

# Technical Data

Pump Name

BHSE 12550-3-R4 5/119.4 M10

|          |            |                                       |           |
|----------|------------|---------------------------------------|-----------|
| Customer | Date       | 2024-06-13                            | Company   |
| Contact  | Item no.   |                                       | Issued by |
| Phone    | Project    |                                       | Phone     |
| E-mail   | Project ID | Proiect redenumit 2024-06-13 09:28:44 | E-mail    |

## Requested data

|   |                           |      |                              |                    |          |        |
|---|---------------------------|------|------------------------------|--------------------|----------|--------|
| 1 | Pump type                 |      | SUBMERSIBLE MULTISTAGE PUMPS | Fluid              |          | Water  |
| 2 | Number of pumps / Reserve |      | 1 / 0                        | Liquid temperature | °C       | 20     |
| 3 | Flow                      | m³/h |                              | Kin. viscosity     | mm²/s    | 1.005  |
| 4 | Head                      | m    |                              | Vapour pressure    | bar      | 0.0234 |
| 5 | Geodetic head             | m    |                              | PH value           |          |        |
| 6 | Inlet pressure (pin)      | bar  | 0                            | Density            | kg/m³    | 998.3  |
| 7 | Available system NPSH     |      |                              | Solids             | Weight % | 0      |
| 8 | Ambient temperature       | °C   | 20                           |                    |          |        |

## Pump

|    |                      |                |                                |                                   |                |          |
|----|----------------------|----------------|--------------------------------|-----------------------------------|----------------|----------|
| 9  | Pump Name            |                | BHSE 12550-3-R4 5/119.4 M10    | Frequency                         | Hz             | 50       |
| 10 | Design               |                | SUBMERSIBLE MULTISTAGE PUMPS   | Installation type                 |                | STANDARD |
| 11 | Manufacturer         |                | EBARA                          | Impeller Diameter                 | Max. mm        | 170      |
| 12 | Speed                | rpm            | 2900                           |                                   | Designed mm    | 170      |
| 13 | No. of Stage         |                | 3                              |                                   | Min. mm        | 170      |
| 14 | Connection           | Suction side   |                                | Flow                              | Operating m³/h |          |
| 15 | Connection           | Discharge side |                                |                                   | Max- m³/h      | 415      |
| 16 | Max Working Pressure | bar            |                                |                                   | Min- m³/h      | 240      |
| 17 | Shut-off head        | bar            | 12.22                          | Head                              | Operating m    |          |
| 18 | Total weight         | kg             | See the table of "Dimensions". |                                   | - (Qmax.) m    | 81.4     |
| 19 | Shaft power          | kW             |                                |                                   | - (Qmin.) m    | 100.2    |
| 20 |                      |                |                                | Max. Shaft Power at max. impeller | kW             | 116.41   |
| 21 | Required pump NPSH   | m              |                                | Efficiency                        | %              |          |

## Materials

|    |          |  |                                     |               |  |                 |
|----|----------|--|-------------------------------------|---------------|--|-----------------|
| 22 | Casing   |  | Casting iron                        | Washers       |  | Stainless steel |
| 23 | Impeller |  | Stainless steel - precision casting | Paint (Motor) |  | Synthetic alkyd |
| 24 | Shaft    |  | Stainless steel                     |               |  |                 |
| 25 | Stainet  |  | Stainless steel                     |               |  |                 |
| 26 | Screw    |  | Stainless steel                     |               |  |                 |
| 27 | Nuts     |  | Stainless steel                     |               |  |                 |

## Motor

|    |                      |     |  |                  |    |       |
|----|----------------------|-----|--|------------------|----|-------|
| 28 | Manufacturer         |     | EBAS   | Insulation class |    | Y     |
| 29 | Type                 |     | M10 160HP 380V TRIF. 50Hz                            | Phases           |    | 3~    |
| 30 | Specific design      |     | Submersible water filled type / 50 Hz / Pole pairs 1 | Frame size       |    | 10    |
| 31 | Rated power          | kW  | 119.36   | Weight           | kg | 380   |
| 32 | Number of poles      |     | 2  | Electric voltage | V  | 380   |
| 33 | Speed                | rpm | 2935   | Electric current | A  | 260.5 |
| 34 | Degree of protection |     | IP 68  |                  |    |       |
| 35 |                      |     |  |                  |    |       |

