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**316SS STAINLESS STEEL AISI
SUBMERSIBLE VORTEX SEWAGE
PUMP**

BT SERIES

60 HZ



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BT SERIES

**STAINLESS STEEL AISI 316
SUBMERSIBLE VORTEX SEWAGE PUMP
SERIES 60HZ**



2"(3") BT200~300



2" BT50~BT100



**Watertight Corrugated
Cable Sleeve (optional)
Acid/Alkali Resistant
Plastic Composite Material**

Features

- Vortex impeller design
- Loss wax Stainless Steel AISI 316
- Large impeller clearance
- Viton gaskets, o-rings and lip seal are used throughout pump sealing
- Optional epoxy based nano-coating to extend pump life time
- Optional acid/alkali resistant cable sleeve

Applications

- Drainage for typical, chemical, pharmaceutical industries
- Wastewater with corrosive contaminant
- Wastewater treatment plant

Data Chart

| Type | Output | | Discharge | F.L.A. | | | Rated | | Maximum | | Free Passage | Weight(W/O Cable) | | Q.D.C. |
|--------------|--------|------|-----------|---------|---------|---------|---------|----------|---------|----------|--------------|-------------------|-------|---------|
| | HP | kW | | 1ø 230V | 3ø 230V | 3ø 460V | Head FT | Cap. GPM | Head FT | Cap. LPM | | 1ø-kg | 3ø-kg | |
| 2" BT50 | 0.5 | 0.37 | 2" | 4A | 2.8A | 1.4A | 19.7 | 55 | 36 | 88 | 35 | 13 | 12.4 | SQS-50 |
| 2" BT100 | 1 | 0.75 | 2" | 6A | 4A | 2A | 29.5 | 60 | 46 | 118 | 35 | 15.4 | 15.7 | SQS-50 |
| 2"(3") BT200 | 2 | 1.5 | 2"(3") | 11A | 7A | 3.5A | 36 | 90 | 65.5 | 155.8 | 45 | 31.2 | 29.7 | SQM-80 |
| 2"(3") BT300 | 3 | 2.2 | 2"(3") | 11A | 8A | 4.5A | 39 | 110 | 75.5 | 177 | 45 | 32.8 | 31.3 | SQM-80 |
| 3"(4") BT500 | 5 | 3.7 | 3"(4") | - | 15A | 8A | 56 | 120 | 88.5 | 275 | 45 | - | 48 | SQM-100 |
| 3"(4") BT750 | 7.5 | 5.5 | 3"(4") | - | 21A | 10.5A | 64 | 145 | 105 | 290.5 | 45 | - | 53.8 | SQM-100 |

» 2" BT50~BT100 : NPT Type

» 2"(3") BT200~BT300 : Elbow Type

» 3"(4") BT500~BT750 : Elbow Type



**Vortex Impeller
Stainless Steel AISI 316**



**Mechanical Seal
(EKK Eagle Burgmann)**



Long life Bearing



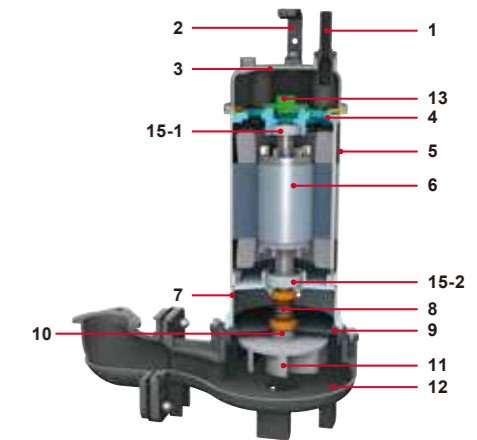
**Gaskets, O-rings, Lip seal
and Cable gland
made in Viton material**



**SQS(0.5HP~1HP)
AISI 316**



**SQM(2HP~7.5HP)
AISI 316**



Parts and Material List

| No. | Part | Material |
|------|------------------------|--|
| 1 | Cable | H07RN-F/SJTOW/STOW |
| 2 | Handle | Nylon 6(0.5-1HP) ; AISI 316 (2-7.5HP) |
| 3 | Motor Cover | AISI 316 |
| 4 | Bracket | ASTM A48 Class 30 |
| 5 | Motor Housing + Stator | AISI 316 |
| 6 | Shaft with Rotor | AISI 316 |
| 7 | Oil Chamber | ASTM A48 Class 30(0.5-1HP) ; AISI 316(2-7.5HP) |
| 8 | Mechanical Seal | Upper : CA / CE Lower : SIC / SIC |
| 9 | Seal Housing | AISI 316 |
| 10 | Lip Seal | Viton |
| 11 | Impeller | AISI 316 |
| 12 | Pump Casing | AISI 316 |
| 13 | Protector | KLIXON |
| 15-1 | Upper Bearing | NTN/TPI |
| 15-2 | Lower Bearing | NTN/TPI |

TPI is a family brand of NTN group.

