

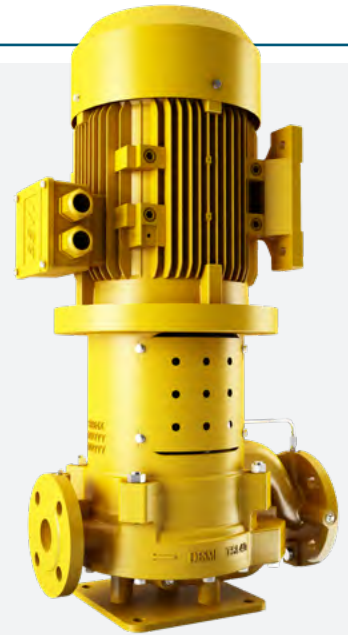
# TSL

DESMI Two-stage Vertical Centrifugal Pump with high differential pressure pumps including a flow up to 48 m<sup>3</sup>/h and pressure up to 135 mLC at 60 Hz.

The TSL pumps are two-stage, single-suction centrifugal pumps. Both vertical and horizontal installations are available. The suction port and discharge port are an inline or angular arrangement.

Two impellers in a tandem array achieve both high pressure and high efficiency. The main wet parts are casted, ensuring various pump materials are attainable.

Low pressure seal chamber extends the shaft seal life time. Innovative volute and impeller structure minimize the axial and radial force on shaft to enable steady running. Split casing in three parts allows overhauling of the rotation parts without disturbing pump casing or pipeline. Optimal flow passage to guarantee high efficiency achieved.



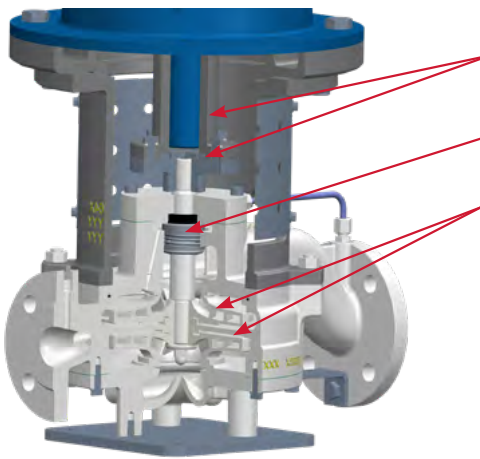
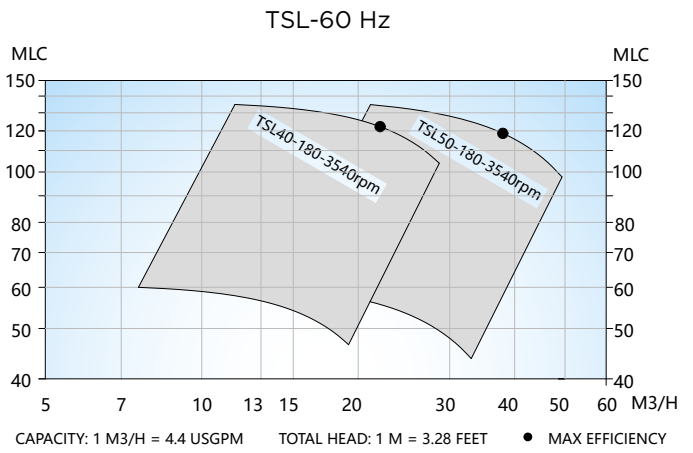
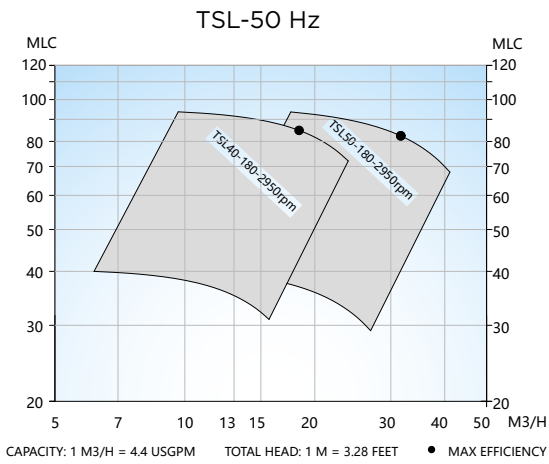
### Concept Features:

- Inlet and outlet in the same height for easy assembly.
- Longer mechanical seal life - low pressure placing design.
- High pump efficiency - optimal transition flow passage design to realize minimum pressure loss.
- Longer pump life - innovative impeller design to balance the axial force on shaft.
- Longer pump life - innovative dual volutes design to balance the radial force on shaft.