## Remarks

# Performance Curve

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**Requested data**

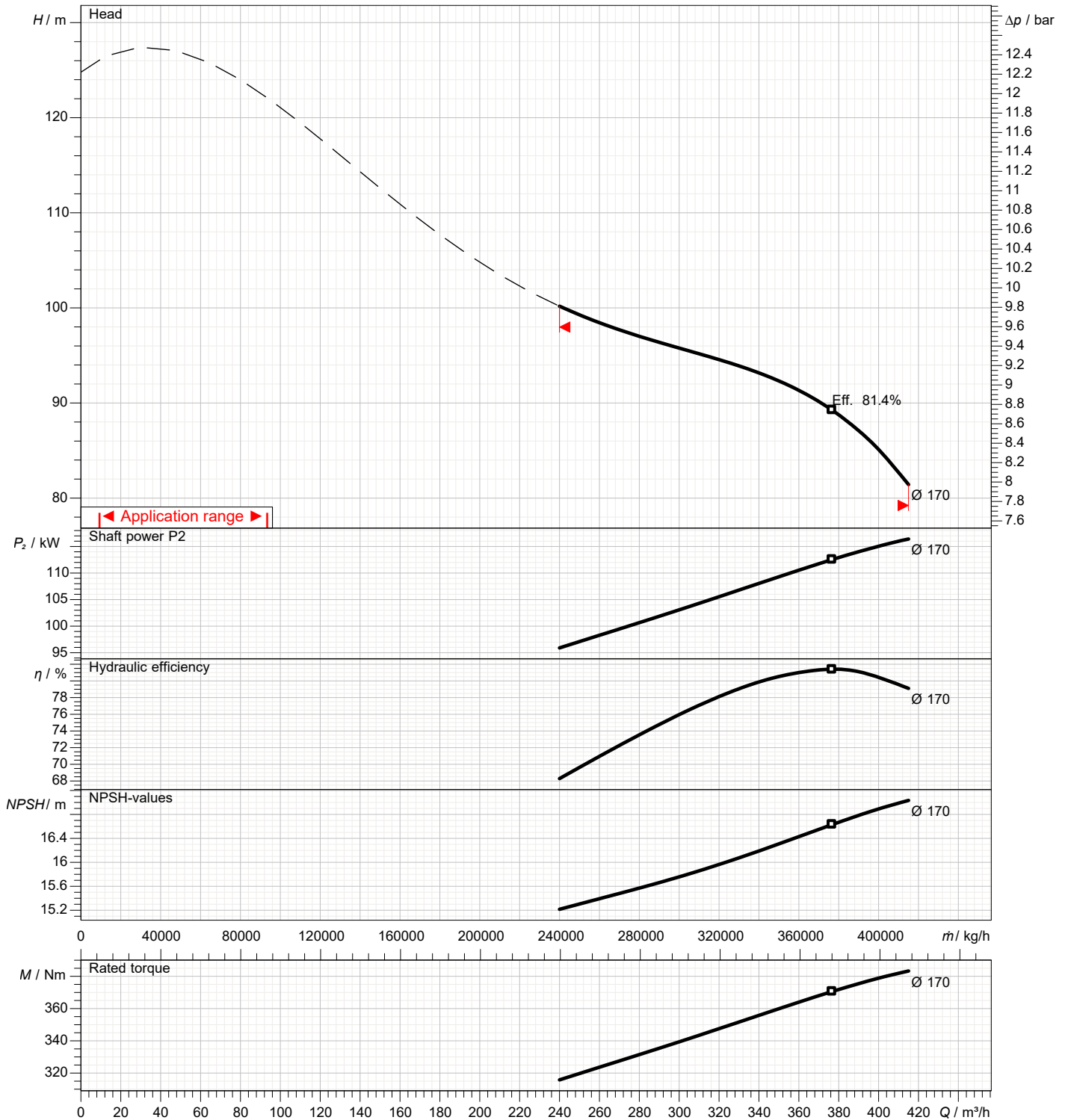
|   |               |      |  |
|---|---------------|------|--|
| 1 | Flow          | m³/h |  |
| 2 | Head          | m    |  |
| 3 | Geodetic head | m    |  |

