---|------|---|------|
| Quantity      |            |                  |             | 1   |    | 1   |    | 2  |      | 2   |      | 2   |      |
| Description   |            |                  |             |  |    |  |    |  |      |  |      |  |      |
| Cylinder type | Part No.   | external 3-stage |             | d   | h  | d   | h  | d  | S    | d   | S    | d   | S    |
| BGLZ 35/3     | 3000011279 | 35/3             | 35/50/70    | -   | -  | -   | -  | 37.77  | 2.62 | 53.57   | 3.53 | 85.32   | 3.53 |
| BGLZ 42/3     | 3000011280 | 42/3             | 42/60/85    | -   | -  | -   | -  | 44.12  | 2.62 | 66.27   | 3.53 | 104.37  | 3.53 |
| BGLZ 50/3     | 3000011281 | 50/3             | 50/70/100   | -   | -  | -   | -  | 53.57  | 3.53 | 78.97   | 3.53 | 123.42  | 3.53 |
| BGLZ 63/3     | 3000011282 | 63/3             | 63/85/120   | -   | -  | -   | -  | 66.27  | 3.53 | 98.02   | 3.53 | 151.99  | 3.53 |
| BGLZ 70/3     | 3000011283 | 70/3             | 70/100/140  | -   | -  | -   | -  | 78.97  | 3.53 | 113.89  | 3.53 | 177.39  | 3.53 |
| BGLZ 85/3     | 3000011284 | 85/3             | 85/120/170  | 120   | 15 | 170   | 15 | 91.67  | 3.53 | 139.29  | 3.53 | 215.49  | 3.53 |
| BGLZ 100/3    | 3000011285 | 100/3            | 100/140/200 | 140   | 15 | -   | -  | 113.89   | 3.53 | 164.69  | 3.53 | 253.59  | 3.53 |
| BGLZ 120/3    | 3000011286 | 120/3            | 120/170/240 | 170   | 15 | -   | -  | 132.9  | 3.53 | 196.44  | 3.53 | 304.39  | 3.53 |
| BGLZ 140/3    | 3000011287 | 140/3            | 140/200/285 | 200   | 15 | -   | -  | 158.34   | 3.53 | 234.54  | 3.53 | 355.19  | 3.53 |



**2.1.6 Seal kit / internal 3-stage**

| Item          |             |                   | ①          | ②          | ③          | ④                      | ⑤                      |    |       |     |       |     |
|---------------|-------------|-------------------|------------|------------|------------|------------------------|------------------------|----|-------|-----|-------|-----|
| Quantity      |             |                   | 2          | 1          | 1          | 1                      | 1                      |    |       |     |       |     |
| Description   |             |                   | Guide ring | Guide ring | Guide ring | Sliding ring<br>O-ring | Sliding ring<br>O-ring |    |       |     |       |     |
|               |             |                   |            |            |            |                        |                        |    |       |     |       |     |
| Cylinder type | Article No. | internal 3-stage  | d          | h          | d          | h                      | d                      | h  | d     | S   | d     | S   |
| BGLZ 35/3     | 3000011289  | 35/3 35/50/70     | 37         | 15         | 55         | 25                     | 87                     | 25 | 39    | 3.9 | 76.9  | 6   |
| BGLZ 42/3     | 3000011290  | 42/3 42/60/85     | 45         | 15         | 68         | 25                     | 107                    | 25 | 62    | 3.9 | 96.9  | 6   |
| BGLZ 50/3     | 3000011291  | 50/3 50/70/100    | 55         | 15         | 80         | 25                     | 125                    | 25 | 69.9  | 6   | 114.9 | 6   |
| BGLZ 63/3     | 3000011292  | 63/3 63/85/120    | 68         | 15         | 101        | 25                     | 155                    | 25 | 90.9  | 6   | 139   | 7.8 |
| BGLZ 70/3     | 3000011293  | 70/3 70/100/140   | 80         | 15         | 115        | 25                     | 180                    | 25 | 104.9 | 6   | 164   | 7.8 |
| BGLZ 85/3     | 3000011294  | 85/3 85/120/170   | 95         | 15         | 142        | 25                     | 220                    | 25 | 126   | 7.8 | 204   | 7.8 |
| BGLZ 100/3    | 3000011295  | 100/3 100/140/200 | 115        | 25         | 167        | 25                     | 258                    | 25 | 151   | 7.8 | 242   | 7.8 |
| BGLZ 120/3    | 3000011296  | 120/3 120/170/240 | 135        | 25         | 203        | 25                     | 312.5                  | 25 | 187   | 7.8 | 296.5 | 7.8 |
| BGLZ 140/3    | 3000011297  | 140/3 140/200/285 | 165        | 25         | 239        | 25                     | 373                    | 25 | 223   | 7.8 | 353.5 | 7.8 |

