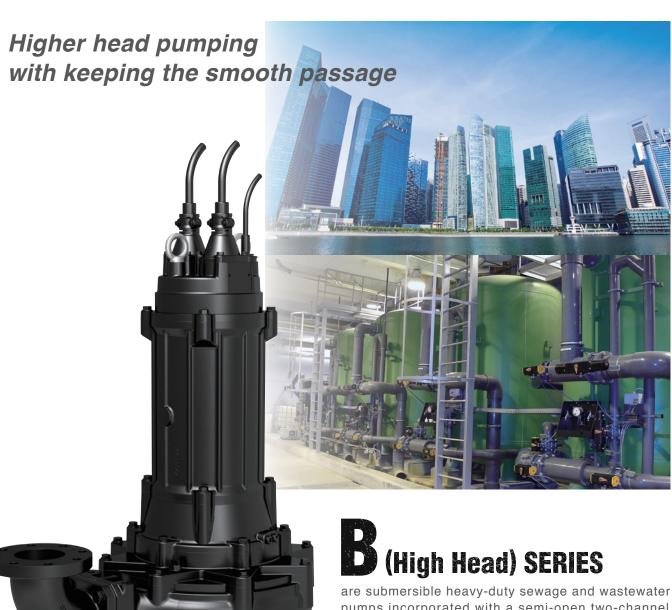
# Submersible Sewage Pumps with Channel Impeller





# **Applications**

- Sewerage and raw wastewater treatment plants, factory wastewater drainage
- Water intake
- · Rain water drainage, flood water removal
- Wastewater drainage for office buildings, hotels and restaurants

pumps incorporated with a semi-open two-channel impeller. Equipped with high-torque 4-pole motor, they bring a lineup of high head pumps to the already extensive range of the B-series. This impeller is particularly effective towards preventing clogging of fibrous solids in the impeller, which is the biggest problem in draining sewage. These pumps are a perfect match for the growing need for higher head pumping and foremost in the building systems market where energy and water conservation are increasing trends. Moreover, these pumps are packed with a number of original technologies that Tsurumi has developed and honed over the years, including an anti-wicking cable, motor protector, dual inside mechanical seals with silicon carbide faces, and Oil Lifter. They can also be used with a guide rail fitting device that facilitates installation and maintenance.

Tsurumi's highly reliable and durable B (High Head) pumps are designed and built for sound quality and continuous duty that can help keep your systems running stably and greatly reduce your maintenance costs.

# **Features**

# Anti-wicking Cable Entry

Prevents water incursion due to capillary action should the cable sheath be damaged or the end of cable submerged. Also prevents moist air from infiltrating the motor housing and condensation from forming inside the housing due to temperature differences between the housing and outside air.



### Miniature Thermal Protectors

React to excessive heat caused by dry-running. The bimetal strip opens to cause the control panel to shut the power supply.



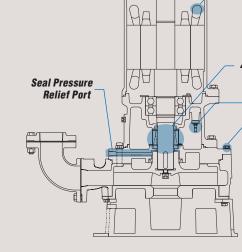
### Leakage Sensor (18.5kW and above)

Detects flooding into the oil chamber that may occur in a worst case scenario. When flooding is detected, signals are sent to operate the indicator lamps through the external control panel.



## Dual Inside Mechanical Seals with Silicon Carbide Faces

Eliminates problems like spring failure and ensures a long service life. Isolated in the oil chamber where a clean, non-corrosive and abrasion-free lubricating environment is maintained. The silicon carbide provides 5 times higher corrosion, wear and heat resistance than the tungsten carbide.



### **Oil Lifter**

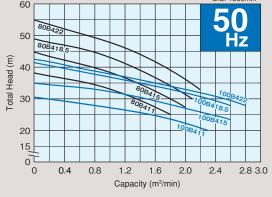
Provides lubrication and cooling of the seal faces down to 1/3 of normal oil level, thus maintaining a stable shaft sealing effect and prolonging seal life longer.

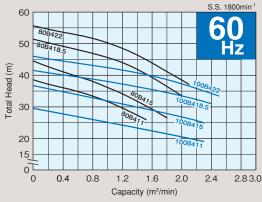
### Back Pull-out Design

Enables the motor to be separated from the pump unit with the impeller attached, by removing the bolts between the oil casing and the pump casing. This design facilitates maintenance and inspection of the principal parts of the pump.

# **Performance** Curves

ISO 9906 grade 2B





# **Model Selection 50/60Hz**

Discharge Bore	N	1odel	Motor Output	Dimensions L x H mm		Dry Weight kg		Cable Length
mm	Free Standing	Guide Rail Fitting	kW	Free Standing	Guide Rail Fitting	Free Standing	Guide Rail Fitting	m
80	80B411	TOS80B411	11	753 x 1057	926 x 1021	270 / 265	265 / 260	8
80	80B415	TOS80B415	15	791 x 1057 / 753 x 1057	942 x 1021 / 926 x 1021	290 / 265	275 / 265	8
80	80B418.5	TOS80B418.5	18.5	791 x 1222 / 753 x 1222	942 x 1186 / 926 x 1186	380 / 360	365 / 355	8
80	80B422	TOS80B422	22	791 x 1222	942 x 1186	385 / 375	365 / 360	8
100	100B411	TOS100B411	11	775 x 1114 / 691 x 1056	994 x 1091 / 910 x 1049	280 / 230	270 / 220	8
100	100B415	TOS100B415	15	775 x 1114 / 691 x 1056	994 x 1091 / 910 x 1049	280 / 230	270 / 220	8
100	100B418.5	TOS100B418.5	18.5	775 x 1279	994 x 1256	370	360 / 355	8
100	100B422	TOS100B422	22	775 x 1279	994 x 1256	370	360 / 355	8

<sup>•</sup> All models are three-phase, Star-Delta starting. • All weights excluding cable. Weights of guide rail fitting excluding duckfoot bend.

Product images and specifications may differ from actual products due to improvements. The OO series and model OO are indicated with our series/model codes in this catalog.

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