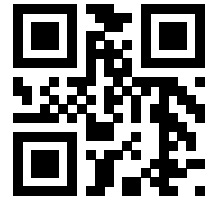
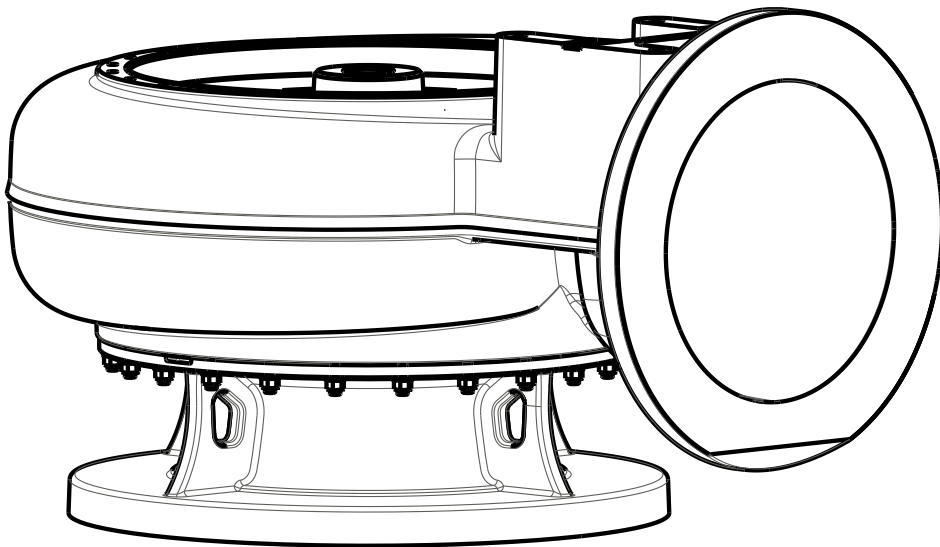


Parts List

885180\_6.0



# N3531

## Hydraulic Unit



# Table of Contents

|       |                                       |    |
|-------|---------------------------------------|----|
| 1     | Introduction.....                     | 2  |
| 1.1   | Specially approved products.....      | 2  |
| 2     | Product Description.....              | 3  |
| 2.1   | The data plates.....                  | 3  |
| 2.2   | Approvals.....                        | 4  |
| 2.3   | Product denomination.....             | 4  |
| 3     | Hydraulic Unit.....                   | 6  |
| 3.1   | Stationary parts.....                 | 6  |
| 3.1.1 | NP, without zinc anode.....           | 6  |
| 3.1.2 | NP, with zinc anode.....              | 8  |
| 3.1.3 | NT/NZ, without zinc anode.....        | 10 |
| 3.1.4 | NT/NZ, with zinc anode.....           | 12 |
| 3.2   | Rotating parts.....                   | 14 |
| 3.2.1 | N impeller, 7xx drive unit.....       | 14 |
| 3.2.2 | N impeller, 8xx drive unit.....       | 15 |
| 3.2.3 | N impeller, 905 – 960 drive unit..... | 16 |
| 3.2.4 | N impeller, 965 – 998 drive unit..... | 17 |
| 4     | Installation Components.....          | 18 |
| 4.1   | CP/NP.....                            | 18 |
| 4.2   | CT/NT.....                            | 19 |
| 5     | Technical Reference.....              | 21 |
| 5.1   | Impeller diameter.....                | 21 |
| 5.2   | Flange patterns.....                  | 21 |
| 5.3   | Install the locking device.....       | 22 |

# 1 Introduction

## **Purpose of this manual**

The purpose of this manual is to provide necessary information on spare parts and accessories order.

## **Disclaimer**

Always use genuine Flygt parts. The use of other spare parts or accessories can invalidate any claims for warranty or compensation. Xylem does not take any responsibility for damages that are caused by the use of non-original parts. For more information, contact your local sales and service representative.

## **Data for ordering spare parts**

The following information is needed for spare part orders:

- Serial number of the product
- Part number
- Quantity of bulk material, see \* in tables

## 1.1 Specially approved products

### **Qualification of personnel**

Only Xylem or Xylem-authorized service personnel may undertake repair work on specially approved products.

### **Dimensional accuracy inspection**

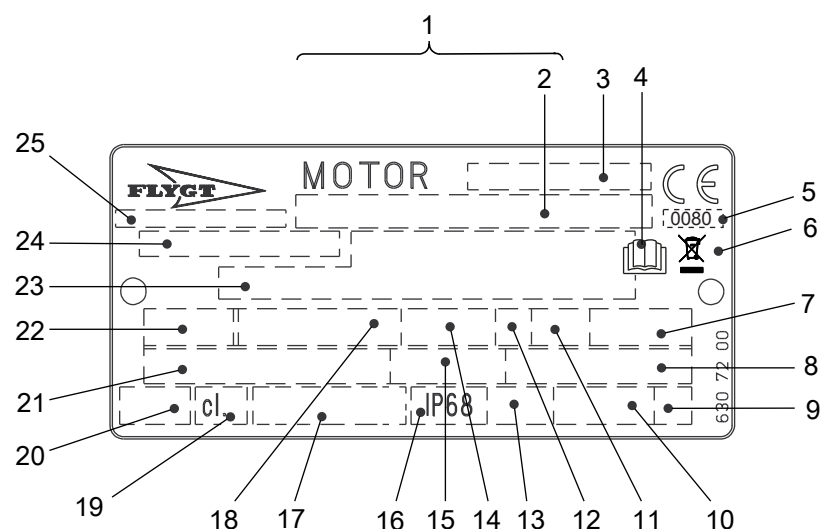
Spare parts marked with (Ex) after the part number are subject to dimensional accuracy inspection when used in specially approved products.

# 2 Product Description

## 2.1 The data plates

The data plates include key product specifications.

### Drive unit



WS006226B

1. Serial number
2. Product code and number
3. Motor denomination
4. Read installation manual
5. Notified body, only for EN-approved Ex products
6. WEEE-Directive symbol
7. Maximum ambient temperature
8. Power factor
9. Locked rotor code letter
10. Product weight
11. Duty factor
12. Duty class
13. Maximum submergence
14. Rated speed
15. Rated current
16. Degree of protection
17. International standard
18. Rated shaft power
19. Thermal class
20. Thermal protection
21. Rated voltage
22. Phase; Type of current; Frequency
23. Additional information
24. Product number
25. Country of origin