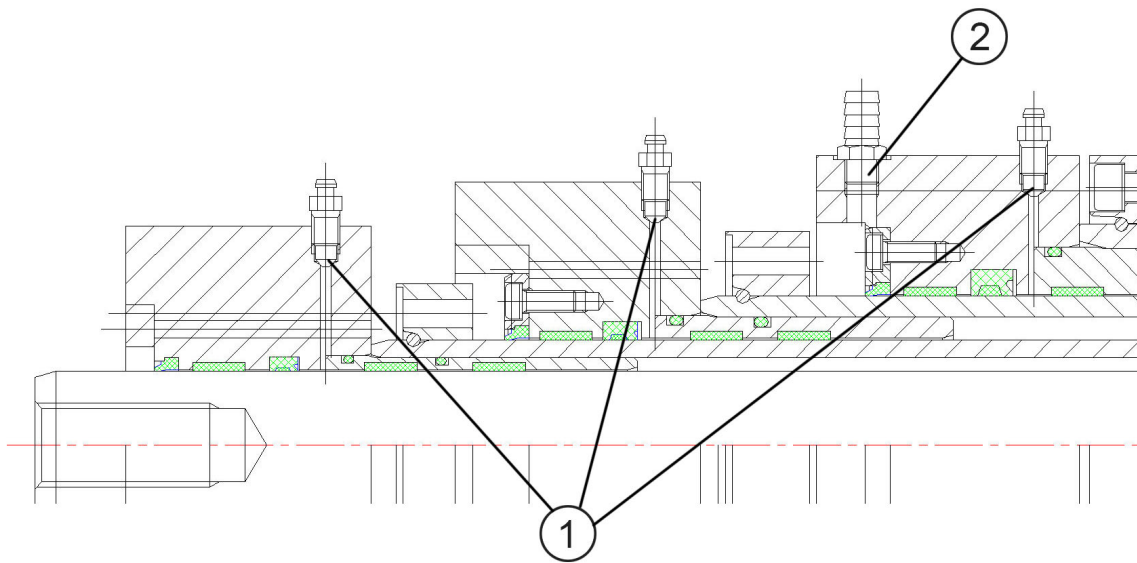


| Item          |            |                   | ⑥   | ⑦   | ⑧   | ⑨   |        |      |       |      |
|---------------|------------|-------------------|---|---|---|---|--------|------|-------|------|
| Quantity      |            |                   | 1   | 1   | 1   | 1   |        |      |       |      |
| Description   |            |                   | Step Seal<br>O-ring   | Step Seal<br>O-ring   | O-ring  | O-ring  |        |      |       |      |
|               |            |                   |  |  |  |  |        |      |       |      |
| Cylinder type | Part No.   | internal 3-stage  | d   | S   | d   | S   | d      | S    | d     | S    |
| BGLZ 35/3     | 3000011289 | 35/3 35/50/70     | 49  | 3.7   | 76.5  | 5.8   | 85.32  | 3.53 | 28.24 | 2.62 |
| BGLZ 42/3     | 3000011290 | 42/3 42/60/85     | 62  | 3.7   | 96.5  | 5.8   | 104.37 | 3.53 | 39.34 | 2.62 |
| BGLZ 50/3     | 3000011291 | 50/3 50/70/100    | 69.5  | 5.8   | 114.5   | 5.8   | 123.42 | 3.53 | 39.34 | 2.62 |
| BGLZ 63/3     | 3000011292 | 63/3 63/85/120    | 90.5  | 5.8   | 139   | 7.6   | 151.99 | 3.53 | 39.34 | 2.62 |
| BGLZ 70/3     | 3000011293 | 70/3 70/100/140   | 104.5   | 5.8   | 164   | 7.6   | 177.39 | 3.53 | 39.35 | 2.62 |
| BGLZ 85/3     | 3000011294 | 85/3 85/120/170   | 126   | 7.6   | 204   | 7.6   | 215.49 | 3.53 | 55.25 | 2.62 |
| BGLZ 100/3    | 3000011295 | 100/3 100/140/200 | 151   | 7.6   | 242   | 7.6   | 153.59 | 3.53 | 55.25 | 2.62 |
| BGLZ 120/3    | 3000011296 | 120/3 120/170/240 | 187   | 7.6   | 296.5   | 7.6   | 304.39 | 3.53 | 55.25 | 2.62 |
| BGLZ 140/3    | 3000011297 | 140/3 140/200/285 | 223   | 7.6   | 353.5   | 7.6   | 355.19 | 3.53 | 55.25 | 2.62 |

### 2.1.7 Check valve

| Item        | ⑩          |                 |
|-------------|------------|-----------------|
| Quantity    | 2          |                 |
| Description | Part No.   | Cylinder type * |
| CKV BGLZ    | 3000011299 | 35/3 + 42/3     |
| CKV BGLZ    | 3000011300 | as of 50/3      |

\* 3 stage = 2 x check valve

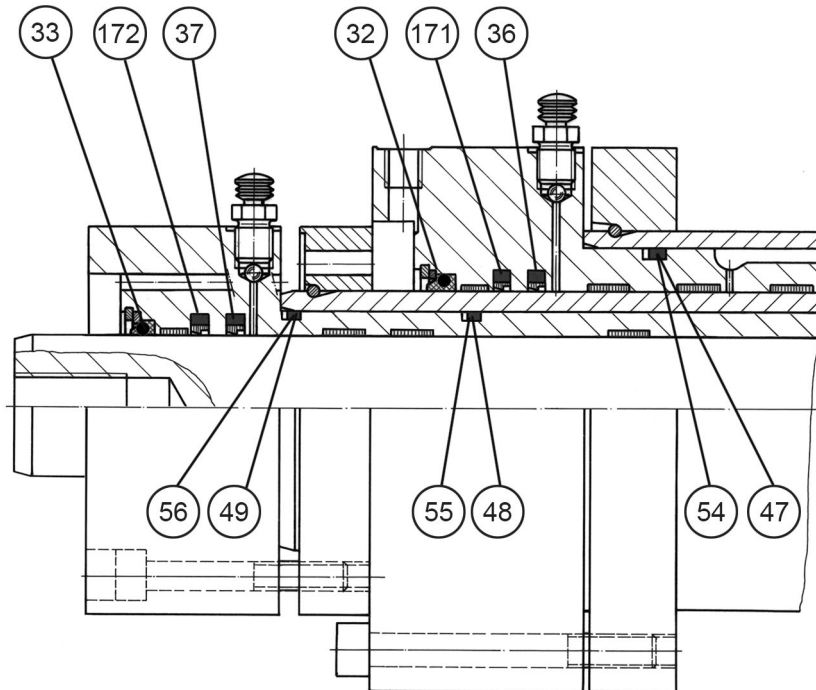


### 2.1.8 Accessories

| Item ①          |            |             | Item ②             |            |                 |
|-----------------|------------|-------------|--------------------|------------|-----------------|
| Cylinder type   | Part No.   | Description | Cylinder type      | Part No.   | Description     |
| SWC M8 BHZ/BGLZ | 3000009459 | Bleed screw | CON WES 8/R1/8 PA6 | 3000053873 | Hose connection |

