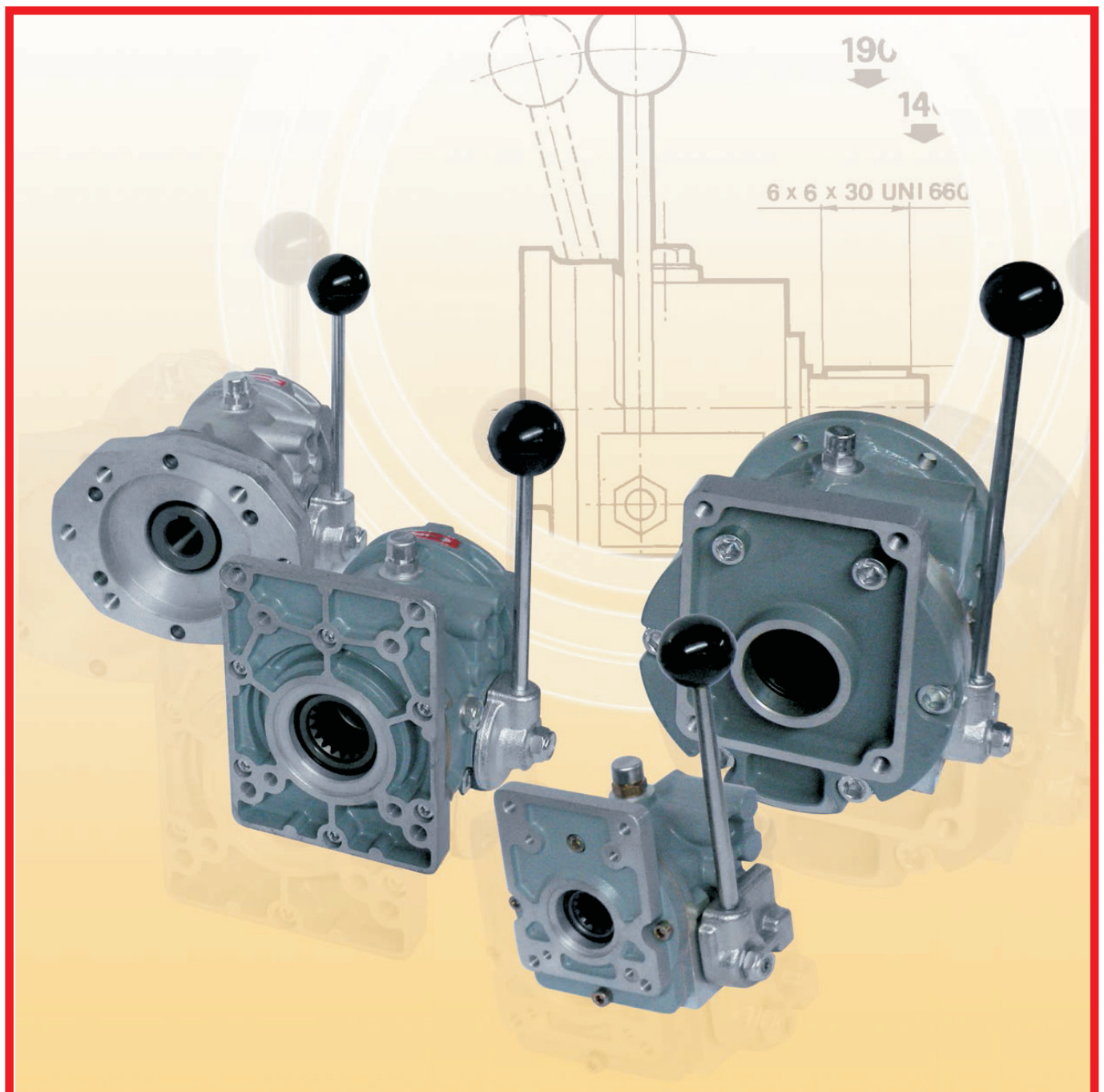




# Mechanical Clutches



## Contents

|                                       |         |
|---------------------------------------|---------|
| General Information.....              | 4 - 5   |
| Mechanical Clutches Series 30100..... | 6 - 7   |
| Mechanical Clutches Series 30300..... | 8 - 11  |
| Mechanical Clutches Series 30500..... | 12 - 15 |

**General Information****Front Teeth Mechanical Clutches Series 30100 - 30300 - 30500**

They are unidirectional and bidirectional.

When coupled with hydraulic pumps we recommend to engage and disengage the pump when the directional valve is in neutral position and at a speed not higher than 1800 n/min.

For reversible models the max.engagement and disengagement speed is max. 1000 n/min.

**Lubrication**

- Oil type SAE 90
- Change oil every 12 months
- Max. working temperature +80°C
- Min. working temperature -10°C

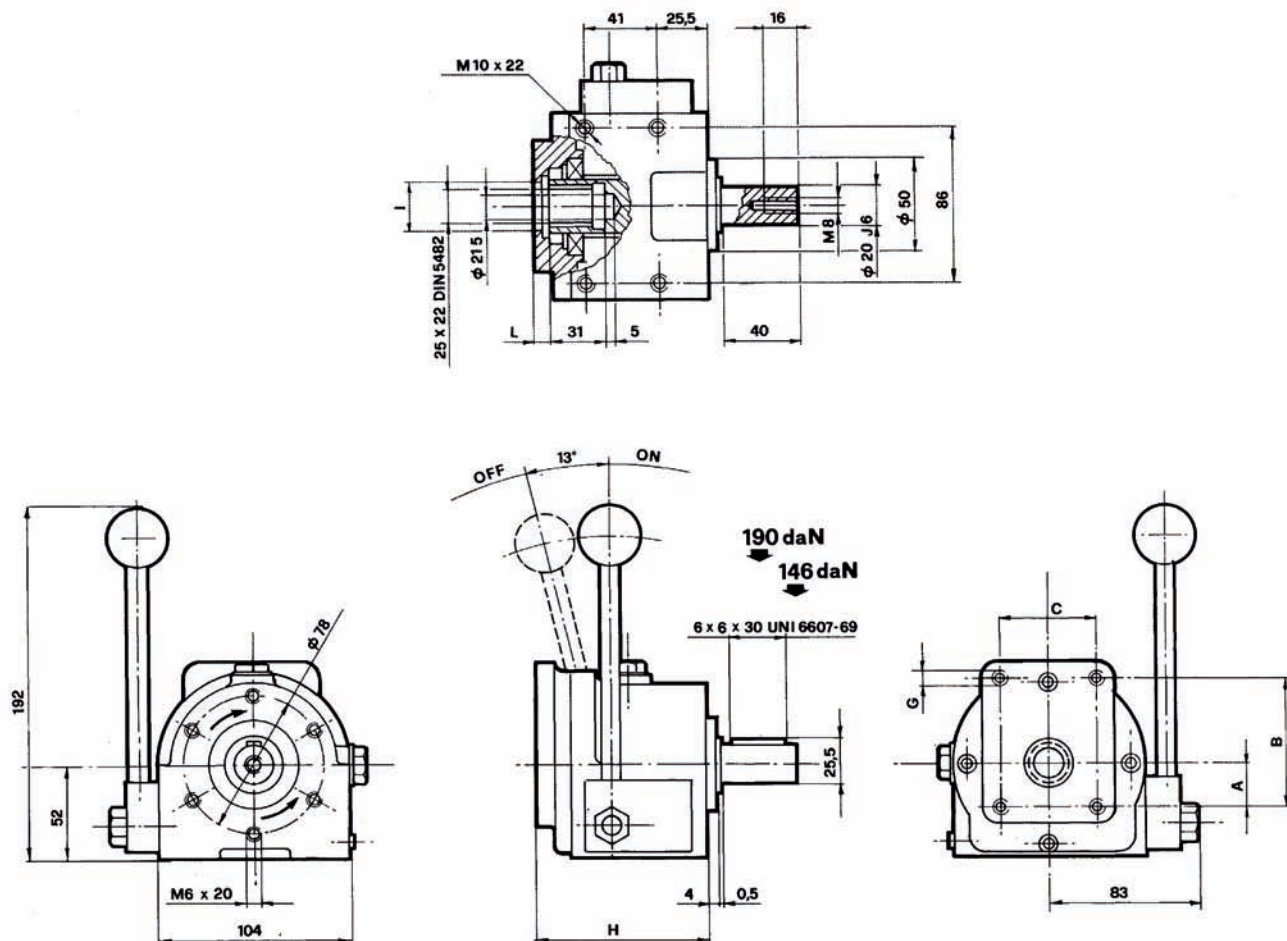
**General Information**
**Front Teeth Mechanical Clutches**
**Product Overview**

