

|          |                      |           |
|----------|----------------------|-----------|
| Customer | Date 20-October-2016 | Company   |
| Contact  | Item no.             | Issued by |
| Phone    | Project              | Phone     |
| E-mail   | Project ID           | E-mail    |

#### Requested data

|   |                              |                            |                                   |              |
|---|------------------------------|----------------------------|-----------------------------------|--------------|
| 1 | Pump type                    | HORIZONTAL MULTISTAGE PUMP | Fluid                             | Water, clean |
| 2 | Number of pumps / Reserve    | 1 / 0                      | Liquid temperature °F             | 68           |
| 3 | Flow US g.p.m.               | 0                          | Kin. viscosity ft <sup>2</sup> /s | 1.08E-5      |
| 4 | Head ft                      | 0                          | Vapour pressure psi               | 0.319        |
| 5 | Static head ft               | 0                          | PH value                          | 7            |
| 6 | Inlet pressure psi           | 1                          | Density lb/ft <sup>3</sup>        | 62           |
| 7 | Available system NPSH        | 0                          | Solids Weight %                   | 0            |
| 8 | Environmental temperature °F | 68                         | Altitude ft                       | 3281         |

#### Pump

|    |                           |                                |                                      |          |
|----|---------------------------|--------------------------------|--------------------------------------|----------|
| 9  | Pump name                 | MATRIX 10-4T6/3                | Frequency Hz                         | 60       |
| 10 | Design                    | HORIZONTAL MULTISTAGE PUMP     | Installation type                    | STANDARD |
| 11 | Manufacturer              | EPE                            | Impeller Max. inch                   | 4        |
| 12 | Speed rpm                 | 3500                           | Diameter Designed inch               | 4        |
| 13 | No. of Stage              | 4                              | Min. inch                            | 4        |
| 14 | Connection Suction side   |                                | Flow Operating US g.p.m.             |          |
| 15 | Connection Discharge side |                                | Max- US g.p.m.                       | 74       |
| 16 | Max Working Pressure psi  |                                | Min- US g.p.m.                       | 21.1     |
| 17 | Shut-off head psi         | 97.87                          | Head Operating ft                    |          |
| 18 | Total weight lb           | See the table of "Dimensions". | - (Qmax.) ft                         | 79.6     |
| 19 | Shaft power hp            |                                | - (Qmin.) ft                         | 208.0    |
| 20 |                           |                                | Max. Shaft Power at max. impeller hp | 3.51     |
| 21 | Required NPSH ft          |                                | Efficiency %                         |          |

#### Materials

|    |  |  |  |  |
|----|--|--|--|--|
| 22 |  |  |  |  |
| 23 |  |  |  |  |
| 24 |  |  |  |  |
| 25 |  |  |  |  |
| 26 |  |  |  |  |
| 27 |  |  |  |  |

#### Motor

|    |                      |                                      |                    |     |
|----|----------------------|--------------------------------------|--------------------|-----|
| 28 | Manufacturer         | EPE Standard                         | Insulation class   | F   |
| 29 | Type                 | TEFC_MATRIX 10-4T6/3_460_Three Phase | Phases             | 3~  |
| 30 | Specific design      | - / 60 Hz / Pole pairs 1             | Frame size         |     |
| 31 | Rated power hp       | 4.0231                               | Weight lb          | 0   |
| 32 | Number of poles      | 2                                    | Electric voltage V | 460 |
| 33 | Speed rpm            | 3500                                 | Electric current A | 5.6 |
| 34 | Degree of protection | IP 55                                |                    |     |
| 35 |                      |                                      |                    |     |