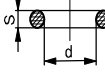
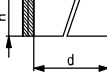
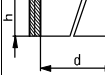
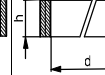
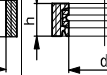
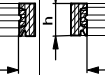


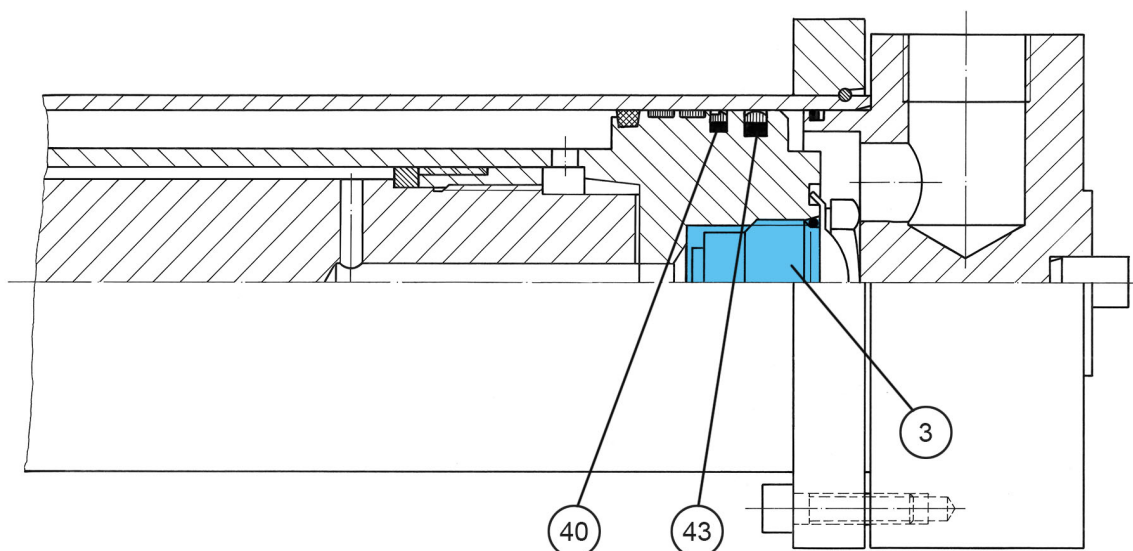
## 2.2 Type series BZBGL



### 2.2.1 Seal kit / external 2-stage

| Item          | 32         |                  | 33         |     | 36                           |     | 37                           |     | 47     |     | 48     |        |      |        |      |
|---------------|------------|------------------|------------|-----|------------------------------|-----|------------------------------|-----|--------|-----|--------|--------|------|--------|------|
| Quantity      | 1          |                  | 1          |     | 1                            |     | 1                            |     | 2      |     | 1      |        |      |        |      |
| Description   | Wiper seal |                  | Wiper seal |     | Inner slide ring<br>Rod seal |     | Inner slide ring<br>Rod seal |     | O-ring |     | O-ring |        |      |        |      |
|               |            |                  |            |     |                              |     |                              |     |        |     |        |        |      |        |      |
| Cylinder type | Part No.   | external 2-stage |            | d   | h                            | d   | h                            | d   | h      | d   | h      | d      | S    | d      | S    |
| BZBGL 35/2    | 3000053016 | 35/2             | 35/50      | 50  | 2.62                         | 35  | 2.62                         | 50  | 5.33   | 35  | 5.33   | 53.57  | 3.53 | 37.82  | 1.78 |
| BZBGL 50/2    | 3000053018 | 50/2             | 50/70      | 70  | 2.62                         | 50  | 2.62                         | 70  | 5.33   | 50  | 5.33   | 78.97  | 3.53 | 53.57  | 3.53 |
| BZBGL 63/2    | 3000053020 | 63/2             | 63/85      | 85  | 2.62                         | 63  | 2.62                         | 85  | 5.33   | 63  | 5.33   | 94.62  | 5.33 | 69.44  | 3.53 |
| BZBGL 70/2    | 3000053022 | 70/2             | 70/100     | 100 | 3                            | 70  | 2.62                         | 100 | 5.33   | 70  | 5.33   | 107.32 | 5.33 | 78.97  | 3.53 |
| BZBGL 85/2    | 3000053024 | 85/2             | 85/120     | 120 | 3                            | 85  | 2.62                         | 120 | 5.33   | 85  | 5.33   | 132.72 | 5.33 | 91.67  | 3.53 |
| BZBGL 100/2   | 3000053026 | 100/2            | 100/140    | 140 | 3.53                         | 100 | 3                            | 140 | 5.33   | 100 | 5.33   | 158.12 | 5.33 | 107.32 | 5.33 |
| BZBGL 120/2   | 3000053028 | 120/2            | 120/170    | 170 | 3                            | 120 | 3                            | 170 | 5.33   | 120 | 5.33   | 189.87 | 5.33 | 123.19 | 5.33 |
| BZBGL 140/2   | 3000053030 | 140/2            | 140/200    | 200 | 18                           | 140 | 16                           | 200 | 7      | 140 | 5.33   | 221.62 | 5.33 | 158.12 | 5.33 |
| BZBGL 170/2   | 3000053032 | 170/2            | 170/240    | 240 | 18                           | 170 | 12                           | 240 | 7      | 170 | 5.33   | 266.07 | 6.99 | 189.87 | 5.33 |
| BZBGL 200/2   | 3000053034 | 200/2            | 200/285    | 285 | 20                           | 200 | 18                           | 285 | 7      | 200 | 7      | 329.57 | 6.99 | 221.62 | 5.33 |