| Front teeth<br>mechanical<br>clutches<br>series | Torque<br>daNm | Pump<br>Group | Pump<br>Flanges                                                             | Housing   |
|-------------------------------------------------|----------------|---------------|-----------------------------------------------------------------------------|-----------|
| <b>30100</b>                                    | 9              | Gr. 1 - 2     | Gr. 1 - 2<br>Gr. 2 Bosch                                                    | Aluminium |
| <b>30300</b>                                    | 18,5           | Gr. 2 - 3     | Gr. 2 - 3<br>Gr. 2 - 3 Bosch<br>SAE A - B                                   | Aluminium |
| <b>30500</b>                                    | 58             | Gr. 3,5 - 4   | Gr.1 - 2 - 3 - 3,5 - 4<br>Gr. 3 Bosch<br>SAE A - B - C<br>Linde 20-35-50-75 | Aluminium |

### Front Teeth Mechanical Clutches Series 30100

Torque 9 daNm - Pump Group 1 - 2

### INSTALLATION DRAWING



The mechanical clutches with two direction arrow are REVERSIBLE

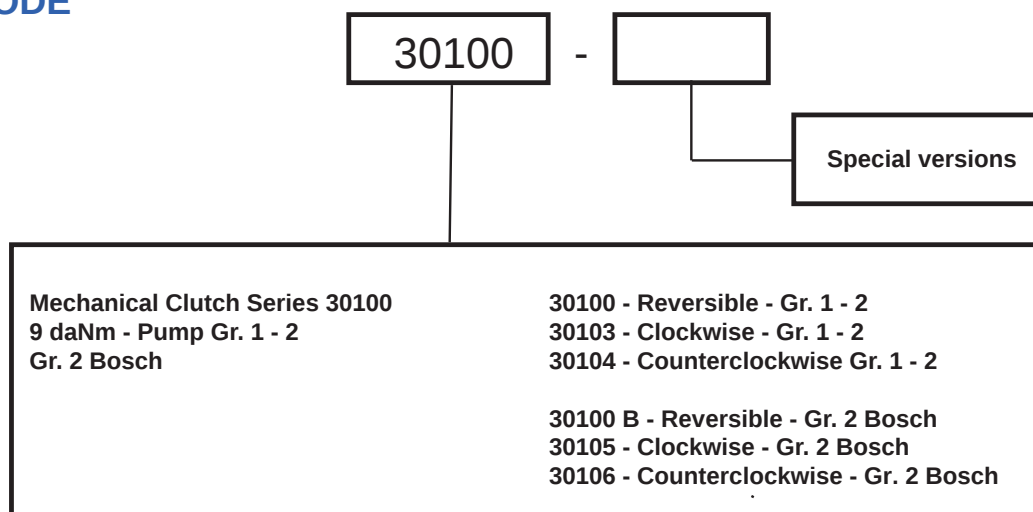
| Nominal torque<br>daNm | Max. speed<br>n/min. | Max. power output<br>kW | Axial load<br>daN |
|------------------------|----------------------|-------------------------|-------------------|
| 9                      | 2000                 | 30                      | 120               |

| CODE<br>No. | DIRECTION OF<br>ROTATION | PUMP<br>GROUP | A    | B   | C    | G     | H    | I       | L  |
|-------------|--------------------------|---------------|------|-----|------|-------|------|---------|----|
| 30100       | REVERSIBLE               | 1             | 26.3 | 72  | 52.4 | M6x12 | 92.5 | 25.4 H7 | 7  |
| 30103       | CLOCKWISE                | 2             | 32.5 | 96  | 71.4 | M8x15 | 95.5 | 36,5 H7 | 10 |
| 30104       | COUNTERCLOCKWISE         |               |      |     |      |       |      |         |    |
| 30100/B     | REVERSIBLE               | 2 BOSCH       | 34.5 | 100 | 72   | M8x15 | 95.5 | 80 H7   | 10 |
| 30105       | CLOCKWISE                |               |      |     |      |       |      |         |    |
| 30106       | COUNTERCLOCKWISE         |               |      |     |      |       |      |         |    |

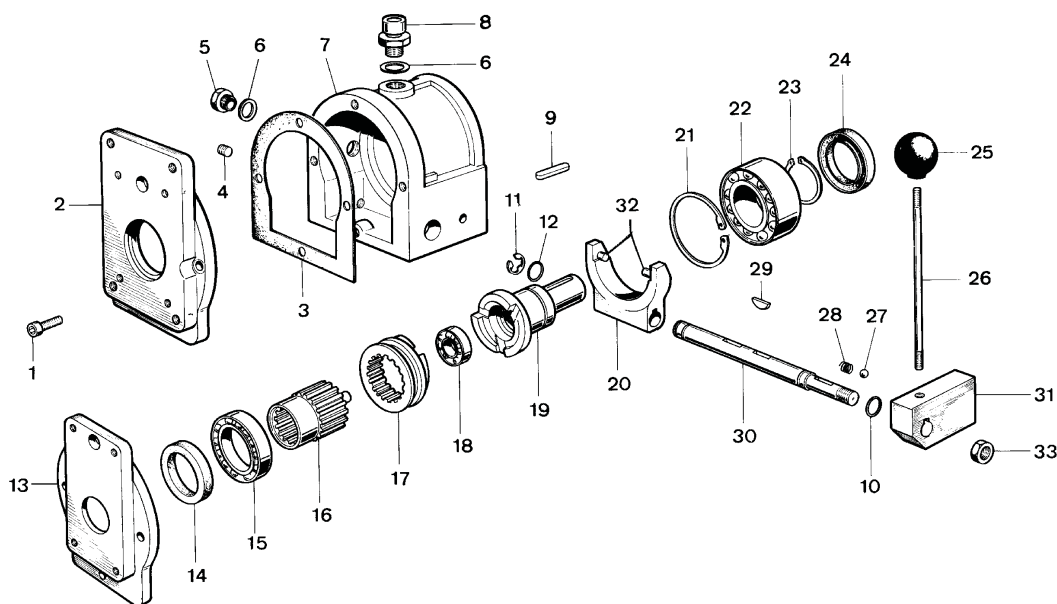
### Front Teeth Mechanical Clutches Series 30100

