

## Submittal Data

| PROJECT:        | UNIT TAG:        | QUANTITY: |  |
|-----------------|------------------|-----------|--|
|                 | TYPE OF SERVICE: |           |  |
| REPRESENTATIVE: | SUBMITTED BY:    | DATE:     |  |
| ENGINEER:       | APPROVED BY:     | DATE:     |  |
| CONTRACTOR:     | ORDER NO.:       | DATE:     |  |



#### Product photo could vary from the actual product

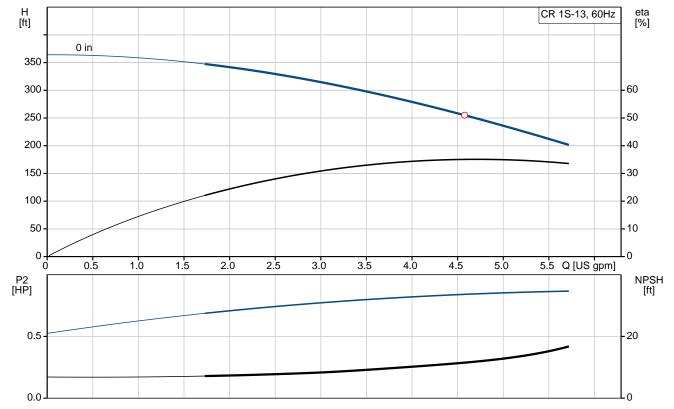
### CR 1S-13

Vertical, multistage centrifugal pump with suction and discharge ports on the same level. The pump head and base are in cast iron. All other wetted parts are in stainless steel (EN 1.4301)(AISI 304)

| Conditions of Service |       |       |
|-----------------------|-------|-------|
| Flow:                 |       | ٨     |
| Head:                 |       | N     |
| Efficiency:           |       | ı   A |
| Liquid:               | Water | S     |
| Temperature:          | 68 °F | F     |
| NPSH required:        | ft    |       |
| Viscosity:            |       |       |
| Specific Gravity:     | 1.000 |       |

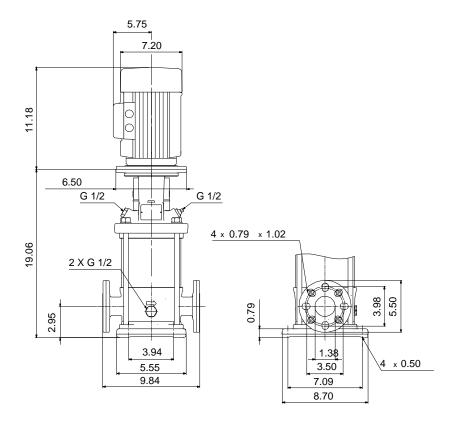
| 50 °F |
|-------|
|       |
| SF61  |
|       |
|       |
|       |
|       |

| 1 | Motor Data        |           |  |  |  |
|---|-------------------|-----------|--|--|--|
|   | Rated power - P2: | 1 HP      |  |  |  |
|   | Rated voltage:    | 115/230 V |  |  |  |
|   | Main frequency:   | 60 Hz     |  |  |  |
|   | Insulation class: | В         |  |  |  |
|   | Motor protection: | NONE      |  |  |  |
|   | Motor type:       | BALDOR    |  |  |  |
|   |                   |           |  |  |  |
| ı |                   |           |  |  |  |





# **Submittal Data**



Materials:

Base: Cast iron

EN 1561 EN-GJL-200

**ASTM A48-25B** 

Impeller: Stainless steel

AISI 304

EN 1.4301

Material code: A Code for rubber: E



**Date:** 2/20/2018

### **Tender Text**



Product No.: 96081042 CR 1S-13 A-FGJ-A-E-HQQE

Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:

- Impellers and intermediate chambers are made of
- The shaft seal has assembly length

according to EN 12756.

- Power transmission is via cast iron split coupling.

The motor is a 1-phase AC motor.