| Item          |            |                  |         | ④9  |      | ⑤4  |     | ⑤5   |     | ⑤6  |      | ①71   |      | ①72   |      |
|---------------|------------|------------------|---------|---|------|---|-----|--|-----|---|------|---|------|---|------|
| Quantity      |            |                  |         | 1   |      | 2   |     | 1  |     | 1   |      | 1   |      | 1   |      |
| Description   |            |                  |         | Guide ring  |      | Guide ring  |     | Support ring<br>Guide ring   |     | Support ring<br>Guide ring  |      | O-ring  |      | O-ring  |      |
|               |            |                  |         |  |      |  |     |  |     |  |      |  |      |  |      |
| Cylinder type | Part No.   | external 2-stage |         | d   | S    | d   | h   | d  | h   | d   | h    | d   | h    | d   | h    |
| BZBGL 35/2    | 3000053016 | 35/2             | 35/50   | 34.65   | 1.78 | 54.4  | 1.6 | 39.4   | 1.6 | 38.4  | 5.33 | 50  | 5.33 | 35  | 3.53 |
| BZBGL 50/2    | 3000053018 | 50/2             | 50/70   | 53.57   | 3.53 | 79.4  | 1.6 | 55.4   | 1.6 | 54.4  | 5.33 | 70  | 5.33 | 50  | 5.33 |
| BZBGL 63/2    | 3000053020 | 63/2             | 63/85   | 69.44   | 3.53 | 97.2  | 2.4 | 70.4   | 1.6 | 69.4  | 5.33 | 85  | 5.33 | 63  | 5.33 |
| BZBGL 70/2    | 3000053022 | 70/2             | 70/100  | –   | –    | 111.2   | 2.4 | 79.4   | 1.6 | –   | –    | 100   | 5.33 | 70  | 5.33 |
| BZBGL 85/2    | 3000053024 | 85/2             | 85/120  | –   | –    | 138.2   | 2.4 | 94.4   | 1.6 | –   | –    | 120   | 5.33 | 85  | 5.33 |
| BZBGL 100/2   | 3000053026 | 100/2            | 100/140 | –   | –    | 161.2   | 2.4 | 111.2  | 2.4 | –   | –    | 140   | 5.33 | 100   | 5.33 |
| BZBGL 120/2   | 3000053028 | 120/2            | 120/170 | –   | –    | 199.2   | 2.4 | 131.2  | 2.4 | –   | –    | 170   | 5.33 | 120   | 5.33 |
| BZBGL 140/2   | 3000053030 | 140/2            | 140/200 | –   | –    | 231.2   | 2.4 | 161.2  | 2.4 | –   | –    | –   | –    | –   | –    |
| BZBGL 170/2   | 3000053032 | 170/2            | 170/240 | –   | –    | 278.4   | 3.2 | 201.2  | 2.4 | –   | –    | –   | –    | –   | –    |
| BZBGL 200/2   | 3000053034 | 200/2            | 200/285 | –   | –    | 328.4   | 3.2 | 231.2  | 2.4 | –   | –    | –   | –    | –   | –    |