Figure 1: The drive unit plate valid from 990101

Hydraulic unit

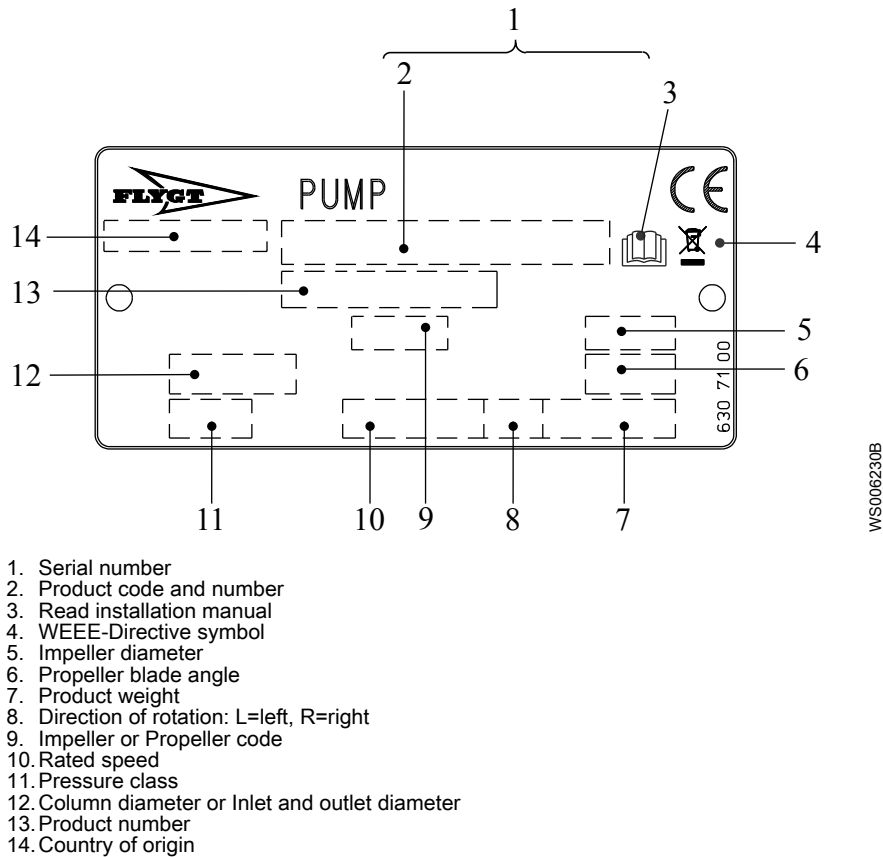


Figure 2: The hydraulic unit plate

2.2 Approvals

For information about specially approved products, see the Parts List for the specific drive unit.

2.3 Product denomination

Reading instruction

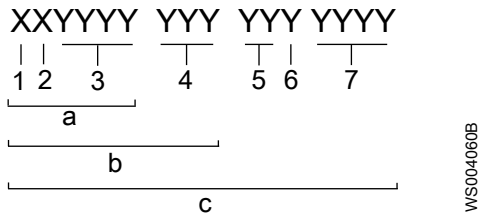
In this section, code characters are illustrated accordingly:

X = letter

Y = digit

The different types of codes are marked up with a, b, and c. Code parameters are marked up with numbers.

Codes and parameters



| Type of Callout | Number | Indication         |
|-----------------|--------|--------------------|
| Type of code    | a      | Sales denomination |
|                 | b      | Product code       |

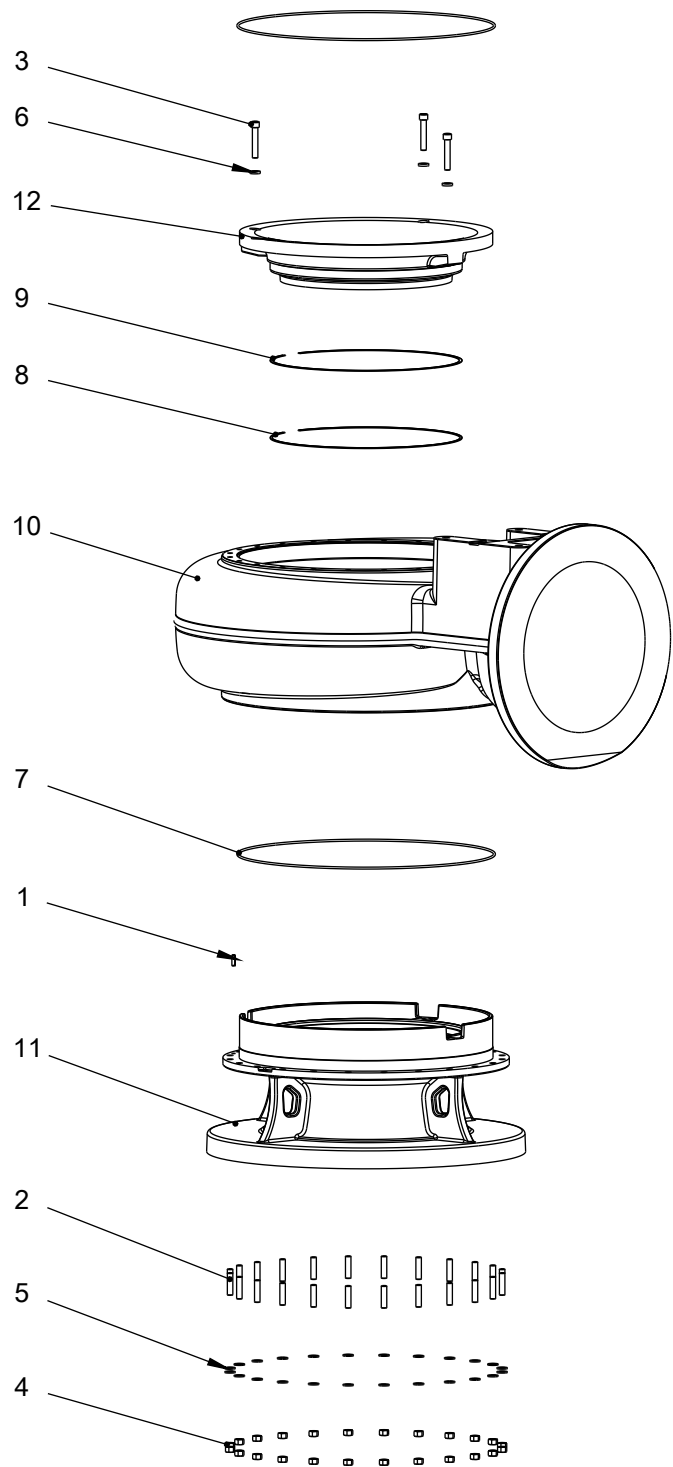
---

| Type of Callout | Number | Indication           |
|-----------------|--------|----------------------|
|                 | c      | Serial number        |
| Parameter       | 1      | Hydraulic end        |
|                 | 2      | Type of installation |
|                 | 3      | Sales code           |
|                 | 4      | Drive unit           |
|                 | 5      | Production year      |
|                 | 6      | Production cycle     |
|                 | 7      | Running number       |