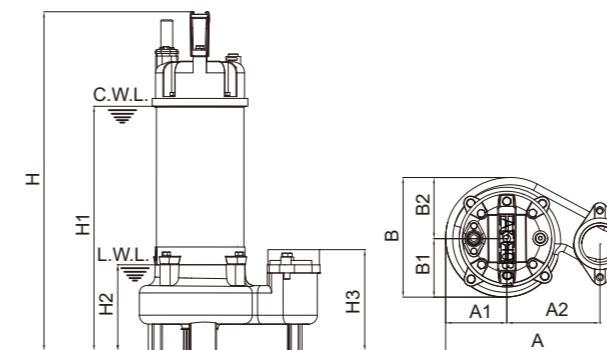
Dimensions (mm)

| Type | A | A1 | A2 | A3 | B | B1 | B2 | H | H1 | H2 | H3 |
|------------------|-----|-----|-----|-----|-----|-----|-----|----------|----------|-----|-----|
| 2" BT50 | 228 | 75 | 120 | N/A | 150 | 70 | 80 | 425 | 297 | 117 | 138 |
| 2" BT100 | 228 | 75 | 120 | N/A | 150 | 70 | 80 | 455 | 327 | 117 | 138 |
| 2"(3") BT200 | 390 | 103 | 235 | 154 | 208 | 104 | 104 | 532 | 400 | 150 | 152 |
| 2"(3") BT300S(T) | 390 | 103 | 235 | 154 | 208 | 104 | 104 | 572(552) | 440(420) | 150 | 152 |
| 3"(4") BT500 | 466 | 100 | 274 | 177 | 210 | 95 | 115 | 633 | 468 | 160 | 225 |
| 3"(4") BT750 | 466 | 100 | 274 | 177 | 210 | 95 | 115 | 673 | 508 | 160 | 225 |

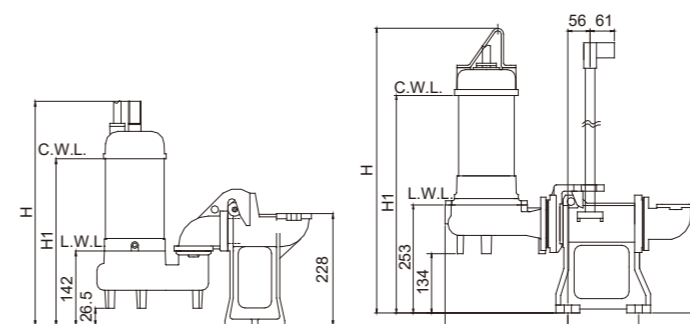
» Note 1 : S: Single Phase ; T: Three Phase

» Note2 : Automatic models are available in single-phase versions(0.5~3HP).

» Note3 : Q.D.C. (Quick Discharge Connection) is available for all models.



2" BT50~BT100



2" BT50~BT100 With SQS

2"(3") BT200~BT300 With SQM

BT Series with SQS/SQM

| Type | Output | | Discharge | | Dimensions(mm) | |
|--------------------|--------|------|-----------|---------|----------------|-------------|
| | HP | KW | Inch | mm | H | H1 |
| BT series with SQS | 0.5 | 0.37 | 2" | 50 | 445 | 322 |
| | 1 | 0.75 | 2" | 50 | 475 | 352 |
| | 2 | 1.5 | 2"(3") | 50(80) | 660 | 534 |
| BT Series with SQM | 3 | 2.2 | 2"(3") | 50(80) | S:710;T:690 | S:574;T:554 |
| | 5 | 3.7 | 3"(4") | 80(100) | 769 | 604 |
| | 7.5 | 5.5 | 3"(4") | 80(100) | 809 | 644 |

