TSURUMI PUMP

SEWAGE & WASTEWATER PUMPS

BUILT FOR WORK

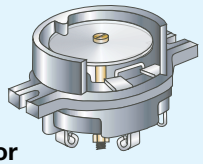
Electric Submersible Pumps • Accessories

www.tsurumipump.com

Simple Design, Extreme Quality.

[Submersible Cutter Pump: C Series]

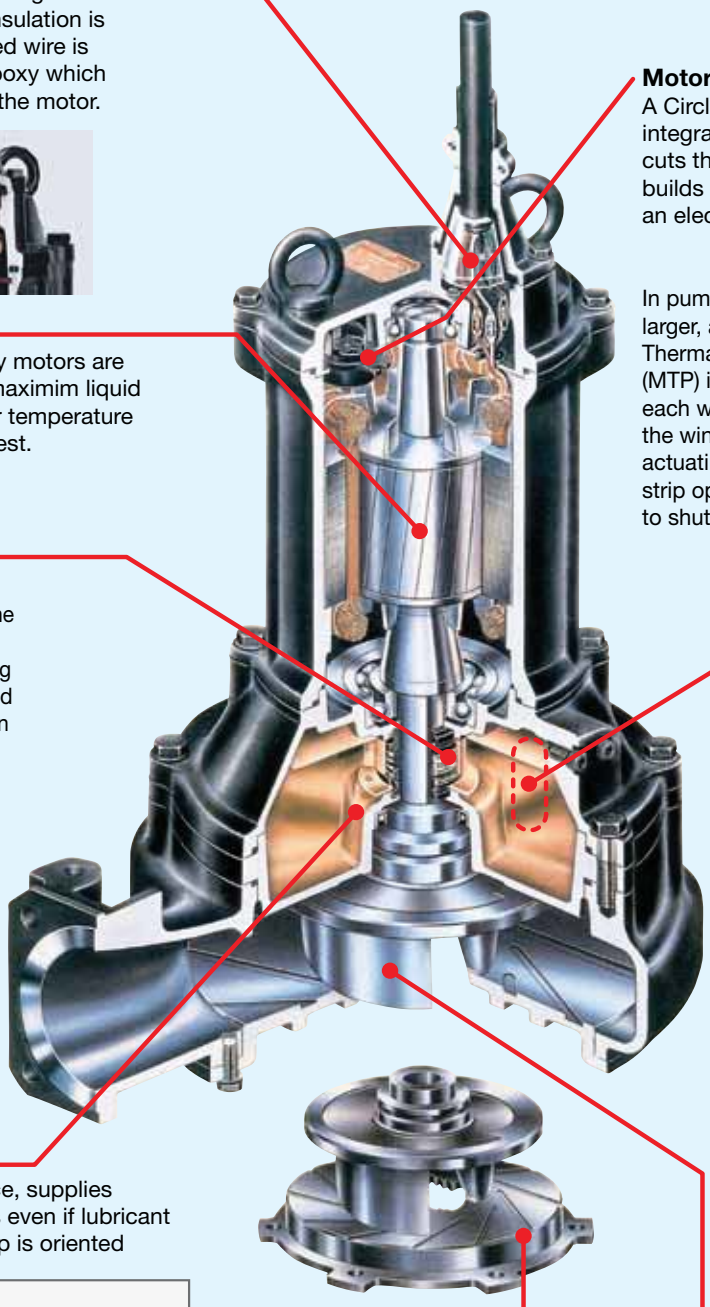
Cable Entry
Cables are designed with an anti-wicking block at motor entry where each conductor insulation is window cut and the exposed stranded wire is encapsulated in molded rubber or epoxy which elimiates moisture from wicking into the motor.



Motor Protector
A Circle Thermal Protector (CTP) integrated in the motor housing directly cuts the motor circuit if excessive heat builds up or an overcurrent caused by an electrical or mechanical failure.

Motor
The air filled, continuous duty motors are designed to accomodate a maximim liquid temperature of 104˚F. Higher temperature option is avaiable upon request.

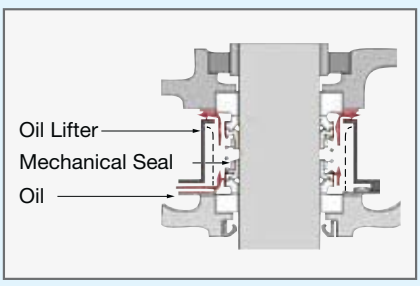
In pumps 15 HP and larger, a Miniature Thermal Protector (MTP) is embedded in each winding of larger motors. Should the winding temperature rise to the actuating temperature, the bimetal strip opens to cause the control panel to shut the power supply.



Mechanical Seal
Design utilizes two silicon carbide seal faces, located within the oil chamber. The advantage being two-fold: eliminating corrsion, abrasion or fouling of the spring and seal faces due to contamination, and allowing constant cooling and lubrication of the seal faces, even in run-dry conditions. These are common points of failure in designs where the seal is lubricated by the pumpage.

Moisture Sensor
An optional external sensor is available to detect the intrusion of water into the oil chamber and when wired to a control panel, alerts operator of this condition. An internal moisture sensor is standard for all pumps 30 HP and larger.

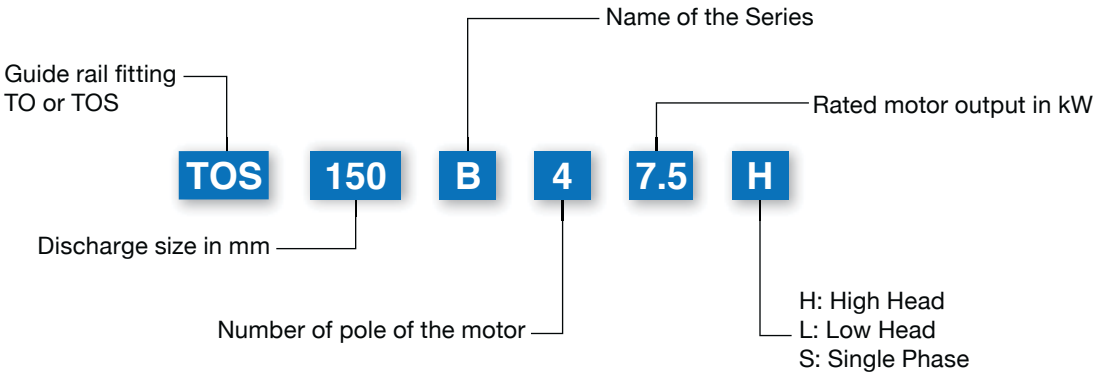
Oil Lifter
The Oil Lifter, utilizing centrifugal force, supplies lubricating oil to the upper seal faces even if lubricant falls below the rated volume, or pump is oriented horizontally.



