

# Technical data

Pump name

GSD4 50-315/B1/A 7.5

|          |            |   |           |
|----------|------------|---|-----------|
| Customer | Date       | 2024-06-16                              | Company   |
| Contact  | Item no.   |   | Issued by |
| Phone    | Project    |   | Phone     |
| E-mail   | Project ID | Project redenumit 2024-06-16 12:31:28.; | E-mail    |

## Requested data

|   |                           |                         |                    |             |
|---|---------------------------|-------------------------|--------------------|-------------|
| 1 | Pump type                 | End Suction Volute Pump | 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                 | GSD4 50-315/B1/A 7.5              | Frequency                         | Hz 50                   |
| 10 | Item number               | 2698001014                        | Installation type                 | Standard (without base) |
| 11 | Design                    | End Suction Volute Pump           | Impeller Diameter                 | Max. mm 310             |
| 12 | Manufacturer              | EBARA                             |                                   | Designed mm 310         |
| 13 | Speed                     | rpm 1460                          |                                   | Min. mm 310             |
| 14 | No. of Stage              | 1                                 | Flow                              | Operating m³/h          |
| 15 | Connection Suction side   | EN 1092-1 PN16                    |                                   | Max- m³/h 67            |
| 16 | Connection Discharge side | EN 1092-1 PN16                    |                                   | Min- m³/h 8.46          |
| 17 | Max Working Pressure      | bar 16                            | Head                              | Operating m             |
| 18 | Shut-off head             | bar 3.33                          |                                   | - (Qmax.) m 26.5        |
| 19 | Total weight              | kg See the table of "Dimensions". |                                   | - (Qmin.) m 33.8        |
| 20 | Shaft power               | kW                                | Max. Shaft Power at max. impeller | kW 7.29                 |
| 21 | Required pump NPSH        | m                                 | Efficiency                        | %                       |

## Materials

|    |                       |           |  |  |
|----|-----------------------|-----------|--|--|
| 22 | Impeller              | Cast iron |  |  |
| 23 | Casing                | Cast iron |  |  |
| 24 | Shaft (wet extension) | AISI 420  |  |  |
| 25 | Liner ring            | Bronze    |  |  |
| 26 | O-ring                | EPDM      |  |  |
| 27 |                       |           |  |  |

## Motor

|    |                      |                            |                  |        |
|----|----------------------|----------------------------|------------------|--------|
| 28 | Manufacturer         | FELM                       | Insulation class | F      |
| 29 | Type                 | 132M_B5_7.5_3_400_4        | Phases           | 3~     |
| 30 | Specific design      | IE3 / 50 Hz / Pole pairs 2 | Frame size       | 132M   |
| 31 | Rated power          | kW 7.5                     | Weight           | kg 54  |
| 32 | Number of poles      | 4                          | Electric voltage | V 400  |
| 33 | Speed                | rpm 1450                   | Electric current | A 14.4 |
| 34 | Degree of protection | IP55                       |                  |        |
| 35 |                      |                            |                  |        |