# 3 Hydraulic Unit

## 3.1 Stationary parts

### 3.1.1 NP, without zinc anode



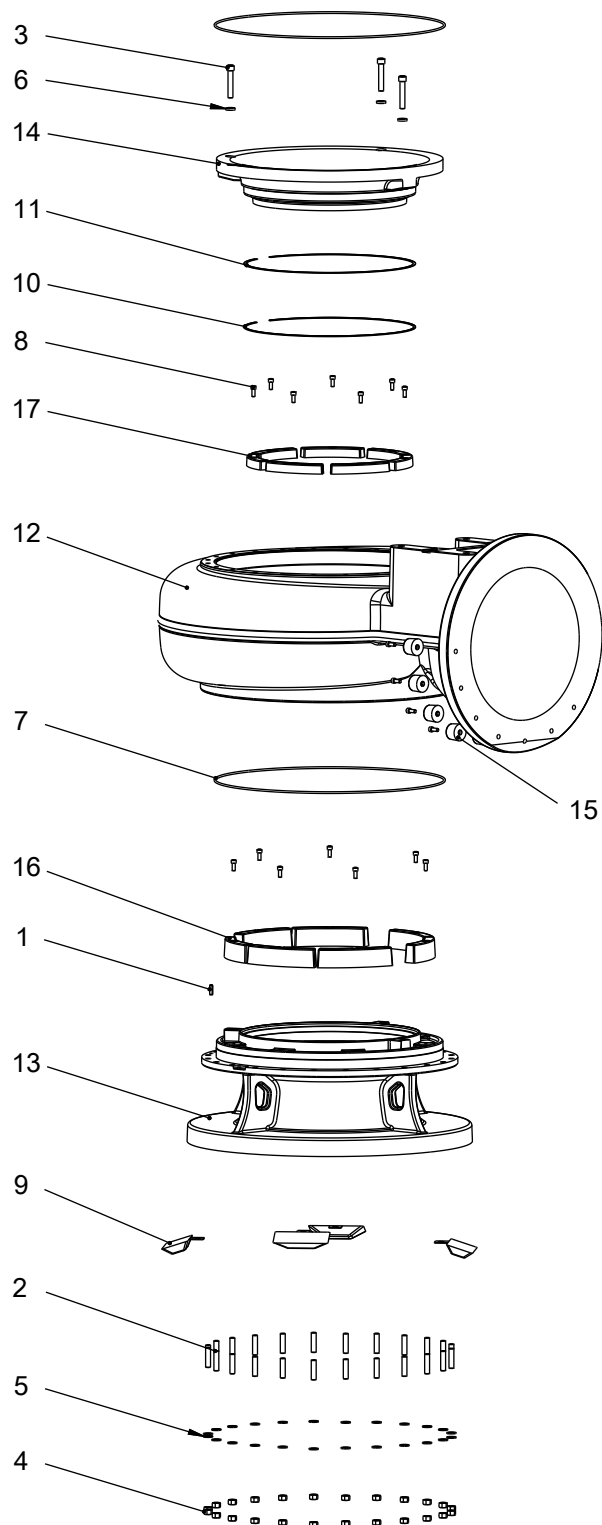
WS008107A

| Item | Denomination | Part No. | Qty. |
|------|--------------|----------|------|
| 1    | Tension pin  | 80 58 95 | 1    |

| Item | Denomination                  |                                             | Part No.   | Qty. |
|------|-------------------------------|---------------------------------------------|------------|------|
| 2    | Stud                          | M16 x 45                                    | 80 95 51   | 24   |
| 3    | Hexagon socket head cap screw | M16 x 90<br>for cast iron and Hard iron™    | 82 01 14   | 3    |
|      |                               | M16 x 90 for Stainless steel insert<br>ring | 83 03 79   |      |
| 4    | Hexagon nut                   |                                             | 82 23 61   | 24   |
| 5    | Washer                        | 17.0 x 30.0 x 3.0                           | 82 35 23   | 24   |
| 6    | Washer                        | 17.0 x 30.0 x 6.0                           | 82 38 01   | 3    |
| 7    | O-ring                        | 725.0 x 5.70                                | 82 78 99   | 2    |
| 8    | Supporting ring               |                                             | *690 84 09 | 4    |
| 9    | Supporting ring               |                                             | *690 84 10 | 3    |
| 10   | Pump housing                  |                                             | 777 33 00  | 1    |
| 11   | Suction cover                 |                                             | 777 34 00  | 1    |
| 12   | Insert ring                   | Cast iron                                   | 777 35 00  | 1    |
|      |                               | Hard-Iron™                                  | 777 36 00  |      |
|      |                               | Stainless steel                             | 777 37 00  |      |

\* Quantity will vary. See drawing 694 68 00.

3.1.2 NP, with zinc anode



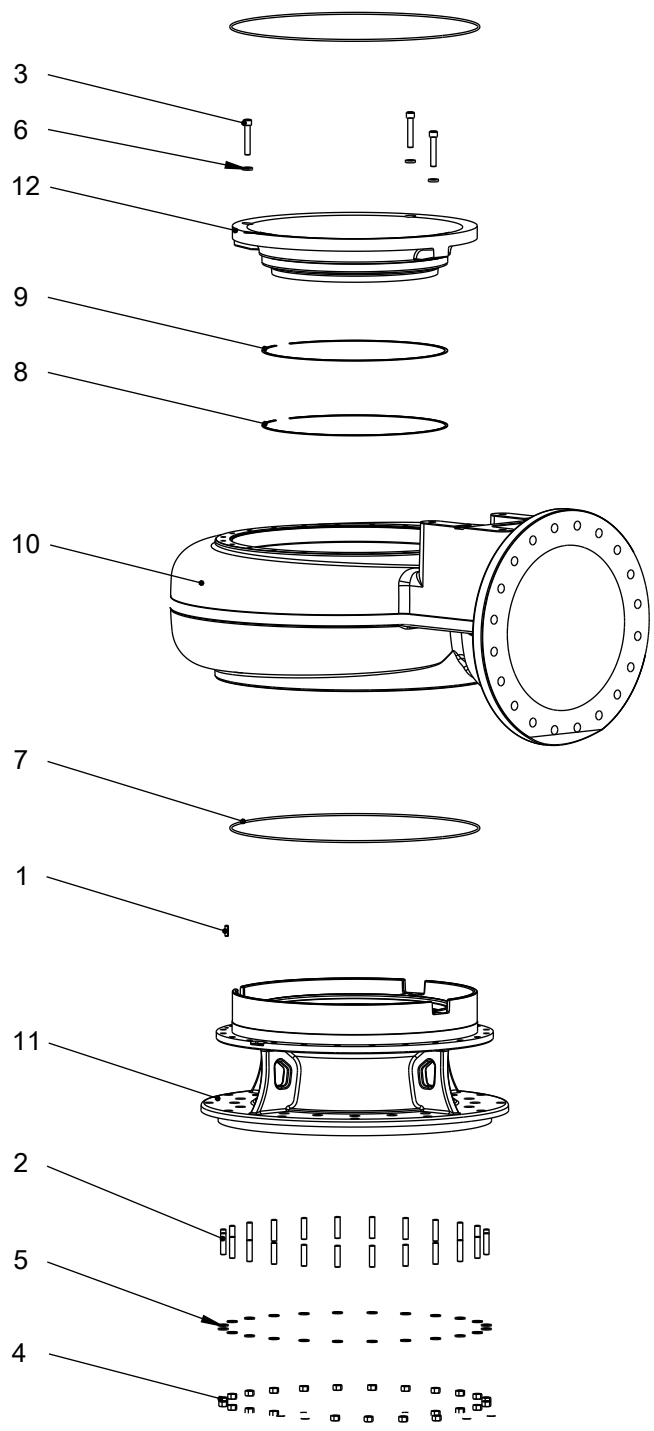
WS008108A

| Item | Denomination                  |                                       | Part No. | Qty. |
|------|-------------------------------|---------------------------------------|----------|------|
| 1    | Tension pin                   |                                       | 80 58 95 | 1    |
| 2    | Stud                          | M16 x 45                              | 80 95 51 | 24   |
| 3    | Hexagon socket head cap screw | M16 x 90 for cast iron and Hard iron™ | 82 01 14 | 3    |