Impeller & Cutter Plate
A tungsten carbide cutter is brazed onto the impeller vane, and rotates along the serrated entry of the cutter plate. Incoming fibrous matters are cut up which prevents clogging.

You can find all you need in our extensive product lineup

MODEL NUMBER DESIGNATION

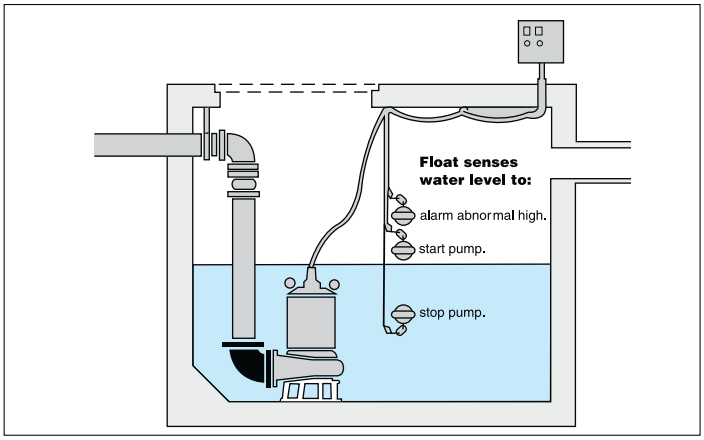


INSTALLATION

Free Standing

Simple installation in the sump saves both money and space.

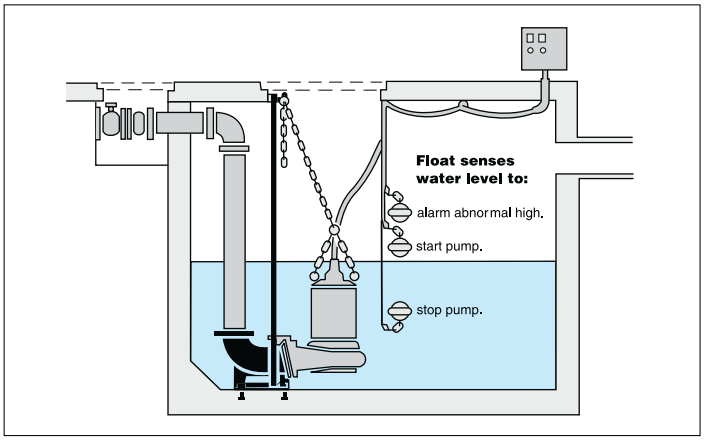
This stationary pump, when equipped with flexible discharge hose, can easily be relocated out of the pit, as a portable. Install the pump on a pump base if waste could clog or block its suction inlet.



Guide-Rail Fitting

A guide rail suspends the pump with a chain for quick, easy installation or removal.

Mount the pump on the rails using a guide hook at its discharge bore. Lower the pump, match the discharge bore flange to the discharge pipe flange. No need for bolting the flanges; pump weight prevents discharge pressure from separating the mated flanges. To disconnect, simply lift the pump.



GUIDE RAIL FITTING SYSTEM

The guide rail fitting system connects the pump to and from the piping easily just by lowering and hoisting the pump, allowing easy maintenance and inspection without the need to enter the sump.

Pump models used in combination with the guide rail fitting system can be identified by the prefix “TO or TOS” and “TOK”. Refer to standard specifications for availability and model numbers.

TOS and TO

The TOS/TO is the standard guide rail fitting system made of cast-iron and is compatible with cast-iron pumps. Pumps having a discharge bore from 2 inches to 6 inches are available for the TOS, and from 8 inches to 32 inches are available for the TO.

TOK

The TOK guiderail connecting system is made of a high-quality corrosion resistant resin. This system is specifically designed for use with the corrosion resistant, light weight VANCS series pumps.

B Series

The **B SERIES** *Tsurumi submersible pump is designed for handling raw sewage, wastewater and heavy duty industrial applications, where the pump is subject to complete submersion and requires maximum reliability.*

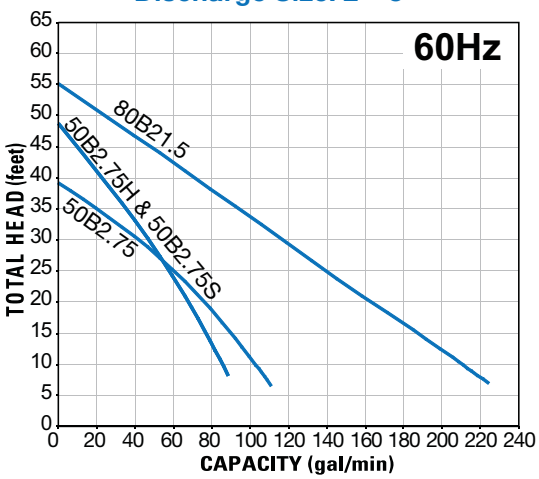
Impeller types for B series

The **B SERIES** *has a proven track record for offering long life in both continuous and intermittent sump applications. With multiple impeller designs available in the* **B SERIES**, *Tsurumi has the right model to handle every application to efficiently transfer the most aggressive liquids.*

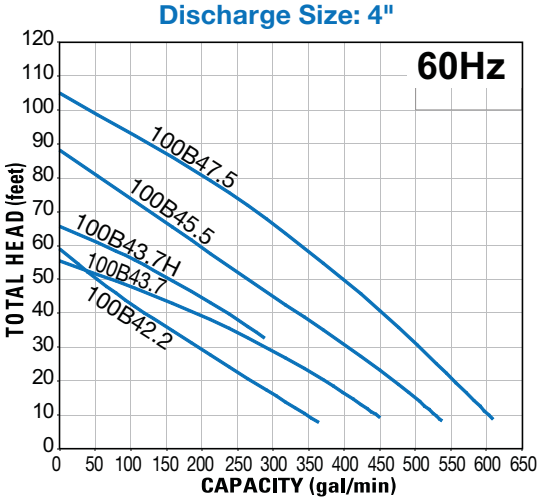
Available up to 20HP in Free-standing, Guide Rail & Dry Pit designs.