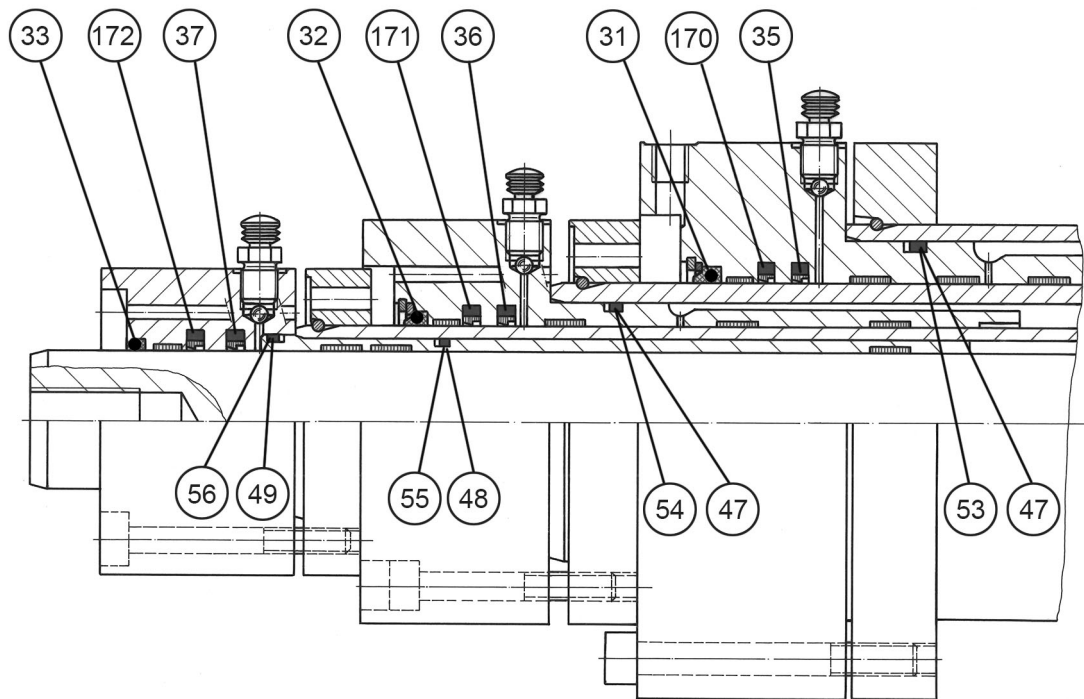
### 2.2.2 Seal kit / internal 2-stage

| Item          |            |                  | 40                  |      | 43                     |      |  |
|---------------|------------|------------------|---------------------|------|------------------------|------|--|
| Quantity      |            |                  | 1                   |      | 1                      |      |  |
| Description   |            |                  | Step Seal<br>O-ring |      | Sliding ring<br>O-ring |      |  |
|               |            |                  |                     |      |                        |      |  |
| Cylinder type | Part No.   | internal 2-stage | d                   | S    | d                      | S    |  |
| BZBGL 35/2    | 3000053017 | 35/2 35/50       | 43.82               | 5.33 | 47.22                  | 3.53 |  |
| BZBGL 50/2    | 3000053019 | 50/2 50/70       | 69.22               | 5.33 | 63                     | 7    |  |
| BZBGL 63/2    | 3000053021 | 63/2 63/85       | 88.27               | 5.33 | 85                     | 7    |  |
| BZBGL 70/2    | 3000053023 | 70/2 70/100      | 104.14              | 5.33 | 98                     | 7    |  |
| BZBGL 85/2    | 3000053025 | 85/2 85/120      | 129.54              | 5.33 | 123.19                 | 7    |  |
| BZBGL 100/2   | 3000053027 | 100/2 100/140    | 151.77              | 5.33 | 145.42                 | 7    |  |
| BZBGL 120/2   | 3000053029 | 120/2 120/170    | 183.52              | 7    | 183.52                 | 7    |  |
| BZBGL 140/2   | 3000053031 | 140/2 140/200    | 215.27              | 7    | 215.27                 | 7    |  |
| BZBGL 170/2   | 3000053033 | 170/2 170/240    | 266.07              | 7    | 266.07                 | 7    |  |
| BZBGL 200/2   | 3000053035 | 200/2 200/280    | 316.87              | 7    | 316.87                 | 7    |  |

### 2.2.3 Check valve

|                 |            |                 |  |
|-----------------|------------|-----------------|--|
| Item            | ③          |                 |  |
| Quantity        | 1          |                 |  |
| Description     | Part No.   | Cylinder type * |  |
| CKV NG 8 BZBGL  | 3000047557 | 35/2            |  |
| CKV NG 15 BZBGL | 3000047558 | as of 50/2      |  |

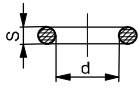
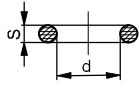
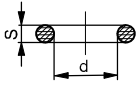
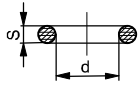
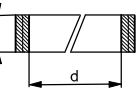
\* 2-stage = 1 x check valve

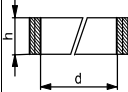
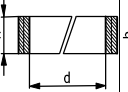
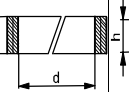
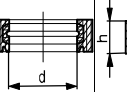
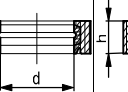



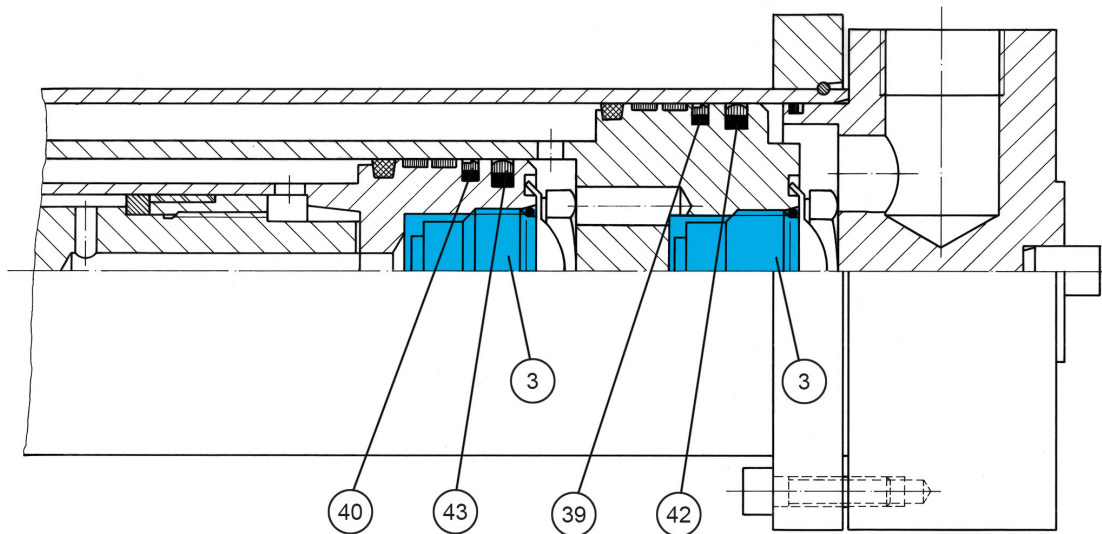
### 2.2.4 Seal kit / external 3-stage

| Item          | 31         |                  | 32          |     | 33         |     | 35                           |     | 36                           |     | 37                           |     |      |     |      |
|---------------|------------|------------------|-------------|-----|------------|-----|------------------------------|-----|------------------------------|-----|------------------------------|-----|------|-----|------|
| Quantity      | 1          |                  | 1           |     | 1          |     | 1                            |     | 1                            |     | 1                            |     |      |     |      |
| Description   | Wiper seal |                  | Wiper seal  |     | Wiper seal |     | Inner slide ring<br>Rod seal |     | Inner slide ring<br>Rod seal |     | Inner slide ring<br>Rod seal |     |      |     |      |
|               |            |                  |             |     |            |     |                              |     |                              |     |                              |     |      |     |      |
| Cylinder type | Part No.   | external 3-stage |             | d   | h          | d   | h                            | d   | S                            | d   | h                            | d   | h    | d   | h    |
| BZBGL 35/3    | 3000053038 | 35/3             | 35/50/70    | 70  | 2.62       | 50  | 2.62                         | 35  | 2.62                         | 70  | 5.33                         | 50  | 5.33 | 35  | 5.33 |
| BZBGL 42/3    | 3000053040 | 42/3             | 42/60/85    | 85  | 2.62       | 60  | 2.62                         | 42  | 2.62                         | 85  | 5.33                         | 60  | 5.33 | 42  | 5.33 |
| BZBGL 50/3    | 3000053042 | 50/3             | 50/70/100   | 100 | 3          | 70  | 2.62                         | 50  | 2.62                         | 100 | 5.33                         | 70  | 5.33 | 50  | 5.33 |
| BZBGL 63/3    | 3000053044 | 63/3             | 63/85/120   | 120 | 3          | 85  | 2.62                         | 63  | 2.62                         | 120 | 5.33                         | 85  | 5.33 | 63  | 5.33 |
| BZBGL 70/3    | 3000053046 | 70/3             | 70/100/140  | 140 | 3.53       | 100 | 3                            | 70  | 2.62                         | 140 | 5.33                         | 100 | 5.33 | 70  | 5.33 |
| BZBGL 85/3    | 3000053048 | 85/3             | 85/120/170  | 170 | 3          | 120 | 3                            | 85  | 2.62                         | 170 | 5.33                         | 120 | 5.33 | 85  | 5.33 |
| BZBGL 100/3   | 3000053050 | 100/3            | 100/140/200 | 200 | 5.33       | 140 | 3.53                         | 100 | 3                            | 200 | 7                            | 140 | 5.33 | 100 | 5.33 |
| BZBGL 120/3   | 3000053052 | 120/3            | 120/170/240 | 240 | 18         | 170 | 12                           | 120 | 12                           | 240 | 7                            | 170 | 5.33 | 120 | 5.33 |
| BZBGL 140/3   | 3000053054 | 140/3            | 140/200/285 | 285 | 20         | 200 | 18                           | 140 | 16                           | 285 | 7                            | 200 | 7    | 140 | 5.33 |