Controls:

Frequency converter: NONE

Liquid:

Pumped liquid: Water Liquid temperature during operation: 68 °F Density: 62.29 lb/ft³

Technical:

Speed for pump data: 3450 rpm
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals on nameplate: CURUS,NSF61 Curve tolerance: ISO9906:2012 3B

Materials:

Impeller:

Base: Cast iron

EN 1561 EN-GJL-200 ASTM A48-25B

Stainless steel

EN 1.4301 AISI 304

Bearing material: SIC

Installation:

Maximum ambient temperature: 104 °F

Max pressure at stated temperature:  $363 \text{ psi} / 250 \text{ }^{\circ}\text{F}$ 

363 psi / -4 °F

Type of connection: DIN / ANSI / JIS Size of inlet connection: DN 25/32

Size of inlet connection: DN 25/32
Size of suction port: 1 1/4 inch
Size of outlet connection: DN 25/32



Date: 2/20/2018

Size of outlet port: 1 1/4 inch PN 25 Pressure rating: Flange size for motor: 56C Flange rating inlet: 250 lb

**Electrical data:** 

**NEMA** Motor standard: Motor type: **BALDOR** IE Efficiency class: NA Rated power - P2: 1 HP Power (P2) required by pump: 1 HP Main frequency: 60 Hz

Rated voltage: 1 x 115/230 V

Service factor: 1,25 Rated current: 12/6 A Rated speed: 3450 rpm

Number of poles: Insulation class (IEC 85): В

Others:

Net weight: 84.6 lb Gross weight: 99.1 lb Shipping volume: 8.26 ft<sup>3</sup>



**Date:** 2/20/2018

Position | Count | Description

1 CR 1S-13 A-FGJ-A-E-HQQE



Product No.: 96081042

Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

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according to EN 12756.

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Controls:

Frequency converter: NONE

Liquid:

Pumped liquid: Water Liquid temperature during operation: 68 °F Density: 62.29 lb/ft³

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Code for shaft seal: HQQE

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Impeller:

Base: Cast iron

EN 1561 EN-GJL-200

ASTM A48-25B Stainless steel

EN 1.4301 AISI 304

Bearing material: SIC

Installation:

Maximum ambient temperature: 104 °F

Max pressure at stated temperature: 363 psi / 250 °F

363 psi / -4 °F

Type of connection:

Size of inlet connection:

DIN / ANSI / JIS

DN 25/32

Size of suction port:

1 1/4 inch

DN 25/32

Size of outlet connection:

DN 25/32

1 1/4 inch



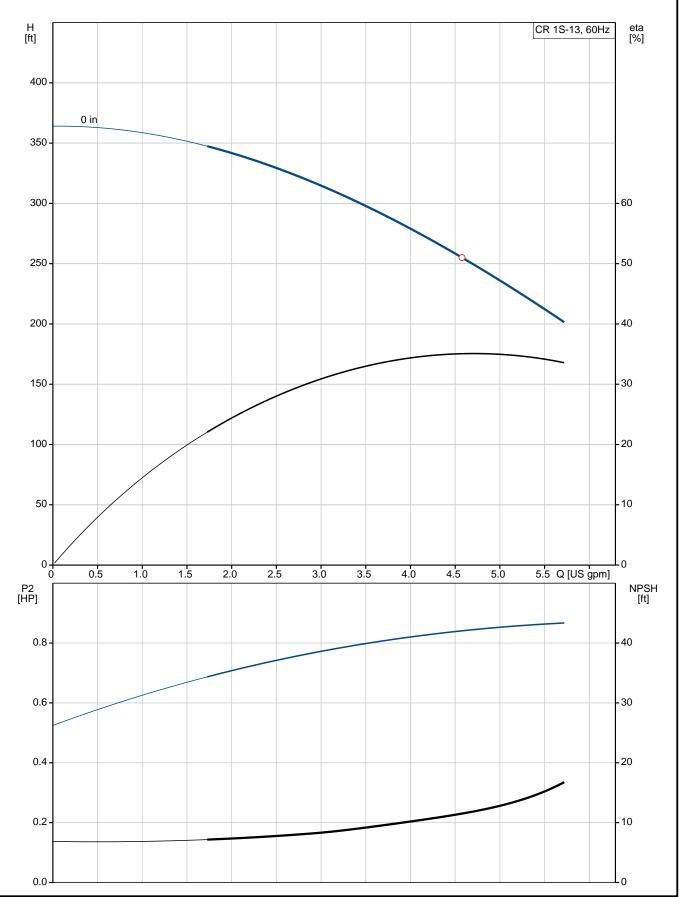
**Date:** 2/20/2018

|          |       |                              | Date.                | 2/20/2010 |
|----------|-------|------------------------------|----------------------|-----------|
| Position | Count | Description                  |                      |           |
|          |       | Pressure rating:             | PN 25                |           |
|          |       | Flange size for motor:       | 56C                  |           |
|          |       | Flange rating inlet:         | 250 lb               |           |
|          |       |                              | 200 10               |           |
|          |       | Electrical data:             |                      |           |
|          |       | Motor standard:              | NEMA                 |           |
|          |       | Motor type:                  | BALDOR               |           |
|          |       | IE Efficiency class:         | NA                   |           |
|          |       | Rated power - P2:            | 1 HP                 |           |
|          |       | Power (P2) required by pump: | 1 HP                 |           |
|          |       | Main frequency:              | 60 Hz                |           |
|          |       | Rated voltage:               | 1 x 115/230 V        |           |
|          |       | Service factor:              |                      |           |
|          |       |                              | 1,25                 |           |
|          |       | Rated current:               | 12/6 A               |           |
|          |       | Rated speed:                 | 3450 rpm             |           |
|          |       | Number of poles:             | 2                    |           |
|          |       | Insulation class (IEC 85):   | В                    |           |
|          |       | Others:                      |                      |           |
|          |       | Net weight:                  | 84.6 lb              |           |
|          |       | Gross weight:                | 99.1 lb              |           |
|          |       | Shipping volume:             | 8.26 ft <sup>3</sup> |           |
|          |       | Ompang volume.               | 0.2011               |           |
|          |       |                              |                      |           |
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|          |       |                              |                      |           |



**Date:** 2/20/2018

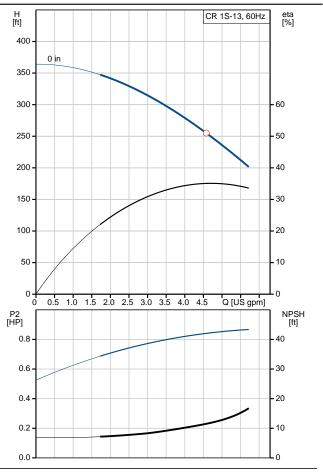
# 96081042 CR 1S-13 60 Hz





Date: 2/20/2018

| Description             | Value                   |
|-------------------------|-------------------------|
| General information:    |                         |
| Product name:           | CR 1S-13 A-FGJ-A-E-HQQE |
| Product No.:            | 96081042                |
| EAN:                    | 5700395154993           |
| Technical:              |                         |
| Speed for pump data:    | 3450 rpm                |
| Stages:                 | 13                      |
| Impellers:              | 13                      |
| Low NPSH:               | N                       |
| Pump orientation:       | Vertical                |
| Shaft seal arrangement: | Single                  |
| Code for shaft seal:    | HQQE                    |
| Approvals on nameplate: | CURUS,NSF61             |
| Curve tolerance:        | ISO9906:2012 3B         |
| Pump version:           | Α                       |
| Model:                  | Α                       |
| Cooling:                | TEFC                    |
| Materials:              |                         |
| Base:                   | Cast iron               |
|                         | EN 1561 EN-GJL-200      |
|                         | ASTM A48-25B            |
| Impeller:               | Stainless steel         |
|                         | EN 1.4301               |
|                         | AISI 304                |
| Material code:          | Α                       |
| Code for rubber:        | E                       |



### Installation:

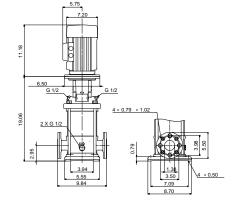
Bearing material:

104 °F Maximum ambient temperature:

Max pressure at stated temperature: 363 psi / 250 °F

|                            | 363 psi / -4 °F  |
|----------------------------|------------------|
| Type of connection:        | DIN / ANSI / JIS |
| Connect code:              | FGJ              |
| Size of inlet connection:  | DN 25/32         |
| Size of suction port:      | 1 1/4 inch       |
| Size of outlet connection: | DN 25/32         |
| Size of outlet port:       | 1 1/4 inch       |
| Pressure rating:           | PN 25            |
| Flange size for motor:     | 56C              |
| Flange rating inlet:       | 250 lb           |
|                            |                  |

SIC



#### Liquid:

Pumped liquid: Water Liquid temperature during operation: 68 °F

Density: 62.29 lb/ft3

Electrical data:

NEMA Motor standard: Motor type: **BALDOR** IE Efficiency class: NA Rated power - P2: 1 HP Power (P2) required by pump: 1 HP Main frequency: 60 Hz Rated voltage: 1 x 115/230 V





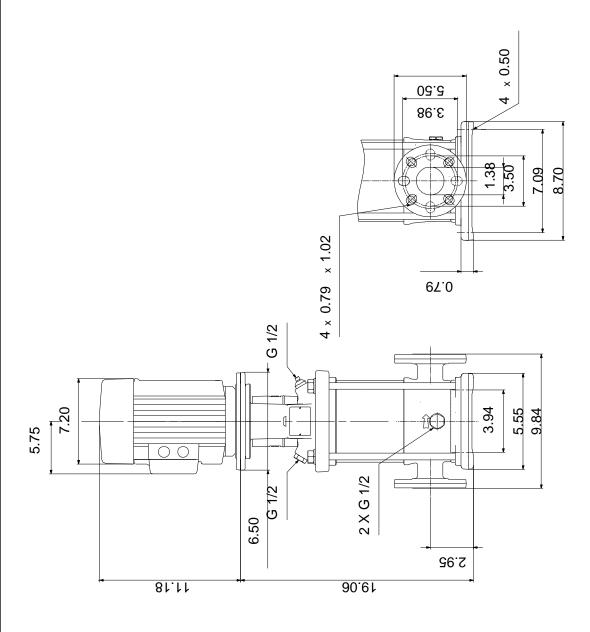
**Date:** 2/20/2018

| Description                | Value                |
|----------------------------|----------------------|
| Service factor:            | 1,25                 |
| Rated current:             | 12/6 A               |
| Load current:              | 14,4/7,2 A           |
| Rated speed:               | 3450 rpm             |
| Number of poles:           | 2                    |
| Insulation class (IEC 85): | В                    |
| Motor protection:          | NONE                 |
| Motor Number:              | 84Z04004             |
|                            |                      |
| Controls:                  |                      |
| Frequency converter:       | NONE                 |
|                            |                      |
| Others:                    |                      |
| Net weight:                | 84.6 lb              |
| Gross weight:              | 99.1 lb              |
| Shipping volume:           | 8.26 ft <sup>3</sup> |



Date: 2/20/2018

# 96081042 CR 1S-13 60 Hz

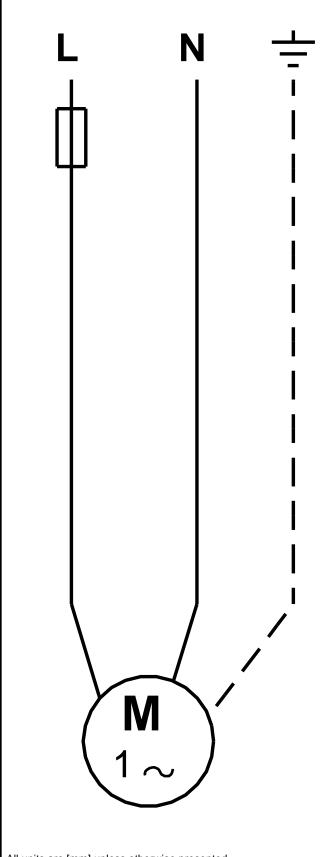


Note! All units are in [mm] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



**Date:** 2/20/2018

96081042 CR 1S-13 60 Hz



All units are [mm] unless otherwise presented.



