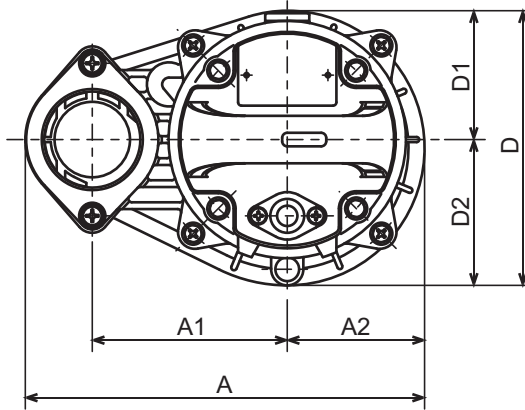


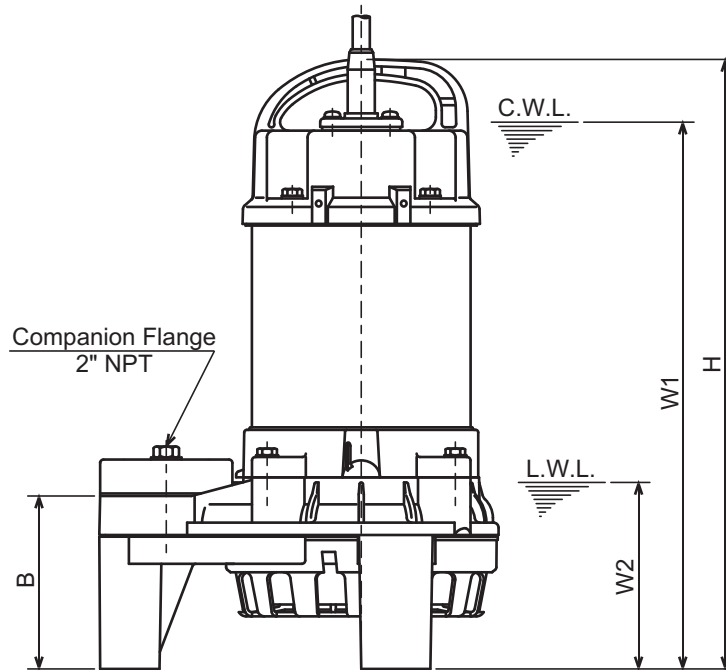


**VANCS-SERIES - PN**  
**(FRP) SEMI-VORTEX - WASTEWATER PUMPS**

**DIMENSIONS**



- 50PN2.25S-62
- 50PN2.25-62
- 50PN2.4S-62
- 50PN2.4-62
- 50PN2.75S-62
- 50PN2.75-62



C.W.L. :Continuous running Water Level  
 L.W.L. :Lowest running Water Level

**DIMENSIONS:USCS (Inch)**

| Model        | HP  | NOM. SIZE | Pump & Motor |       |        |   |       |    |       |          | C.W.L. W1 | L.W.L. W2 | Wt. (lbs.) |
|--------------|-----|-----------|--------------|-------|--------|---|-------|----|-------|----------|-----------|-----------|------------|
|              |     |           | A            | A1    | A2     | B | D     | D1 | D2    | H        |           |           |            |
| 50PN2.25S-62 | 1/3 | 2"        | 9 5/16       | 4 1/2 | 3 3/16 | 4 | 6 3/8 | 3  | 3 3/8 | 14 3/16  | 12 3/4    | 4 3/8     | 15.6       |
| 50PN2.25-62  | 1/3 | 2"        | 9 5/16       | 4 1/2 | 3 3/16 | 4 | 6 3/8 | 3  | 3 3/8 | 13 3/4   | 12 1/4    | 4 3/8     | 13.4       |
| 50PN2.4S-62  | 1/2 | 2"        | 9 5/16       | 4 1/2 | 3 3/16 | 4 | 6 3/8 | 3  | 3 3/8 | 14 3/16  | 12 3/4    | 4 3/8     | 15.6       |
| 50PN2.4-62   | 1/2 | 2"        | 9 5/16       | 4 1/2 | 3 3/16 | 4 | 6 3/8 | 3  | 3 3/8 | 14 3/16  | 12 3/4    | 4 3/8     | 15.4       |
| 50PN2.75S-62 | 1   | 2"        | 9 5/16       | 4 1/2 | 3 3/16 | 4 | 6 3/8 | 3  | 3 3/8 | 14 15/16 | 13 5/8    | 4 3/8     | 19.6       |
| 50PN2.75-62  | 1   | 2"        | 9 5/16       | 4 1/2 | 3 3/16 | 4 | 6 3/8 | 3  | 3 3/8 | 14 3/4   | 13 3/8    | 4 3/8     | 18.3       |