Performance Curves

Discharge Size: 2"- 3"

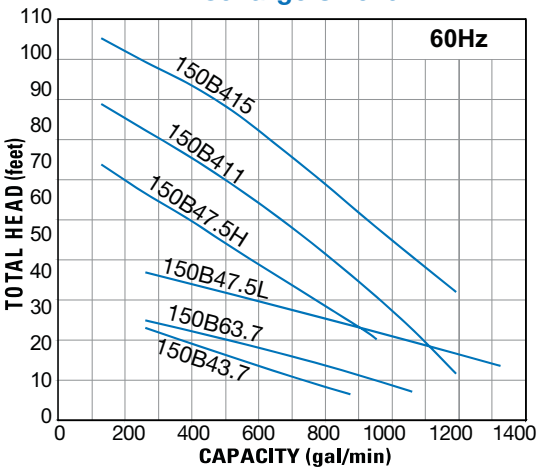


Discharge Size: 4"

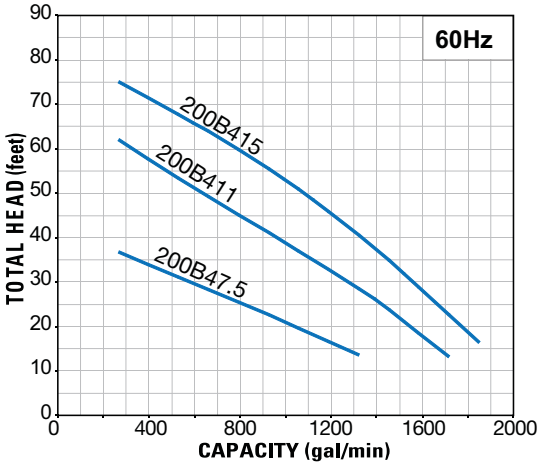


Performance Curves

Discharge Size: 6"



Discharge Size: 8"



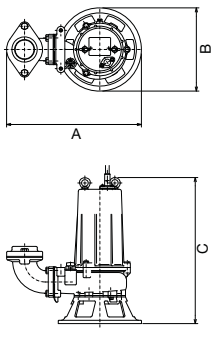
Specifications

* Synchronous Speed

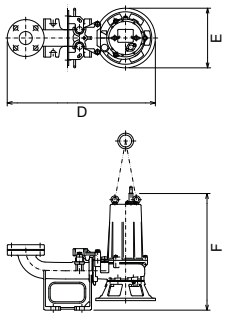
Single Phase Model	Motor Output (HP)	Rated Current (A)		*S.S. (RPM)	Discharge Size (in.)	Dimensions (in. / lbs.)						Max. Solids Dia. (in.)
						Free Standing Models			TOS Guide Rail Models			
		115V	230V			A	B	C	D	E	F	
(TOS)50B2.75S	1	11.7	5.9	3600	2	15 15/16	9 13/16	20 9/16	24 7/16	9 13/16	9 13/16	0.79

Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in. / lbs.)						Max. Solids Dia. (in.)
								Free Standing Models			TOS & TO Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
(TOS)50B2.75H	1	3.5	3.5	1.8	1.4	3600	2	15 15/16	9 13/16	16 5/16	24 7/16	9 13/16	18 1/16	0.79
(TOS)50B2.75	1	3.5	3.5	1.8	1.4	3600	2	15 15/16	9 13/16	17 5/16	24 7/16	9 13/16	18 14/16	0.94
(TOS)80B21.5	2	6.2	5.9	3.1	2.3	3600	3	17 9/16	9 13/16	21 1/8	26 5/8	9 13/16	23 1/16	1.38
(TOS)100B42.2	3	9.4	8.5	4.3	3.5	1800	4 or 3	24 1/4	12 3/4	24 1/4	30 1/16	12 3/4	24 13/16	1.77
(TOS)100B43.7H	5	15.0	13.8	6.9	5.4	1800	4 or 3	24 1/2	13 9/16	26 1/4	30 5/16	13 9/16	26 13/16	1.38
(TOS)100B43.7	5	15.0	13.8	6.9	5.4	1800	4 or 3	24 1/2	13 1/8	27 3/16	30 5/16	13 1/8	27 9/16	1.77
(TOS)150B43.7	5	14.7	14.2	6.7	5.4	1800	6	34 5/16	19 1/8	34 7/16	28 15/16	18 1/16	32 5/16	2.01
(TOS)150B63.7	5	16.0	15.6	7.8	6.0	1200	6	33	16 11/16	35 9/16	40 1/4	15 9/16	36 7/16	2.17
(TOS)100B45.5	7.5	22.6	20.5	10.3	8.1	1800	4	28	16 1/8	35 3/4	36	15 1/8	35 11/16	1.57
(TOS)100B47.5	10	28.8	26.6	13.4	10.8	1800	4	28	16 1/8	36 9/16	36	15 1/8	36 8/16	1.57
(TOS)150B47.5H	10	28.8	26.6	13.4	10.8	1800	6	32 13/16	16 7/16	37 1/2	40 1/2	15 7/8	38 7/16	2.76
(TOS)150B47.5L	10	28.8	26.6	13.4	10.8	1800	6	34 5/16	19 1/8	42 11/16	41 15/16	18 1/16	40 9/16	1.97
(TO)200B47.5	10	28.8	26.6	13.4	10.8	1800	8	36 7/16	19 1/8	42 11/16	49 13/16	18 1/16	41 5/16	1.97
(TOS)150B411	15	42.2	39.2	19.5	15.7	1800	6	35 1/4	19 5/16	43 1/4	42 7/8	18 1/4	41 7/16	2.95
(TO)200B411	15	42.2	39.2	19.5	15.7	1800	8	36 7/16	19 1/8	44 1/2	49 13/16	18 1/16	43 2/16	2.28
(TOS)150B415	20	56.4	53.2	26.6	21.6	1800	6	35 1/4	19 5/16	46	42 7/8	18 1/4	44 3/16	2.95
(TO)200B415	20	56.4	53.2	26.6	21.6	1800	8	38 1/4	20 11/16	47 1/16	48 9/16	17 1/16	45 11/16	2.36

Dimension: Free Standing



Dimension: Guide Rail Fitting (TOS)