| Item | Denomination                  |                                          | Part No.   | Qty. |
|------|-------------------------------|------------------------------------------|------------|------|
|      |                               | M16 x 90 for Stainless steel insert ring | 83 03 79   |      |
| 4    | Hexagon nut                   |                                          | 82 23 61   | 24   |
| 5    | Washer                        | 17.0 x 30.0 x 3.0                        | 82 35 23   | 24   |
| 6    | Washer                        | 17.0 x 30.0 x 6.0                        | 82 38 01   | 3    |
| 7    | O-ring                        | 725.0 x 5.70                             | 82 78 99   | 2    |
| 8    | Hexagon socket head cap screw | M10 x 25                                 | 83 03 23   | 21   |
| 9    | Zinc anode                    |                                          | 518 72 00  | 4    |
| 10   | Supporting ring               |                                          | *690 84 09 | 4    |
| 11   | Supporting ring               |                                          | *690 84 10 | 3    |
| 12   | Pump housing                  |                                          | 777 33 10  | 1    |
| 13   | Suction cover                 |                                          | 777 34 10  | 1    |
| 14   | Insert ring                   | Cast iron                                | 777 35 00  | 1    |
|      |                               | Hard-Iron™                               | 777 36 00  |      |
|      |                               | Stainless steel                          | 777 37 00  |      |
| 15   | Anode                         |                                          | 559 31 00  | 7    |
| 16   | Anode                         |                                          | 561 03 00  | 7    |
| 17   | Anode                         |                                          | 572 75 00  | 7    |

\* Quantity will vary. See drawing 694 68 00.

3.1.3 NT/NZ, without zinc anode



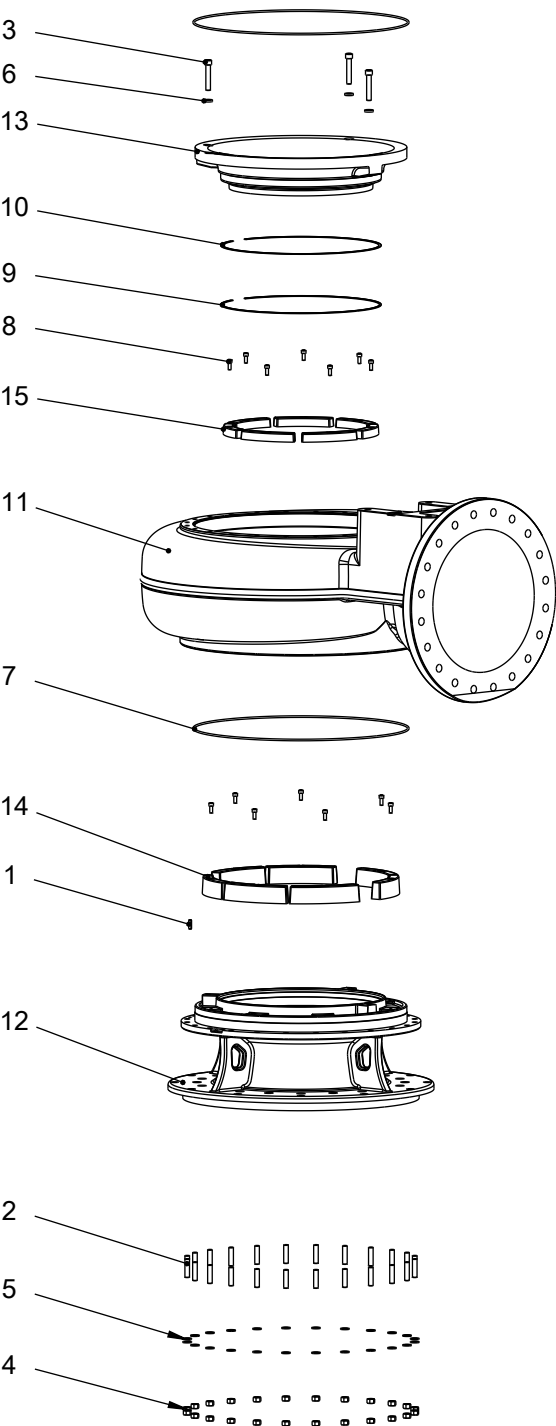
WS008109A

| Item | Denomination                  |                                          | Part No. | Qty. |
|------|-------------------------------|------------------------------------------|----------|------|
| 1    | Tension pin                   |                                          | 80 58 95 | 1    |
| 2    | Stud                          | M16 x 45                                 | 80 95 51 | 24   |
| 3    | Hexagon socket head cap screw | M16 x 90 for cast iron and Hard iron™    | 82 01 14 | 3    |
|      |                               | M16 x 90 for Stainless steel insert ring | 83 03 79 |      |

| Item | Denomination      |                                                                | Part No.   | Qty. |
|------|-------------------|----------------------------------------------------------------|------------|------|
| 4    | Hexagon nut       |                                                                | 82 23 61   | 24   |
| 5    | Washer            | 17.0 x 30.0 x 3.0                                              | 82 35 23   | 24   |
| 6    | Washer            | 17.0 x 30.0 x 6.0                                              | 82 38 01   | 3    |
| 7    | O-ring            | 725.0 x 5.70                                                   | 82 78 99   | 2    |
| 8    | Supporting ring   |                                                                | *690 84 09 | 4    |
| 9    | Supporting ring   |                                                                | *690 84 10 | 3    |
| 10   | Pump housing unit | Drilled according to EN 1092-2:<br>Table 8. (PN10)             | 777 33 01  | 1    |
|      |                   | Drilled according to ANSI B16.1–<br>1989: Table 5. (Class 125) | 777 33 05  |      |
|      |                   | Drilled according to EN 1092-2:<br>Table 9. (PN16)             | 777 33 07  |      |
| 11   | Suction cover     | Drilled according to EN 1092-2:<br>Table 8. (PN10)             | 777 34 01  | 1    |
|      |                   | Drilled according to ANSI B16.1–<br>1989: Table 5. (Class 125) | 777 34 05  |      |
|      |                   | Drilled according to EN 1092-2:<br>Table 9. (PN16)             | 777 34 07  |      |
| 12   | Insert ring       | Cast iron                                                      | 777 35 00  | 1    |
|      |                   | Hard-Iron™                                                     | 777 36 00  |      |
|      |                   | Stainless steel                                                | 777 37 00  |      |

\* Quantity will vary. See drawing 694 68 00.