| Item          |            |                   | ④⑥  | ④⑦  | ④⑧   | ④⑨  | ⑤③  |      |       |      |        |     |
|---------------|------------|-------------------|---|---|--|---|---|------|-------|------|--------|-----|
| Quantity      |            |                   | 2   | 1   | 1  | 1   | 2   |      |       |      |        |     |
| Description   |            |                   | O-ring<br> | O-ring<br> | O-ring<br> | O-ring<br> | Support ring<br>Guide ring<br> |      |       |      |        |     |
| Cylinder type | Part No.   | external 3-stage  | d   | S   | d  | S   | d   | S    | d     | S    | d      | h   |
| BZBGL 35/3    | 3000053038 | 35/3 35/50/70     | 82.14   | 3.53  | 53.57  | 3.53  | 37.82   | 1.78 | 34.65 | 1.78 | 86.4   | 1.6 |
| BZBGL 42/3    | 3000053040 | 42/3 42/60/85     | 100.97  | 5.33  | 66.27  | 3.53  | 44.04   | 3.53 | 44.04 | 3.53 | 103.2  | 1.6 |
| BZBGL 50/3    | 3000053042 | 50/3 50/70/100    | 116.84  | 5.33  | 78.97  | 3.53  | 53.57   | 3.53 | 53.57 | 3.53 | 121.2  | 2.4 |
| BZBGL 63/3    | 3000053044 | 63/3 63/85/120    | 148.59  | 5.33  | 94.62  | 5.33  | 66.27   | 3.53 | 66.27 | 3.53 | 151.2  | 2.4 |
| BZBGL 70/3    | 3000053046 | 70/3 70/100/140   | 170.82  | 5.33  | 107.32   | 5.33  | 78.97   | 3.53 | -     | -    | 176..2 | 2.4 |
| BZBGL 85/3    | 3000053048 | 85/3 85/120/170   | 215.27  | 5.33  | 132.72   | 5.33  | 91.67   | 3.53 | -     | -    | 216.2  | 2.4 |
| BZBGL 100/3   | 3000053050 | 100/3 100/140/200 | 240.64  | 5.33  | 158.12   | 5.33  | 107.54  | 3.53 | -     | -    | 251.2  | 2.4 |
| BZBGL 120/3   | 3000053052 | 120/3 120/170/240 | 304.17  | 6.99  | 189.87   | 5.33  | 123.19  | 5.33 | -     | -    | 306.4  | 3.2 |
| BZBGL 140/3   | 3000053054 | 140/3 140/200/285 | 342.27  | 6.99  | 221.62   | 5.33  | 158.12  | 5.33 | -     | -    | 358.4  | 3.2 |

| Item          |            |                   | ⑤④  | ⑤⑤  | ⑤⑥   | ①⑦⑦  | ①⑦①  | ①⑦②  |     |      |     |      |     |      |
|---------------|------------|-------------------|---|---|--|--|--|--|-----|------|-----|------|-----|------|
| Quantity      |            |                   | 1   | 1   | 1  | 1  | 1  | 1  |     |      |     |      |     |      |
| Description   |            |                   | Support ring<br>Guide ring<br> | Support ring<br>Guide ring<br> | Support ring<br>Guide ring<br> | Rimseal<br>Rod seal<br> | Rimseal<br>Rod seal<br> | Rimseal<br>Rod seal<br> |     |      |     |      |     |      |
| Cylinder type | Part No.   | external 3-stage  | d   | h   | d  | h  | d  | h  | d   | h    | d   | h    | d   | h    |
| BZBGL 35/3    | 3000053038 | 35/2 35/50/70     | 54.4  | 1.6   | 39.4   | 1.6  | 38.4   | 1.6  | 70  | 5.33 | 50  | 5.33 | 35  | 5.33 |
| BZBGL 42/3    | 3000053040 | 42/3 42/60/85     | 67.4  | 1.6   | 46.4   | 1.6  | 46.4   | 1.6  | 85  | 5.33 | 60  | 5.33 | 42  | 5.33 |
| BZBGL 50/3    | 3000053042 | 50/3 50/70/100    | 79.4  | 1.6   | 55.4   | 1.6  | 54.4   | 1.6  | 100 | 5.33 | 70  | 5.33 | 50  | 5.33 |
| BZBGL 63/3    | 3000053044 | 63/3 63/85/120    | 97.2  | 2.4   | 69.4   | 1.6  | 67.4   | 1.6  | 120 | 5.33 | 85  | 5.33 | 63  | 5.33 |
| BZBGL 70/3    | 3000053046 | 70/3 70/100/140   | 111.2   | 2.4   | 79.4   | 1.6  | -  | -  | 140 | 5.33 | 100 | 5.33 | 70  | 5.33 |
| BZBGL 85/3    | 3000053048 | 85/3 85/120/170   | 138.2   | 2.4   | 94.4   | 1.6  | -  | -  | 170 | 5.33 | 120 | 5.33 | 85  | 5.33 |
| BZBGL 100/3   | 3000053050 | 100/3 100/140/200 | 161.2   | 2.4   | 111.2  | 2.4  | -  | -  | 200 | 7    | 140 | 5.33 | 100 | 5.33 |
| BZBGL 120/3   | 3000053052 | 120/3 120/170/240 | 199.2   | 2.4   | 131.2  | 2.4  | -  | -  | -   | -    | -   | -    | -   | -    |
| BZBGL 140/3   | 3000053054 | 140/3 140/200/285 | 231.2   | 2.4   | 161.2  | 2.4  | -  | -  | -   | -    | -   | -    | -   | -    |