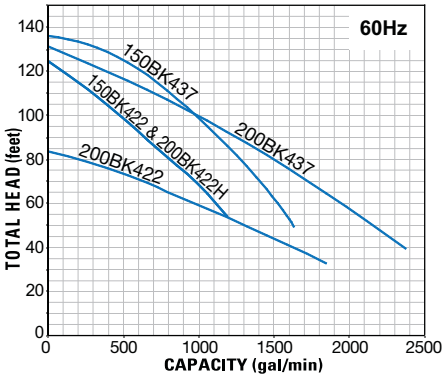


BK Series

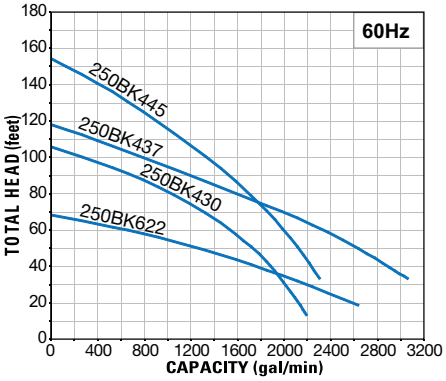
The **BK Series** *features with a standard built in internal cooling jacket design. The* **BK SERIES** *offers continued cooling when low sump levels may be present. Tsurumi has the right model to handle every application to efficiently transfer the most aggressive liquids. Available from 30-60HP in Free-standing, and Guide Rail designs.*

Performance Curves

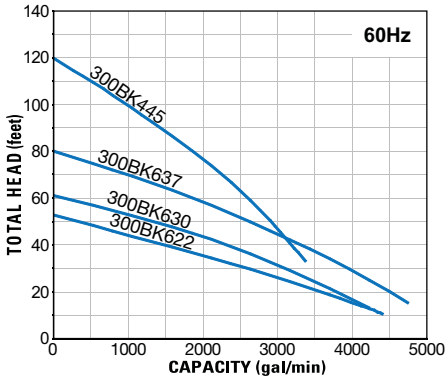
Discharge Size: 6"- 8"



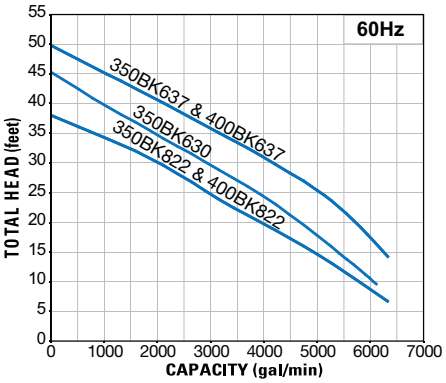
Discharge Size: 10"



Discharge Size: 12"



Discharge Size: 14" - 16"



Specifications

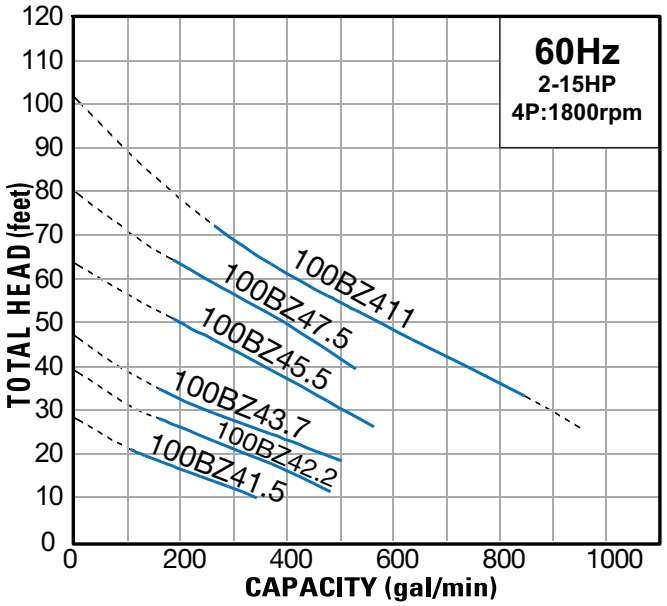
* Synchronous Speed

Three Phase Model	Motor Output (HP)	Rated Current (A)		*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
						Free Standing Models			TOS & TO Guide Rail Models			
		460V	575V			A	B	C	D	E	F	
(TOS)150BK422	30	39	31.5	1800	6	38 7/8	21 1/4	52 1/8	46 1/4	20 1/2	51 5/16	2.95
(TO)200BK422H	30	39	31.5	1800	8	41 1/16	21 1/4	52 1/8	54 1/8	20 1/2	52 1/16	2.95
(TO)200BK422	30	39	31.5	1800	8	42 13/16	24 7/16	51 15/16	53 3/8	21 5/8	51 15/16	2.95
(TO)250BK622	30	41	33	1200	10	51 11/16	29 15/16	63 1/4	62 7/16	26 5/16	60 13/16	3.11
(TO)300BK622	30	41	33	1200	12	53 3/4	29 15/16	63 9/16	66 5/16	27 3/8	63 11/16	3.27
(TO)350BK822	30	44	35.5	900	14	58 9/16	31 1/16	67 5/8	72 5/8	28 3/4	68 1/4	4.11
(TO)400BK822	30	44	35.5	900	16	62 5/16	31 1/16	67 5/8	83 9/16	28 3/4	70 9/16	4.11
(TO)250BK430	40	52	42	1800	10	51	28 1/2	61 1/8	61 5/8	25 1/2	58 1/2	2.26
(TO)300BK630	40	56	45	1200	12	53 3/4	29 15/16	67 3/16	66 5/16	27 3/8	67 5/16	2.76
(TO)350BK630	40	56	45	1200	14	58 9/16	31 1/16	68 3/4	72 5/8	28 3/4	69 5/16	3.15
(TO)150BK437	50	63	50	1800	6	42 11/16	28 1/2	63 11/16	51 7/16	24 7/16	57 1/16	1.57
(TO)200BK437	50	63	50	1800	8	46 7/8	28 1/2	64 9/16	56 1/4	24 3/8	60 1/8	1.57
(TO)250BK437	50	63	50	1800	10	51	28 1/2	64 3/4	61 5/8	25 1/2	62 1/16	2.64
(TO)300BK637	50	67	54	1200	12	53 3/4	29 15/16	67 3/4	66 5/16	27 3/8	67 7/8	3.60
(TO)350BK637	50	67	54	1200	14	58 9/16	31 1/16	69 5/16	72 5/8	28 3/4	69 15/16	4.27
(TO)400BK637	50	67	54	1200	16	62 5/16	31 1/16	69 5/16	83 9/16	28 3/4	72 5/16	4.27
(TO)250BK445	60	77	62	1800	10	51 11/16	29 15/16	63 9/16	62 1/8	26 1/4	61 1/4	1.77
(TO)300BK445	60	77	62	1800	12	53 1/16	28 1/2	65 1/2	65 5/8	26	64 3/4	2.76

BZ Series

*The **BZ SERIES** pumps utilize a unique channel impeller design to efficiently handle and transfer raw sewage. Ideal use for residential, commercial, industrial sewage, effluent, wastewater and site drainage. Available up to 15HP in Free-standing & Guide Rail designs.*

Performance Curves



REMARKS:
Not Recommended for Continuous OperationOn Dashed Curve.

