



Features

- Non-clogging impeller minimizes abrasives wear and allows large solid passage.
- Dry motor with overload protector; Cable with an epoxy resin sealed water-proof cable hood; Use deep groove C3 bearing to extend life time.
- Superior abrasion resistant double mechanical seal to ensure best seal effect.
- Oil seal mounted outside of seal chamber stops solids gathering around seal faces.

Motor Spec.

- 2P dry or oil type motor.
- Insulation: F class.
- Protection: IP68.
- Frequency: 60Hz
- Voltage: 1 ϕ 110~220V(0.5~2HP)
3 ϕ 220~660V(all models)



EF Non-clogging
Vortex Impeller

Applications

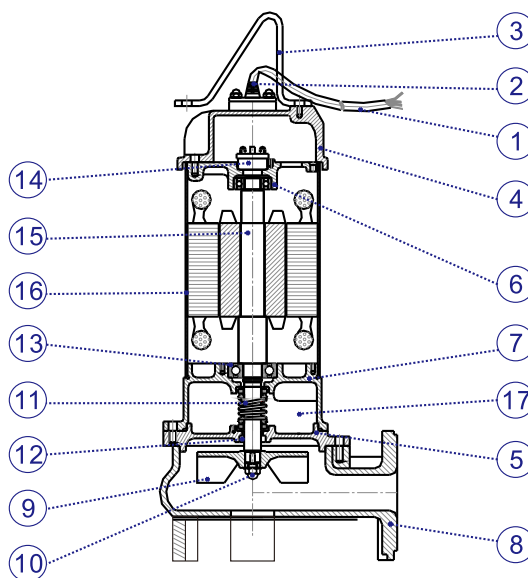
- Waste water drainage from all industries.
- Sewage drainage from hotels, restaurants, schools, malls, and public facilities.
- Fishery, animal husbandry, stock farm, piggery, fecal sewage tank in waste water treatment plant.
- Drainage of waste water containing fibrous additives from leather factory, dyeing factory and food processing factory.



Parts and Materials List

| No. | Parts | Std. Material |
|-----|--------------------|------------------------|
| | | EF Model |
| 1 | Cable | UL_STOW or VCT |
| 2 | Cable hood | PVC |
| 3 | Handle | Nylon6 or SS400 |
| 4 | Motor cover | Nylon66 or FC200 |
| 5 | Seal housing | FC200 |
| 6 | Bracket | FC200 |
| 7 | Oil chamber | FC200 |
| 8 | Pump casing | FC200 |
| 9 | Impeller | FC200 |
| 10 | Nut | SUS304 |
| 11 | Mech. seal | CA/CE |
| 12 | Oil seal | NBR |
| 13 | Bearing | (NTN brand) |
| 14 | Overload protector | (T.I.brand) |
| 15 | Shaft | SUS410 |
| 16 | Motor housing | SUS304 |
| 17 | Lubricant oil | (Turbine Oil ISO VG46) |

• Mech.seal (sic/sic)material is optional upon request.