Torque 9 daNm - Pump Group 1 - 2

#### ORDER CODE



#### SPARE PARTS LIST



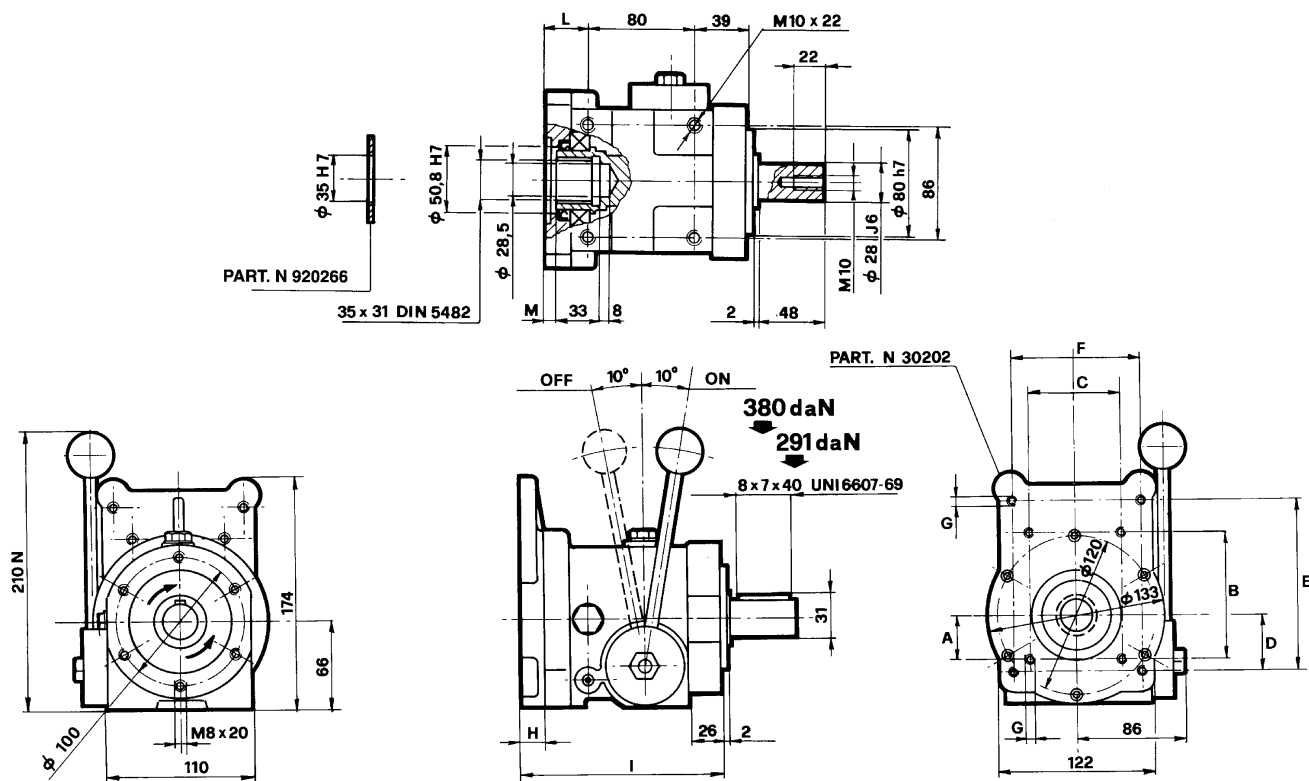
| Ref. | CODE       | DESCRIPTION                   | Q.ty |
|------|------------|-------------------------------|------|
| 1    | 610625     | Socket Capscrew M6x20         | 4    |
| 2    | 30100.1    | Flange for pump Group 1 and 2 | 1    |
| 3    | 30100.1.2  | Gasket                        | 1    |
| 4    | 940182     | Oil drain dowel 1/8" G        | 1    |
| 5    | 940141     | Oil level plug 1/4" G         | 1    |
| 6    | 940144     | Gasket                        | 2    |
| 7    | 30001.1    | Housing                       | 1    |
| 8    | 940143     | Oil breather plug             | 1    |
| 9    | 426630     | Key 6x30                      | 1    |
| 10   | 401090     | Washer OR 109                 | 1    |
| 11   | 311000     | Snap ring d.10                | 1    |
| 12   | 402031     | Washer OR 2031                | 1    |
| 13   | on request | Flange for pump Group 1       | 1    |
| 14   | 303040     | Sealing Ring                  | 1    |
| 15   | 501600     | Bearing 16006                 | 1    |
| 16   | AEP30001   | Infeed splined shaft          | 1    |
| 17   | MCRV30001  | Splined sleeve reversible     | 1    |
|      | MCDX30001  | Splined sleeve right          |      |
|      | MCSX30001  | Splined sleeve left           |      |

| Ref. | CODE       | DESCRIPTION              | Q.ty |
|------|------------|--------------------------|------|
| 18   | 506080     | Bearing 608              | 1    |
| 19   | AURPc30001 | Outfeed shaft reversible | 1    |
|      | AUDPc30001 | Outfeed shaft right      |      |
|      | AUSPc30001 | Outfeed shaft left       |      |
| 20   | 30013.1    | Fork                     | 1    |
| 21   | 916200     | Snap Ring                | 1    |
| 22   | 503206     | Bearing 3206             | 1    |
| 23   | 903000     | Snap Ring                | 1    |
| 24   | 303040     | Sealing Ring 30x40x7     | 1    |
| 25   | 721008     | Knob                     | 1    |
| 26   | 30013.1.2  | Rod M10                  | 1    |
| 27   | 920786     | Ball d. 7.82             | 1    |
| 28   | 000150     | Spring                   | 1    |
| 29   | 700465     | Woodruff key 4x6.5x16    | 3    |
| 30   | APF30001   | Fork shaft               | 1    |
| 31   | 44001      | Plate                    | 1    |
| 32   | 30013.1.1  | Fork pin                 | 2    |
| 33   | 601001     | Nut M10                  | 1    |