**DIMENSIONS:METRIC (mm)**

| Model        | kW   | NOM. SIZE | Pump & Motor |     |    |     |     |    |    |     | C.W.L. W1 | L.W.L. W2 | Wt. (kg) |
|--------------|------|-----------|--------------|-----|----|-----|-----|----|----|-----|-----------|-----------|----------|
|              |      |           | A            | A1  | A2 | B   | D   | D1 | D2 | H   |           |           |          |
| 50PN2.25S-62 | 0.25 | 50        | 236          | 115 | 81 | 102 | 162 | 76 | 86 | 360 | 325       | 110       | 7.1      |
| 50PN2.25-62  | 0.25 | 50        | 236          | 115 | 81 | 102 | 162 | 76 | 86 | 349 | 310       | 110       | 6.1      |
| 50PN2.4S-62  | 0.40 | 50        | 236          | 115 | 81 | 102 | 162 | 76 | 86 | 360 | 325       | 110       | 7.1      |
| 50PN2.4-62   | 0.40 | 50        | 236          | 115 | 81 | 102 | 162 | 76 | 86 | 360 | 325       | 110       | 7.0      |
| 50PN2.75S-62 | 0.75 | 50        | 236          | 115 | 81 | 102 | 162 | 76 | 86 | 380 | 345       | 110       | 8.9      |
| 50PN2.75-62  | 0.75 | 50        | 236          | 115 | 81 | 102 | 162 | 76 | 86 | 374 | 340       | 110       | 8.3      |