3.1.4 NT/NZ, with zinc anode



WS008110A

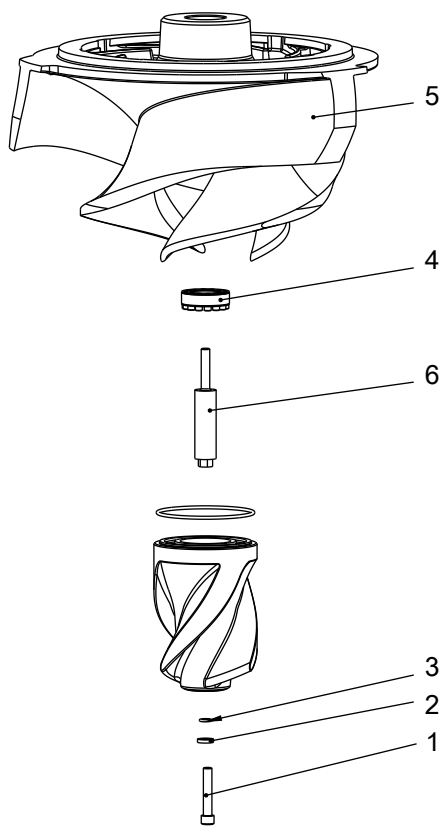
| Item | Denomination                  |                                             | Part No. | Qty. |
|------|-------------------------------|---------------------------------------------|----------|------|
| 1    | Tension pin                   |                                             | 80 58 95 | 1    |
| 2    | Stud                          | M16 x 45                                    | 80 95 51 | 24   |
| 3    | Hexagon socket head cap screw | M16 x 90<br>for cast iron and Hard iron™    | 82 01 14 | 3    |
|      |                               | M16 x 90<br>for Stainless steel insert ring | 83 03 79 |      |

| Item | Denomination                  |                                                                | Part No.   | Qty. |
|------|-------------------------------|----------------------------------------------------------------|------------|------|
| 4    | Hexagon nut                   |                                                                | 82 23 61   | 24   |
| 5    | Washer                        | 17.0 x 30.0 x 3.0                                              | 82 35 23   | 24   |
| 6    | Washer                        | 17.0 x 30.0 x 6.0                                              | 82 38 01   | 3    |
| 7    | O-ring                        | 725.0 x 5.70                                                   | 82 78 99   | 2    |
| 8    | Hexagon socket head cap screw | M10 x 25                                                       | 83 03 26   | 14   |
| 9    | Supporting ring               |                                                                | *690 84 09 | 4    |
| 10   | Supporting ring               |                                                                | *690 84 10 | 3    |
| 11   | Pump housing unit             | Drilled according to EN 1092-2:<br>Table 8. (PN10)             | 777 33 01  | 1    |
|      |                               | Drilled according to ANSI B16.1–<br>1989: Table 5. (Class 125) | 777 33 05  |      |
|      |                               | Drilled according to EN 1092-2:<br>Table 9. (PN16)             | 777 33 07  |      |
| 12   | Suction cover                 | Drilled according to EN 1092-2:<br>Table 8. (PN10)             | 777 34 11  | 1    |
|      |                               | Drilled according to ANSI B16.1–<br>1989: Table 5. (Class 125) | 777 34 15  |      |
|      |                               | Drilled according to EN 1092-2:<br>Table 9. (PN16)             | 777 34 17  |      |
| 13   | Insert ring                   | Cast iron                                                      | 777 35 00  | 1    |
|      |                               | Hard-Iron™                                                     | 777 36 00  |      |
|      |                               | Stainless steel                                                | 777 37 00  |      |
| 14   | Anode                         |                                                                | 561 03 00  | 7    |
| 15   | Anode                         |                                                                | 572 75 00  | 7    |

\* Quantity will vary. See drawing 694 68 00.