MOTOR / PUMP SPECIFICATIONS

| ITEM | | DESCRIPTION |
|----------------------|--------------|---|
| LIMITS | Liquid Temp | 0-40°C |
| | Application | Commercial / Industrial / Municipal use |
| TYPE | Frequency | 60Hz |
| | Motor | 2P (3450RPM) Dry Motor |
| | Insulation | Class B |
| | Start Method | Direct On Line |
| | Protection | IP 68 |
| | Protector | Auto-Cut |
| | Bearing | Ball Type |
| | Mech. Seal | Dual. Mechanical Seal |
| | Impeller | Vortex Impeller |
| | MATERIAL | Motor Cover |
| Motor Housing+Stator | | AISI 316 |
| Shaft with Rotor | | AISI 316 |
| Mech. Seal | | Upper: CA/CE; Lower: SIC/SIC |
| Pump Casing | | AISI 316 |
| Impeller | | AISI 316 |
| Cable | | H07RN-F / SJTOW / STOW |



MOTOR / PUMP DATA CHART

| MODEL | OUTPUT | | DISCHARGE INCHES | PHASE VOLTAGE | 1Ø | | | FREE PASSAGE INCHES | WEIGHT W/O CABLE LBS |
|---------|--------|------|---------------------|----------------------|------|-------|------|---------------------------|----------------------------|
| | HP | KW | | | 115V | 208V | 230V | | |
| BT50/1 | 0.5 | 0.37 | 2 | FULL LOAD AMPS | 8A | 4.4A | 4A | 1.4 | 29 |
| BT100/1 | 1 | 0.75 | 2 | | 12A | 6.6A | 6A | 1.4 | 35 |
| BT200/1 | 2 | 1.5 | 2 (3) | | - | 12.2A | 11A | 1.8 | 69 |
| BT300/1 | 3 | 2.2 | 2 (3) | | - | 12.2A | 11A | 1.8 | 72 |