## Remarks

|  |
|--|
|  |
|--|

# Performance curve

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## Requested data

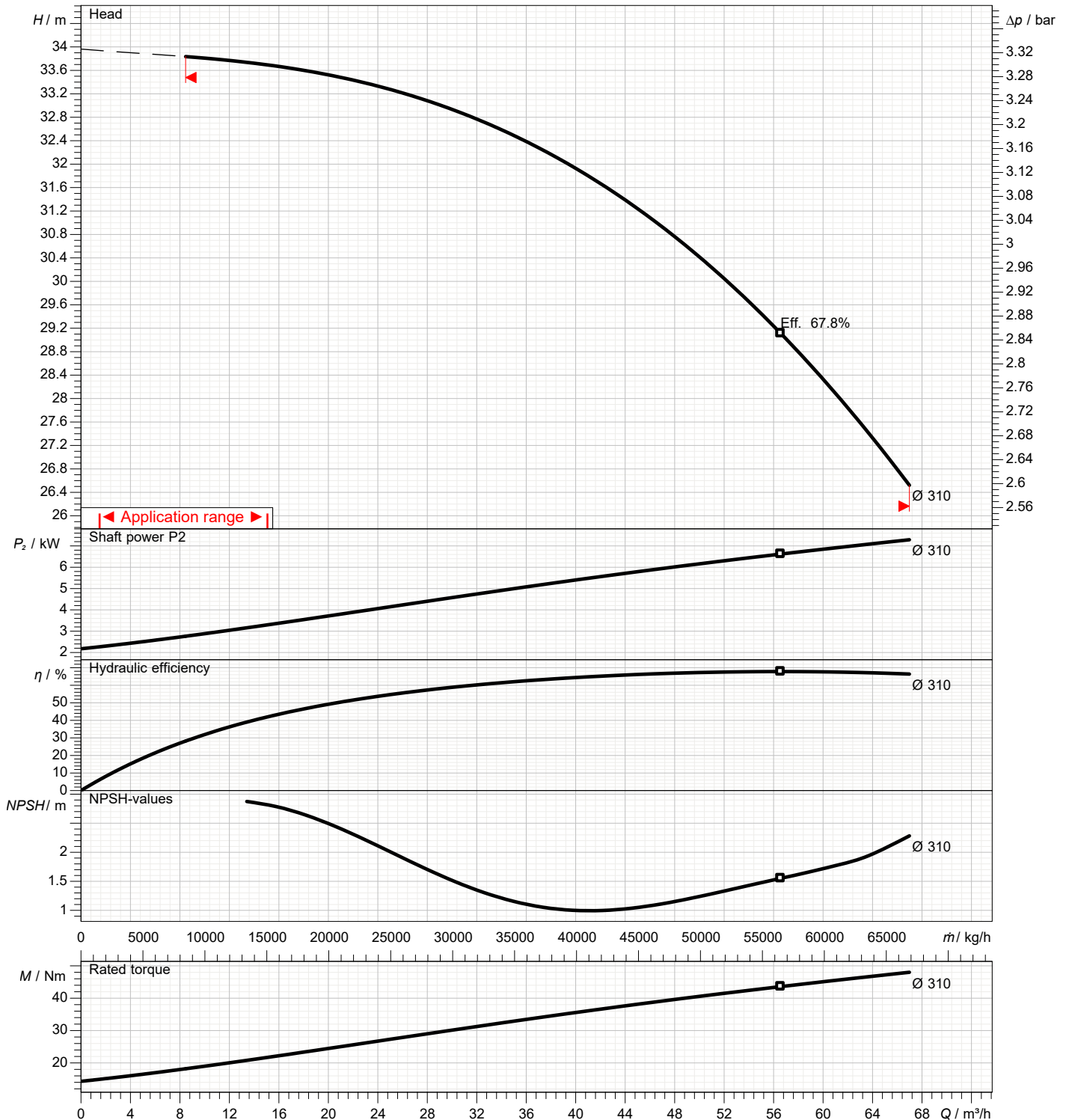
|   |               |      |  |
|---|---------------|------|--|
| 1 | Flow          | m³/h |  |
| 2 | Head          | m    |  |
| 3 | Geodetic head | m    |  |

## Pump

|                           |      |     |                 |     |      |
|---------------------------|------|-----|-----------------|-----|------|
| Operating flow            | m³/h |     | Frequency       | Hz  | 50   |
| Operating head            | m    |     | Number of poles |     | 4    |
| ImpellerDiameter Designed | mm   | 310 | Speed           | rpm | 1450 |

Test standard: ISO 9906:2012 - Grade3B

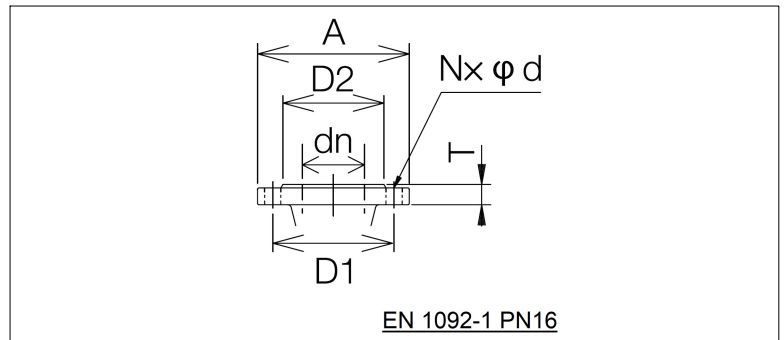
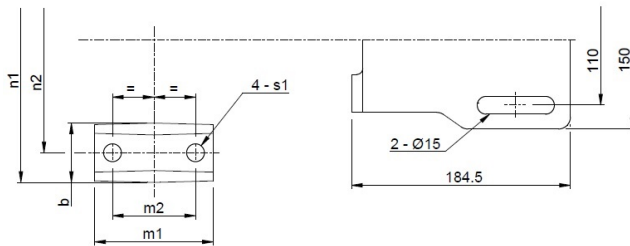
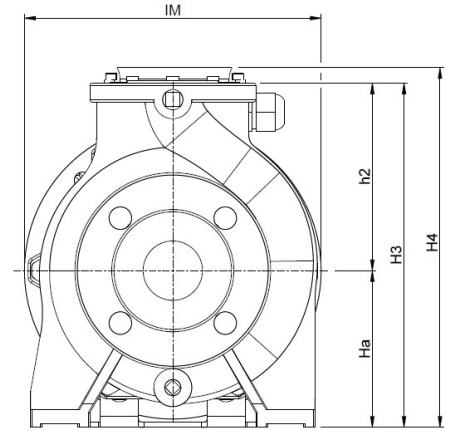
Water; 20°C; 998.3kg/m³; 1mm²/s