#### Remarks

# Performance curve

Pump name **MATRIX 10-4T6/3**

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## Requested data

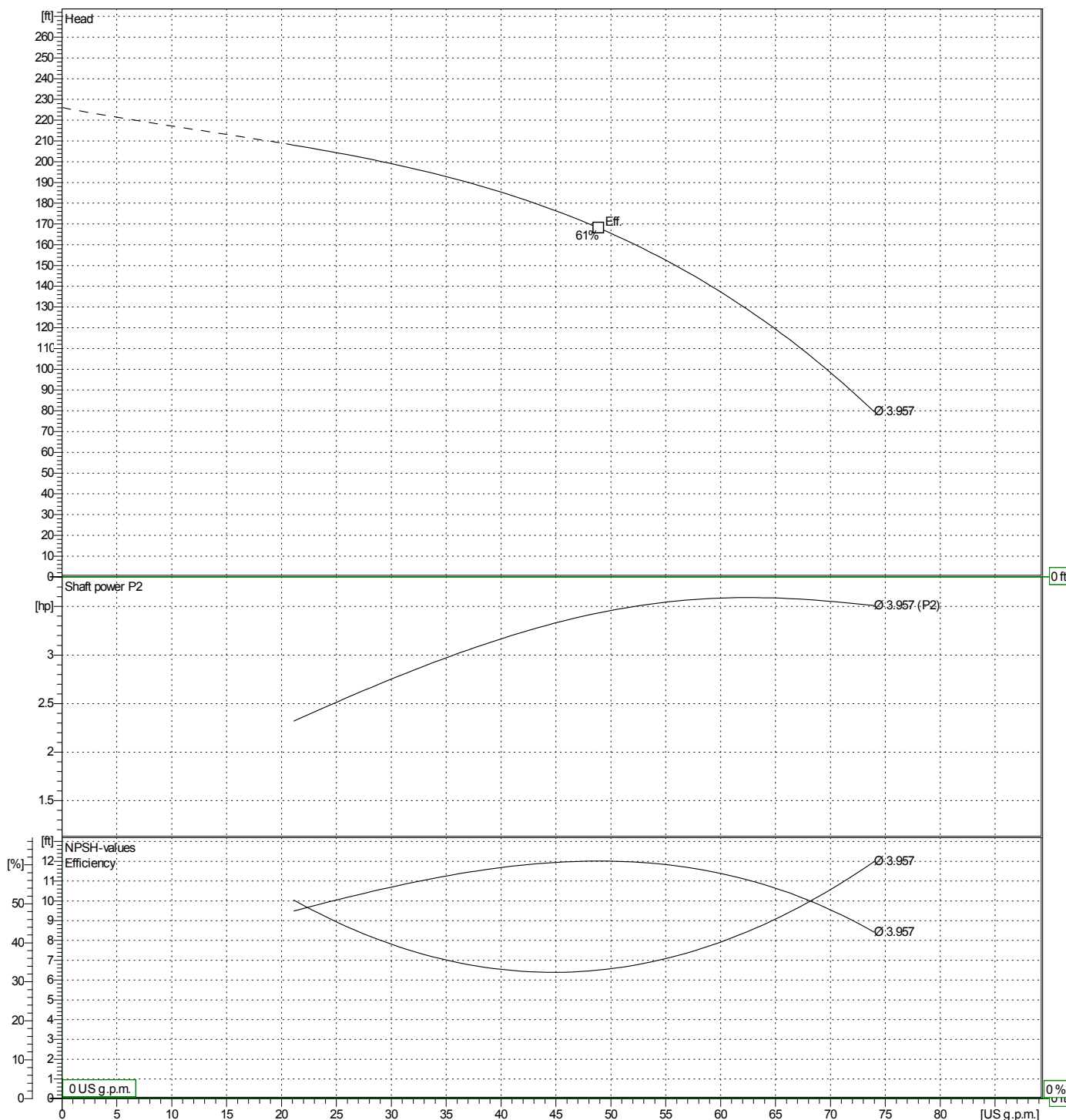
|   |             |           |   |
|---|-------------|-----------|---|
| 1 | Flow        | US g.p.m. | 0 |
| 2 | Head        | ft        | 0 |
| 3 | Static head | ft        | 0 |

## Pump

|                |           |                   |              |    |
|----------------|-----------|-------------------|--------------|----|
| Operating Flow | US g.p.m. | Impeller Diameter | Designedinch | 4  |
| Operating Head | ft        | Frequency         | Hz           | 60 |
|                |           | Speed             | rpm          |    |