EF-series

Submersible Sewage Pumps



60Hz

Operating Conditions

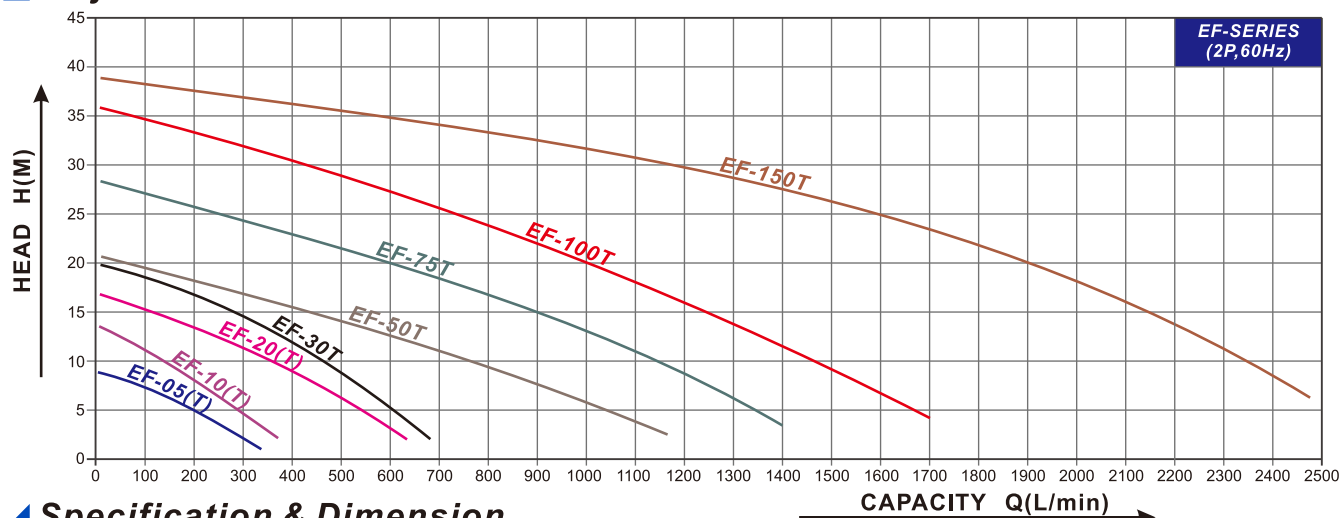
- Water temperature: 0~40°C.
- Ambient temperature: Max.40°C.
- Solid passage: 35~50MM.
- Operating water depth: 8~10M.
- No use in sea water.
- No 24hrs continuously running.

Model Code

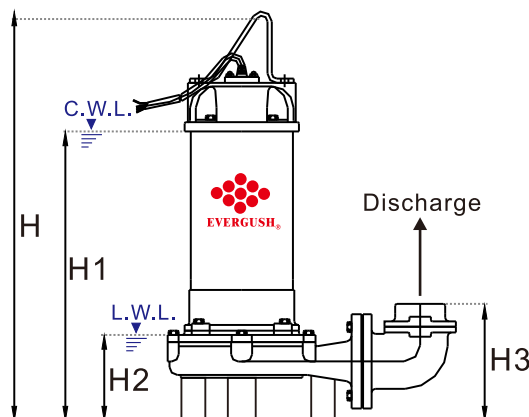
EF-20(A)(T)

- Three Phase Motor
- Equipped with auto float switch
- HP: Number/10
- Model name of sub. sewage pump

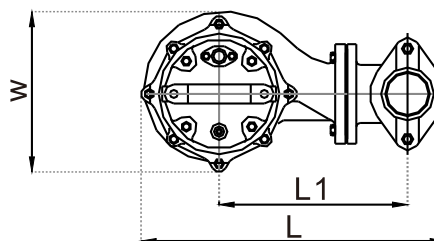
Performance Curves



Specification & Dimension



NOTE: Forbid running submersible pumps continuously under L.W.L.