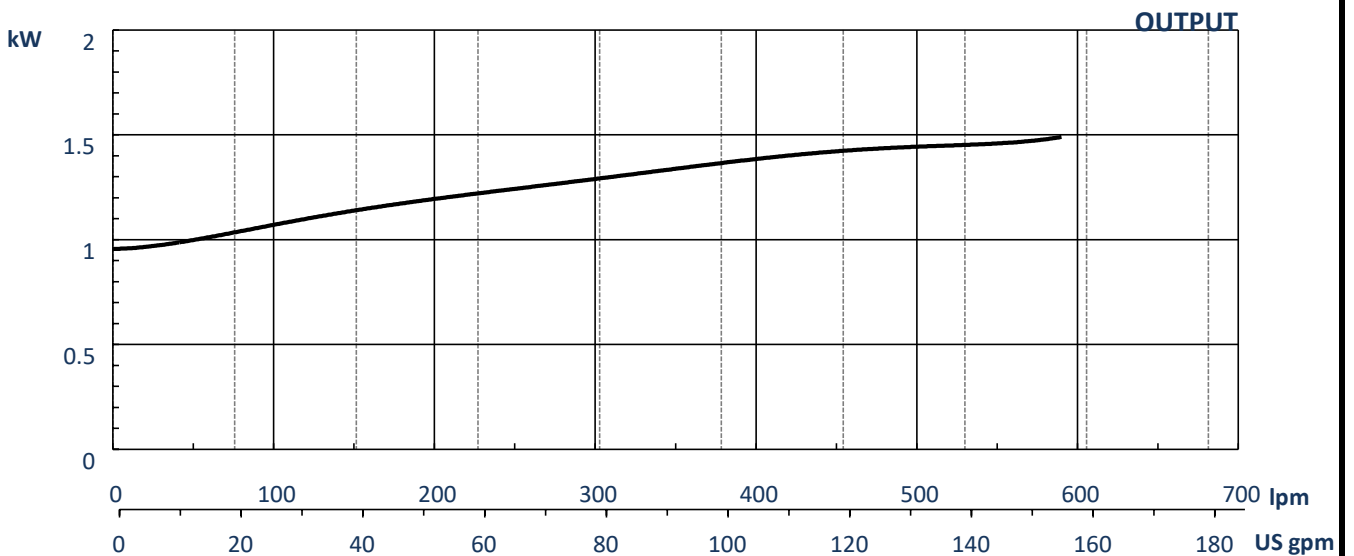
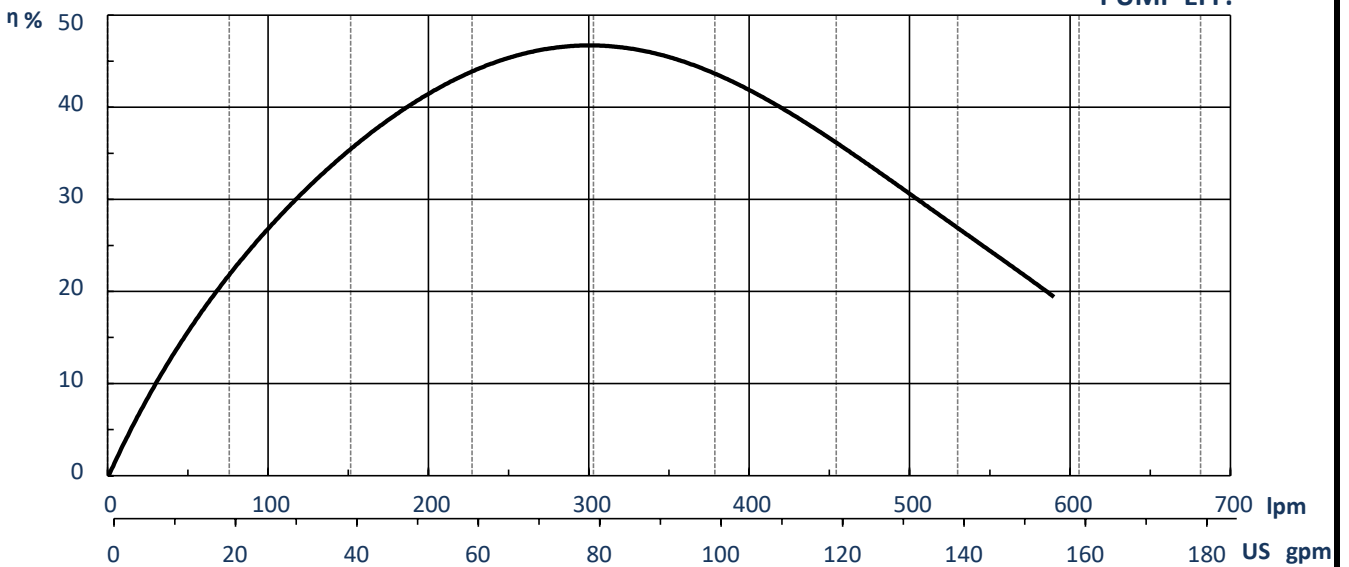
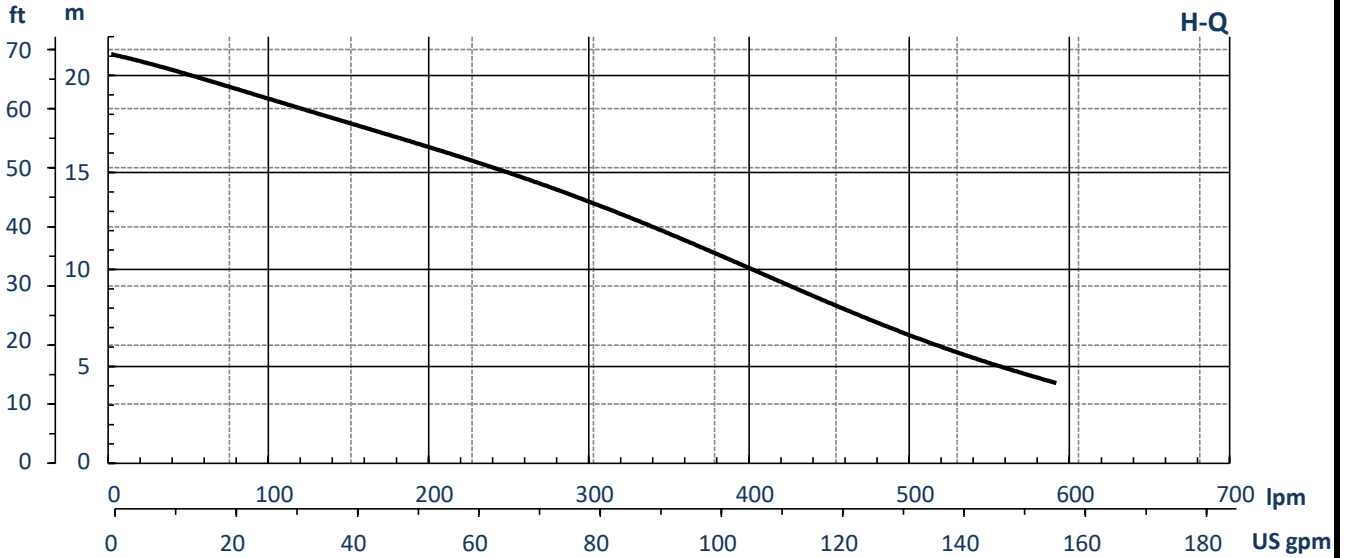
| MODEL | OUTPUT | | DISCHARGE INCHES | PHASE VOLTAGE | 3Ø | | | FREE PASSAGE INCHES | WEIGHT W/O CABLE LBS |
|---------|--------|------|---------------------|----------------------|-------|------|-------|---------------------------|----------------------------|
| | HP | KW | | | 208V | 230V | 460V | | |
| BT50/3 | 0.5 | 0.37 | 2 | FULL LOAD AMPS | 3.1A | 2.8A | 1.4A | 1.4 | 28 |
| BT100/3 | 1 | 0.75 | 2 | | 4.4A | 4A | 2A | 1.4 | 35 |
| BT200/3 | 2 | 1.5 | 2 (3) | | 7.7A | 7A | 3.5A | 1.8 | 65 |
| BT300/3 | 3 | 2.2 | 2 (3) | | 8.8A | 8A | 4.5A | 1.8 | 69 |
| BT500/3 | 4 | 3.7 | 3 (4) | | 16.6A | 15A | 8A | 1.8 | 106 |
| BT750/3 | 5 | 5.5 | 3 (4) | | 23.2A | 21A | 10.5A | 1.8 | 119 |