## Front Teeth Mechanical Clutches Series 30300

## Torque 18,5 daNm - Pump Group 2 - 3

## INSTALLATION DRAWING



**The mechanical clutches with two direction arrow are REVERSIBLE**

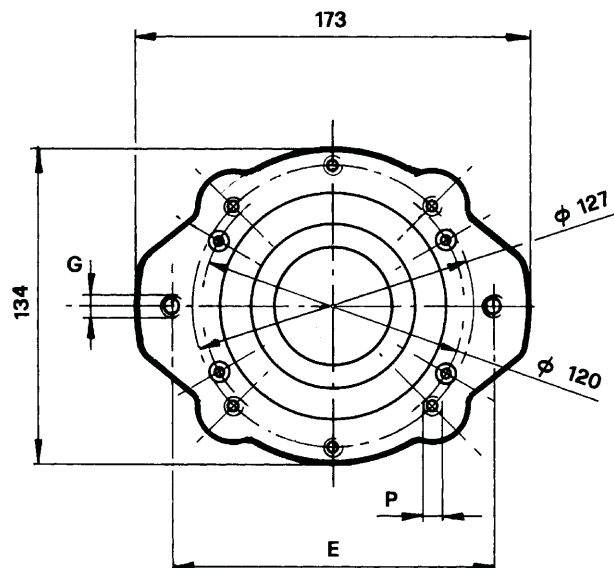
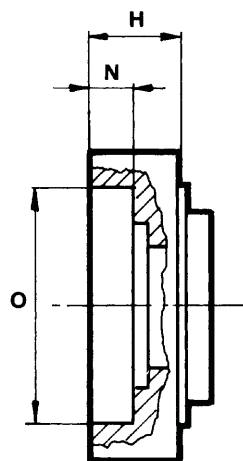
| Nominal torque<br>daNm | Max. speed<br>n/min. | Max. power output<br>kW | Axial load<br>daN |
|------------------------|----------------------|-------------------------|-------------------|
| 18,5                   | 2700                 | 40                      | 160               |

| CODE<br>No.             | DIRECTION OF<br>ROTATION                    | PUMP GROUP<br>FLANGE N° | A    | B   | C    | D    | E     | F    | G      | H    | I     | L    | M    | N   | O H7  | P      |
|-------------------------|---------------------------------------------|-------------------------|------|-----|------|------|-------|------|--------|------|-------|------|------|-----|-------|--------|
| 30300<br>30301<br>30302 | REVERSIBLE<br>CLOCKWISE<br>COUNTERCLOCKWISE | 2-3<br>30202            | 32.5 | 96  | 71.4 | 42.5 | 128   | 98.4 | M8x15  | 19   | 151   | 32   | 8.6  |     |       |        |
| 30313<br>30307<br>30308 | REVERSIBLE<br>CLOCKWISE<br>COUNTERCLOCKWISE | 2 BOSCH<br>30217        | 34.5 | 100 | 72   |      |       |      | M8x15  | 19   | 151   | 32   | 8.6  | 8.5 | 80    |        |
| 30314<br>30309<br>30310 | REVERSIBLE<br>CLOCKWISE<br>COUNTERCLOCKWISE | 3 BOSCH<br>30228        | 48   | 145 | 102  |      |       |      | M10x15 | 19.5 | 151.5 | 32.5 | 9.1  | 9   | 105   |        |
| 30311<br>30303<br>30304 | REVERSIBLE<br>CLOCKWISE<br>COUNTERCLOCKWISE | SAE A<br>30203          |      |     |      |      | 106.4 |      | M10x22 | 34   | 166   | 47   | 23.6 | 15  | 82.55 |        |
| 30312<br>30305<br>30306 | REVERSIBLE<br>CLOCKWISE<br>COUNTERCLOCKWISE | SAE B<br>30221          |      |     |      |      | 146   |      | M12x22 | 39   | 171   | 52   | 28.6 | 20  | 101.6 | M12x22 |

### Flanges for Front Teeth Mechanical Clutches Series 30300

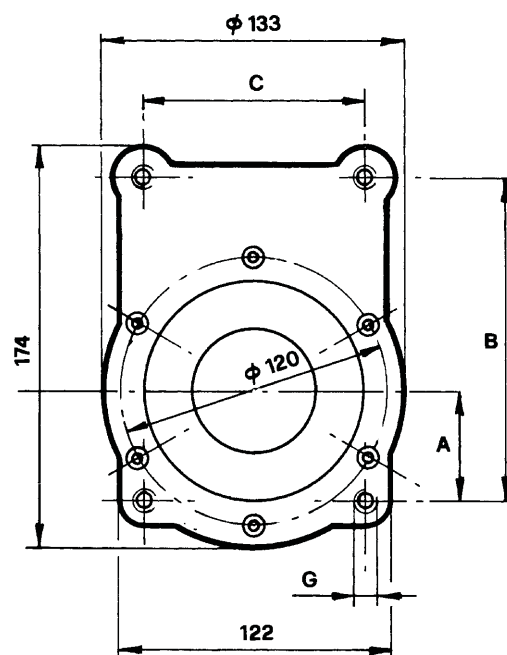
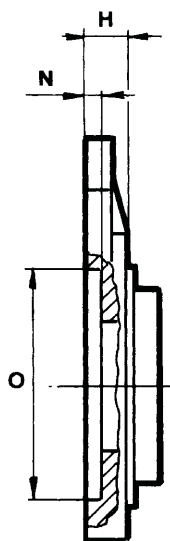
#### SAE Flange