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

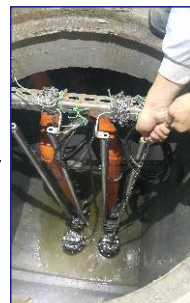
| Model | Type | Power | | Disch. | Phase | Rated | | Max. | | Dimensions (mm) | | | | | | | Cable | Net Weight | Solid Passage |
|-------------|--------|-------|----------|--------|-------|-------|-----------|------|------|-----------------|-----|-----|-----|-----|-----|-----|-------|------------|---------------|
| | | Head | Capacity | | | Head | Cap. | | | | | | | | | | | | |
| | | KW | HP | Inch | φ | M | LPM | M | LPM | L | L1 | W | H | H1 | H2 | H3 | M | KG | MM |
| EF-05(A)(T) | Direct | 0.37 | 0.5 | 2" | 1,3 | 5~6 | 200~160 | 9 | 350 | 222 | 115 | 145 | 410 | 297 | 113 | 133 | 5 | 13 | 35 |
| EF-10(A)(T) | Direct | 0.75 | 1 | 2" | 1,3 | 6~8 | 260~200 | 13.5 | 420 | 222 | 115 | 149 | 464 | 340 | 113 | 133 | 5 | 18 | 35 |
| EF-20(A)(T) | Direct | 1.5 | 2 | 2"(3") | 1,3 | 10~12 | 360~270 | 17 | 680 | 387 | 234 | 208 | 548 | 400 | 122 | 153 | 5 | 33 | 35 |
| | Elbow | | | | | | | | | 316 | 163 | 208 | 548 | 400 | 122 | 153 | 5 | 30 | 35 |
| EF-30T | Direct | 2.2 | 3 | 2"(3") | 3 | 10~14 | 460~320 | 20 | 750 | 387 | 234 | 208 | 568 | 420 | 122 | 153 | 5 | 35 | 35 |
| | Elbow | | | | | | | | | 316 | 163 | 208 | 568 | 420 | 122 | 153 | 5 | 32 | 35 |
| EF-50T | Elbow | 3.7 | 5 | 3"(4") | 3 | 11~14 | 700~500 | 20.5 | 1250 | 459 | 256 | 227 | 638 | 471 | 160 | 220 | 5 | 55 | 50 |
| EF-75T | Elbow | 5.5 | 7.5 | 3"(4") | 3 | 15~20 | 900~600 | 28 | 1450 | 459 | 256 | 227 | 678 | 511 | 160 | 220 | 5 | 61 | 50 |
| EF-100T | Elbow | 7.5 | 10 | 4" | 3 | 18~20 | 1100~1000 | 36 | 1800 | 550 | 280 | 310 | 680 | 511 | 210 | 250 | 5 | 87 | 50 |
| EF-150T | Elbow | 11 | 15 | 4" | 3 | 20~25 | 1900~1600 | 38 | 2600 | 560 | 310 | 310 | 730 | 580 | 250 | 310 | 10 | 110 | 50 |

Remarks: ●(A): Equipped with automatic float switch. ●(T): Three phase motor. ●10M cable are available for 0.5~10HP models per special request.



Product Features

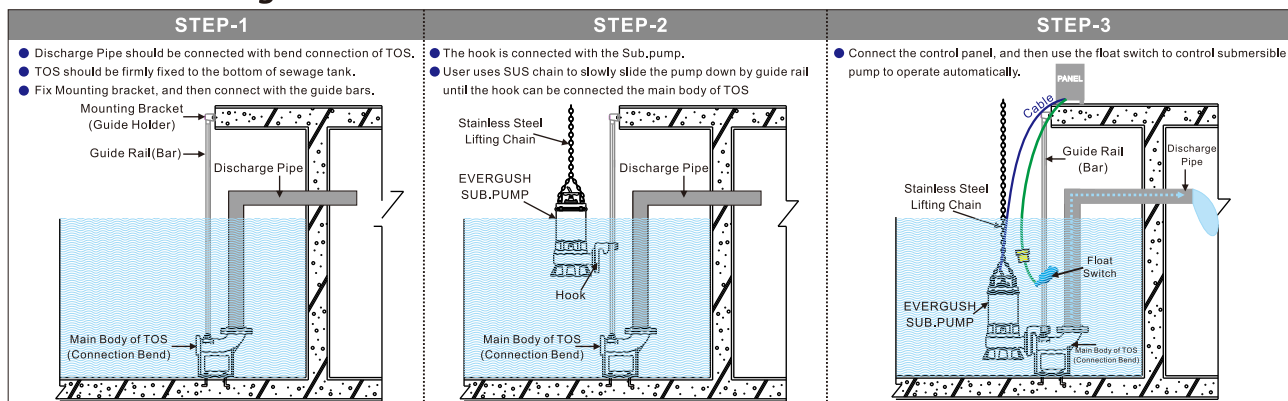
- Through simple and convenient install, we can connect the pump onto guide rail device. Whenever the pump needs maintenance, it can be easily pulled out through guide bar to dismantle, repair or examine the pump. For Safety purpose, the worker no longer needs to go down the septic tank for maintenance.