Test standard: ISO 9906:2012 - Grade3B

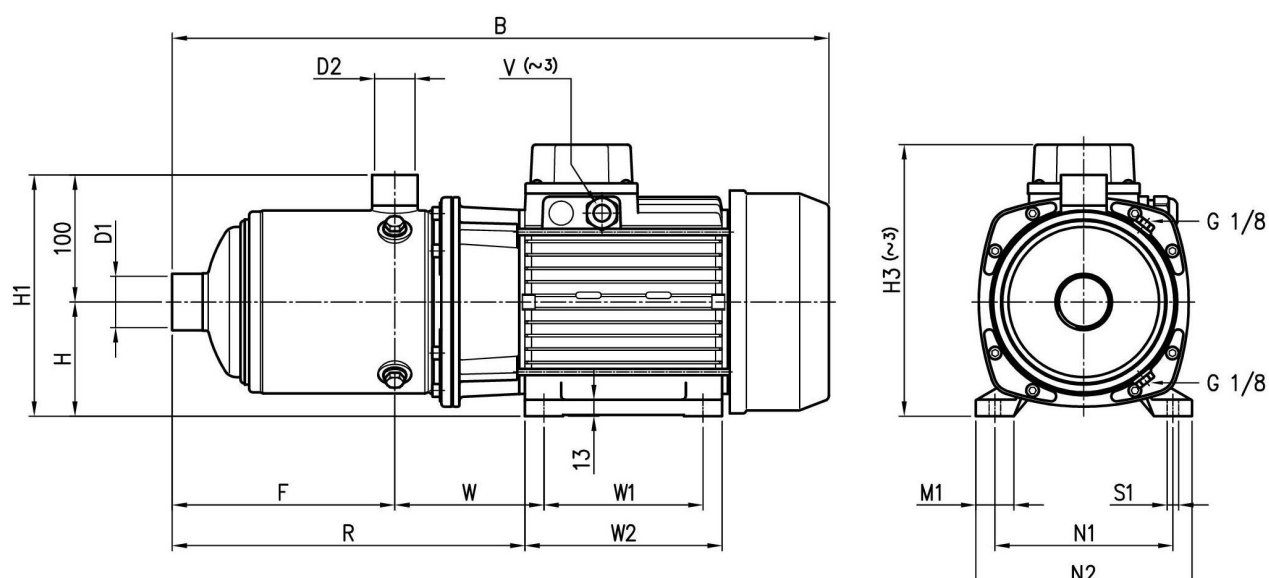
Water, clean [100%] ; 68°F; 62.321690545307lb/ft³; 1.0764E-5ft²/s