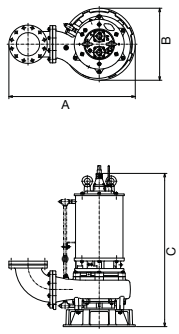
Specifications

* Synchronous Speed

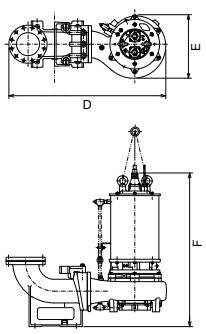
Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
								Free Standing Models			TOS Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
(TOS)100BZ41.5	2	8.0	8.0	4.0	3.0	1800	4	22 1/2	10 3/4	24 13/16	28 5/16	10 3/4	25 7/16	3.15
(TOS)100BZ42.2	3	9.8	9.2	4.6	3.6	1800	4	22 1/2	10 3/4	24 13/16	28 5/16	10 3/4	25 7/16	3.15
(TOS)100BZ43.7	5	15.0	14.2	7.3	5.4	1800	4	23 13/16	11 3/8	26 13/16	29 5/8	11 3/8	27 3/8	3.15
(TOS)100BZ45.5	7.5	22.6	20.5	10.3	8.1	1800	4	29	16 9/16	36 3/8	37 3/16	16	36	3.15
(TOS)100BZ47.5	10	28.8	26.6	13.4	10.8	1800	4	29	16 9/16	37 3/16	37 3/16	16	36 13/16	3.15
(TOS)100BZ411	15	42.2	39.2	19.5	15.7	1800	4	29 7/16	16 15/16	40 1/4	37 5/8	16 7/8	40	3.15

BK Series dimension:

Dimension: Free Standing

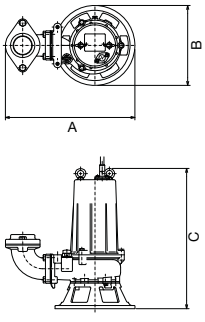


Dimension: Guide Rail Fitting (TO / TOS)

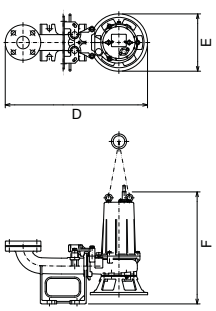


BZ Series dimension:

Dimension: Free Standing



Dimension: Guide Rail Fitting (TOS)

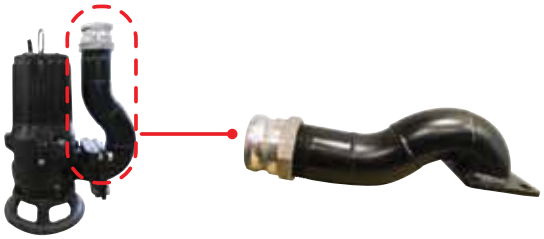


C Series

The Tsurumi **C SERIES** *cutter pump was designed to resolve the all-too-common issue of clogging due to ragging. With more and more hygiene and cleaning products being considered "flushable," these costly clogging issues are becoming more prevalent in municipal wastewater applications. However, the* **C SERIES** *have also been found to be extremely reliable in industrial, agricultural, processing plants, and many other markets as well.*

Applications

- Municipal Wet Well Lift Stations
- Municipal Dry Pit Stations
- Retail Stores / Restaurants
- Sewer Bypass
- Nursing Homes / Housing Developments
- Prisons
- Hospitals
- Pulp and Paper Mills
- Industrial Processing
- Oil Refining
- Food Processing
- Farming
- Campgrounds
- Hotels

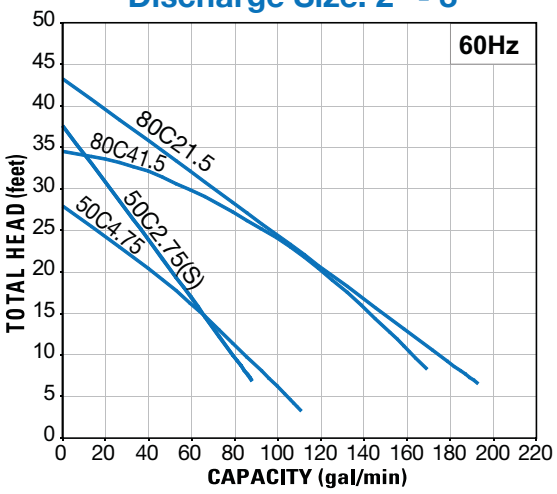


Optional Discharge with 3" & 4" Discharge Size

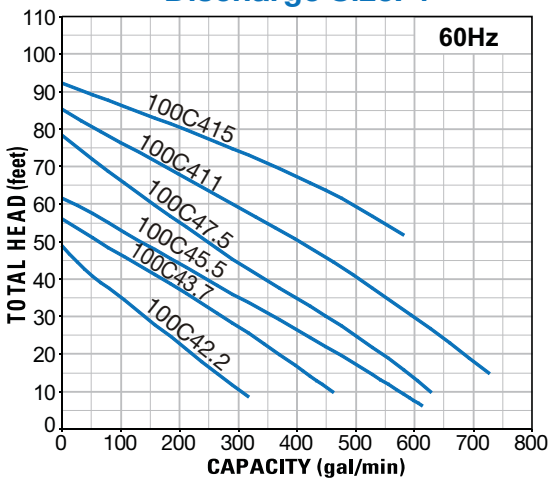
Reduced overall width allows pump to be used in confined areas, including sewer bypass applications. Please contact factory with specific applications. (Also available for other models)

Performance Curves

Discharge Size: 2" - 3"

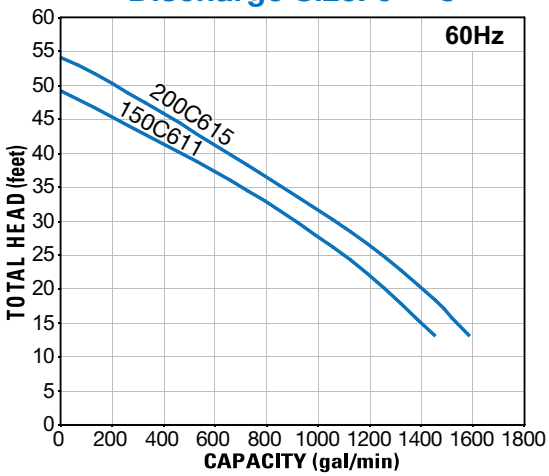


Discharge Size: 4"