**Date:** 2/20/2018

**Order Data:** 

Product name: CR 1S-13 A-FGJ-A-E-HQQE

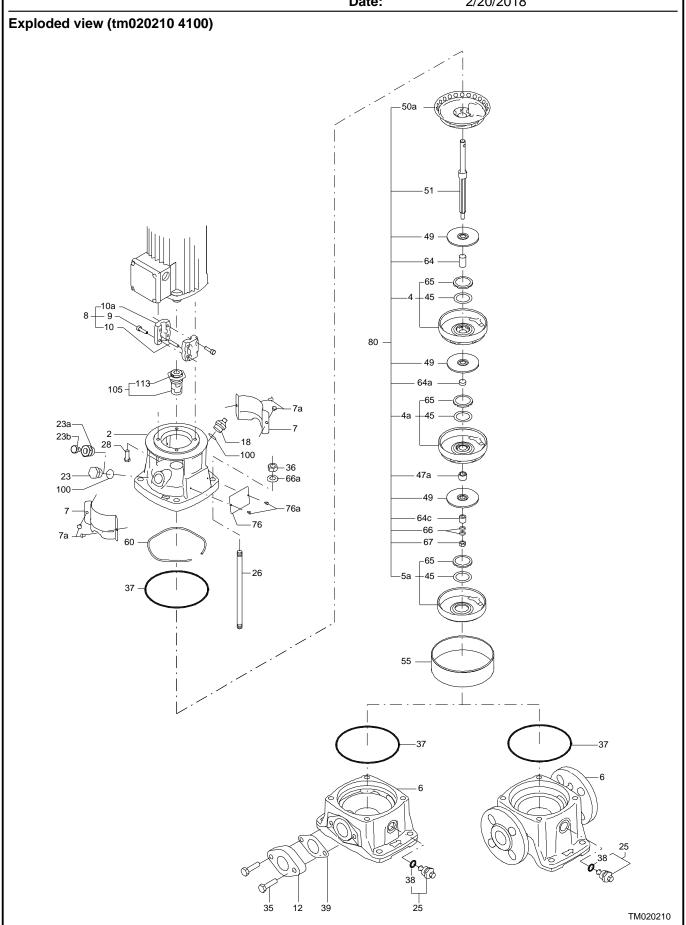
Amount: 1

Product No.: 96081042

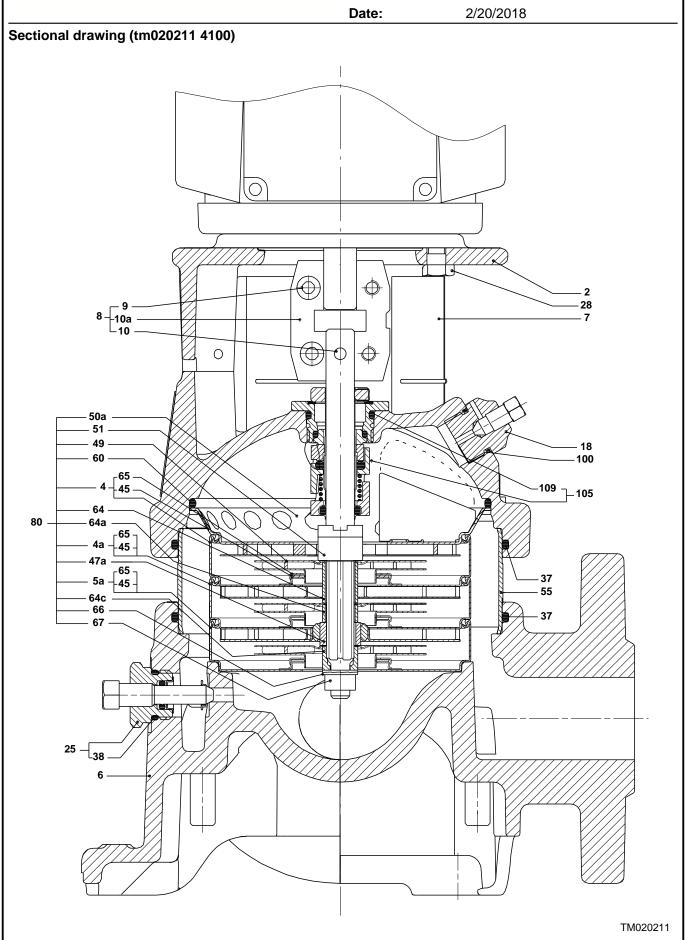
Total: Price on request



Date: 2/20/2018









**Date:** 2/20/2018

# Parts list CR 1S-13, Prod number 96081042 Valid from 1.1.2004 (0401)

|   | Position | -                         | Annotation | Classification data    | Part No. |   | unt |     |
|---|----------|---------------------------|------------|------------------------|----------|---|-----|-----|
|   |          | Motor                     |            |                        |          | 1 |     | pcs |
| - |          | Base cpl.                 |            |                        |          | 1 |     | pcs |
|   | 6        | Base                      |            |                        |          |   | 1   |     |
| - |          | Sealing parts             |            |                        |          | 1 |     | pcs |
| - | 25       | Drain plug w/bypass valve |            |                        |          |   | 1   |     |
|   | 38       | O-ring                    |            | Diameter: 16,3         |          |   |     |     |
|   |          |                           |            | Material type: EPDM    |          |   |     |     |
|   |          |                           |            | Thickness: 2,4         |          |   |     |     |
|   | 37       | O-ring                    |            |                        |          |   | 2   |     |
|   | 100      | O-ring                    |            | Diameter: 16,3         |          |   | 2   |     |
|   |          |                           |            | Material type: EPDM    |          |   |     |     |
|   |          |                           |            | Thickness: 2,4         |          |   |     |     |
| - | 2        | Pump head cpl.            |            |                        |          | 1 |     | pcs |
|   | 2        | Pump head                 |            |                        |          |   | 1   |     |
|   | 7        | Coupling guard            |            |                        |          |   | 2   |     |
|   | 7a       | Thread cutting screw      |            |                        |          |   | 4   |     |
| - | 18       | Air vent screw            |            |                        |          |   | 1   |     |
|   |          | Plug                      |            |                        |          |   |     |     |
|   |          | Spindle                   |            |                        |          |   |     |     |
| - | 25       | Drain plug                |            |                        |          |   | 1   |     |
|   | 23       | Pipe plug                 |            |                        |          |   |     |     |
|   | 25       | Drain plug                |            |                        |          |   |     |     |
|   | 28       | Hex head cap screw        |            | Length: 25             |          |   | 4   |     |
|   |          |                           |            | Thread: UNC 3/8"       |          |   |     |     |