### Applications

- Boiler water supply
- Ballast water backflush
- Sprinkler
- Fire water jockey
- EGCS demist cleaning
- Industrial cleaning
- Water treatment and filtration
- Etc.

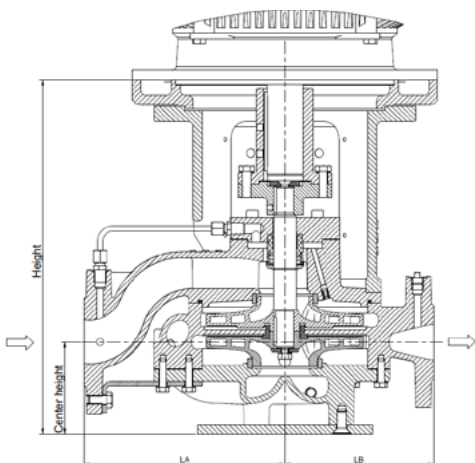
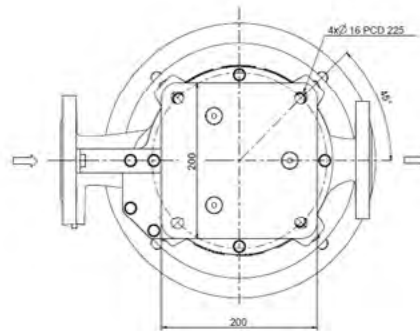
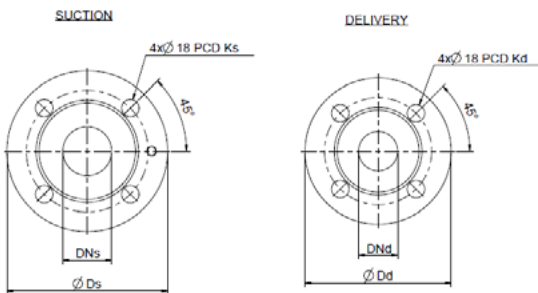
|                      |   |
|----------------------|---|
| Normal Diameter (DN) | 40 & 50                                 |
| Flow rate - 50 Hz    | Up to 40 m <sup>3</sup> /h (180 US gpm) |
| Flow rate - 60 Hz    | Up to 48 m <sup>3</sup> /h (210 US gpm) |
| Head                 | Up to 135 m (440 ft)                    |
| Pressure             | Up to 16 bar (230 psi)                  |
| Temperature          | Up to 140°C (284 °F)                    |
| Motor                | Standard and Ex motor                   |
| VFD                  | Direct or Bulhead/Wall-mounted          |



Overhaul rotation parts without disturbing pump casing or pipeline.

Low pressure seal chamber to ensure long shaft seal life.

Innovative impeller and volute design that minimize the axial and radial force on shaft, steady running.



| TSL       | Motor Size | LA  | LB  | Center Height | Height | DNs | Ds  | Ks  | DNd | Dd  | Kd  |
|-----------|------------|-----|-----|---------------|--------|-----|-----|-----|-----|-----|-----|
| TSL40-180 | 160        | 230 | 170 | 105           | 405    | 50  | 165 | 125 | 40  | 150 | 110 |
|           | 132        |     |     |               | 375    |     |     |     |     |     |     |
|           | 100/112    |     |     |               | 354    |     |     |     |     |     |     |
|           | 90         |     |     |               | 354    |     |     |     |     |     |     |
| TSL50-180 | 160        | 260 | 180 | 110           | 425    | 65  | 185 | 145 | 50  | 165 | 125 |
|           | 132        |     |     |               | 395    |     |     |     |     |     |     |
|           | 100/112    |     |     |               | 374    |     |     |     |     |     |     |
|           | 90         |     |     |               | 374    |     |     |     |     |     |     |
|           | 80         |     |     |               | 374    |     |     |     |     |     |     |