

**Pump Picture**

**product description**

QNS submersible sand pump is specially designed for harsh environment, sites pumping containing slit and other abrasive material. Every component of it fully reflects the high durability, reliability and ease of serviceability.

QNS submersible sand pump is adopted with F Class insulated 4-pole motor, high wear-resistant mechanical seal, heavy-duty semi-open high wear-resistant alloy impeller.

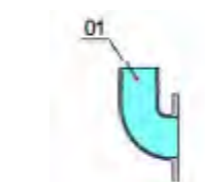
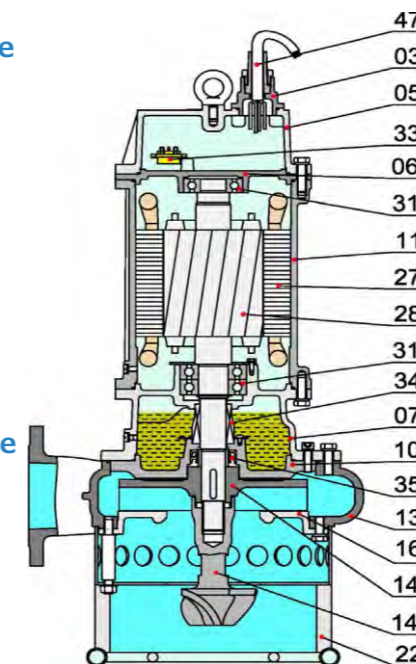
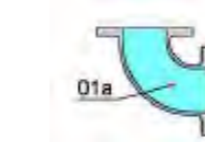
There is an agitator in the lower part of this pump, and the sediment at the bottom of water will be stirred into a suspension form and then be sucked into the inlet to be discharged to clear completely.

**Application**

- Underwater sand extraction, clear the bottom of a pond, clean up the sedimentation tank
- Drainage of construction silt water, mine surface drainage
- Industrial mining enterprises pumping sewage water containing quartz sand, slime, sludge and other abrasive materials.

**Specification**

- Insulation class: F
- Protection class: IP68
- Cable length: 8m
- PH : 6-10
- Density of liquid : 1.3g/cm<sup>3</sup>
- Water temperature: up to 40°C
- Capacity: up to 160 m<sup>3</sup>/h
- Head: up to 19 meters
- Max. water depth: 15m
- Power: 0.75kW(2HP) to 15kW (20HP)
- Power supply: three phase 415V ± 10%, 50Hz  
380V ± 10%, 60Hz

**Material of Construction**
**Movable soft pipe Installation(R)**

**Movable hard pipe Installation(Y)**


| Item No. | Part name        | Material          |
|----------|------------------|-------------------|
| 01       | Hose Coupling    | Cast Iron         |
| 01a      | Hose Coupling    | Cast Iron         |
| 03       | Terminal box     | Cast Iron         |
| 05       | Upper Cover      | Cast Iron         |
| 06       | Up-bearing house | Cast Iron         |
| 07       | Bearing house    | Cast Iron         |
| 10       | Seal bracket     | Ductile Iron      |
| 11       | Motor Body       | Cast Iron         |
| 13       | Pump Body        | Ductile Iron      |
| 14a      | Impeller         | High Chrome Alloy |
| 14b      | Agitator         | High Chrome Alloy |
| 16       | Inlet Plate      | Ductile Iron      |
| 22       | Seat assembly    | Cast Iron         |
| 27       | Stator           |                   |
| 28       | Rotor            | Shaft:AISI420SS   |
| 31a      | Bearing          | Ball Bearing      |
| 31b      | Bearing          | Ball Bearing      |
| 33       | Motor Protector  |                   |
| 34       | Mechanical seal  | SiC-SiC/SiC-SiC   |
| 35       | Oil seal         |                   |
| 47       | Cable            |                   |