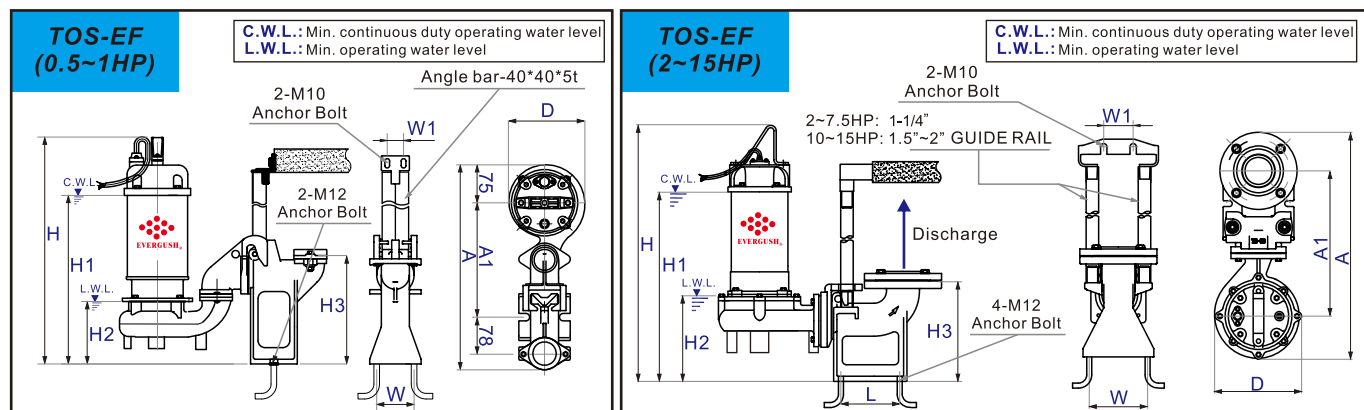
Applications

- Animal husbandry and dairying septic tank waste water drainage; sewers, apartments, buildings and basements sewage treatment equipment drainage. Dye house, fur and leather industry and steel industry waste water drainage; other waste water treatment drainage.

Installation Diagram:



Dimensions



| Model | Power | Disch. | Dimensions(mm) | | | | | | | | | | Weight(KG) | |
|--------------|-------|--------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|------------|
| | HP | Inch | A | A1 | D | H | H1 | H2 | H3 | L | W | W1 | TOS Device | TOS & PUMP |
| TOS-EF-05(T) | 0.5 | 2" | 425 | 240 | 150 | 422 | 307 | 150 | 225 | --- | 80 | 35 | 6 | 19 |
| TOS-EF-10(T) | 1 | 2" | 425 | 240 | 150 | 502 | 377 | 150 | 225 | --- | 80 | 35 | 6 | 24 |
| TOS-EF-20(T) | 2 | 3" | 545 | 350 | 210 | 650 | 480 | 210 | 243 | 110 | 140 | 70 | 16 | 49 |
| TOS-EF-30T | 3 | 3" | 545 | 350 | 210 | 670 | 500 | 210 | 243 | 110 | 140 | 70 | 16 | 51 |
| TOS-EF-50T | 5 | 4" | 725 | 515 | 230 | 745 | 580 | 270 | 310 | 160 | 150 | 70 | 24 | 79 |
| TOS-EF-75T | 7.5 | 4" | 725 | 515 | 230 | 785 | 620 | 270 | 310 | 160 | 150 | 70 | 24 | 85 |
| TOS-EF-100T | 10 | 4" | 820 | 550 | 290 | 750 | 550 | 280 | 330 | 210 | 125 | 245 | 38 | 125 |
| TOS-EF-150T | 15 | 4" | 770 | 510 | 310 | 785 | 635 | 305 | 360 | 180 | 125 | 245 | 40 | 150 |

Remarks: ● TOS means cast iron guide rail device.(Q.D.C:Quick Discharge Device) ● "T" means 3 phase motor.