# Dimensions

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|----------|--|-----------|
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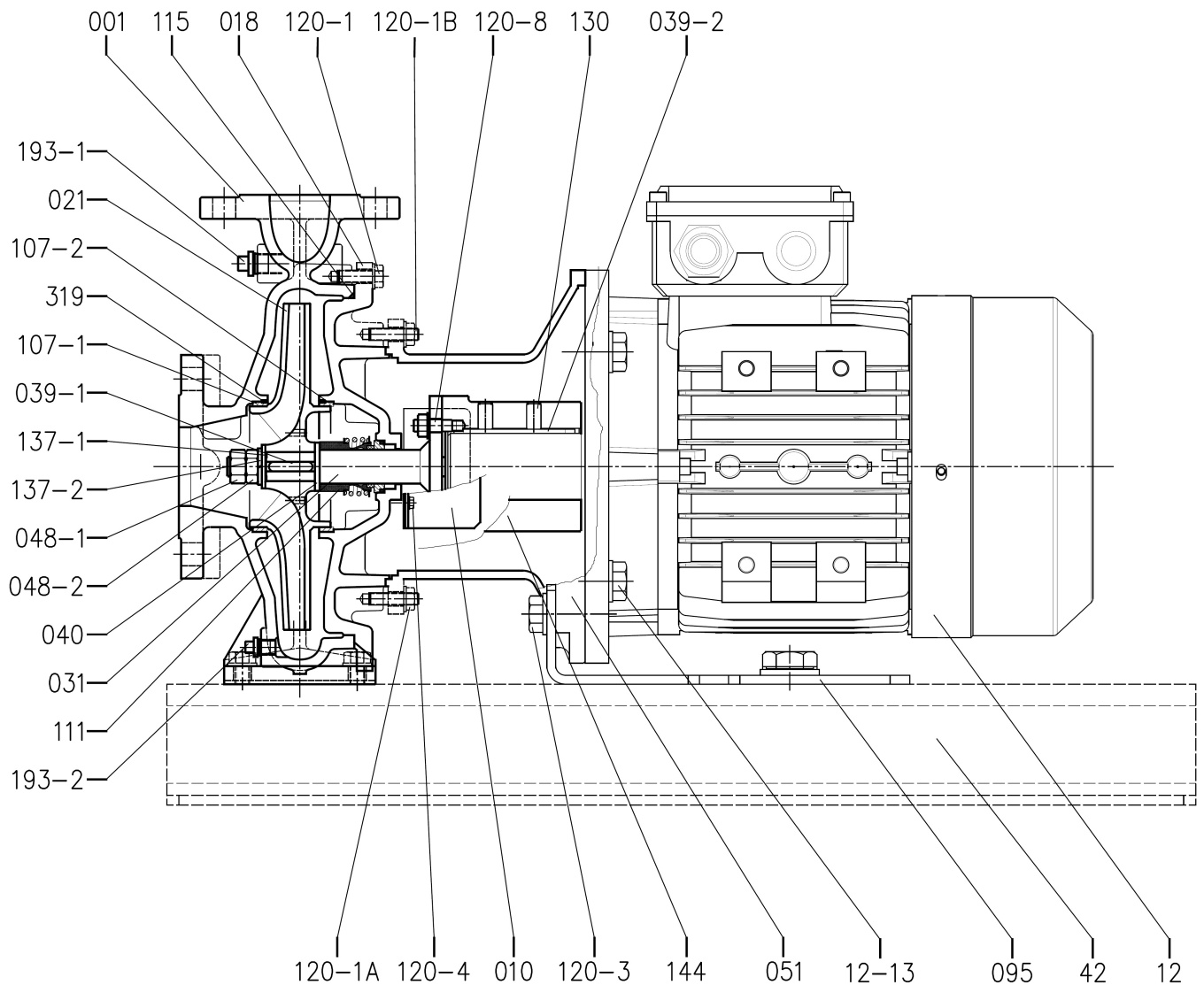
| Pump dimensions |       | mm        |     | Suction side |        | mm |        | Discharge side |  | mm |  |
|-----------------|-------|-----------|-----|--------------|--------|----|--------|----------------|--|----|--|
| a               | 125   | s1        | 15  | A            | 185    | A  | 165    |                |  |    |  |
| b               | 65    | T         | 748 | d            | 19     | d  | 19     |                |  |    |  |
| DN1             | 65    | Weight kg | 131 | D1           | 145    | D1 | 125    |                |  |    |  |
| DN2             | 50    |           |     | D2           | 118    | D2 | 99     |                |  |    |  |
| h2              | 280   |           |     | DN           | 65     | DN | 50     |                |  |    |  |
| H3              | 505   |           |     | N            | 4(Num) | N  | 4(Num) |                |  |    |  |
| H4              | 505   |           |     | T            | 20     | T  | 20     |                |  |    |  |
| Ha              | 225   |           |     |              |        |    |        |                |  |    |  |
| IM              | 433   |           |     |              |        |    |        |                |  |    |  |
| m1              | 125   |           |     |              |        |    |        |                |  |    |  |
| m2              | 95    |           |     |              |        |    |        |                |  |    |  |
| n1              | 345   |           |     |              |        |    |        |                |  |    |  |
| n2              | 280   |           |     |              |        |    |        |                |  |    |  |
| P3              | 350   |           |     |              |        |    |        |                |  |    |  |
| P4              | 458.5 |           |     |              |        |    |        |                |  |    |  |