### 2.2.5 Seal kit / internal 3-stage

| Item          |            |                   | ③⑨                  |      | ④①                  |      | ④②                     |      | ④③                     |      |
|---------------|------------|-------------------|---------------------|------|---------------------|------|------------------------|------|------------------------|------|
| Quantity      |            |                   | 1                   |      | 1                   |      | 1                      |      | 1                      |      |
| Description   |            |                   | Step Seal<br>O-ring |      | Step Seal<br>O-ring |      | Sliding ring<br>O-ring |      | Sliding ring<br>O-ring |      |
|               |            |                   |                     |      |                     |      |                        |      |                        |      |
| Cylinder type | Part No.   | internal 3-stage  | d                   | S    | d                   | S    | d                      | S    | d                      | S    |
| BZBGL 35/3    | 3000053039 | 35/3 35/50/70     | 75.57               | 5.33 | 43.82               | 5.33 | 75.57                  | 5.33 | 47.22                  | 5.33 |
| BZBGL 42/3    | 3000053041 | 42/3 42/60/85     | 94.62               | 5.33 | 56.52               | 5.33 | 94.62                  | 5.33 | 56.52                  | 5.33 |
| BZBGL 50/3    | 3000053043 | 50/3 50/70/100    | 113.67              | 5.33 | 69.22               | 5.33 | 108                    | 7    | 63                     | 7    |
| BZBGL 63/3    | 3000053045 | 63/3 63/85/120    | 142.24              | 5.33 | 88.27               | 5.33 | 135.89                 | 7    | 85                     | 7    |
| BZBGL 70/3    | 3000053047 | 70/3 70/100/140   | 164.47              | 5.33 | 104.14              | 5.33 | 158.12                 | 7    | 98                     | 7    |
| BZBGL 85/3    | 3000053049 | 85/3 85/120/170   | 202.57              | 7    | 129.54              | 5.33 | 202.57                 | 7    | 123.19                 | 7    |
| BZBGL 100/3   | 3000053051 | 100/3 100/140/200 | 227.97              | 7    | 151.77              | 5.33 | 240.67                 | 7    | 145.42                 | 7    |
| BZBGL 120/3   | 3000053053 | 120/3 120/170/240 | 291.47              | 7    | 183.52              | 7    | 291.47                 | 7    | 183.52                 | 7    |
| BZBGL 140/3   | 3000053055 | 140/3 140/200/285 | 342.27              | 7    | 215.27              | 7    | 342.27                 | 7    | 215.27                 | 7    |