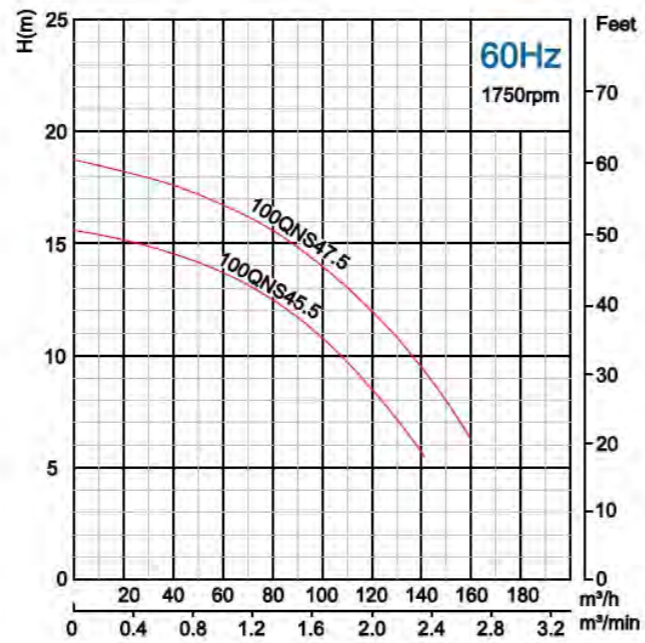
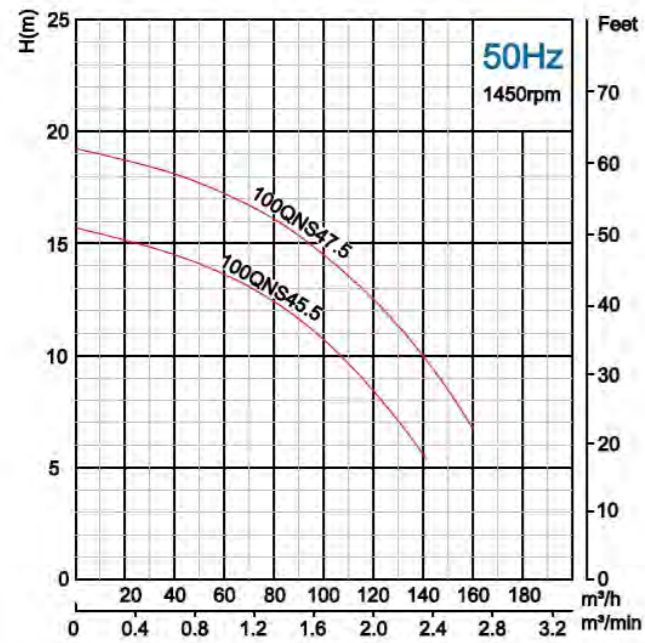
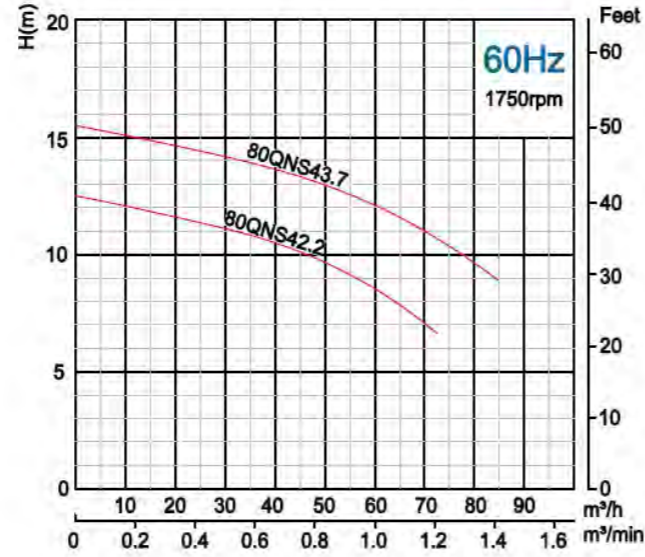
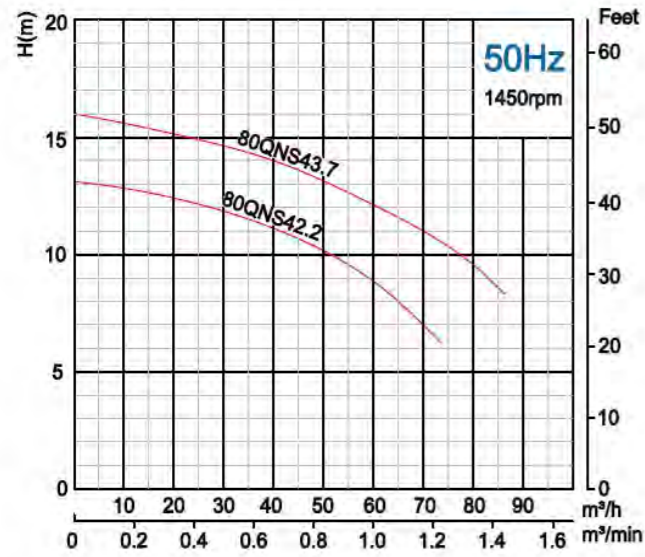
**Material of Construction**