SAE A 30203  
SAE B 30221



#### BOSCH Flange

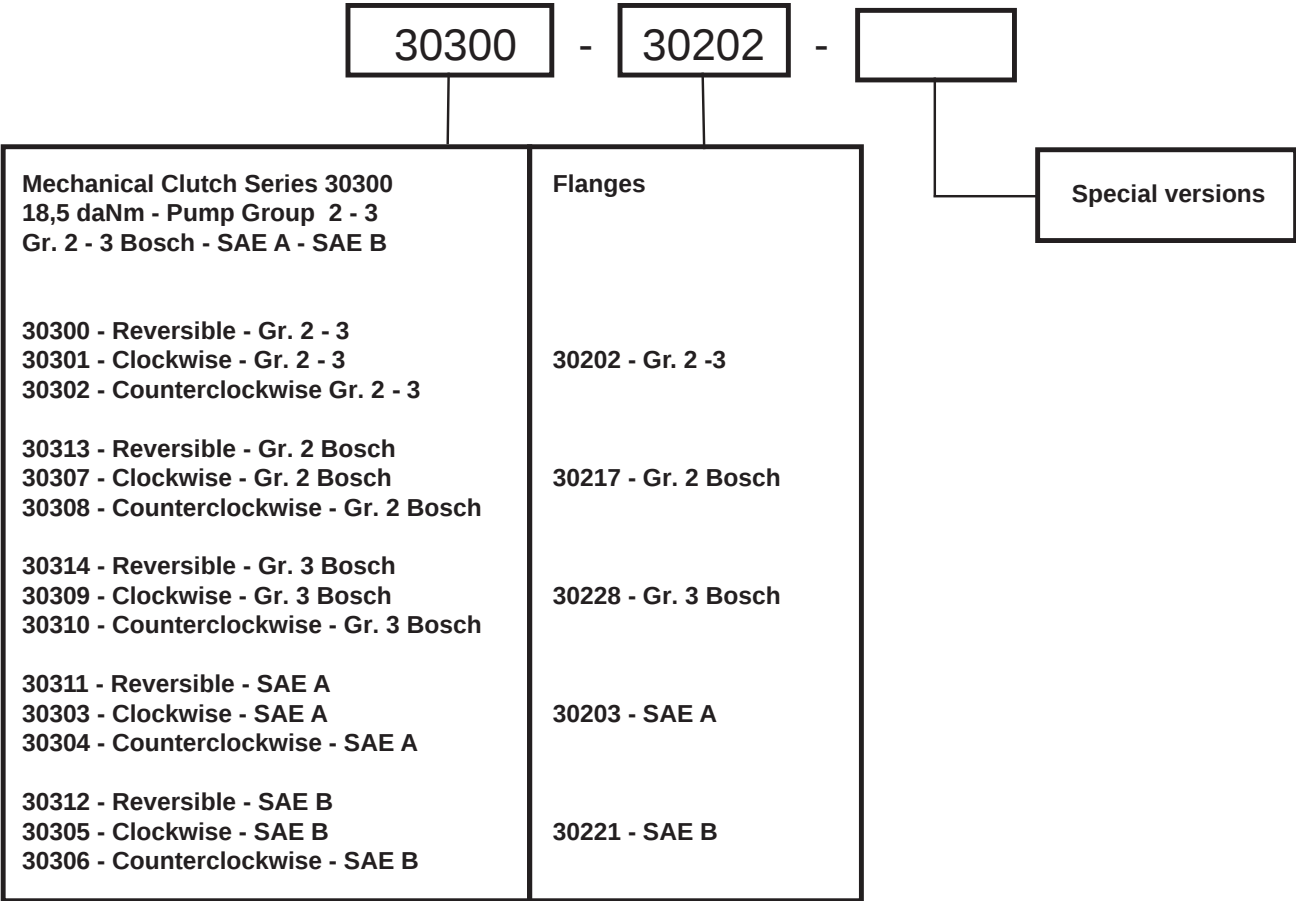
B2 30217  
B3 30228



**Front Teeth Mechanical Clutches Series 30300**

**Torque 18,5 daNm - Pump Group 2 - 3**

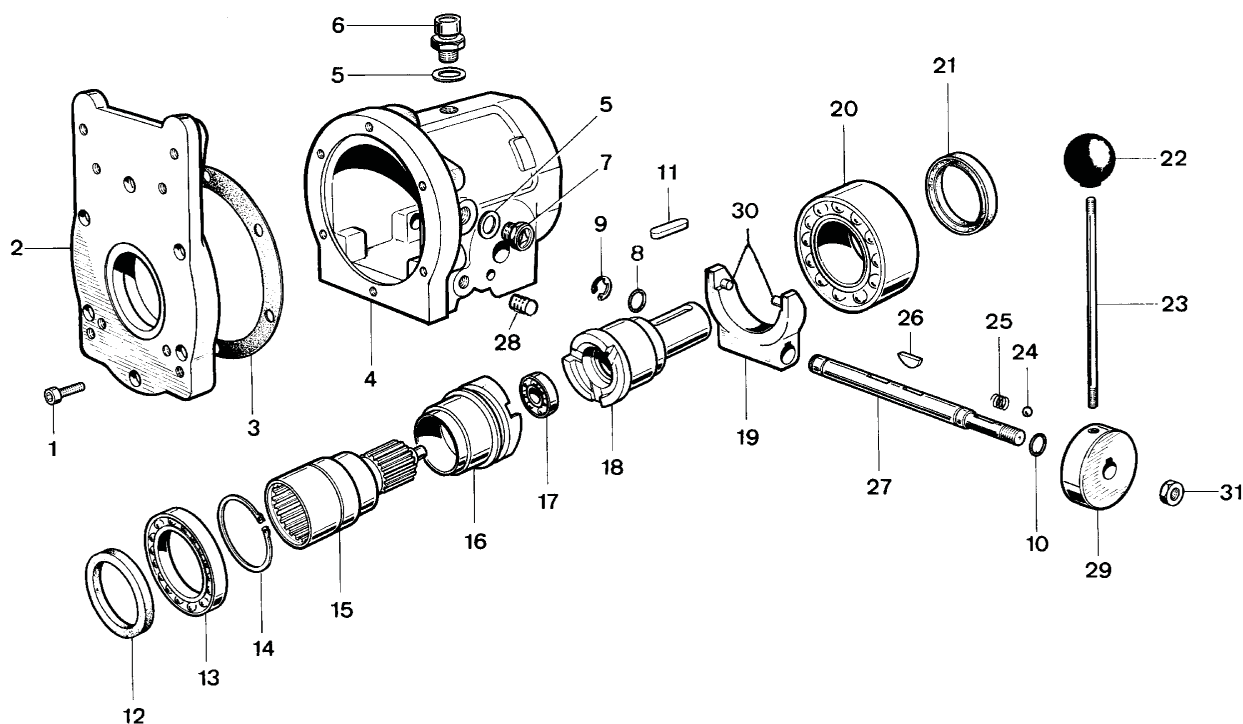
**ORDER CODE**



### Front Teeth Mechanical Clutches Series 30300

Torque 18,5 daNm - Pump Group 2 - 3

### SPARE PARTS LIST



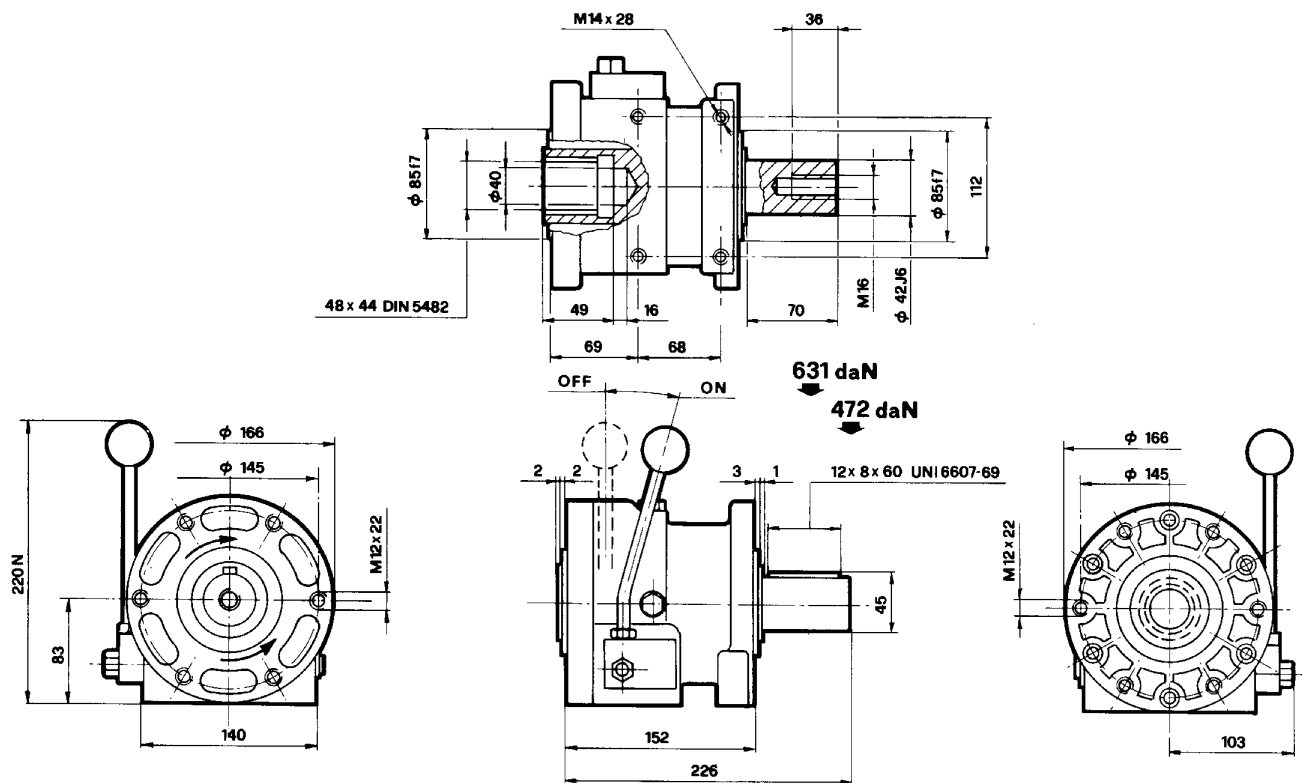
| REF. | CODE                                | DESCRIPTION                                                              | Q.ty |
|------|-------------------------------------|--------------------------------------------------------------------------|------|
| 1    | 610625                              | Socket Capscrew M6x25                                                    | 6    |
| 2    | 30300.1                             | Flange for pump Group 2 and 3                                            | 1    |
| 3    | 30300.1.2                           | Gasket                                                                   | 1    |
| 4    | 30003.1                             | Housing                                                                  | 1    |
| 5    | 940144                              | Gasket                                                                   | 2    |
| 6    | 940143                              | Oil breather plug                                                        | 1    |
| 7    | 940141                              | Oil level plug                                                           | 1    |
| 8    | 402031                              | Washer OR 2031                                                           | 1    |
| 9    | 311000                              | Snap ring d.10                                                           | 1    |
| 10   | 411090                              | O-Ring OR 109                                                            | 1    |
| 11   | 428740                              | Key 8x40                                                                 | 1    |
| 12   | 304560                              | Sealing Ring 45x60x7                                                     | 1    |
| 13   | 506009                              | Bearing 6009                                                             | 1    |
| 14   | 904500                              | Snap Ring                                                                | 1    |