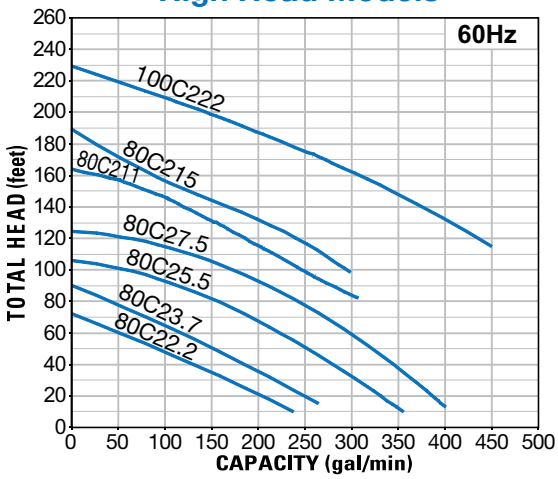


Performance Curves

Discharge Size: 6" - 8"



High Head Models



Specifications

* Synchronous Speed

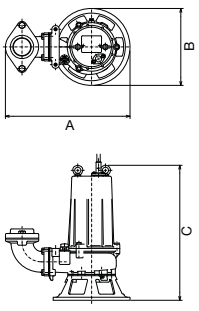
Single Phase Model	Motor Output (HP)	Rated Current (A)		*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
						Free Standing Models			TOS Guide Rail Models			
		115V	230V			A	B	C	D	E	F	
(TOS)50C2.75S	1	11.7	5.9	3600	2	15 15/16	9 13/16	20 9/16	24 7/16	9 13/16	22 5/16	0.827

Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
								Free Standing Models			TOS Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
(TOS)50C2.75	1	3.5	3.5	1.8	1.4	3600	2	15 15/16	9 13/16	16 5/16	24 7/16	9 13/16	18 1/16	0.827
(TOS)50C4.75	1	3.6	3.5	1.8	1.5	3600	2	16 13/16	11 3/16	19 5/8	25 5/16	11 3/16	21 9/16	1.02
(TOS)80C21.5	2	6.2	5.9	3.1	2.3	3600	3	17 9/16	9 13/16	21 1/8	26 5/8	9 13/16	23 1/16	1.18
(TOS)80C41.5	2	6.6	6.4	3.2	2.6	1800	3	19 5/8	12 7/16	22 10/16	28 11/16	12 7/16	23 7/8	1.26
(TOS)100C42.2	3	9.4	8.5	4.3	3.5	1800	4 or 3	24 3/16	12 3/4	24 1/4	30 1/16	12 3/4	24 13/16	1.73
(TOS)100C43.7	5	15.0	13.8	6.9	5.4	1800	4 or 3	24 3/8	13 1/8	27 3/16	30 1/4	13 1/8	27 9/16	2.17
(TOS)100C45.5	7.5	22.6	20.5	10.3	8.1	1800	4	27 13/16	16 1/8	35 3/4	36	15 1/8	35 11/16	1.57
(TOS)100C47.5	10	28.8	26.6	13.4	10.8	1800	4	27 13/16	16 1/8	36 9/16	36	15 1/8	36 1/2	1.57
(TOS)100C411	15	42.2	39.2	19.5	15.7	1800	4	28 11/16	16 15/16	39 3/8	36 15/16	16 15/16	39 5/16	1.97
(TOS)100C415	20	56.4	53.2	26.6	21.6	1800	4	28 5/8	17 3/16	42 1/2	36 7/8	16 11/16	42 7/16	1.57
(TOS)150C611	15	43	40	20	16	1200	6	41 1/16	23 11/16	47 11/16	48 3/8	22	46 5/16	3.62
(TO)200C615	20	58	52	26	21	1200	8	43 1/4	23 11/16	49 5/8	56 1/4	22	49 1/16	3.62

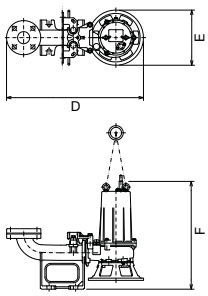
High-Head Model

Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
								Free Standing Models			TOS Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
(TOS)80C22.2	3	10.0	9.8	4.9	3.8	3600	3	21 1/8	10 1/4	24 1/16	27 5/16	10 1/4	25 3/16	0.787
(TOS)80C23.7	5	14.4	13.6	6.8	5.3	3600	3	21 1/8	10 1/4	24 1/16	27 5/16	10 1/4	25 3/16	0.866
(TOS)80C25.5	7.5	22.3	21.4	10.7	8.3	3600	3	24 15/16	13 9/16	34 5/8	31	12 5/8	35 1/2	0.906
(TOS)80C27.5	10	26.9	25.6	13.0	10.2	3600	3	24 15/16	13 9/16	34 5/8	31	12 5/8	35 1/2	0.906
(TOS)80C211	15	40.8	39.2	19.6	15.4	3600	3	24 15/16	13 9/16	36 1/2	31	12 5/8	36 7/16	0.984
(TOS)80C215	20	54	50	25	20.0	3600	3	28 3/4	16 15/16	42 11/16	37 1/8	16 15/16	42 3/4	1.02
(TOS)100C222	30	---	---	35	28	3600	3	33 3/4	20 1/16	46 5/8	40 3/8	20 1/16	46 5/8	1.02

Dimension: Free Standing



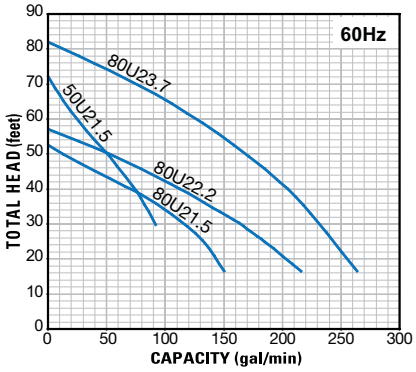
Dimension: Guide Rail Fitting (TOS)



U Series

The **U SERIES** *submersible pump is designed for handling wastewater, industrial and commercial sump pump applications. The* **U SERIES** *pump is equipped with a semi-vortex impeller designed for use in effluent and dirty water applications. Available up to 15HP in Free-standing and Guide Rail designs.*