MOTOR / PUMP CONSTRUCTION MATERIAL

| PART | MATERIAL | PART | MATERIAL |
|------------------------|---|---------------------|------------------|
| Cable | H07RN-F/STJOW/STOW | Mechanical Seal | Upper: CA / CE |
| Handle | Nylon 6(0.5-1HP) AISI 316 (2-7.5HP) | Mechanical Seal | Lower: SIC / SIC |
| Motor Cover | AISI 316 | Seal Housing | AISI 316 |
| Bracket | ASTM A48 Class 30 | Lip Seal | VITON |
| Motor Housing + Stator | AISI 316 | Impeller | AISI 316 |
| Shaft with Rotor | AISI 316 | Pump Casing | AISI 316 |
| Oil Chamber | ASTM A48 Class 30(0.5-1HP) AISI 316(2-7.5HP) | Upper/Lower Bearing | NTN/TPI |

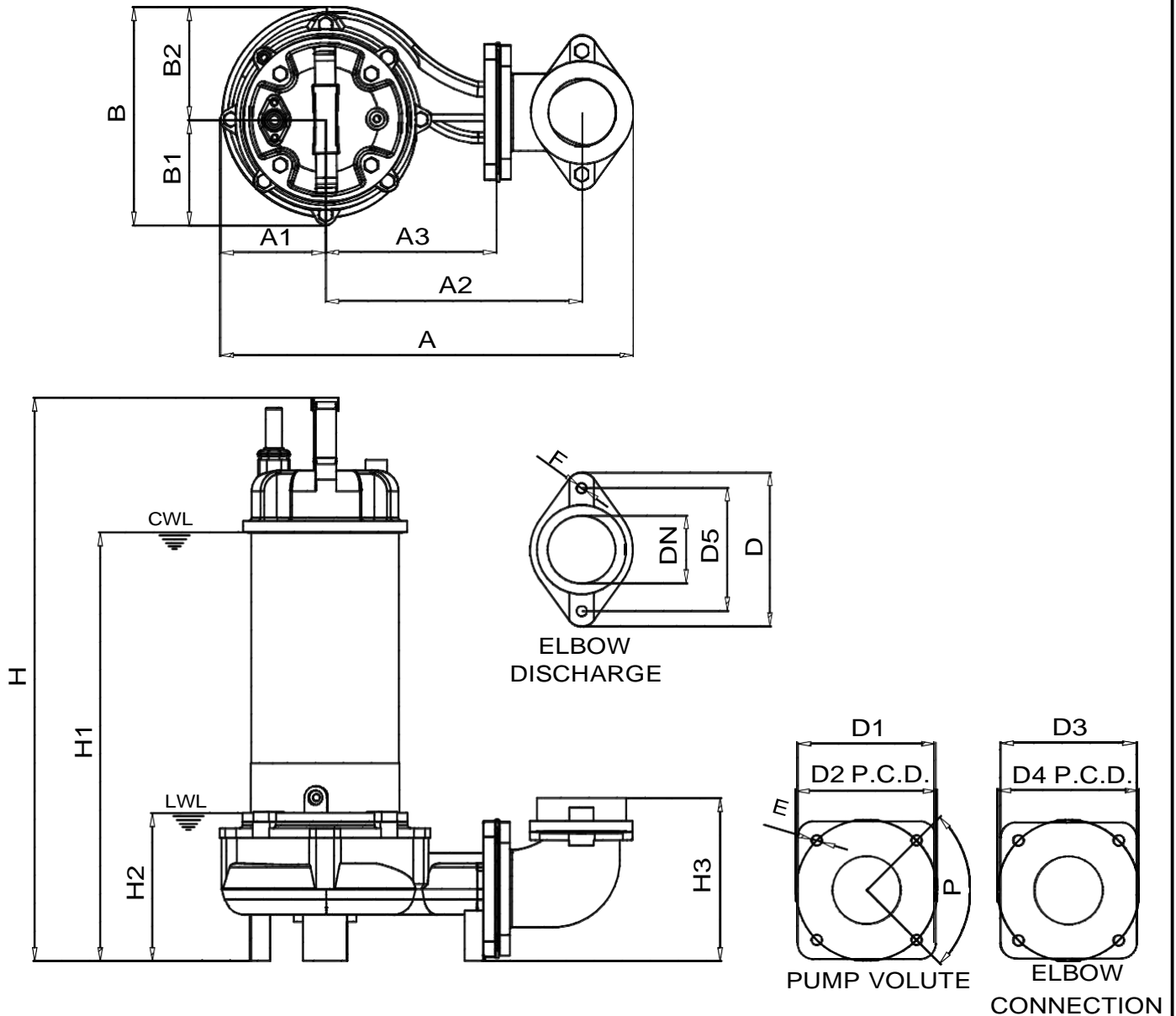
PUMP PERFORMANCE REPORT

| | | | |
|-----------|---------------------------|--|--------------------|
| MODEL | BT200 | | RATED |
| FREQUENCY | 60 HZ | | HEAD |
| DISCHARGE | 2 & 3 inches / 50 & 80 mm | | CAPACITY |
| OUTPUT | 2 hp / 1.5 kW | | POLE / RPM |
| | | | 45 ft / 13.7 ft |
| | | | 80 gpm / 303 lpm |
| | | | 2 poles / 3450 rpm |



DIMENSIONAL DRAWING

MODELS: BT200 – BT300 (2~3HP)



| MODEL | A | A1 | A2 | A3 | B | B1 | B2 | D | D1 | D2 | D3 |
|-------|-------|------|------|------|------|------|------|------|------|------|------|
| BT200 | 15.35 | 4.06 | 9.25 | 6.06 | 8.19 | 4.09 | 4.09 | 5.91 | 5.20 | 5.31 | 5.12 |
| BT300 | 15.35 | 4.06 | 9.25 | 6.06 | 8.19 | 4.09 | 4.09 | 5.91 | 5.20 | 5.31 | 5.12 |

| MODEL | D4 | D5 | DN | E | F | P | H | H1 | H2 | H3 | WT | |
|-------|------|------|-------|-----|-----|----|-------|-------|------|------|-------|-------|
| BT200 | 5.31 | 4.72 | 2 / 3 | .39 | .39 | 90 | 20.94 | 15.75 | 5.91 | 5.98 | S: 69 | T: 65 |
| BT300 | 5.31 | 4.72 | 2 / 3 | .39 | .39 | 90 | 20.52 | 17.32 | 5.91 | 5.98 | S: 72 | T: 69 |