| 15   | AEP30003                            | Infeed splined shaft                                                     | 1    |
| 16   | MCRV30003<br>MCDX30003<br>MCSX30003 | Splined sleeve reversible<br>Splined sleeve right<br>Splined sleeve left | 1    |

| REF. | CODE                                   | DESCRIPTION                                                           | Q.ty |
|------|----------------------------------------|-----------------------------------------------------------------------|------|
| 17   | 506200                                 | Bearing 6200                                                          | 1    |
| 18   | AURPc30003<br>AUDPc30003<br>AUSPc30003 | Outfeed shaft reversible<br>Outfeed shaft right<br>Outfeed shaft left | 1    |
| 19   | 30013.1                                | Fork                                                                  | 1    |
| 20   | 503209                                 | Bearing 3209                                                          | 1    |
| 21   | 304052                                 | Sealing Ring 40x52x7                                                  | 1    |
| 22   | 721008                                 | Knob                                                                  | 1    |
| 23   | 30013.1.2                              | Rod M10                                                               | 1    |
| 24   | 920786                                 | Ball d. 7.82                                                          | 1    |
| 25   | 000150                                 | Spring                                                                | 1    |
| 26   | 700465                                 | Woodruff key 4x6.5x16                                                 | 3    |
| 27   | APF30003                               | Fork shaft                                                            | 1    |
| 28   | 940182                                 | Oil drain dowel 1/8" G                                                | 1    |
| 29   | 44002                                  | Plate                                                                 | 1    |
| 30   | 30013.1.1                              | Fork pin                                                              | 2    |
| 31   | 601001                                 | Nut M10                                                               | 1    |