# 3.2 Rotating parts

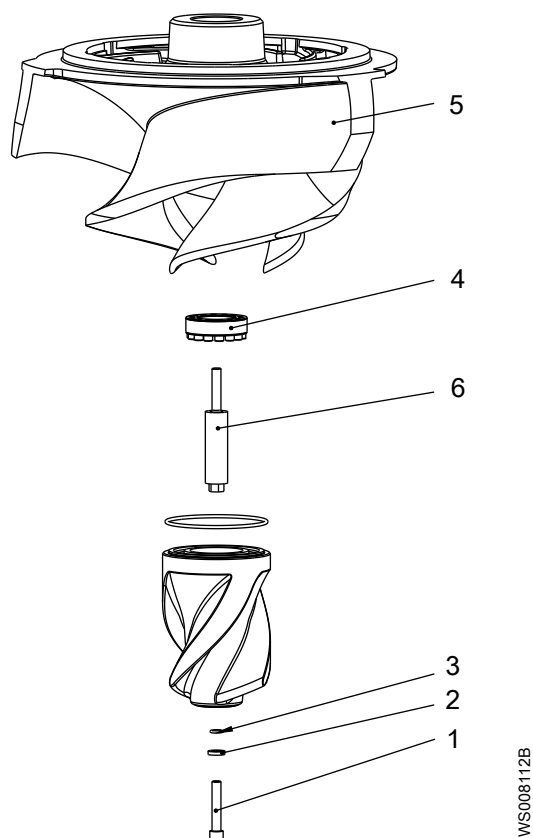
## 3.2.1 N impeller, 7xx drive unit



WS008111B

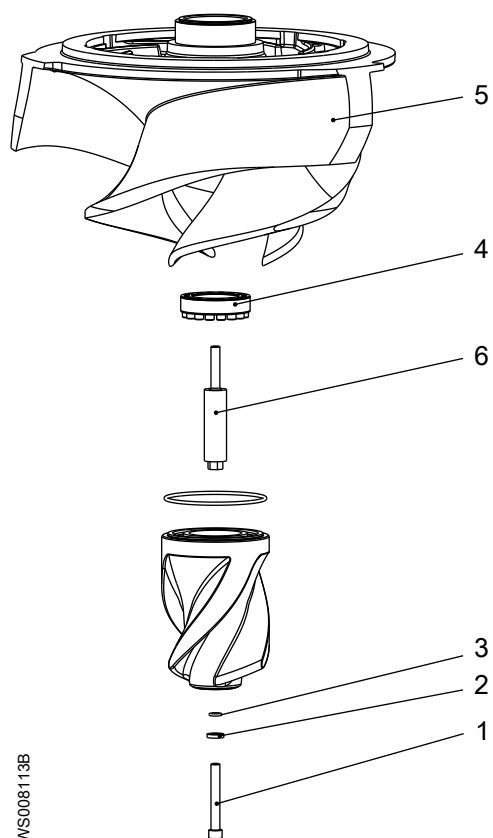
| Item | Denomination                  |                                               | Part No.  | Qty. |
|------|-------------------------------|-----------------------------------------------|-----------|------|
| 1    | Hexagon socket head cap screw | M16 x 90<br>for cast iron and Hard iron™      | 82 01 14  | 1    |
|      |                               | M16 x 90 for Stainless steel<br>impeller unit | 83 03 79  |      |
| 2    | Washer                        | 17.0 x 30.0 x 6.0                             | 82 38 01  | 1    |
| 3    | O-ring                        | 15.50 x 4.0                                   | 82 79 30  | 1    |
| 4    | Locking assembly              |                                               | 84 59 13  | 1    |
| 5    | Impeller unit                 | Cast iron                                     | 777 23 XX | 1    |
|      |                               | Hard-Iron™                                    | 777 27 XX |      |
|      |                               | Hard-Iron™ with epoxy                         | 776 75 XX |      |
|      |                               | Stainless steel                               | 777 31 XX |      |
|      |                               | Stainless steel with epoxy                    | 788 44 XX |      |
| 6    | Spacing screw                 |                                               | 777 38 00 | 1    |

## 3.2.2 N impeller, 8xx drive unit



| Item | Denomination                  |                                               | Part No.  | Qty. |
|------|-------------------------------|-----------------------------------------------|-----------|------|
| 1    | Hexagon socket head cap screw | M16 x 90<br>for cast iron and Hard iron™      | 82 01 14  | 1    |
|      |                               | M16 x 90 for Stainless steel<br>impeller unit | 83 03 79  |      |
| 2    | Washer                        | 17.0 x 30.0 x 6.0                             | 82 38 01  | 1    |
| 3    | O-ring                        | 15.50 x 4.0                                   | 82 79 30  | 1    |
| 4    | Locking assembly              |                                               | 84 59 14  | 1    |
| 5    | Impeller unit                 | Cast iron                                     | 777 22 XX | 1    |
|      |                               | Hard-Iron™                                    | 777 26 XX |      |
|      |                               | Hard-Iron™ with epoxy                         | 776 74 XX |      |
|      |                               | Stainless steel                               | 777 30 XX |      |
|      |                               | Stainless steel with epoxy                    | 788 43 XX |      |
| 6    | Spacing screw                 |                                               | 777 38 00 | 1    |

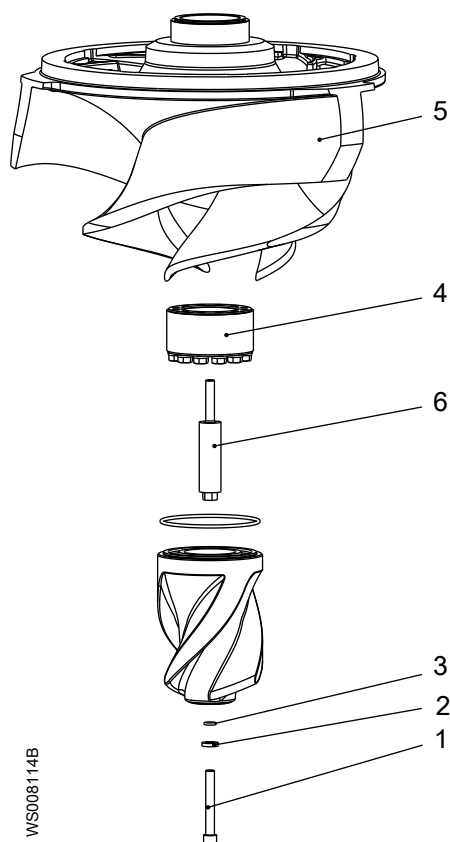
## 3.2.3 N impeller, 905 – 960 drive unit



WS008113B

| Item | Denomination                  |                                             | Part No.  | Qty. |
|------|-------------------------------|---------------------------------------------|-----------|------|
| 1    | Hexagon socket head cap screw | M16 x 120                                   | 82 01 17  | 1    |
|      |                               | M16 x 120 for Stainless steel impeller unit | 83 04 60  |      |
| 2    | Washer                        | 17.0 x 30.0 x 6.0                           | 82 38 01  | 1    |
| 3    | O-ring                        | 15.50 x 4.0                                 | 82 79 30  | 1    |
| 4    | Locking assembly              |                                             | 84 59 17  | 1    |
| 5    | Impeller unit                 | Cast iron                                   | 777 21 XX | 1    |
|      |                               | Hard-Iron™                                  | 777 25 XX |      |
|      |                               | Hard-Iron™ with epoxy                       | 776 73 XX |      |
|      |                               | Stainless steel                             | 777 29 XX |      |
|      |                               | Stainless steel with epoxy                  | 776 77 XX |      |
| 6    | Spacing screw                 |                                             | 777 38 00 | 1    |

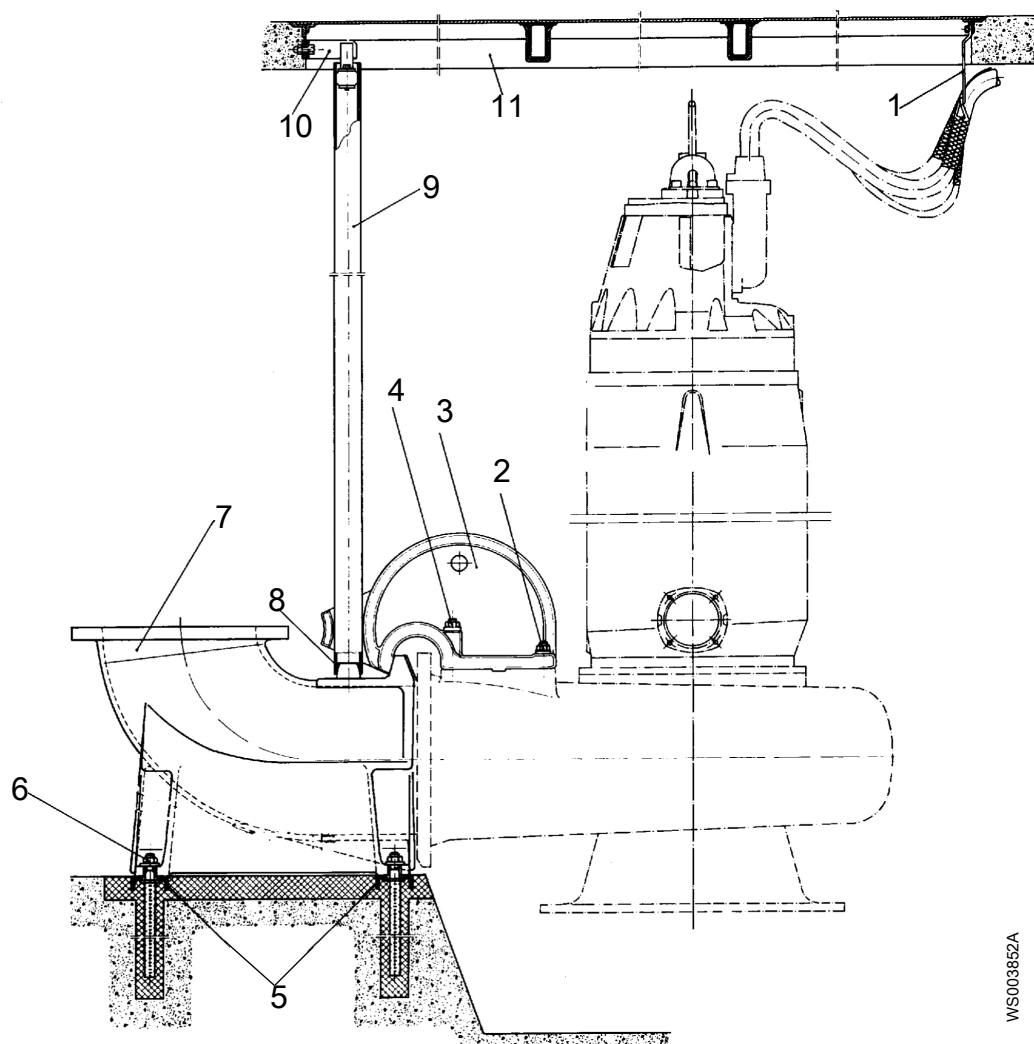
## 3.2.4 N impeller, 965 – 998 drive unit