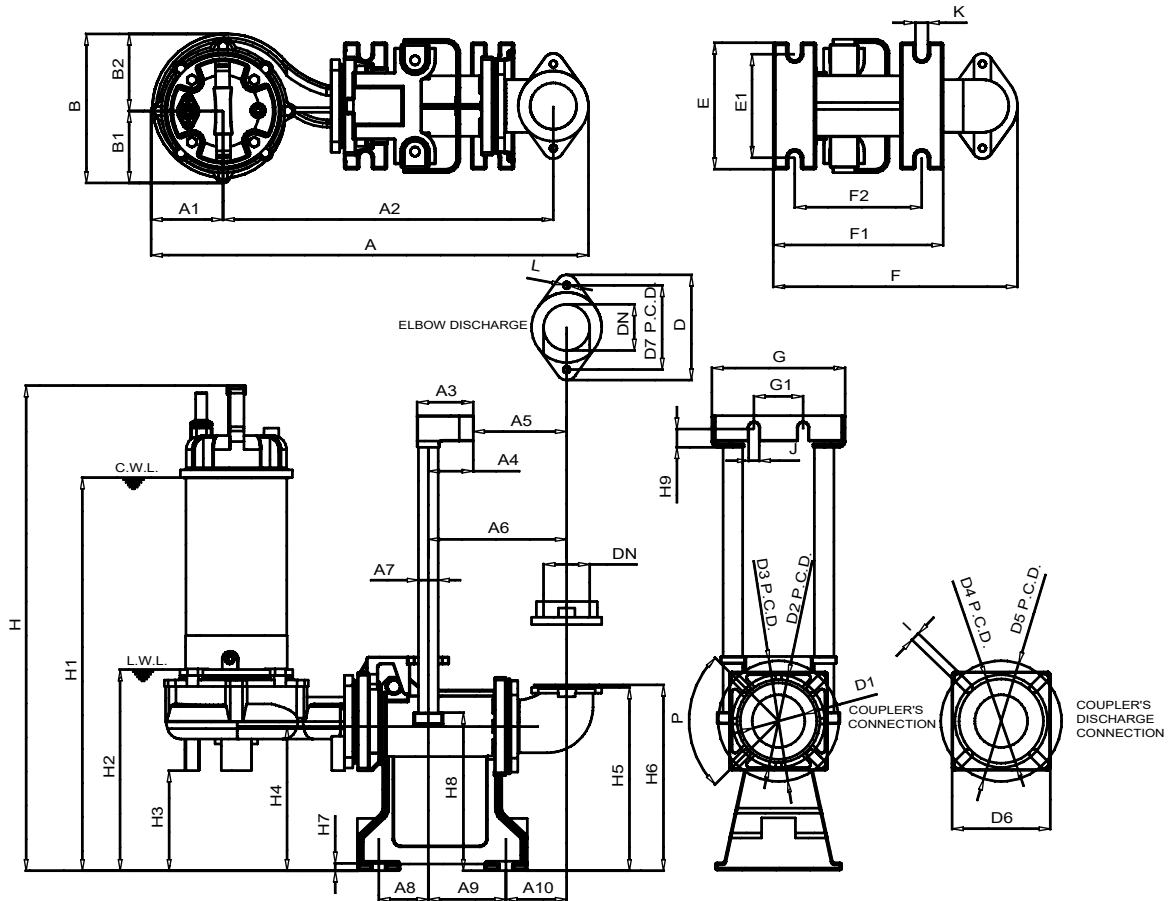
CWL: CONTINUOUS RUNNING WATER LEVEL
 LWL: LOWEST RUNNING WATER LEVEL
 WT: WEIGHT WITHOUT CABLE
 S: SINGLE PHASE T: THREE PHASE

DIMENSIONS: INCHES
 WEIGHT: LBS
 PIPE CONNECTION TYPE: NPT

DIMENSIONAL DRAWING

MODELS : BT200 - BT300(2~3HP)

Quick Discharge Connection: SQM-3"