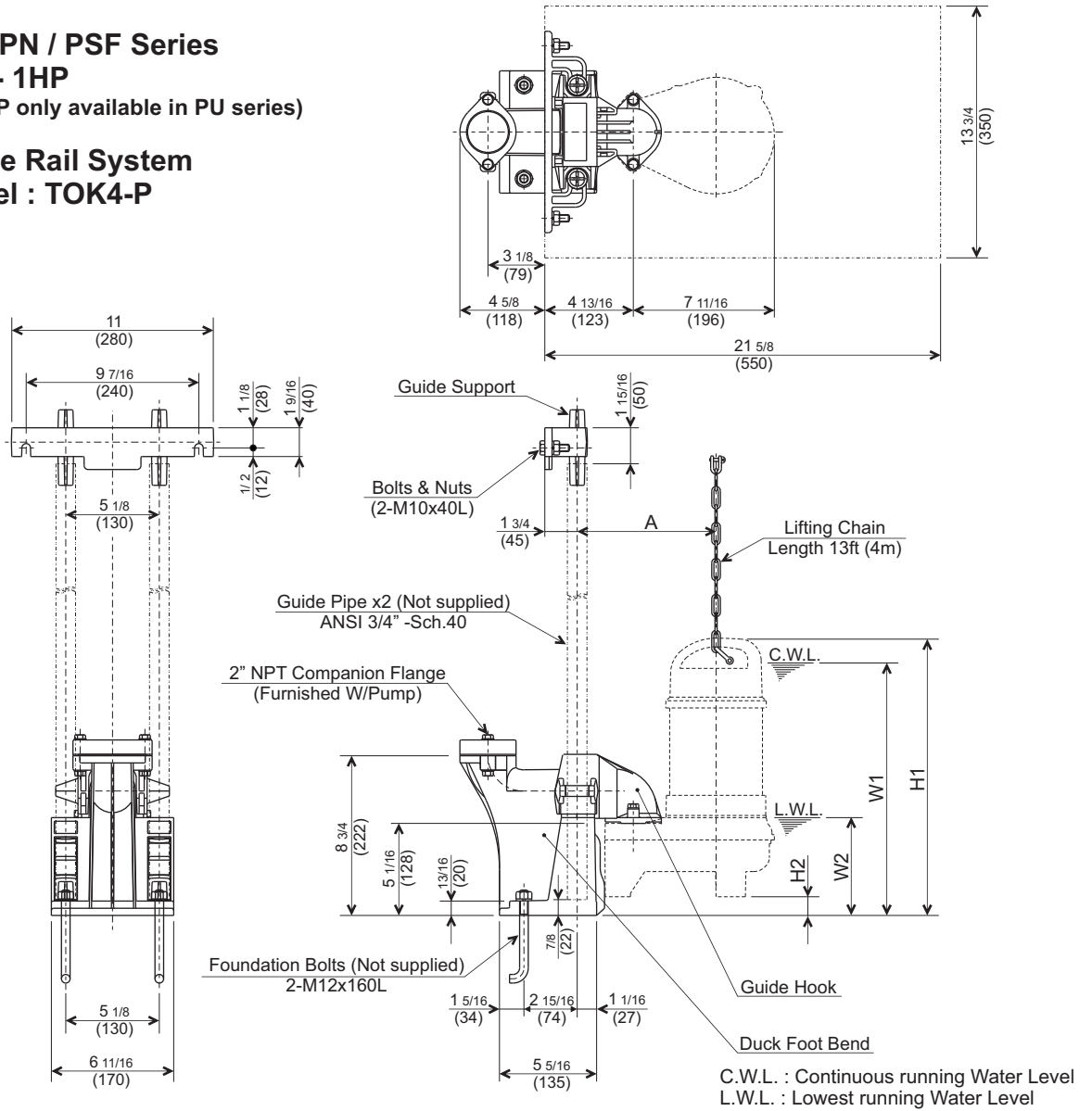


# VANCS-SERIES - PU / PN / PSF WITH TOK GUIDE RAIL SYSTEM

## DIMENSIONS

**PU / PN / PSF Series**  
**\*1/5 - 1HP**  
 (\*1/5HP only available in PU series)

**Guide Rail System**  
**Model : TOK4-P**



| PU SERIES       | Model      | OUTPUT HP (kW) | NOM. SIZE inch (mm) | Dimension inch (mm) |              |             |             |            | Wt. lbs. (kg) |
|-----------------|------------|----------------|---------------------|---------------------|--------------|-------------|-------------|------------|---------------|
|                 |            |                |                     | H1                  | H2           | C.W.L.      |             | A          |               |
|                 |            |                |                     |                     |              | W1          | W2          |            |               |
| TOK50PU2.15S-64 | 1/5 (0.15) | 2 (50)         | 16 1/8 (409)        | 1 1/4 (32)          | 14 5/8 (370) | 5 3/8 (135) | 7 3/8 (188) | 14.3 (6.5) |               |
| TOK50PU2.25S-63 | 1/3 (0.25) | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 16.5 (7.5) |               |
| TOK50PU2.25-63  | 1/3 (0.25) | 2 (50)         | 14 3/4 (375)        | 1 (26)              | 13 1/4 (335) | 5 3/8 (135) | 7 5/8 (193) | 14.3 (6.5) |               |
| TOK50PU2.4S-63  | 1/2 (0.4)  | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 16.5 (7.5) |               |
| TOK50PU2.4-63   | 1/2 (0.4)  | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 16.3 (7.4) |               |
| TOK50PU2.75S-63 | 1 (0.75)   | 2 (50)         | 16 (406)            | 1 (26)              | 14 5/8 (370) | 5 3/8 (135) | 7 5/8 (193) | 20.5 (9.3) |               |