| Item | Denomination                  |                                         | Part No.  | Qty. |
|------|-------------------------------|-----------------------------------------|-----------|------|
| 1    | Hexagon socket head cap screw | M16 x 120                               | 82 01 17  | 1    |
|      |                               | M16 x 120 Stainless steel impeller unit | 83 04 60  |      |
| 2    | Washer                        | 17.0 x 30.0 x 6.0                       | 82 38 01  | 1    |
| 3    | O-ring                        | 15.50 x 4.0                             | 82 79 30  | 1    |
| 4    | Locking assembly              |                                         | 84 60 11  | 1    |
| 5    | Impeller unit                 | Cast iron                               | 777 20 XX | 1    |
|      |                               | Hard-Iron™                              | 777 24 XX |      |
|      |                               | Hard-Iron™ with epoxy                   | 776 72 XX |      |
|      |                               | Stainless steel                         | 777 28 XX |      |
|      |                               | Stainless steel with epoxy              | 776 76 XX |      |
| 6    | Spacing screw                 |                                         | 777 38 00 | 1    |

# 4 Installation Components

## 4.1 CP/NP

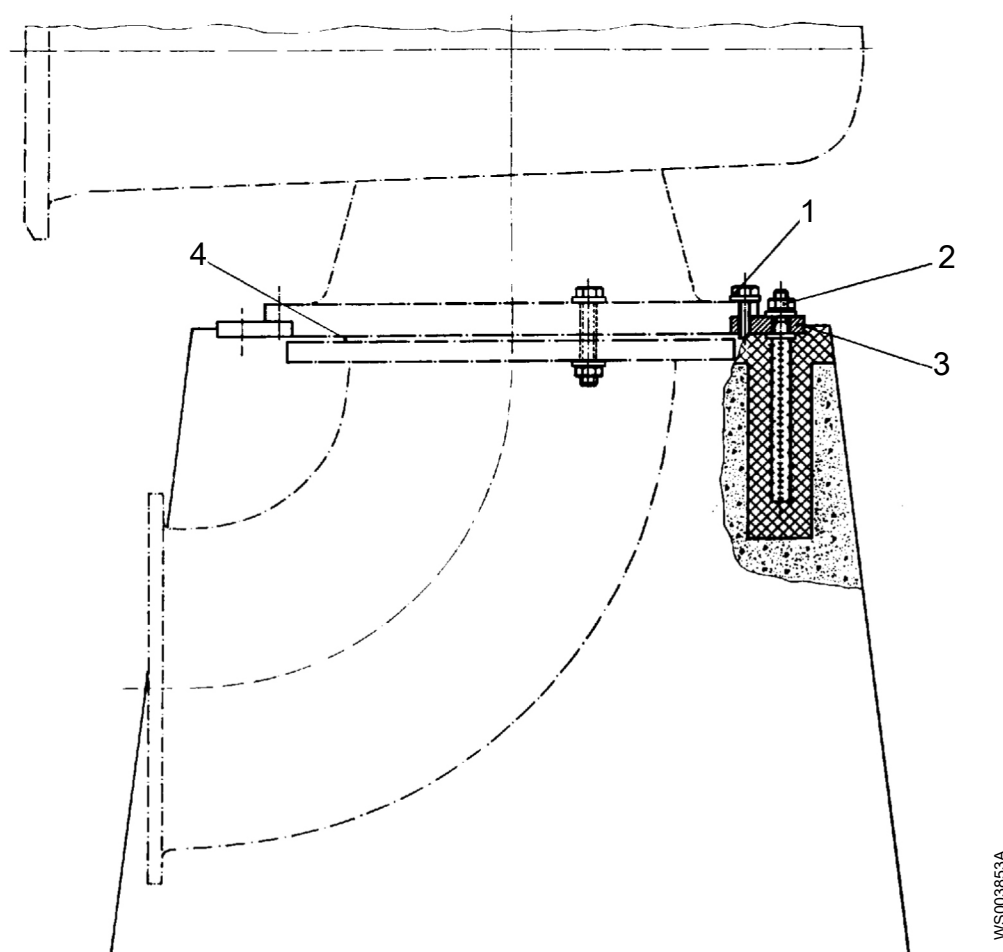


WS003852A

| Item | Denomination                                                                                                    |                              | Part No.  | Qty. |
|------|-----------------------------------------------------------------------------------------------------------------|------------------------------|-----------|------|
| 1    | Cable holder                                                                                                    |                              | 251 36 00 | 1    |
| 2    | Stud                                                                                                            | M24x100                      | 80 95 96  | 10   |
|      | Nut                                                                                                             | M24<br>(500 Nm) (369 lb-ft.) | 82 23 63  | 10   |
|      | Washer                                                                                                          | BRB 25x45                    | 82 35 28  | 10   |
| 3    | Pump housing complete<br>For information about flange patterns, see <a href="#">Flange patterns</a> on page 21. |                              | 571 46 00 | 1    |
| 4    | Stud                                                                                                            | M24x150                      | 80 96 07  | 2    |
|      | Nut                                                                                                             | M24<br>(500 Nm) (369 lb-ft.) | 82 23 63  | 2    |
|      | Washer                                                                                                          | BRB 25x45                    | 82 35 28  | 2    |
| 5    | Channel                                                                                                         |                              | 341 37 02 | 2    |
| 6    | Nut                                                                                                             | M24                          | 82 23 63  | 6    |

| Item | Denomination                                                                                                   |                 | Part No.                                         | Qty. |
|------|----------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------|------|
|      | Washer                                                                                                         | BRB 25x45       | 82 35 28                                         | 6    |
|      | Stud                                                                                                           |                 | 409 60 00                                        | 6    |
| 7    | Discharge connection<br>For information about flange patterns, see <a href="#">Flange patterns</a> on page 21. |                 | 387 90 00<br>387 90 01<br>387 90 05<br>387 90 07 | 1    |
| 8    | Ring                                                                                                           |                 | 255 47 01                                        | 2    |
| 9    | Steel pipe                                                                                                     | 6 m             | 92 64 10                                         | 2    |
| 10   | Guide holder                                                                                                   | Galvanized      | 661 54 00                                        | 1    |
|      |                                                                                                                | Stainless steel | 661 54 01                                        |      |
| 11   | Frame unit                                                                                                     |                 | 388 15 11                                        | 1    |