DIMENSION : inch
WEIGHT : lb

PIPE CONNECTION TYPE

PT **NPT**

| MODEL | A | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | B | B1 | B2 | D | D1 | D2 | D3 | D4 | D5 | D6 | D7 | DN | P | E |
|------------|-------|------|-------|------|------|------|------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|-----|------|
| 2" BT200 | 24.02 | 4.09 | 17.91 | 3.07 | 2.44 | 5.28 | 7.72 | 1 | 2.83 | 4.29 | 3.43 | 8.19 | 4.09 | 4.09 | 5.91 | 2.91 | 5.31 | 6.77 | 5.31 | 6.77 | 5.51 | 4.72 | 2 | 90° | 7.09 |
| 3" BT200 | 24.02 | 4.09 | 17.91 | 3.07 | 2.44 | 5.28 | 7.72 | 1 | 2.83 | 4.29 | 3.43 | 8.19 | 4.09 | 4.09 | 5.91 | 2.91 | 5.31 | 6.77 | 5.31 | 6.77 | 5.51 | 4.72 | 3 | 90° | 7.09 |
| 2" BT300 S | 24.02 | 4.09 | 17.91 | 3.07 | 2.44 | 5.28 | 7.72 | 1 | 2.83 | 4.29 | 3.43 | 8.19 | 4.09 | 4.09 | 5.91 | 2.91 | 5.31 | 6.77 | 5.31 | 6.77 | 5.51 | 4.72 | 2 | 90° | 7.09 |
| 2" BT300 T | 24.02 | 4.09 | 17.91 | 3.07 | 2.44 | 5.28 | 7.72 | 1 | 2.83 | 4.29 | 3.43 | 8.19 | 4.09 | 4.09 | 5.91 | 2.91 | 5.31 | 6.77 | 5.31 | 6.77 | 5.51 | 4.72 | 2 | 90° | 7.09 |
| 3" BT300 S | 24.02 | 4.09 | 17.91 | 3.07 | 2.44 | 5.28 | 7.72 | 1 | 2.83 | 4.29 | 3.43 | 8.19 | 4.09 | 4.09 | 5.91 | 2.91 | 5.31 | 6.77 | 5.31 | 6.77 | 5.51 | 4.72 | 3 | 90° | 7.09 |
| 3" BT300 T | 24.02 | 4.09 | 17.91 | 3.07 | 2.44 | 5.28 | 7.72 | 1 | 2.83 | 4.29 | 3.43 | 8.19 | 4.09 | 4.09 | 5.91 | 2.91 | 5.31 | 6.77 | 5.31 | 6.77 | 5.51 | 4.72 | 3 | 90° | 7.09 |

| MODEL | E1 | F | F1 | F2 | G | G1 | H | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | H9 | I | J | K | L | WT | | WT1 |
|------------|------|-------|------|------|------|------|-------|-------|------|------|------|------|-----|------|------|------|------|------|------|------|--------|--------|------|
| 2" BT200 | 5.91 | 13.78 | 9.45 | 7.13 | 7.48 | 2.76 | 25.98 | 21.02 | 9.96 | 5.28 | 8.07 | 9.69 | 9.8 | 0.39 | 8.66 | 1.02 | 0.55 | 0.59 | 0.71 | 0.39 | S:68.6 | T:65.3 | 30.6 |
| 3" BT200 | 5.91 | 13.78 | 9.45 | 7.13 | 7.48 | 2.76 | 25.98 | 21.02 | 9.96 | 5.28 | 8.07 | 9.69 | 9.8 | 0.39 | 8.66 | 1.02 | 0.55 | 0.59 | 0.71 | 0.39 | S:68.6 | T:65.3 | 30.6 |
| 2" BT300 S | 5.91 | 13.78 | 9.45 | 7.13 | 7.48 | 2.76 | 27.95 | 22.60 | 9.96 | 5.28 | 8.07 | 9.69 | 9.8 | 0.39 | 8.66 | 1.02 | 0.55 | 0.59 | 0.71 | 0.39 | S:72.2 | T: - | 30.6 |
| 2" BT300 T | 5.91 | 13.78 | 9.45 | 7.13 | 7.48 | 2.76 | 27.17 | 21.81 | 9.96 | 5.28 | 8.07 | 9.69 | 9.8 | 0.39 | 8.66 | 1.02 | 0.55 | 0.59 | 0.71 | 0.39 | S: - | T:68.9 | 30.6 |
| 3" BT300 S | 5.91 | 13.78 | 9.45 | 7.13 | 7.48 | 2.76 | 27.95 | 22.60 | 9.96 | 5.28 | 8.07 | 9.69 | 9.8 | 0.39 | 8.66 | 1.02 | 0.55 | 0.59 | 0.71 | 0.39 | S:72.2 | T: - | 30.6 |
| 3" BT300 T | 5.91 | 13.78 | 9.45 | 7.13 | 7.48 | 2.76 | 27.17 | 21.81 | 9.96 | 5.28 | 8.07 | 9.69 | 9.8 | 0.39 | 8.66 | 1.02 | 0.55 | 0.59 | 0.71 | 0.39 | S: - | T:68.9 | 30.6 |

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

WT: Pump Weight Without Cable
S: Single Phase ; T: Three Phase
WT1: Q.D.C. Weight