| TOK50PU2.75-63  | 1 (0.75)   | 2 (50)         | 15 3/4 (400)        | 1 (26)              | 14 1/4 (360) | 5 3/8 (135) | 7 5/8 (193) | 19.2 (8.7) |               |

| PN SERIES       | Model      | OUTPUT HP (kW) | NOM. SIZE inch (mm) | Dimension inch (mm) |              |             |             |            | Wt. lbs. (kg) |
|-----------------|------------|----------------|---------------------|---------------------|--------------|-------------|-------------|------------|---------------|
|                 |            |                |                     | H1                  | H2           | C.W.L.      |             | A          |               |
|                 |            |                |                     |                     |              | W1          | W2          |            |               |
| TOK50PN2.25S-63 | 1/3 (0.25) | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 16.5 (7.5) |               |
| TOK50PN2.25-63  | 1/3 (0.25) | 2 (50)         | 14 3/4 (375)        | 1 (26)              | 13 1/4 (335) | 5 3/8 (135) | 7 5/8 (193) | 14.3 (6.5) |               |
| TOK50PN2.4S-63  | 1/2 (0.4)  | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 16.5 (7.5) |               |
| TOK50PN2.4-63   | 1/2 (0.4)  | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 16.3 (7.4) |               |
| TOK50PN2.75S-63 | 1 (0.75)   | 2 (50)         | 16 (406)            | 1 (26)              | 14 5/8 (370) | 5 3/8 (135) | 7 5/8 (193) | 20.5 (9.3) |               |
| TOK50PN2.75-63  | 1 (0.75)   | 2 (50)         | 15 3/4 (400)        | 1 (26)              | 14 1/4 (360) | 5 3/8 (135) | 7 5/8 (193) | 19.2 (8.7) |               |