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# Construction

Pump name GSD4 50-315/B1/A 7.5

|          |  |           |
|----------|--|-----------|
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| E-mail   | Project ID Proiect redenumit 2024-06-16 12:31:28.; | E-mail    |



(2/2)

# Construction

Pump name GSD4 50-315/B1/A 7.5

|          |  |           |
|----------|--|-----------|
| Customer | Date 2024-06-16                                    | Company   |
| Contact  | Item no.   | Issued by |
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| E-mail   | Project ID Project redenumit 2024-06-16 12:31:28.: | E-mail    |

## SECTIONAL VIEW TABLE

| No.    | Part name                             | Materials                                     | ISO or EN equivalent  | Q.ty |
|--------|---------------------------------------|---|-----------------------|------|
| 001    | Casing                                | Cast iron                                     | EN-GJL-250(EN-JL1040) | 1    |
| 010    | Protector                             | Carbon steel                                  | DC01(1.0330)          | 1    |
| 014    | Inspection cover [1]                  | Cast iron                                     | EN-GJL-250(EN-JL1040) | 1    |
| 018    | Casing cover                          | Cast iron                                     | EN-GJL-250(EN-JL1040) | 1    |
| 021    | Impeller                              | Cast iron                                     | EN-GJL-200(EN-JL1030) | 1    |
|        |                                       | Ductile cast iron [2]                         | EN-GJS-400-15(5.3106) |      |
|        |                                       | Bronze [3]                                    | CuSn5Zn5Pb5(CC491K)   |      |
| 031    | Shaft                                 | Martensitic stainless steel / Carbon steel    | X30Cr13(1.4028) / C35 | 1    |
| 039-1  | Key                                   | Martensitic stainless steel                   | X30Cr13(1.4028)       | 1    |
| 039-2  | Key                                   | Carbon steel                                  | C50(1.0540)           | 1    |
| 040    | Mechanical seal sleeve                | Austenitic stainless steel                    | X5CrNi18-10(1.4301)   | 1    |
| 048-1  | Impeller nut (A)                      | Austenitic stainless steel                    | X5CrNi18-10(1.4301)   | 1    |
| 048-2  | Impeller nut (B)                      | Austenitic stainless steel                    | X5CrNi18-10(1.4301)   | 1    |
| 051    | Bracket                               | Cast iron                                     | EN-GJL-250(EN-JL1040) | 1    |
| 095    | Stay [4]                              | Carbon steel                                  | DC01(1.0327)          | 1    |
| 107-1  | Casing Ring                           | Copper alloy                                  | CuSn5Zn5Pb5(CC491K)   | 1    |
| 107-2  | Casing Ring                           | Copper alloy                                  | CuSn5Zn5Pb5(CC491K)   | 1    |
| 111    | Mechanical Seal                       | Sic/Carbon/EPDM                               | ---                   | 1    |
|        |                                       | Sic/Carbon/FPM                                | ---                   |      |
| 115    | O-Ring                                | EPDM  | ---                   | 1    |
|        |                                       | FPM   | ---                   |      |
| 117-2  | Gasket [1]                            | PTFE fiber                                    | ---                   | 1    |
| 120-1  | Screw with plan washer                | Steel+Trivalent chromate                      | S275JR (1.0044)       | [5]  |
| 120-1A | Stud Bolt with plan washer            | Steel+Trivalent chromate                      | S275JR (1.0044)       | [7]  |
| 120-1B | Stud Bolt with plan washer            | Steel+Trivalent chromate                      | S275JR (1.0044)       | 2    |