| Model      | Voltage | Current | Motor Power |     | Outlet |    | Rated Flow | Rated Head | Max. Flow | Max. Head | Impeller Passage |
|------------|---------|---------|-------------|-----|--------|----|------------|------------|-----------|-----------|------------------|
|            |         |         | kW          | HP  | mm     | in |            |            |           |           |                  |
| 80QNS42.2  | 380     | 5.0     | 2.2         | 3   | 80     | 3  | 50         | 10         | 75        | 13        | 20               |
| 80QNS43.7  | 380     | 8.5     | 3.7         | 5   | 80     | 3  | 60         | 12         | 85        | 16        | 20               |
| 100QNS45.5 | 380     | 11.7    | 5.5         | 7.5 | 100    | 4  | 65         | 13         | 140       | 16        | 30               |
| 100QNS47.5 | 380     | 15.7    | 7.5         | 10  | 100    | 4  | 100        | 14         | 160       | 19        | 30               |

**Weight & Packing Dimension**

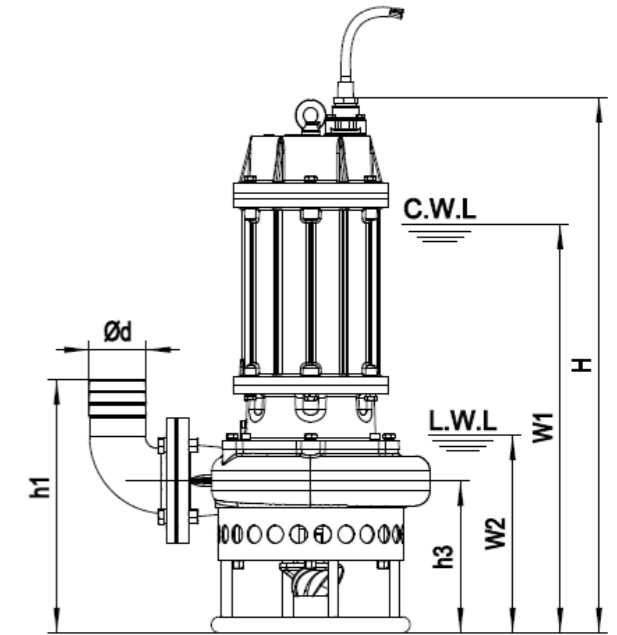
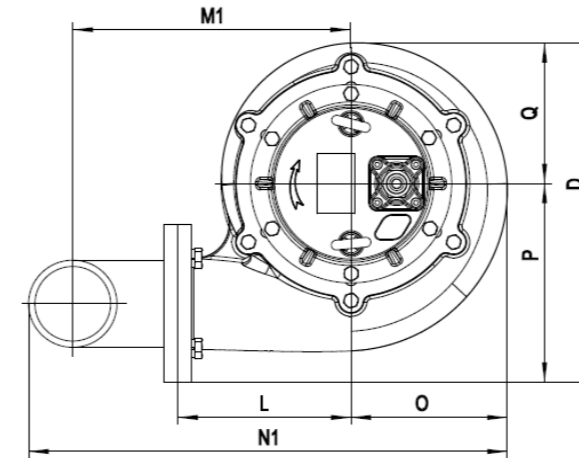
| Model      | N.W | G.W | Packing Dimension | Model      | N.W | G.W | Packing Dimension |
|------------|-----|-----|-------------------|------------|-----|-----|-------------------|
| 50/60Hz    | kg  | kg  | mm                | 50/60Hz    | kg  | kg  | mm                |
| 80QNS42.2  | 78  | 87  | 735*375*495       | 80QNS42.2  | 82  | 91  | 735*375*495       |
| 80QNS43.7  | 88  | 97  | 795*375*495       | 80QNS43.7  | 92  | 101 | 795*375*495       |
| 100QNS45.5 | 138 | 150 | 985*455*555       | 100QNS45.5 | 144 | 156 | 985*455*555       |
| 100QNS47.5 | 154 | 166 | 1025*455*455      | 100QNS47.5 | 160 | 172 | 1025*455*455      |