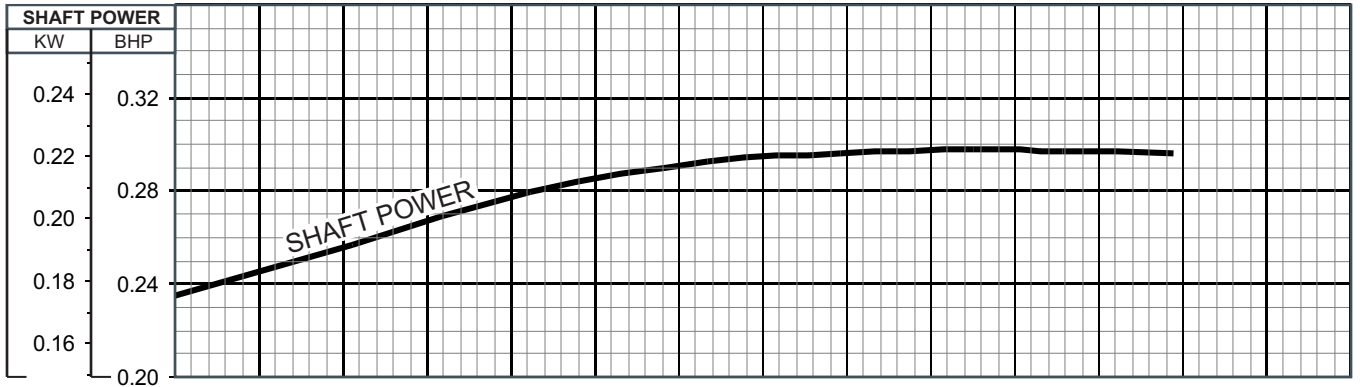
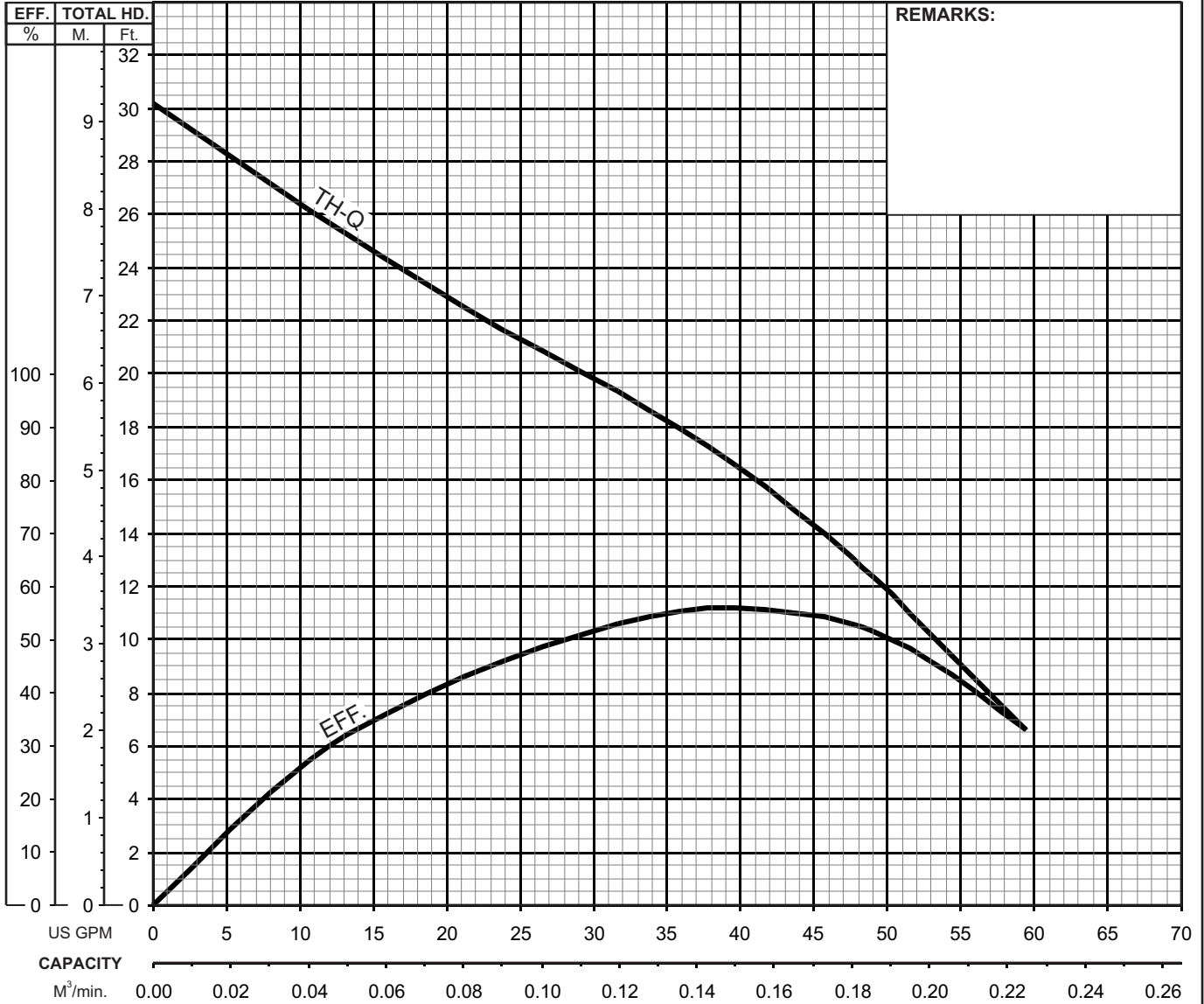
| PSF SERIES       | Model      | OUTPUT HP (kW) | NOM. SIZE inch (mm) | Dimension inch (mm) |              |             |             |            | Wt. lbs. (kg) |
|------------------|------------|----------------|---------------------|---------------------|--------------|-------------|-------------|------------|---------------|
|                  |            |                |                     | H1                  | H2           | C.W.L.      |             | A          |               |
|                  |            |                |                     |                     |              | W1          | W2          |            |               |
| TOK50PSF2.25S-63 | 1/3 (0.25) | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 17.0 (7.7) |               |
| TOK50PSF2.25-63  | 1/3 (0.25) | 2 (50)         | 14 3/4 (375)        | 1 (26)              | 13 1/4 (335) | 5 3/8 (135) | 7 5/8 (193) | 14.6 (6.6) |               |
| TOK50PSF2.4S-63  | 1/2 (0.4)  | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 17.0 (7.7) |               |
| TOK50PSF2.4-63   | 1/2 (0.4)  | 2 (50)         | 15 3/16 (386)       | 1 (26)              | 13 3/4 (350) | 5 3/8 (135) | 7 5/8 (193) | 16.5 (7.5) |               |
| TOK50PSF2.75S-63 | 1 (0.75)   | 2 (50)         | 16 (406)            | 1 (26)              | 14 5/8 (370) | 5 3/8 (135) | 7 5/8 (193) | 20.7 (9.4) |               |
| TOK50PSF2.75-63  | 1 (0.75)   | 2 (50)         | 15 3/4 (400)        | 1 (26)              | 14 1/4 (360) | 5 3/8 (135) | 7 5/8 (193) | 19.4 (8.8) |               |