# Dimensions

Pump name **MATRIX 10-4T6/3**

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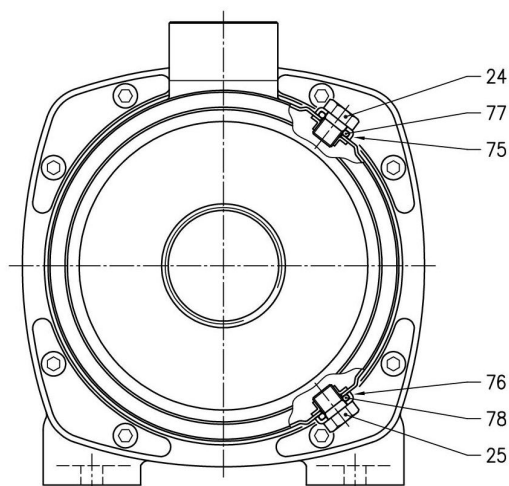
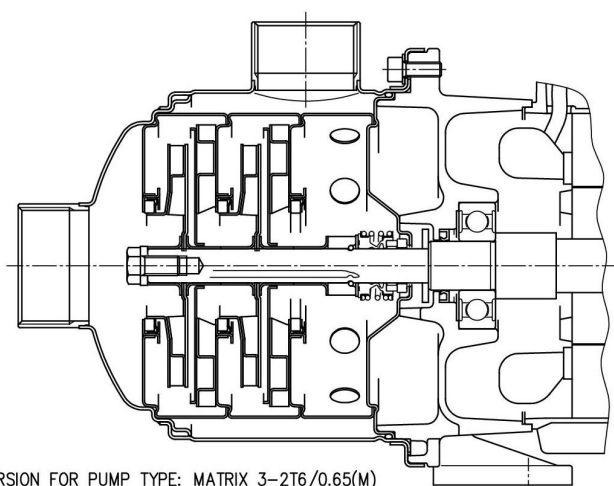
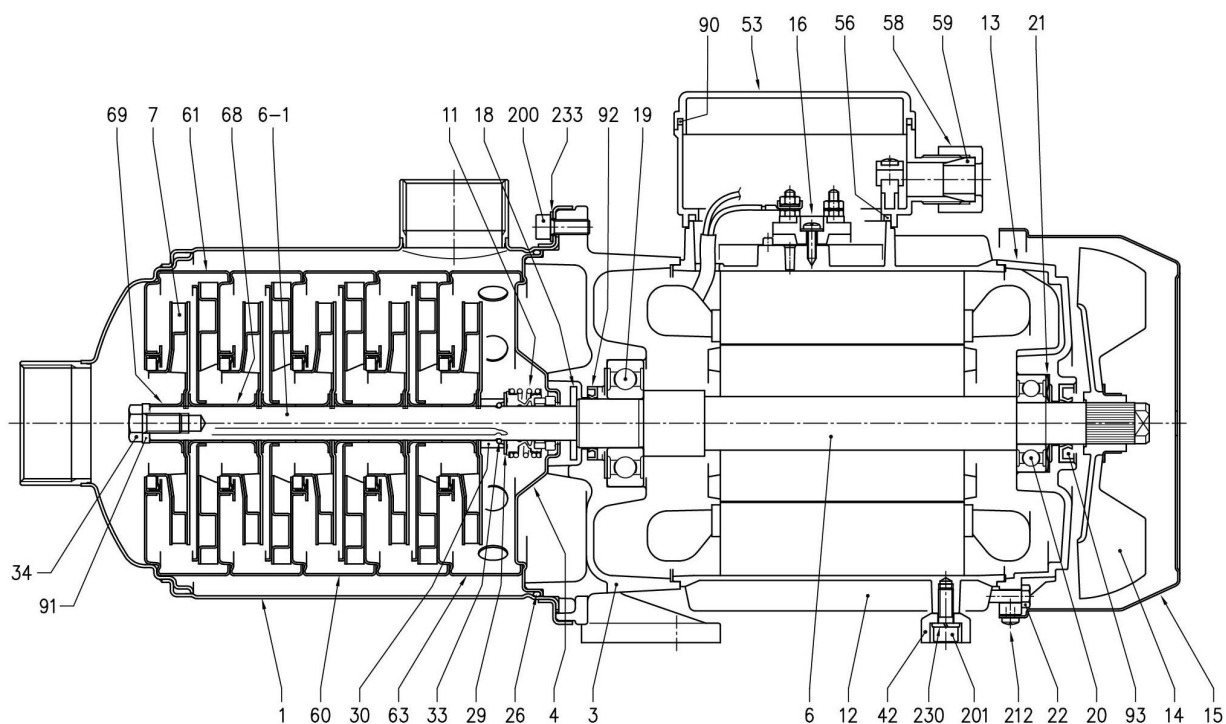


| Dimensions in      inch |    |         |           |        |  |
|-------------------------|----|---------|-----------|--------|--|
| 1                       | B  | 20.906  | W         | 4.7835 |  |
| 2                       | D1 | 1 1/2"  | W1        | 4.9213 |  |
| 3                       | D2 | 1 1/4"  | W2        | 6.1024 |  |
| 4                       | F  | 5.8268  | Weight kg | 22.7kg |  |
| 5                       | H  | 3.5433  |           |        |  |
| 6                       | H1 | 7.4803  |           |        |  |
| 7                       | H3 | 8.4252  |           |        |  |
| 8                       | M1 | 1.1811  |           |        |  |
| 9                       | N1 | 5.5118  |           |        |  |
| 10                      | N2 | 6.6929  |           |        |  |
| 11                      | R  | 10.02   |           |        |  |
| 12                      | S1 | 0.35433 |           |        |  |
| 13                      | V  | PG13.5  |           |        |  |

# (1/3) Construction

Pump name MATRIX 10-4T6/3

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VERSION FOR PUMP TYPE: MATRIX 3-2T6/0.65(M)  
MATRIX 5-2T6/0.9(M)  
MATRIX 10-2T6/1.5(M)