|   | 60       | Formed wire spring        |            |                        |          |   | 1   |     |
| + | 8        | Coupling cpl.             |            |                        |          | 1 |     | pcs |
|   | 26       | Staybolt                  |            | Length: 259            |          | 4 |     | pcs |
|   |          | •                         |            | Thread: M12            |          |   |     | •   |
|   | 36a      | Washer                    |            | Designation: DIN 125 A |          | 4 |     | pcs |
|   |          |                           |            | Inner diameter: 13     |          |   |     |     |
|   |          |                           |            | Outer diameter: 24     |          |   |     |     |
|   |          |                           |            | Thickness: 2,5         |          |   |     |     |
|   | 55       | Outer sleeve              |            |                        |          | 1 |     | pcs |
|   | 66a      | Nut                       |            | Thread: M12            |          | 4 |     | pcs |
| - | 80       | Chamber stack             |            | Bearing type: HQQE     |          | 1 |     | pcs |
| - |          | Guide vane cpl.           |            | 5 71                   |          |   | 1   | •   |
|   |          | Plate                     |            |                        |          |   |     |     |
|   | 50a      | Guide vane                |            |                        |          |   |     |     |
|   | 50b      | Top plate                 |            |                        |          |   |     |     |
| - | 4        | Chamber cpl.              |            |                        |          |   | 10  |     |
|   |          | Guide vane                |            |                        |          |   |     |     |
|   |          | Plate                     |            |                        |          |   |     |     |
|   |          | Retainer                  |            |                        |          |   |     |     |
|   |          | Intermediate chamber      |            |                        |          |   |     |     |
|   |          | Vane                      |            |                        |          |   |     |     |
|   | 45       | Neck ring                 |            |                        |          |   |     |     |
|   | 65       | Retainer                  |            |                        |          |   |     |     |
| - | 4a       | Chamber w. bearing cpl.   |            |                        |          |   | 2   |     |
|   |          | Guide vane                |            |                        |          |   | -   |     |
|   |          | Retainer for bearing      |            |                        |          |   |     |     |
|   |          | Bearing bush              |            |                        |          |   |     |     |
|   |          | Retainer                  |            |                        |          |   |     |     |
|   |          | Intermediate chamber      |            |                        |          |   |     |     |
|   |          | intermediate chamber      |            |                        |          |   |     |     |