**Pump**

|                            |      |     |                 |     |      |
|----------------------------|------|-----|-----------------|-----|------|
| Operating flow             | m³/h |     | Frequency       | Hz  | 50   |
| Operating head             | m    |     | Number of poles |     | 2    |
| Impeller diameter designed | mm   | 170 | Speed           | rpm | 2900 |

Test standard: ISO 9906:2012 - Grade3B

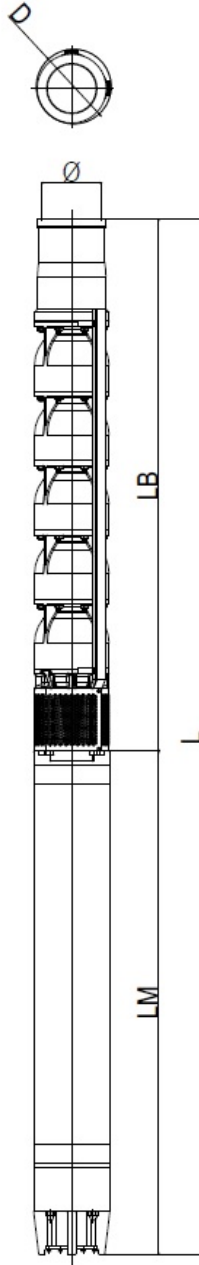
Water; 20°C; 998.3kg/m³; 1mm²/s



# Dimensions

Pump name BHSE 12550-3-R4 5/119.4 M10

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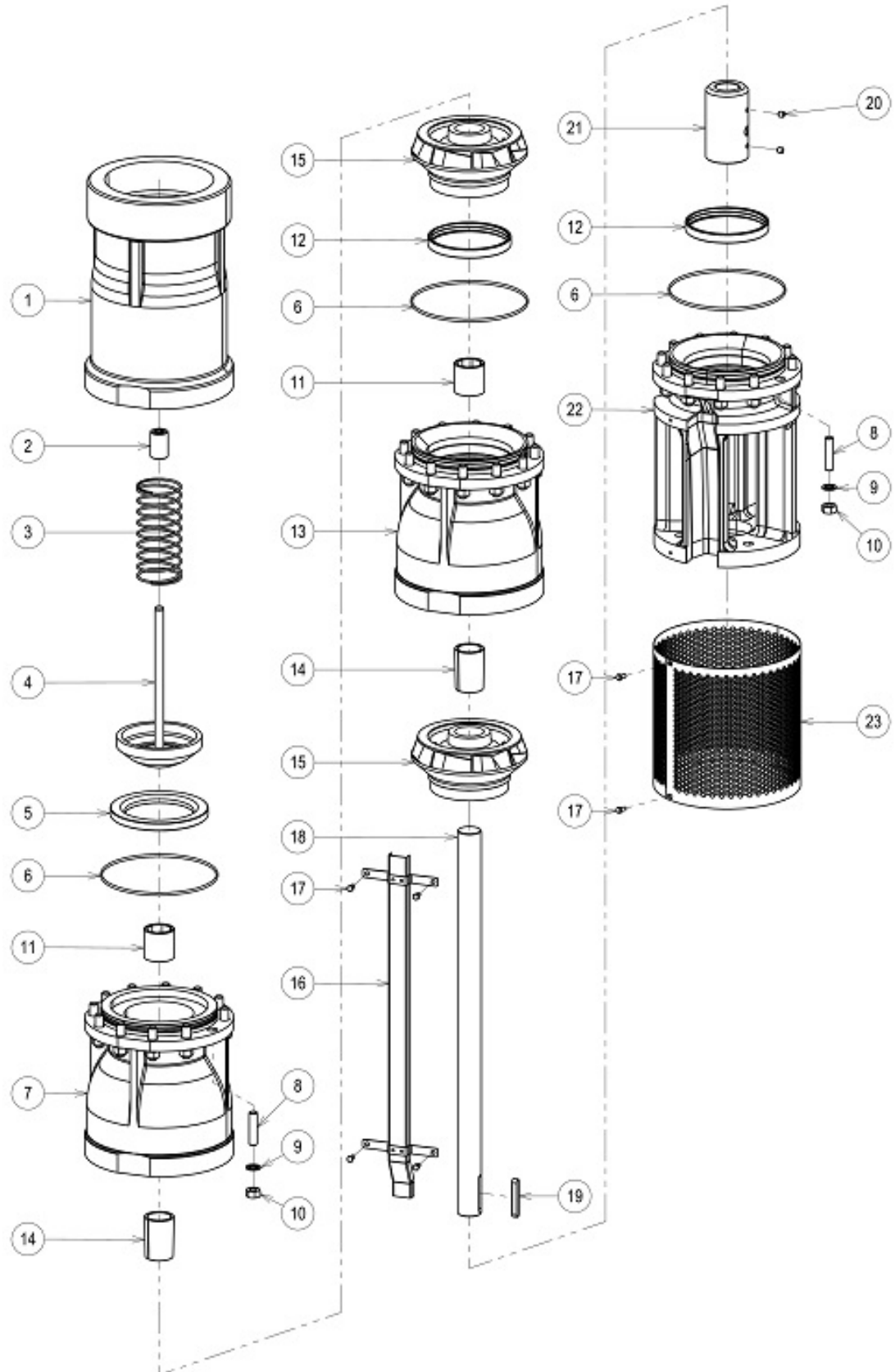