Performance Curves



Specifications

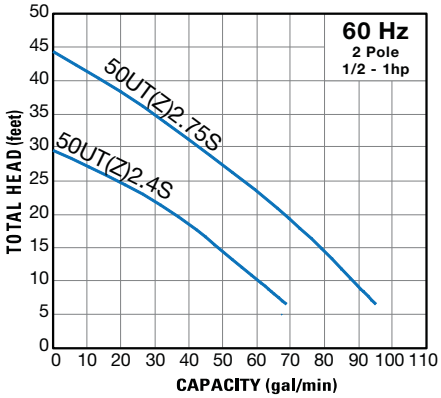
* Synchronous Speed

Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
								Free Standing Models			TOS Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
(TOS)50U21.5	2	6.2	5.9	3.1	2.3	3600	2	11 11/16	7 15/16	18 3/8	25 7/8	7 15/16	18 13/16	1.38
(TOS)80U21.5	2	6.2	5.9	3.1	2.3	3600	3	16 9/16	7 15/16	19 5/8	24 1/8	7 15/16	23 11/16	1.81
(TOS)80U22.2	3	9.4	8.8	4.4	3.5	3600	3	20 1/2	9 7/16	22 1/8	25 1/4	9 7/16	25 1/2	2.20
(TOS)80U23.7	5	14.4	13.6	6.8	5.3	3600	3	20 1/2	9 3/16	22 1/4	25 1/4	9 3/16	25 9/16	1.81

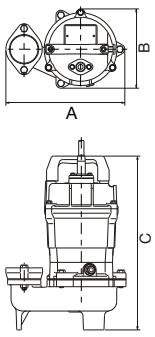
UT(Z) Series

The **UT(Z) SERIES** *is an economical version of the U Series, semi-vortex submersible pumps. It is designed for a wide range of applications. Available in* ***automatic operation*** *(50UTZ2.4S/2.75S), which are equipped with floats.*

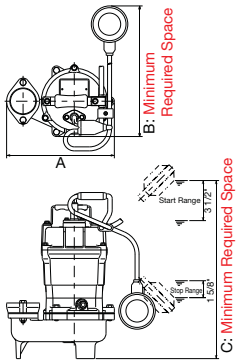
Performance Curves



Dimension: 50UT2.4S/2.75S



Dimension: 50UTZ2.4S/2.75S



Specifications

(Suffix Z: Automatic Operation)

* Synchronous Speed

Single Phase Model	Motor Output (HP)	Rated Current (A)		*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)			Max. Solids Dia. (in.)
						Free Standing Models			
		115V	230V			A	B	C	
50UT2.4S	1/2	5.7	3.4	3600	2	9 1/2	6 3/8	13 3/4	1.40
50UTZ2.4S	1/2	5.7	3.4	3600	2	9 1/2	11 5/8*1	15 3/4*1	1.40
50UT2.75S	1	9.9	5.2	3600	2	9 1/2	6 3/8	16	1.40
50UTZ2.75S	1	9.9	5.2	3600	2	9 1/2	11 5/8*1	18*1	1.40

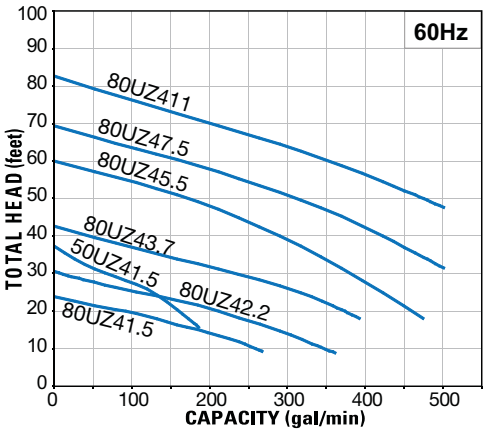
*1 : Minimum Required Space

UZ Series

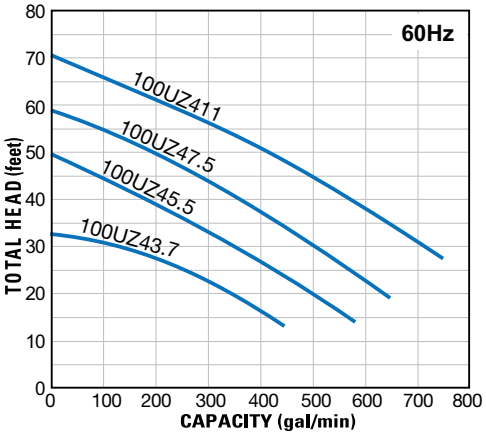
With the full Vortex impeller design, the **UZ SERIES** *pumps handle a particle passage of 3", which is the smallest diameter that any of the models in this family of pumps will pass. So if passing a 3" solid is what you require, specify a Tsurumi* **UZ SERIES** *pump: We have the exact model to handle every application to efficiently and reliably transfer raw sewage. Available up to 15HP in Free-standing and Guide Rail designs.*

Performance Curves

Discharge Size: 2" - 3"



Discharge Size: 4"