### Front Teeth Mechanical Clutches Series 30500

Torque 58 daNm - Pump Group 3,5 - 4

### INSTALLATION DRAWING

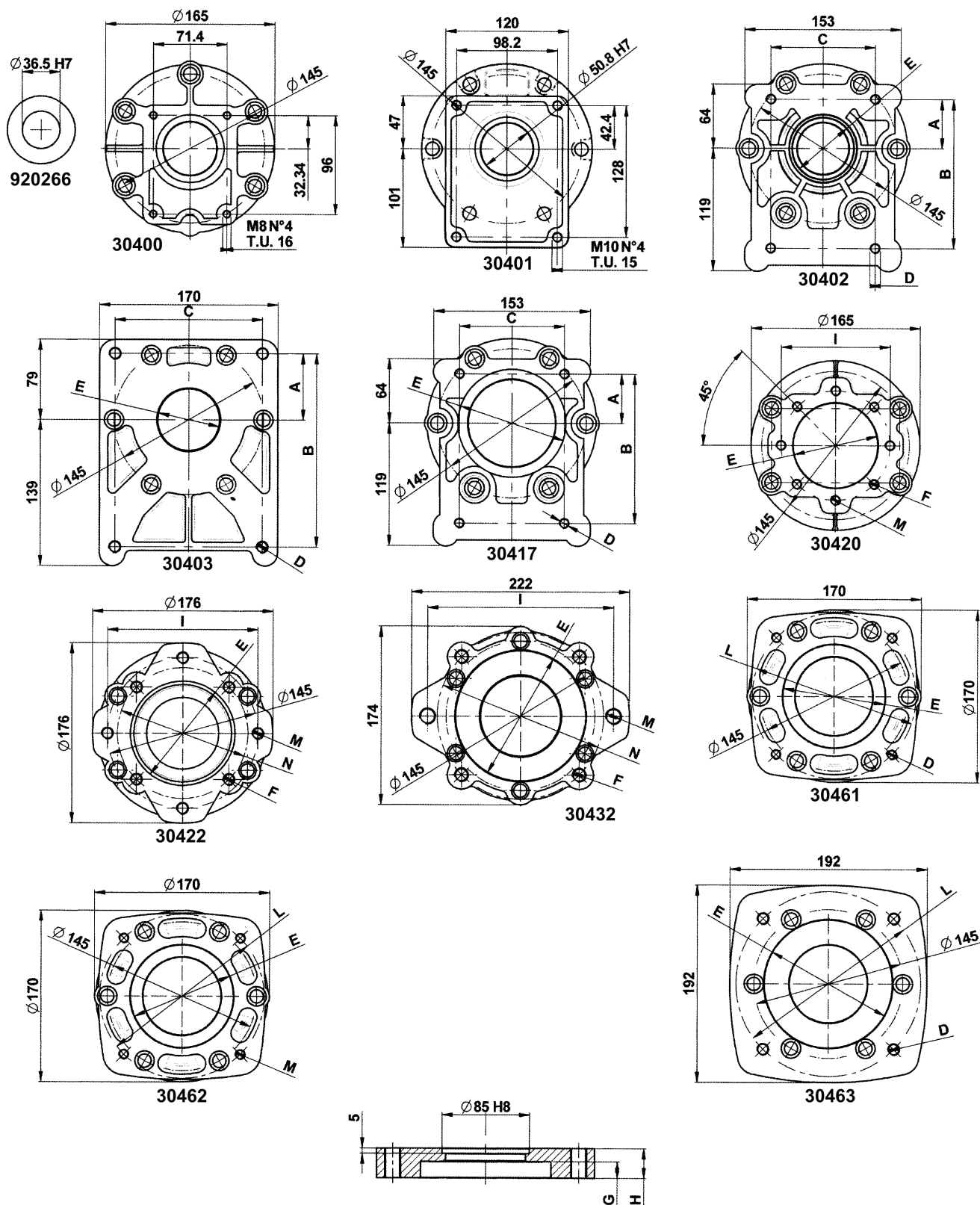


The mechanical clutches with two direction arrow are REVERSIBLE

| CODE  | No. | DIRECTION OF ROTATION |
|-------|-----|-----------------------|
| 30500 |     | REVERSIBLE            |
| 30501 |     | CLOCKWISE             |
| 30502 |     | COUNTERCLOCKWISE      |

| PUMP FLANGES    |             |      |       |       |        |       |        |      |    |     |     |        |     |
|-----------------|-------------|------|-------|-------|--------|-------|--------|------|----|-----|-----|--------|-----|
| FLANGE CODE No. | PUMP GROUP  | A    | B     | C     | D      | E H7  | F      | G    | H  | I   | L   | M      | N   |
| 30400           | Gr.2        |      |       |       |        |       |        | 17   | 21 |     |     |        |     |
| 30401           | Gr.3        |      |       |       |        |       |        | 21   | 23 |     |     |        |     |
| 30402           | Gr. 3.5     | 49.3 | 149.5 | 114.3 | M10x20 | 60.3  |        | 11.5 | 24 |     |     |        |     |
| 30403           | Gr. 4       | 64.5 | 188   | 143   | M12x22 | 63.5  |        | 16   | 23 |     |     |        |     |
| 30417           | Gr. 3 BOSCH | 48   | 145   | 102   | M10x15 | 105   |        | 12   | 19 |     |     |        |     |
| 30420           | SAE A       |      |       |       |        | 82.55 | M12x20 | 21   | 25 | 106 |     | M12x25 |     |
| 30422           | SAE B       |      |       |       |        | 101.6 | M12x20 | 12   | 25 | 146 |     | M12x25 | 127 |
| 30432           | SAE C       |      |       |       |        | 127   | M14x25 | 16   | 28 | 181 |     | M16x25 | 162 |
| 30461           | L.G. 20-35  |      |       |       | M10x16 | 100   |        | 25   | 34 |     | 160 |        |     |
| 30462           | L.G. 50     |      |       |       | M10x25 | 100   |        | 32.5 | 41 |     | 160 |        |     |
| 30463           | L.G. 75     |      |       |       | M12x25 | 105   |        | 33   | 41 |     | 180 |        |     |

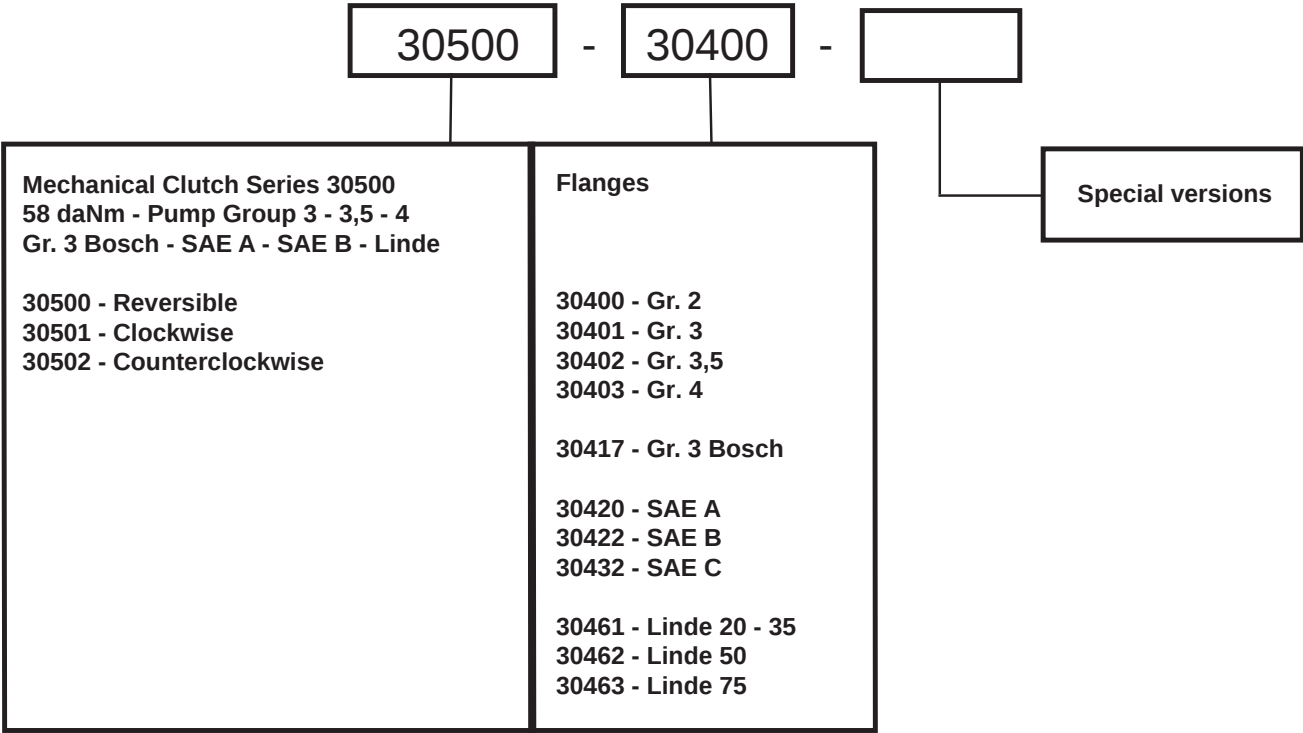
## Flanges for Front Teeth Mechanical Clutches Series 30500