| 120-2  | Screw with plan washer                | Steel+Trivalent chromate                      | S275JR (1.0044)       | 6    |
| 120-3  | Screw with plan washer                | Steel+Trivalent chromate                      | S275JR (1.0044)       | 2    |
| 120-4  | Screw with plan washer                | Steel+Trivalent chromate                      | S275JR (1.0044)       | 4    |
| 120-6  | Screw with plan washer                | Steel+Trivalent chromate                      | S275JR (1.0044)       | 6    |
| 120-8  | Stud Bolt (with spring & plan washer) | Steel+Trivalent chromate                      | AISI4135/C45/SS       | 4    |
| 130    | Set screw                             | Carbon Steel 45H                              | ---                   | 2    |
| 144    | Hub                                   | Carbon Steel                                  | C35                   | 1    |
| 137-1  | Plan Washer                           | 304 Stainless steel                           | X5CrNi18-10(1.4301)   | 1    |
| 137-2  | Spring Lock Washer                    | 304 Stainless steel                           | X5CrNi18-10(1.4301)   | 1    |
| 193-1  | Air vent Plug                         | Steel+Trivalent chromate                      | S275JR (1.0044)       | 1    |
| 193-2  | Drain Plug                            | Steel+Trivalent chromate                      | S275JR (1.0044)       | 1    |
| 193-3  | Air vent Plug [1]                     | Steel+Trivalent chromate                      | S275JR (1.0044)       | 1    |
| 319    | Pin                                   | Stainless steel                               | ---                   | 2    |
| 12     | Motor                                 | ---   | ---                   | 1    |
| 12-13  | Bolt with plan washer or Screw [11]   | Galvanized Steel 8.8 strength class ISO 898/1 | ---                   | 4    |
| 42     | Base [8]                              | Galvanized steel                              | S235                  | 1    |
| 50-01  | Motor spacer                          | Galvanized steel                              | S235                  | [9]  |
| 50-02  | Pump spacer                           | Galvanized steel                              | S235                  | [10] |

[1] Only for pump size 150-400  
 [2] Only for pump size 100-400; 125-400; 150-400  
 [3] For for models with Bronze impeller  
 [4] Only for pump with motor up to 7,5kW  
 [5] no.8 pcs for pump size 32-200.1 80-200 100-200 125-200 150-200 ; no.10 pcs for pump size 32-250 40-250 50-250 65-250 80-250 100-250 125-250 ; no.12 pcs for pump size 40-315 50-315 65-315 80-315 100-315 ; no.16 pcs for size 80-100 100-400 125-400 150-400  
 [6] Only for pump size 32-125.1 and 32-160.1  
 [7] Only for pump size 32-125.1 no.4 pcs ; size 32-160.1 no.6 pcs  
 [8] Only for pump with base version  
 [9] no.0-1-2 pcs Depend of the model see drawings  
 [10] no.0-1-2 pcs Depend of the model see drawings  
 [11] Screw for model GSD2 32-125.1/1.5, GSD2 32-125.1/2.2, GSD2 32-160.1/2.2, GSD4 32-250/1.1, GSD4 32-250/1.5, GSD4 80-160/1.5

# Shaft seal

Pump name GSD4 50-315/B1/A 7.5

|          |  |           |
|----------|--|-----------|
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| Contact  | Item no.   | Issued by |
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| Dimensions | Value / mm |
|------------|------------|
| d1         | 38         |
| d6         | 49         |
| d7         | 56         |
| da         | 59         |
| L1N        | 55         |
| L2         | 46         |



| Liquid temperature | Liquid   | Rotating part        | Fixed part                            | Elastomers                           | Spring       |
|--------------------|--|----------------------|---------------------------------------|--------------------------------------|--------------|
| -10 to 120 °C      | Clean water, hot water, water with glicole (30%) | Silicon carbide (Q1) | Carbon graphite resin impregnated (B) | Ethylene propylene rubber - EPDM (E) | AISI 316 (G) |