# (2/3) Construction

Pump name **MATRIX 10-4T6/3**

|          |                      |           |
|----------|----------------------|-----------|
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| N°   | PART NAME                        | MATERIAL                                     | DMENSION                      | STANDARD | Q.TY        |
|------|----------------------------------|----------------------------------------------|-------------------------------|----------|-------------|
| 1    | Casing                           | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 3    | Bracket                          | EN AB-A S11Cu2 (Fe)                          |                               |          | 1           |
| 4    | Casing cover                     | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 6    | Shaft with rotor                 | -                                            |                               |          | 1           |
| 6-1  | Pump Shaft                       | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 7    | Impeller                         | EN 1.4301 (AISI304)                          |                               |          | [1]         |
| 11   | Standard mechanical seal         | Ceramic/Carbon/EPDM                          |                               |          | 1           |
|      | High temperature mechanical seal | Ceramic/Carbon/EPDM                          |                               |          |             |
| 12   | Motor frame with stator          | -                                            |                               |          | 1           |
| 13   | Motor cover                      | Aluminium                                    |                               |          | 1           |
| 14   | Fan                              | PA6                                          |                               |          | 1           |
| 15   | Fan cover                        | Fe P04 Zinc-coated                           |                               |          | 1           |
| 16   | Terminal board                   | -                                            |                               |          | 1           |
| 17   | Terminal box cover [2]           | Aluminium                                    |                               |          | 1           |
| 18   | Splash ring                      | NBR                                          | 30x13.5x2.5                   |          | 1           |
| 19   | Bearing                          | -                                            |                               |          | 1           |
| 20   | Bearing                          | -                                            |                               |          | 1           |
| 21   | Adjusting ring                   | Steel C70                                    |                               |          | 1           |
| 22   | Tie rod                          | Fe 42 Zinc-coated                            |                               |          | 4           |
| 24   | Plug                             | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 25   | Plug                             | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 26   | O-ring                           | EPDM                                         | 133.02X2.62                   |          | 1           |
| 29   | Washer                           | EN 1.4301 (AISI304)                          | 25.1x14x1                     |          | 1           |
| 30   | Ring holder                      | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 30-1 | Shaft sleeve (adjustment)        | EN 1.4301 (AISI304)                          |                               |          | [1]         |
| 30-2 | Shaft sleeve (adjustment)        | EN 1.4301 (AISI304)                          |                               |          | [1]         |
| 33   | Ring                             | EN 1.4301 (AISI304)                          |                               |          | 2           |
| 34   | Screw                            | EN 1.4301 (AISI304)                          | M 8x16                        | UNI 5739 | 1           |
| 42   | Foot                             | Aluminium                                    |                               |          | [1]         |
| 50   | Motor spacer [3]                 | Aluminium                                    |                               |          | 1           |
| 52   | Capacitor box [4]                | ABS                                          |                               |          | 1           |
| 53   | Capacitor box cover [4] [5]      | ABS [5]                                      |                               |          | 1           |
| 56   | Box gasket                       | NBR                                          |                               |          | 1           |
| 58   | Ring nut                         | -                                            |                               |          | [1]         |
| 59   | Conic gasket [4]                 | NBR                                          |                               |          | 1           |
| 60   | Intermediate casing              | EN 1.4301 (AISI304)+PTFE                     |                               |          | [1]         |
| 61   | Intermediate casing (suction)    | EN 1.4301 (AISI304)+PTFE                     |                               |          | 1           |
| 63   | Intermediate casing (discharge)  | EN 1.4301 (AISI304)+PTFE                     |                               |          | 1           |
| 68   | Shaft sleeve (intermediate)      | EN 1.4301 (AISI304)                          |                               |          | [1]         |
| 69   | Impeller spacer                  | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 75   | Washer (plug)                    | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 76   | Washer (plug)                    | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 77   | O-ring                           | EPDM                                         | 9.19x2.62                     |          | 1           |
| 78   | O-ring                           | EPDM                                         | 9.19x2.62                     |          | 1           |
| 90   | Cover box gasket [4]             | NBR                                          | -                             |          | 1           |
| 91   | Shaft washer                     | EN 1.4301 (AISI304)                          |                               |          | 1           |
| 92   | Lip seal                         | 0.65-0.75-0.9 kW<br>1.3-1.5-2.2 kW<br>3-4 kW | 17x32x6<br>20x30x4<br>25x40x7 |          | 1<br>1<br>1 |
| 93   | Lip seal                         | 0.65-0.75-0.9 kW<br>1.3-1.5-2.2 kW<br>3-4 kW | 15x30x5<br>17x32x7<br>25x40x7 |          | 1<br>1<br>1 |
| 200  | Screw                            | EN 1.4301 (AISI304)                          | M 6x16                        | UNI 5931 | 8           |
| 201  | Screw                            | Steel 8.8 strength class ISO 898/1           | M 6x20                        | UNI 5931 | [1]         |
| 230  | Washer                           | Steel C70                                    | Ø 6.4                         | UNI 1751 | [1]         |
| 233  | Plate                            | EN 1.4301 (AISI304)                          |                               |          | 4           |