**Date:** 2/20/2018

| Po    | sition | Description            | Annotation | Classification data   | Part No. | Count | Unit |
|-------|--------|------------------------|------------|-----------------------|----------|-------|------|
|       |        | Vane                   |            |                       |          |       |      |
| 45    |        | Neck ring              |            |                       |          |       |      |
| 65    |        | Retainer               |            |                       |          |       |      |
| - 5a  |        | Chamber cpl.           |            |                       |          | 1     |      |
|       |        | Retainer               |            |                       |          |       |      |
|       |        | Intermediate chamber   |            |                       |          |       |      |
|       |        | Vane                   |            |                       |          |       |      |
| 45    |        | Neck ring              |            |                       |          |       |      |
| 65    |        | Retainer               |            |                       |          |       |      |
| 36    |        | Lock nut               |            | Thread: M8            |          | 1     |      |
| 47a   | а      | Bearing ring, rotating |            |                       |          | 2     |      |
| - 49  |        | Impeller cpl.          |            |                       |          | 13    |      |
| 49    |        | Impeller               |            |                       |          |       |      |
| 51    |        | Shaft, spline, cpl.    |            |                       |          | 1     |      |
| 64a   | а      | Spacing pipe           |            |                       |          | 10    |      |
| 64a   | а      | Spacing pipe           |            | Inner diameter: 12,85 | ;        | 2     |      |
|       |        |                        |            | Outer diameter: 15,85 |          |       |      |
|       |        |                        |            | Length: 4,50          |          |       |      |
| 640   | С      | Clamp, splined         |            | Inner diameter: 8,5   |          | 1     |      |
|       |        |                        |            | Outer diameter: 15    |          |       |      |
| 66    |        | Wedge lock washer      |            |                       |          | 1     |      |
| - 105 | 5 ;    | Shaft seal             |            | Material type: HQQE   |          | 1     | pcs  |
|       |        | O-ring                 |            |                       |          | 1     |      |
|       |        | O-ring                 |            |                       |          | 1     |      |
|       |        | Seal driver, upper     |            |                       |          | 1     |      |
|       |        | Seal driver, lower     |            |                       |          | 1     |      |
|       |        | Spacer ring            |            |                       |          | 1     |      |
|       |        | Pipe                   |            |                       |          | 1     |      |
|       |        | Plug                   |            |                       |          | 1     |      |
|       |        | Plug                   |            |                       |          | 1     |      |
|       |        | Compression spring     |            |                       |          | 1     |      |
|       |        | Socket set screw       |            |                       |          | 1     |      |
| 102   | 2      | O-ring                 |            | Diameter: 22,00       |          | 1     |      |
|       |        |                        |            | Material type: EPDM   |          |       |      |
|       |        |                        |            | Thickness: 2,75       |          |       |      |
| 103   | 3      | Seal ring, stationary  |            |                       |          | 1     |      |
| 105   | 5      | Seal ring, rotating    |            |                       |          | 1     |      |
| 107   | 7      | O-ring                 |            |                       |          | 1     |      |
| 113   | 3      | Driver                 |            |                       |          | 1     |      |