# VANCS - SERIES - PN (FRP) SEMI-VORTEX - WASTEWATER PUMPS

## PERFORMANCE CURVE

| MODEL                         |      | BORE      | HP        | KW       | RPM        | SOLIDS DIA      | LIQUID     | SG.             | VISCOSITY  | TEMP.      |
|-------------------------------|------|-----------|-----------|----------|------------|-----------------|------------|-----------------|------------|------------|
| 50PN(A/W)2.25 -62             |      | 2" / 50mm | 0.34      | 0.25     | 3386       | 0.394" / 10mm   | Water      | 1.0             | 1.123 cSt. | 60°F       |
| PUMP TYPE                     |      | PHASE     | VOLTAGE   |          | AMPERAGE   |                 | HZ         | STARTING METHOD |            | INS. CLASS |
| Semi-Vortex - Wastewater Pump |      | 3         | 230 / 460 |          | 1.5 / 0.75 |                 | 60         | Direct On Line  |            | E          |
| CURVE No.                     | DATE | PHASE     | VOLTAGE   | AMPERAGE | HZ         | STARTING METHOD | INS. CLASS |                 |            |            |
| -                             | -    | -         | -         | -        | -          | -               | -          |                 |            |            |

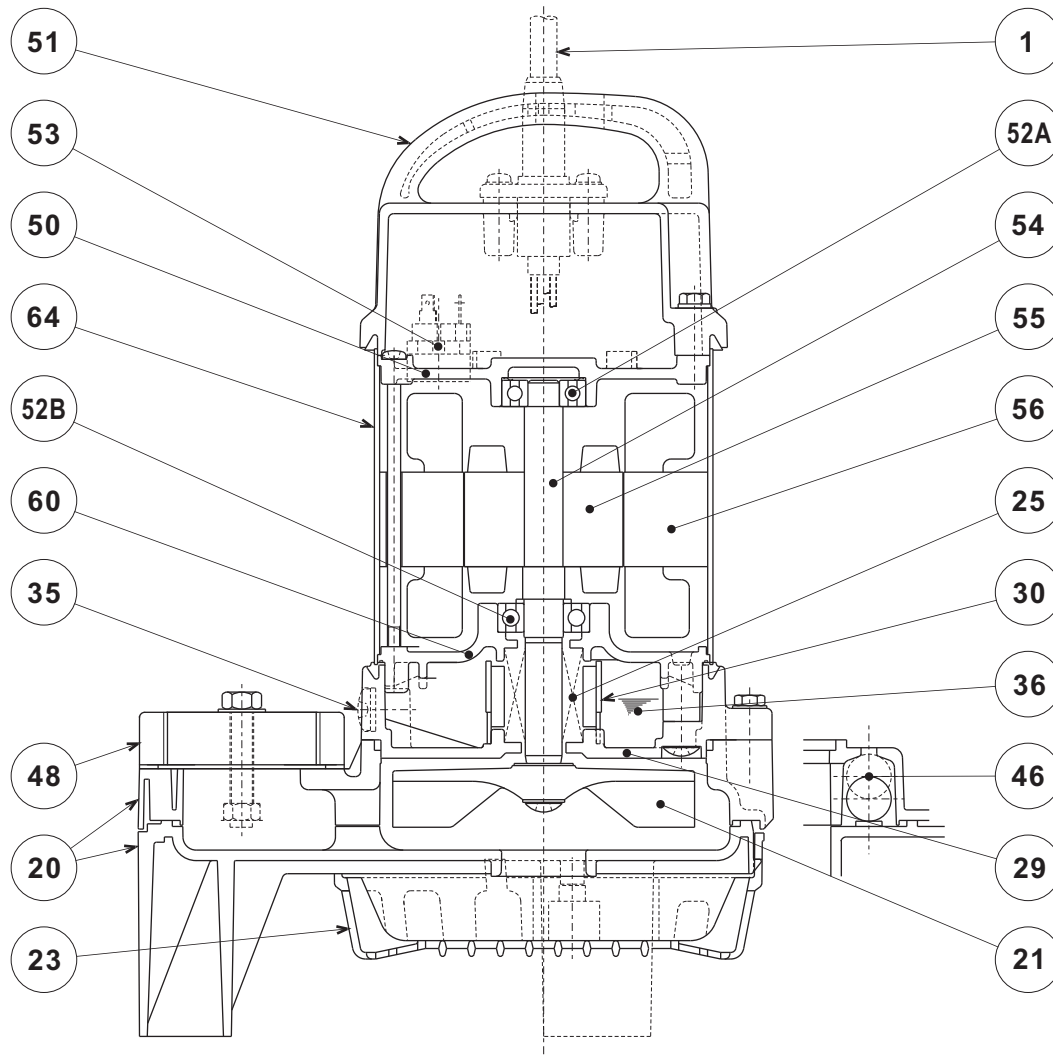




**VANCS - SERIES - PN**  
**(FRP) SEMI-VORTEX - WASTEWATER PUMPS**

**SECTIONAL VIEW**

**50PN2.25-62**  
**50PN2.4-62**



| PART# | DESCRIPTION      | MAIN MATERIAL / NOTE        | RELATED ASTM, AISI CODE | RELATED EN CODE  | QTY |
|-------|------------------|-----------------------------|-------------------------|------------------|-----|
| 1     | Power Cable      | PVC Sheath AWG16/4-32ft     |                         |                  | 1   |
| 20    | Pump Casing      | ABS Plastic w/GF20          |                         |                  | 1   |
| 21    | Impeller         | PPO Plastic w/GF20          |                         |                  | 1   |
| 23    | Suction Strainer | ABS Plastic                 |                         |                  | 1   |
| 25    | Mechanical Seal  | Silicon Carbide / W-14HL    |                         |                  | 1   |
| 29    | Oil Casing       | PPS Plastic w/GF40          |                         |                  | 1   |
| 30    | Oil Lifter       | PBT Plastic                 |                         |                  | 1   |
| 35    | Oil Plug         | Stainless Steel             | S 30400                 | 1.4301           | 1   |
| 36    | Lubricant        | White Mineral Oil ISO VG32  |                         |                  |     |
| 46    | Air Valve        | Glass Ball                  |                         |                  | 1   |
| 48    | Companion Flange | PBT Plastic w/GF30 / NPT 2" |                         |                  | 1   |
| 50    | Motor Bracket    | Aluminum Alloy Die Casting  | B85 383.0               | EN 1706 AC-46100 | 1   |
| 51    | Motor Head Cover | PPS Plastic w/GF40          |                         |                  | 1   |
| 52A   | Upper Bearing    | #6201ZZC3                   |                         |                  | 1   |
| 52B   | Lower Bearing    | #6202ZZC3                   |                         |                  | 1   |
| 53    | Motor Protector  |                             |                         |                  | 1   |
| 54    | Shaft            | Stainless Steel             | S 30400                 | 1.4301           | 1   |
| 55    | Rotor            |                             |                         |                  | 1   |
| 56    | Stator           |                             |                         |                  | 1   |
| 60    | Bearing Housing  | Aluminum Alloy Die Casting  | B85 383.0               | EN 1706 AC-46100 | 1   |
| 64    | Motor Housing    | Stainless Steel             | S 30400                 | 1.4301           | 1   |