[1] See "CONSTRUCTION 3"

[2] Only for three-phase

[3] Only for 10-5T6/4 and 18-3T6/4

[4] Only for single-phase

[5] With gasket in NBR only for version single phase 3-2T6/0.65M, 3-3T6/0.9M, 5-2T6/0.9M

# (3/3) Construction

Pump name **MATRIX 10-4T6/3**

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| Customer | Date 20-October-2016 | Company   |
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| Pum p type              | 7 | 30-1 | 30-2 | 42 | 60 | 68 | 90 | 201 | 230 |
|-------------------------|---|------|------|----|----|----|----|-----|-----|
| M A T R I X 3-2T6/0,65M | 2 | -    | -    | 1  | 1  | 4  | 1  | 1   | 1   |
| M A T R I X 3-2T6/0,65  |   | -    | -    | 1  | 1  | 4  | -  | 1   | 1   |
| M A T R I X 3-3T6/0,9M  | 3 | -    | -    | 1  | 1  | 4  | 1  | 1   | 1   |
| M A T R I X 3-3T6/0,9   |   | -    | -    | 1  | 1  | 4  | -  | 1   | 1   |
| M A T R I X 3-4T6/1,3M  | 4 | -    | -    | 1  | 2  | 6  | 1  | 1   | 1   |
| M A T R I X 3-4T6/1,3   |   | -    | -    | 1  | 2  | 6  | -  | 1   | 1   |
| M A T R I X 3-5T6/1,5M  | 5 | -    | -    | 1  | 3  | 8  | 1  | 1   | 1   |
| M A T R I X 3-5T6/1,5   |   | -    | -    | 1  | 3  | 8  | -  | 1   | 1   |
| M A T R I X 3-6T6/2,2   | 6 | -    | -    | 1  | 4  | 10 | -  | 1   | 1   |
| M A T R I X 5-2T6/0,9M  | 2 | -    | -    | 1  | 1  | 4  | 1  | 1   | 1   |
| M A T R I X 5-2T6/0,9   |   | -    | -    | 1  | 1  | 4  | -  | 1   | 1   |
| M A T R I X 5-3T6/1,3M  | 3 | -    | -    | 1  | 1  | 4  | 1  | 1   | 1   |
| M A T R I X 5-3T6/1,3   |   | -    | -    | 1  | 1  | 4  | -  | 1   | 1   |
| M A T R I X 5-4T6/2,2   | 4 | -    | -    | 1  | 2  | 6  | -  | 1   | 1   |
| M A T R I X 5-5T6/2,2   | 5 | -    | -    | 1  | 3  | 8  | -  | 1   | 1   |
| M A T R I X 5-6T6/3     | 6 | -    | -    | -  | 4  | 10 | -  | -   | -   |
| M A T R I X 10-2T6/1,5M | 2 | -    | -    | 1  | 1  | 4  | 1  | 1   | 1   |
| M A T R I X 10-2T6/1,5  |   | -    | -    | 1  | 1  | 4  | -  | 1   | 1   |
| M A T R I X 10-3T6/2,2  | 3 | -    | -    | 1  | 1  | 4  | -  | 1   | 1   |
| M A T R I X 10-4T6/3    | 4 | -    | -    | -  | 2  | 6  | -  | -   | -   |
| M A T R I X 10-5T6/4    | 5 | -    | -    | -  | 3  | 8  | -  | -   | -   |
| M A T R I X 18-2T6/3    | 3 | 1    | 1    | -  | 1  | 2  | -  | -   | -   |
| M A T R I X 18-3T6/4    | 4 | -    | 1    | -  | 1  | 2  | -  | -   | -   |