## 4.2 CT/NT



| Item | Denomination                                                                                                   |           | Part No.  | Qty. |
|------|----------------------------------------------------------------------------------------------------------------|-----------|-----------|------|
| 1    | Screw                                                                                                          | M24x70    | 84 34 53  | 12   |
|      | Washer                                                                                                         | BRB 25x45 | 82 35 28  | 12   |
| 2    | Nut                                                                                                            | M24       | 82 23 63  | 6    |
|      | Washer                                                                                                         | BRB 25x45 | 82 35 28  | 6    |
|      | Discharge connection<br>For information about flange patterns, see <a href="#">Flange patterns</a> on page 21. |           | 409 60 00 | 6    |

#### 4 Installation Components

---

| Item | Denomination | Part No.  | Qty. |
|------|--------------|-----------|------|
| 3    | Plate        | 560 98 00 | 1    |
| 4    | Gasket       | 84 65 85  | 1    |

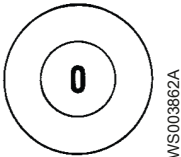
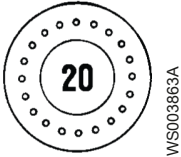
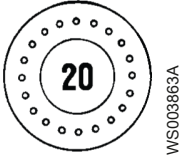
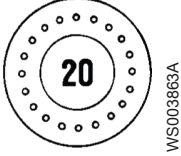
# 5 Technical Reference

## 5.1 Impeller diameter

| Impeller Variant | Diameter | Impeller Variant | Diameter | Impeller Variant | Diameter |
|------------------|----------|------------------|----------|------------------|----------|
| 00               | 735      | 16               | 655      | 32               | 575      |
| 01               | 730      | 17               | 650      | 33               | 570      |
| 02               | 725      | 18               | 645      | 34               | 565      |
| 03               | 720      | 19               | 640      | 35               | 560      |
| 04               | 715      | 20               | 635      | 36               | 555      |
| 05               | 710      | 21               | 630      | 37               | 550      |
| 06               | 705      | 22               | 625      | 38               | 545      |
| 07               | 700      | 23               | 620      | 39               | 540      |
| 08               | 695      | 24               | 615      | 40               | 535      |
| 09               | 690      | 25               | 610      | 41               | 530      |
| 10               | 685      | 26               | 605      | 42               | 525      |
| 11               | 680      | 27               | 600      | 43               | 520      |
| 12               | 675      | 28               | 595      | 44               | 515      |
| 13               | 670      | 29               | 590      | 45               | 510      |
| 14               | 665      | 30               | 585      | 46               | 505      |
| 15               | 660      | 31               | 580      | 47               | 500      |

## 5.2 Flange patterns

### Discharge connection

| Part No.               | Description                                                | Pattern                                                                               |
|------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 387 90 00<br>387 90 10 | Flange 500<br>Undrilled                                    |  |
| 387 90 01<br>387 90 11 | Drilled according to EN 1092-2: Table 8. (PN10)            |  |
| 387 90 05<br>387 90 15 | Drilled according to ANSI B16.1–1989: Table 5. (Class 125) |  |
| 387 90 07<br>387 90 17 | Drilled according to EN 1092-2: Table 9. (PN16)            |  |

## 5.3 Install the locking device

The locking device is used only for transporting the pump.

1. Clamp the locking device into position by turning and locking it by hand as tightly as possible.

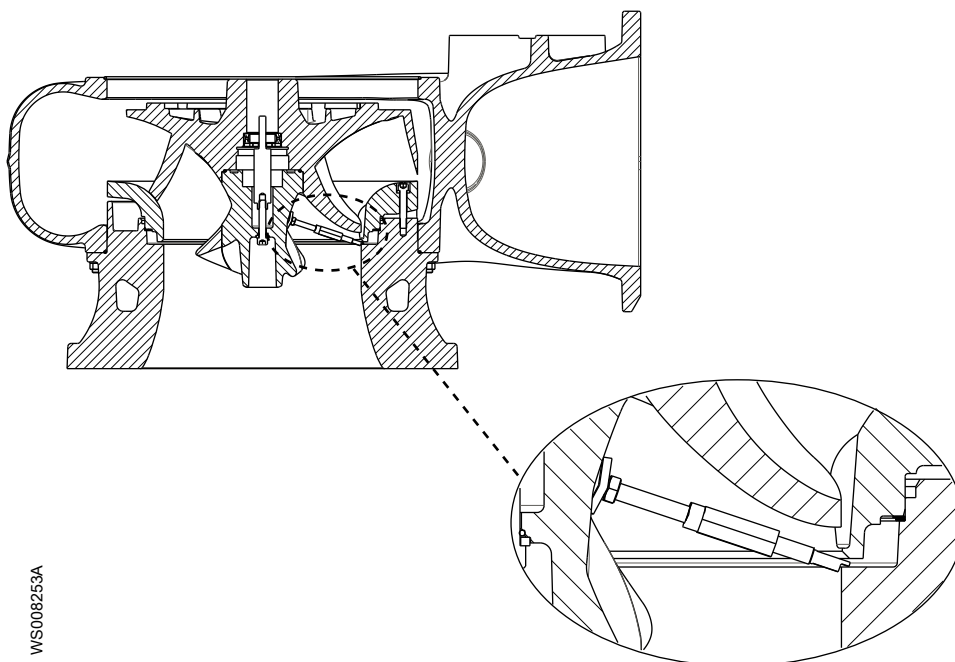


Figure 3: Locking device 700 71 01

2. After hand-tightening the unit, turn it a further 1/8 of a turn.

The locking device must be removed before starting the pump.







# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to [www.xylem.com](http://www.xylem.com)



Xylem Water Solutions Global  
Services AB 556782-9253  
361 80 Emmaboda  
Sweden  
Tel: +46-471-24 70 00  
Fax: +46-471-24 74 01  
<http://tpi.xyleminc.com>  
[www.xylemwatersolutions.com/contacts/](http://www.xylemwatersolutions.com/contacts/)

Visit our Web site for the latest version of this document and more information

The original instruction is in English. All non-English instructions are translations of the original instruction.

© 2017 Xylem Inc