**Front Teeth Mechanical Clutches Series 30500**

**Torque 58 daNm - Pump Group 3,5 - 4**

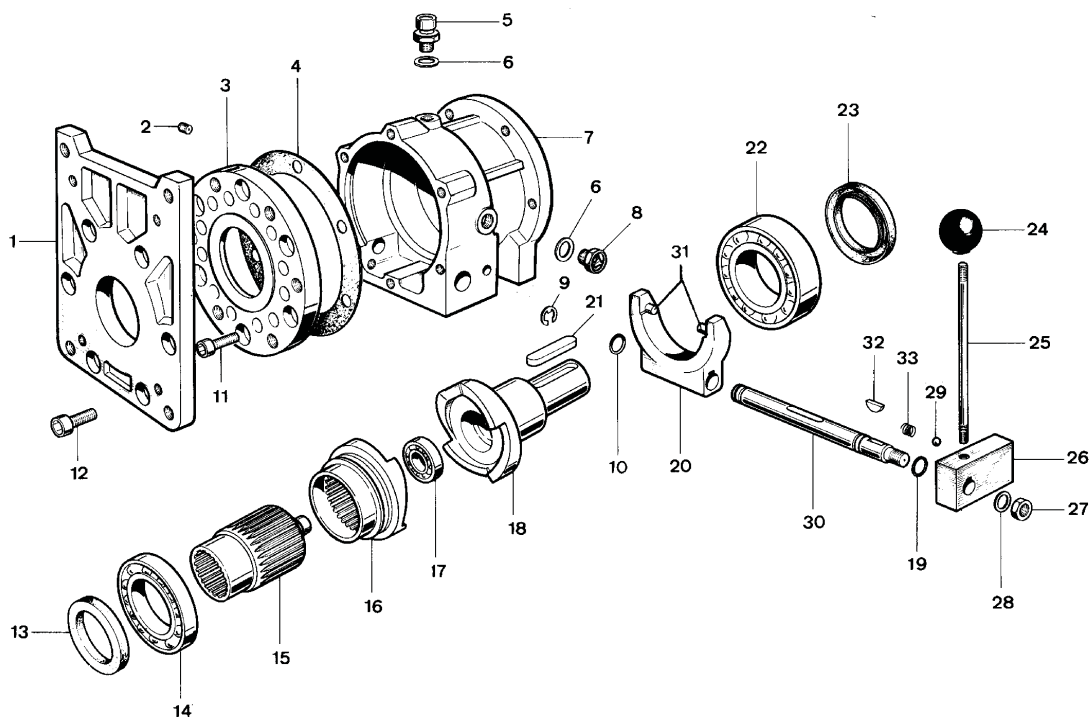
**ORDER CODE**



### Front Teeth Mechanical Clutches Series 30500

Torque 58 daNm - Pump Group 3,5 - 4

### SPARE PARTS LIST



| REF. | CODE             | DESCRIPTION               | Q.ty |
|------|------------------|---------------------------|------|
| 1    | <b>30403</b>     | Flange for pump Group 4   | 1    |
| 2    | <b>940182</b>    | Oil drain dowel 1/8" G    | 1    |
| 3    | <b>30470</b>     | Circular Flange           | 1    |
| 4    | <b>30470.2</b>   | Gasket                    | 1    |
| 5    | <b>940143</b>    | Oil breather plug 3/8"G   | 1    |
| 6    | <b>940144</b>    | Gasket                    | 2    |
| 7    | <b>30005.1</b>   | Housing                   | 1    |
| 8    | <b>940141</b>    | Oil level plug 3/8" G     | 1    |
| 9    | <b>312000</b>    | Snap ring d.12            | 1    |
| 10   | <b>401090</b>    | Washer OR 109             | 1    |
| 11   | <b>611025</b>    | Socket Capscrew M10x25    | 6    |
| 12   | <b>612020</b>    | Socket Capscrew M12x20    | 6    |
| 13   | <b>306075</b>    | Sealing Ring 60x75x8      | 1    |
| 14   | <b>501601</b>    | Bearing 16012             | 1    |
| 15   | <b>AEP30005</b>  | Infeed splined shaft      | 1    |
| 16   | <b>MCRV30005</b> | Splined sleeve reversible | 1    |
|      | <b>MCDX30005</b> | Splined sleeve right      |      |
|      | <b>MCSX30005</b> | Splined sleeve left       |      |

| REF. | CODE              | DESCRIPTION              | Q.ty |
|------|-------------------|--------------------------|------|
| 17   | <b>506203</b>     | Bearing 6203             | 1    |
| 18   | <b>AURP 30005</b> | Outfeed shaft reversible | 1    |
|      | <b>AUDP 30005</b> | Outfeed shaft right      |      |
|      | <b>AUSP 30005</b> | Outfeed shaft left       |      |
| 19   | <b>401130</b>     | Washer OR 113            | 1    |
| 20   | <b>30050.1</b>    | Fork                     | 1    |
| 21   | <b>421286</b>     | Key 12x8x60              | 1    |
| 22   | <b>503212</b>     | Bearing 3212             | 1    |
| 23   | <b>306075</b>     | Sealing Ring 60x75x8     | 1    |
| 24   | <b>721008</b>     | Knob                     | 1    |
| 25   | <b>30013.1.3</b>  | Rod M10                  | 1    |
| 26   | <b>44001.1</b>    | Plate                    | 1    |
| 27   | <b>601001</b>     | Nut M10                  | 1    |
| 28   | <b>801000</b>     | Washer d.10              | 1    |
| 29   | <b>920786</b>     | Ball d. 7.82             | 1    |
| 30   | <b>APF30005</b>   | Shaft d.15               | 1    |
| 31   | <b>30013.1.1</b>  | Fork pin                 | 2    |
| 32   | <b>700565</b>     | Woodruff key 5x6.5x16    | 3    |
| 33   | <b>000280</b>     | Spring                   | 1    |



As HANSA-TMP has a very extensive range of products and some products have a variety of applications, the information supplied may often only apply to specific situations.

If the catalogue does not supply all the information required, please contact HANSA-TMP.

In order to provide a comprehensive reply to queries we may require specific data regarding the proposed application.

Whilst every reasonable endeavour has been made to ensure accuracy, this publication cannot be considered to represent part of any contract, whether expressed or implied.

HANSA-TMP reserves the right to amend specifications at their discretion.



---

---

|                                |                                                                         |
|--------------------------------|-------------------------------------------------------------------------|
| Dutch Hydraulic Consultants BV | Tel. : +31-(0)6-83695868                                                |
| Achterweg ZZ 8                 | Mail : <a href="mailto:info@dhc-hydraulic.nl">info@dhc-hydraulic.nl</a> |
| 3216 AB Abbenbroek             | Web : <a href="http://www.dhc-hydraulic.nl">www.dhc-hydraulic.nl</a>    |
| Nederland                      |                                                                         |