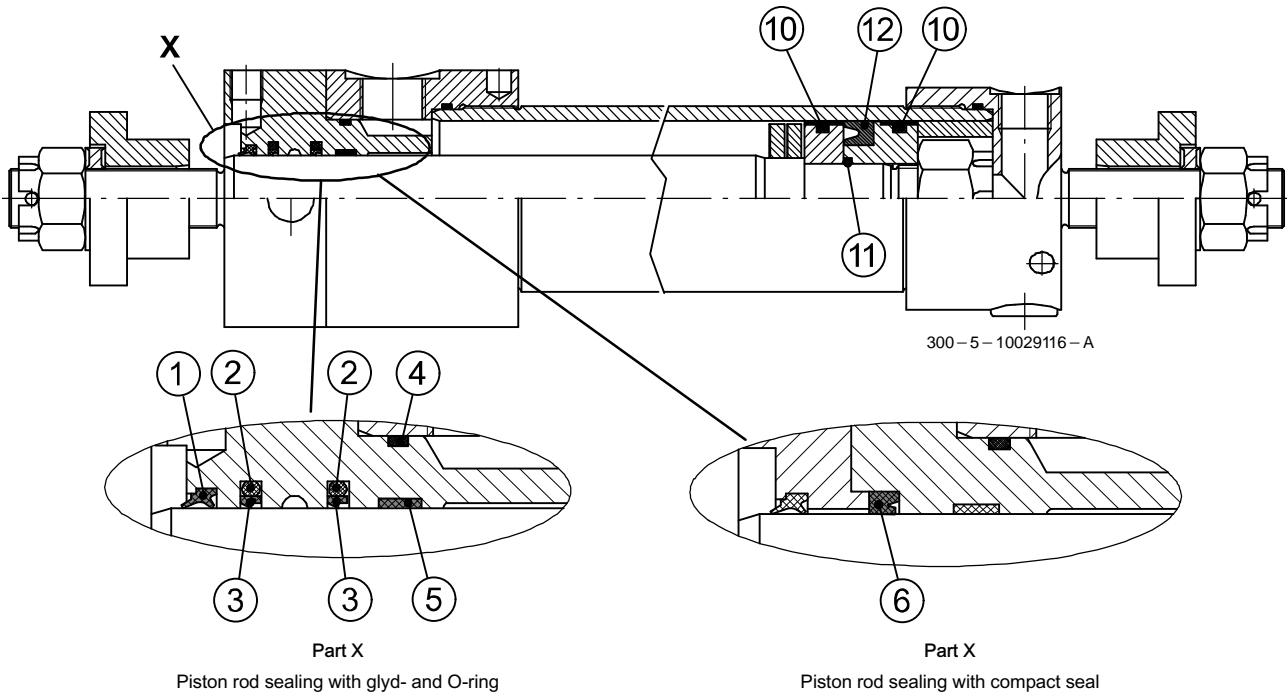
## 2.2.6 Check valve

|                 |            |                 |  |
|-----------------|------------|-----------------|--|
| Item            | ③          |                 |  |
| Quantity        | 2          |                 |  |
| Description     | Part No.   | Cylinder type * |  |
| CKV NG 8 BZBGL  | 3000047557 | 35/3            |  |
| CKV NG 15 BZBGL | 3000047558 | as of 42/3      |  |

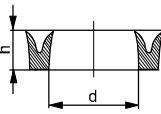
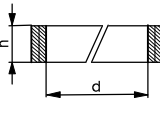
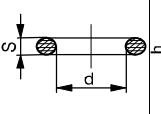
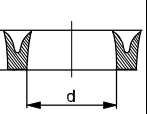
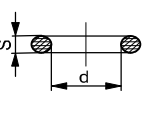
\* 3-stage = 2 x check valve

### 3 Pulling cylinder

#### 3.1 Type series BZZ



| Item          | ①          |          | ②        |   | ③      |      | ④      |     | ⑤          |   |    |      |
|---------------|------------|----------|----------|---|--------|------|--------|-----|------------|---|----|------|
| Quantity      | 1          |          | 2        |   | 1      |      | 2      |     | 1          |   |    |      |
| Description   | Wiper seal |          | Rod seal |   | O-ring |      | O-ring |     | Guide ring |   |    |      |
|               |            |          |          |   |        |      |        |     |            |   |    |      |
| Cylinder type | Part No.   | Part No. | d        | h | d      | S    | d      | h   | d          | S | d  | h    |
| BZZ 40/25     | 3007022935 | 40/25    | 25       | 8 | 28.25  | 2.62 | 32     | 3.2 | 35         | 3 | 25 | 5.6  |
| BZZ 50/28     | 3007022936 | 50/28    | 28       | 8 | 32.92  | 3.53 | 28     | 4.2 | 45         | 3 | 28 | 5.6  |
| BZZ 63/35     | 3007022937 | 63/35    | 35       | 7 | 37.69  | 3.53 | 35     | 4.2 | 57         | 3 | 35 | 9.7  |
| BZZ 75/35     | 3007022938 | 75/35    | 35       | 7 | 37.69  | 3.53 | 35     | 4.2 | 70         | 3 | 35 | 9.7  |
| BZZ 80/30     | 3007022939 | 80/30    | 30       | 8 | 34.52  | 3.53 | 30     | 4.2 | 75         | 3 | 30 | 9.7  |
| BZZ 100/40    | 3007022940 | 100/40   | 40       | 8 | 44.04  | 3.53 | 40     | 4.2 | 94.5       | 3 | 40 | 14.8 |
| BZZ 110/40    | 3007022941 | 110/40   | 40       | 8 | 44.04  | 3.53 | 40     | 4.2 | 104.5      | 3 | 40 | 14.8 |
| BZZ 125/45    | 3007022942 | 125/45   | 45       | 8 | 50.39  | 3.53 | 45     | 4.2 | 120        | 3 | 45 | 14.8 |
| BZZ 125/50    | 3007022943 | 125/50   | 50       | 7 | 53.57  | 3.53 | 50     | 4.2 | 120        | 3 | -  | -    |

| Item          |            |          | ⑥   |     | ⑩   |     | ⑪  |     | ⑫   |      | ⑳   |      |
|---------------|------------|----------|---|-----|---|-----|--|-----|---|------|---|------|
| Quantity      |            |          | 1   |     | 1   |     | 2  |     | 1   |      | 2   |      |
| Description   |            |          | Wiper seal<br> |     | Rod seal<br> |     | O-ring<br> |     | O-ring<br> |      | Guide ring<br> |      |
| Cylinder type | Part No.   | Part No. | d   | h   | d   | S   | d  | h   | d   | h    | d   | S    |
| BZZ 40/25     | 3007022935 | 40/25    | 25  | 7.5 | 25  | 5.6 | 22   | 2.5 | 30  | 7.5  | 46  | 3    |
| BZZ 50/28     | 3007022936 | 50/28    | 30  | 12  | 28  | 5.6 | 25   | 2.5 | 30  | 12   | 56  | 3    |
| BZZ 63/35     | 3007022937 | 63/35    | 35  | 10  | 35  | 5.6 | 28   | 2.5 | 43  | 12   | 72  | 3    |
| BZZ 75/35     | 3007022938 | 75/35    | 35  | 10  | 35  | 5.6 | 28   | 2.5 | 55  | 11.5 | 82  | 3    |
| BZZ 80/30     | 3007022939 | 80/30    | 30  | 10  | 30  | 5.6 | 26   | 2.5 | 60  | 12   | 88  | 3    |
| BZZ 100/40    | 3007022940 | 100/40   | 40  | 7   | 40  | 5.6 | 32   | 3   | 80  | 12   | 110   | 3.5  |
| BZZ 110/40    | 3007022941 | 110/40   | 40  | 7   | 40  | 5.6 | 32   | 3   | 90  | 12   | 120.24  | 3.53 |
| BZZ 125/45    | 3007022942 | 125/45   | 45  | 7.2 | 45  | 5.6 | 38   | 3   | 100   | 15.5 | 132.95  | 3.53 |
| BZZ 125/50    | 3007022943 | 125/50   | –   | –   | 50  | 5.6 | 44   | 3   | 100   | 15   | 139.3   | 3.53 |