| PARTS LIST |            | VANCS WASTEWATER PUMP                |      |                          | 2/15/2018 |       |
|------------|------------|--------------------------------------|------|--------------------------|-----------|-------|
| ITEM       | PART No.   | DESCRIPTION                          | QTY  | SIZE                     | MATERIAL  | NOTES |
| 1          | 001-803-20 | Cabtyre Cable Set (32') 60Hz (USA)   | 1    | VCT4Cx1.25mm2            | LBT       |       |
| 2          | 143-000-33 | Hex.Tapping Screw                    | 2    | M5x20                    | SUS304    |       |
| 3          | 003-190-10 | Gland                                | 1    |                          | SUS316    |       |
| 4          | 143-085-34 | Pan Screw (w/Spring Washer)          | 1    | M4x6                     | C3604     |       |
| 5          | 009-001-25 | Earth Terminal                       | 1Set | AWG16x170L               |           |       |
| 6          | 051-000-46 | Head Cover                           | 1    |                          | Resin     |       |
| 7          | 140-000-07 | Hex.Bolt (w/Plain Washer)            | 4    | M6x30(22L)               | SUS304    |       |
| 8          | 122-004-18 | O-Ring                               | 4    | P-6(5.8xd1.9)            | NBR       | *     |
| 9          | 143-000-06 | Pan Screw                            | 4    | M5x107(20L)              | SWRM      |       |
| 10         | 053-430-10 | Motor Protector 208/220V-60Hz(USA)   | 1    | KA311-DAVL65             | (T)       |       |
|            | 053-000-42 | Motor Protector 460V-60Hz(USA)       | 1    | KA311-DPTL76             | (T)       |       |
| 11         | 143-136-15 | Truss Screw                          | 2    | M4x10                    | SWRM      |       |
| 12         | 050-000-02 | Motor Bracket                        | 1    |                          | ADC       |       |
| 13         | 121-001-46 | Packing                              | 1    | d125.7xd134.7x6t         | NBR       | *     |
| 14         | 056-007-95 | Stator(w/M.Frame) 208/220V-60Hz(USA) | 1Set |                          |           |       |
|            | 056-007-99 | Stator(w/M.Frame) 460V-60Hz(USA)     | 1Set |                          |           |       |
| 15         | 071-000-01 | Collar                               | 1    | 37L                      | SECC      |       |
| 16         | 142-000-91 | Wave Washer                          | 1    | 6201(D=30.6,t=0.35)      | SK5       |       |
| 17         | 052-100-15 | Bearing                              | 1    | 6201ZZC3                 |           |       |
| 18         | 055-002-85 | Rotor                                | 1Set | w/Bearing                |           |       |
| 19         | 061-157-15 | Bearing Collar                       | 1    | d15.1xd21x1.6t           | SPCC      |       |
| 20         | 052-101-16 | Bearing                              | 1    | 6202ZZC3                 |           |       |
| 21         | 060-001-36 | Bearing Housing                      | 1    |                          | ADC       |       |
| 22         | 025-000-18 | Mechanical Seal                      | 1    | W-14HC                   | SSiC      |       |
| 23         | 030-000-01 | Oil Lifter                           | 1    | VANCS2                   | Resin     |       |
| 24         | 121-001-12 | Packing                              | 1    | VANCS2                   | NBR       | *     |
| 25         | 035-127-15 | Oil Plug                             | 1    | M10x15                   | SUS304    |       |
| 26         | 121-246-11 | Packing                              | 1    | d10.3xd16x2t             | PE        | *     |
| 27         | 140-000-03 | Hex.Bolt (w/Plain Washer)            | 4    | M6x25                    | SUS304    |       |
| 28         | 029-000-95 | Oil Casing                           | 1    | VANCS2                   | Resin     |       |
| 29         | 143-000-26 | Truss Screw (w/O-Ring)               | 4    | M6x20(P-5,NBR)           | SUS304    |       |
| 30         | 142-354-18 | Conical Spring Washer                | 1    | d11.2xd22.5x0.8t         | SUS304    |       |
| 31         | 021G2720   | Impeller (60Hz)                      | 1    | 40PN2.25-63              | Resin     |       |
| 32         | 143-140-12 | Truss Screw (w/Plain Washer)         | 1    | M6x12                    | SUS304    |       |
| 33         | 122-000-07 | O-Ring                               | 1    | 122xd3.0                 | NBR       | *     |
| 34         | 140-000-09 | Hex.Bolt (w/Spring Washer)           | 2    | M8x45                    | SUS304    |       |
| 35         | 048-274-18 | Screwed Flange                       | 1    | NPT-2(P.C.90)            | Resin     |       |
| 36         | 121-468-11 | Packing                              | 1    | P.C.90xd45x2t            | NR        | *     |
| 37         | 020-000-06 | Pump Casing                          | 1    | (40/50)PN/PSF2.25/.4/.75 | Resin     |       |