| Dimensions in |                   | mm       |  |  |  |  |  |  |
|---------------|-------------------|----------|--|--|--|--|--|--|
| 1             | L                 | 3327     |  |  |  |  |  |  |
| 2             | LB                | 1463     |  |  |  |  |  |  |
| 3             | LM                | 1864     |  |  |  |  |  |  |
| 4             | M Weight (kg)     | 380      |  |  |  |  |  |  |
| 5             | P Weight (kg)     | 230.8    |  |  |  |  |  |  |
| 6             | Total Weight (kg) | 610.8    |  |  |  |  |  |  |
| 7             | Φ (inch)          | 8 (inch) |  |  |  |  |  |  |
| 8             |                   |          |  |  |  |  |  |  |
| 9             |                   |          |  |  |  |  |  |  |
| 10            |                   |          |  |  |  |  |  |  |
| 11            |                   |          |  |  |  |  |  |  |
| 12            |                   |          |  |  |  |  |  |  |
| 13            |                   |          |  |  |  |  |  |  |
| 14            |                   |          |  |  |  |  |  |  |
| 15            |                   |          |  |  |  |  |  |  |

# (1/4) Construction

Pump name

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# Construction

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| BHSE12_Parts Table |                       |                 |
|--------------------|-----------------------|-----------------|
| No.                | Name                  | MATERIAL        |
| 1                  | DISCHARGE CASING      | CAST IRON       |
| 2                  | VALVE ROD GUIDE       | BRASS           |
| 3                  | SPRING                | STAINLESS STEEL |
| 4                  | VALVE DISK            | STAINLESS STEEL |
| 5                  | VALVE SHEET           | BRASS           |
| 6                  | O-RING                | NBR             |
| 7                  | INTERMEDIATE CASING 2 | CAST IRON       |
| 8                  | STUD BOLT             | STAINLESS STEEL |
| 9                  | SPRING WASHER         | STAINLESS STEEL |
| 10                 | NUT                   | STAINLESS STEEL |
| 11                 | BEARING SLEEVE        | NBR             |
| 12                 | CASING WEARING RING   | BRASS           |
| 13                 | INTERMEDIATE CASING   | CAST IRON       |
| 14                 | TAPER COLLET          | STAINLESS STEEL |
| 15                 | IMPELLER              | STAINLESS STEEL |
| 16                 | CABLE COVER           | STAINLESS STEEL |
| 17                 | BOLT                  | STAINLESS STEEL |
| 18                 | SHAFT                 | STAINLESS STEEL |
| 19                 | KEY                   | STAINLESS STEEL |
| 20                 | BOLT                  | CARBON STEEL    |
| 21                 | COUPLING              | STAINLESS STEEL |
| 22                 | SUCTION CASING        | CAST IRON       |
| 23                 | STRAINER              | STAINLESS STEEL |