**Pump Curve**

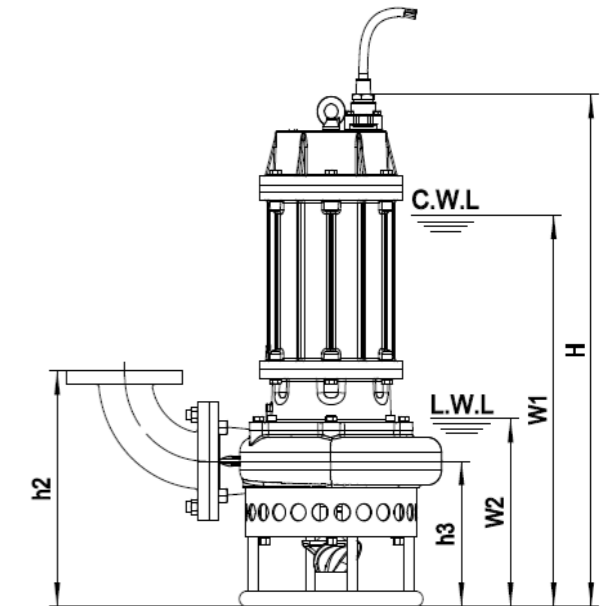
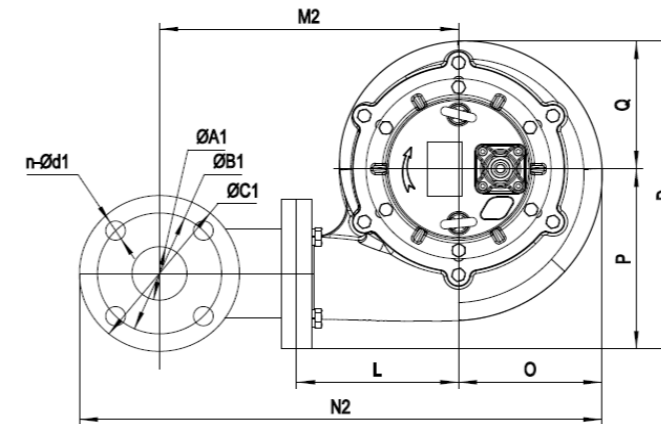


**Pump Drawing**

**Movable hard pipe Installation(R)**



**Movable hard pipe Installation(Y)**



**Dimension Table**

| Model      | Φd  | ΦA1 | ΦB1 | ΦC1 | n-Φd1 | h1  | h2  | h3  | W1  | W2  | H   | O   | P   | Q   | L   | D   | M1  | M2  | N1  | N2  |
|------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 80QNS42.2  | 80  | 80  | 150 | 190 | 4-Φ18 | 330 | 325 | 185 | 475 | 235 | 625 | 168 | 223 | 157 | 210 | 380 | 302 | 352 | 507 | 615 |
| 80QNS43.7  | 80  | 80  | 150 | 190 | 4-Φ18 | 330 | 325 | 185 | 540 | 235 | 690 | 168 | 223 | 157 | 210 | 380 | 302 | 352 | 507 | 615 |
| 100QNS45.5 | 100 | 100 | 170 | 210 | 4-Φ18 | 426 | 406 | 256 | 616 | 309 | 850 | 205 | 265 | 188 | 250 | 438 | 332 | 382 | 587 | 693 |
| 100QNS47.5 | 100 | 100 | 170 | 210 | 4-Φ18 | 426 | 406 | 256 | 661 | 309 | 895 | 205 | 265 | 188 | 250 | 438 | 332 | 382 | 587 | 693 |