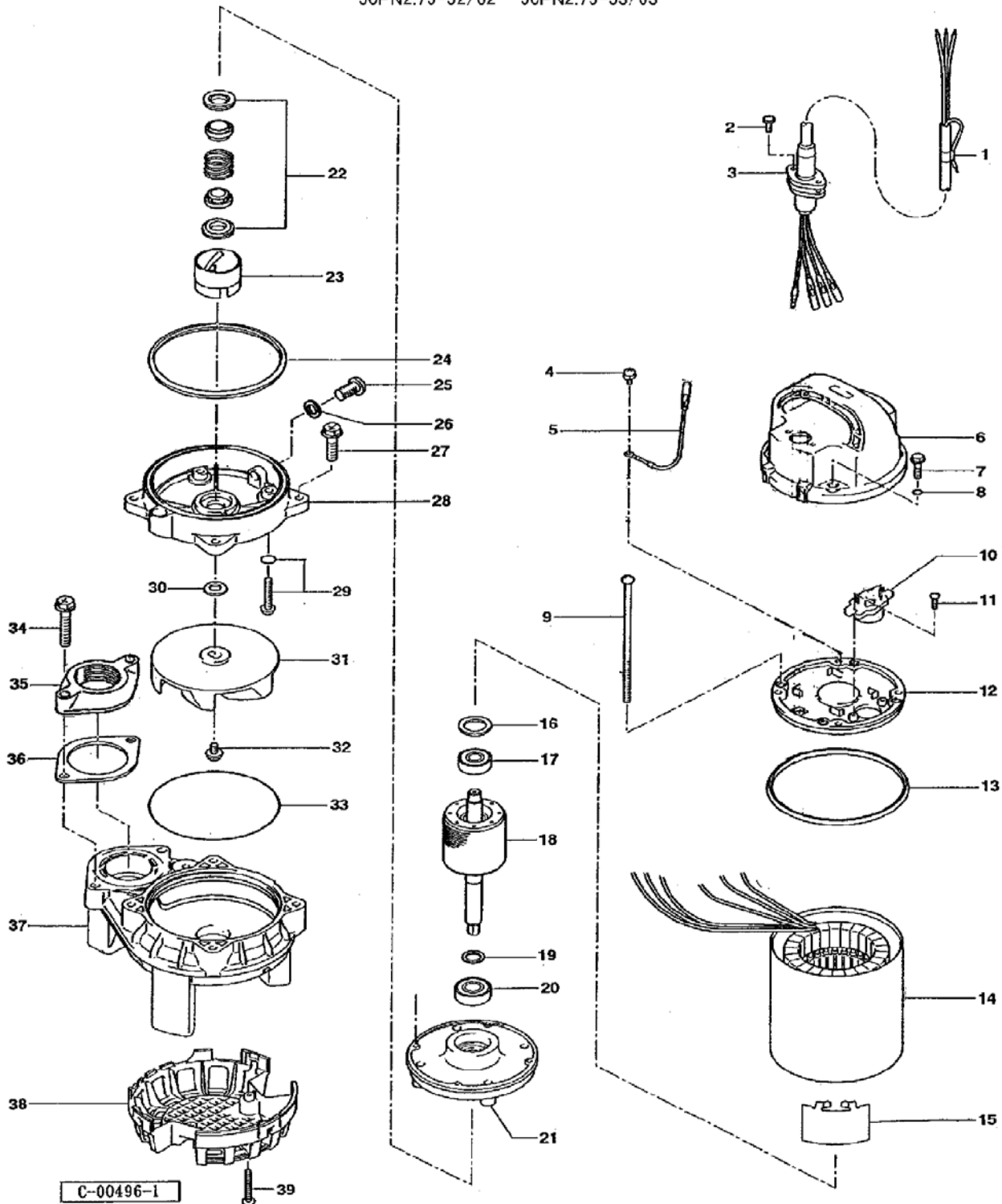
\* Indicates items included in set

| PARTS LIST |            | VANCS WASTEWATER PUMP           |      |                                |          | 2/15/2018 |
|------------|------------|---------------------------------|------|--------------------------------|----------|-----------|
| ITEM       | PART No.   | DESCRIPTION                     | QTY  | SIZE                           | MATERIAL | NOTES     |
| 38         | 023-000-01 | Strainer                        | 1    | (40/50)PN/TM/TQ2.<br>25/.4/.75 | Resin    |           |
| 39         | 143-000-10 | Truss Tapping Screw             | 2    | M4x18                          | SUS304   |           |
|            | 173-003-13 | <b>Packing O-Ring Set</b>       | 1Set | (Marked by *)                  |          |           |
| 8          | 122-004-18 | O-Ring (Head Cover Fixing Bolt) | 4    | P-6(5.8xd1.9)                  | NBR      | *         |
| 13         | 121-001-46 | Packing (Head Cover/M.Frame)    | 1    | d125.7xd134.7x6t               | NBR      | *         |
| 24         | 121-001-12 | Packing (M.Frame/O.Casing)      | 1    | VANCS2                         | NBR      | *         |
| 26         | 121-246-11 | Packing (Oil Plug)              | 1    | d10.3xd16x2t                   | PE       | *         |
| 29         | 122-003-17 | O-Ring (P.Casing Fixing Screw)  | 4    | P-5(4.8xd1.9)                  | NBR      | *         |
| 33         | 122-000-07 | O-Ring (O.Casing/P.Casing)      | 1    | 122xd3.0                       | NBR      | *         |
| 36         | 121-468-11 | Packing (Screwed Flange)        | 1    | P.C.90xd45x2t                  | NR       | *         |
|            |            | Lubricant                       |      | Liquid Paraffin<br>VG32 240ml  |          |           |

| PARTS LIST |          | VANCS WASTEWATER PUMP |     |      | 2/15/2018 |       |
|------------|----------|-----------------------|-----|------|-----------|-------|
| ITEM       | PART No. | DESCRIPTION           | QTY | SIZE | MATERIAL  | NOTES |

## EXPLODED VIEW

40PN2.25-52/62    40PN2.25-53/63  
 50PN2.4-52/62    50PN2.4-53/63  
 50PN2.75-52/62    50PN2.75-53/63



\* Indicates items included in set