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# Construction

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# Construction

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| Motor M10_Parts Table |                          |                              |
|-----------------------|--------------------------|------------------------------|
| No.                   | Name                     | MATERIAL                     |
| 1                     | SAND SLINGER             | CARBON STEEL/NBR             |
| 2                     | SEAL COVER               | CARBON STEEL                 |
| 3                     | OIL SEAL                 | NBR                          |
| 4                     | ESPACIADOR               | BRASS                        |
| 5                     | CABLE NUT                | STAINLESS STEEL              |
| 7                     | PRESSURE RING FOR CABLE  | BRASS                        |
| 8                     | CABLE GLAND "A"          | NBR                          |
| 9                     | CABLE GLAND "B"          | NBR                          |
| 10                    | PRESSURE RING FOR CABLE  | BRASS                        |
| 11                    | STUD BOLT                | STAINLESS STEEL              |
| 12                    | BOLT                     | CARBON STEEL                 |
| 13                    | METAL GASKET             | BRASS                        |
| 14                    | PLUG                     | BRASS                        |
| 15                    | UPPER BRACKET            | CAST IRON                    |
| 17                    | UPPER BEARING            | GRAPHITE                     |
| 18                    | STOP RING                | CARBON STEEL                 |
| 19                    | UPPER FRAME RING         | CARBON STEEL                 |
| 20                    | COIL PROTECTOR RING      | STAINLESS STEEL              |
| 21                    | LEAD CABLE               | CUPPER                       |
| 22                    | COIL                     | CUPPER                       |
| 23                    | MOTOR FRAME              | CARBON STEEL                 |
| 24                    | COIL PROTECTOR           | NBR                          |
| 25                    | LOWER FRAME RING         | CARBON STEEL                 |
| 26                    | KEY                      | STAINLESS STEEL              |
| 27                    | ROTOR WITH SHAFT         | STAINLESS STEEL/CARBON STEEL |
| 28                    | KEY                      | STAINLESS STEEL              |
| 29                    | DISTANCING RING FOR SUPP | BRASS                        |
| 30                    | LOWER BRACKET            | CAST IRON                    |
| 31                    | SPRING WASHER            | STAINLESS STEEL              |
| 32                    | BOLT                     | CARBON STEEL                 |
| 33                    | UPPER BEARING "A"        | GRAPHITE                     |
| 34                    | THRUST DISK              | STAINLESS STEEL              |
| 37                    | STOP RING                | CARBON STEEL                 |
| 38                    | THRUST PAD               | STAINLESS STEEL              |
| 39                    | O-RING                   | NBR                          |
| 40                    | OSCILLATING DISC         | CAST IRON                    |
| 41                    | THRUST BEARING HOUSING   | CAST IRON                    |
| 43                    | BOLT                     | CARBON STEEL                 |
| 44                    | ADJUSTING NUT            | CARBON STEEL                 |
| 45                    | NUT                      | STAINLESS STEEL              |
| 46                    | DIAPHRAGM PROTECTOR      | STAINLESS STEEL              |
| 47                    | PLUG                     | BRASS                        |
| 48                    | DIAPHRAGM                | CR                           |
| 49                    | SPRING DISC              | STAINLESS STEEL              |
| 50                    | SPRING                   | STAINLESS STEEL              |
| 51                    | DIAPHRAGM COVER          | STAINLESS STEEL              |
| 52                    | BOLT                     | CARBON STEEL                 |
| 53                    | COMPLETE STATOR          | -                            |
| 54                    | INTERMEDIATE WEDGE       | PTFE                         |
| 55                    | SLOT ISOLATOR            | POLYESTER                    |
| 56                    | WEDGE ISOLATOR           | POLYESTER                    |
| 57                    | WEDGE                    | PLASTIC                      |
| 58                    | SPRING WASHER            | STAINLESS STEEL              |
| 59                    | NUT                      | STAINLESS STEEL              |
| 60                    | O-RING                   | NBR                          |