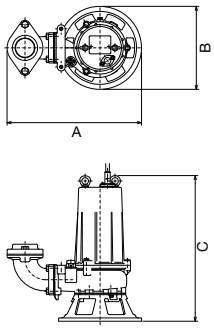
Specifications

* Synchronous Speed

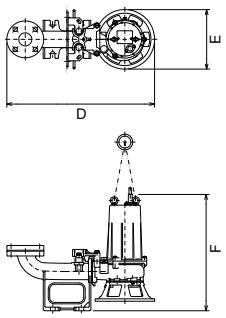
Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
								Free Standing Models			TOS Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
(TOS)50UZ41.5	2	7.3	7.0	3.5	2.9	1800	2	15 15/16	9 3/4	22 5/16	24 7/16	9 3/4	24 5/8	1.97
(TOS)80UZ41.5	2	7.3	7.0	3.5	2.9	1800	3	21 5/8	10 1/4	25 1/16	28 1/16	10 1/4	26 3/8	3.15
(TOS)80UZ42.2	3	9.4	8.5	4.3	3.5	1800	3	21 5/8	10 1/4	25 1/16	28 1/16	10 1/4	26 3/8	3.15
(TOS)80UZ43.7	5	15.0	13.8	6.9	5.4	1800	3	22 11/16	11 7/16	27 1/16	29 1/8	11 7/16	28 3/8	3.15
(TOS)100UZ43.7	5	15.0	13.8	6.9	5.4	1800	4	25 1/2	12 3/8	29	33 11/16	12 3/8	30 9/16	3.94
(TOS)80UZ45.5	7.5	22.6	20.5	10.3	8.1	1800	3	24 1/8	14 1/8	35 3/8	30 9/16	14 1/8	36 1/2	3.15
(TOS)100UZ45.5	7.5	22.6	20.5	10.3	8.1	1800	4	26 7/16	14 1/8	36 15/16	34 11/16	14 1/8	38 3/8	3.94
(TOS)80UZ47.5	10	28.8	26.6	13.4	10.8	1800	3	24 1/8	14 1/8	36 1/4	30 9/16	14 1/8	37 5/16	3.15
(TOS)100UZ47.5	10	28.8	26.6	13.4	10.8	1800	4	26 7/16	14 1/8	37 13/16	34 11/16	14 1/8	39 3/16	3.94
(TOS)80UZ411	15	42.2	39.2	19.5	15.7	1800	3	24 7/16	14 1/8	38 5/8	30 7/8	14 1/8	39 5/8	3.15
(TOS)100UZ411	15	42.2	39.2	19.5	15.7	1800	4	26 3/4	14 1/8	40 3/16	35	14 1/8	41 1/2	3.94

UZ / U Series dimension:

Dimension: Free Standing



Dimension: Guide Rail Fitting (TOS)

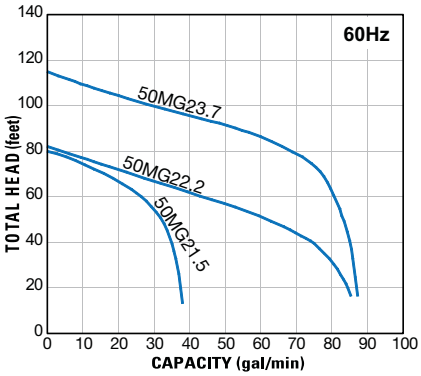


MG Series

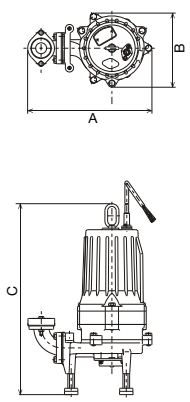
MG Series Grinder

The **MG SERIES** *GRINDER Tsurumi submersible pumps are designed for handling raw sewage, heavy duty industrial and food processing applications, where the pump is required to operate continuously while grinding oversize materials. With the unique high chrome grinder impeller and shredder plate design in the* **MG SERIES** *GRINDER pumps, Tsurumi has the right model to handle every application to efficiently transfer the most aggressive solid laden liquids, in the pump market. Available in 2, 3 & 5HP in Free-standing & Guide Rail designs.*

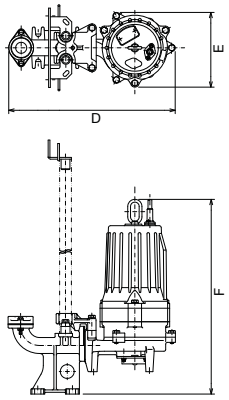
Performance Curves



Dimension: Free Standing



Dimension: Guide Rail Fitting (TOS)



Specifications

* Synchronous Speed

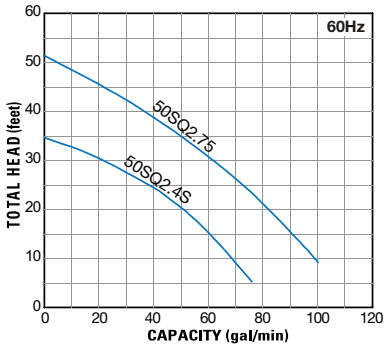
Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
								Free Standing Models			TOS Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
(TOS)50MG21.5	2	6.7	6.6	3.3	2.6	3600	2	14 5/16	8 9/16	21 15/16	24 7/16	8 9/16	23 1/8	0.197
(TOS)50MG22.2	3	10.0	9.8	4.9	3.8	3600	2	17 1/4	8 7/8	23 3/8	24 7/16	8 7/8	24 11/16	0.197
(TOS)50MG23.7	5	14.4	13.6	6.8	5.3	3600	2	17 1/4	8 7/8	23 3/8	24 7/16	8 7/8	24 11/16	0.197

SQ Series

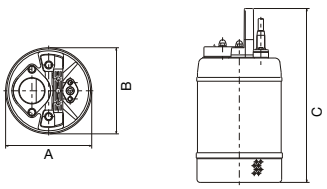
TSURUMI **SQ Series** *Stainless Steel Pumps are rust-free and corrosive resistant.*

- All components including motor frame are made of SS 304 Stainless Steel
- White mineral oil is used as the lubricant
- The flow-through design and heat resistant Silicon Carbide Mechanical Seals assist in cooling in the event of run-dry situations
- Semi-vortex, stainless steel impeller with replaceable / adjustable wear plate increases wear resistance when pumpage contains abrasive particles

Performance Curves



Dimension: Free Standing



Specifications

* Synchronous Speed

Single Phase Model	Motor Output (HP)	Rated Current (A)		*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)			Max. Solids Dia. (in.)
						Free Standing Models			
		115V	230V			A	B	C	
50SQ2.4S	1/2	6.5	3.4	3600	2	7 1/16	7 1/16	14 5/16	0.236

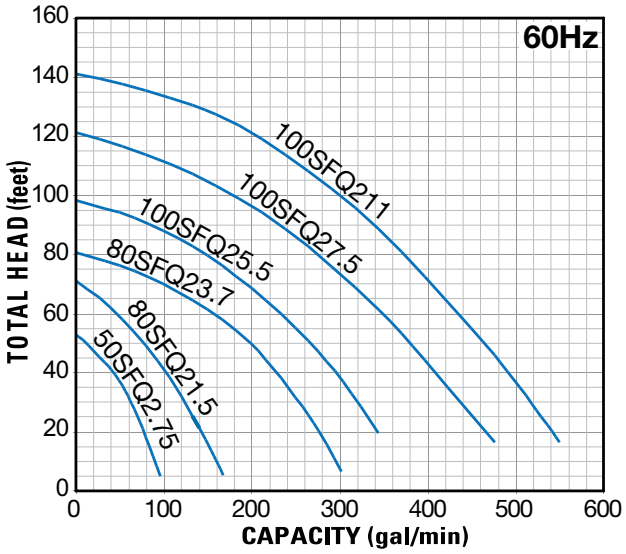
Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)			Max. Solids Dia. (in.)
								Free Standing Models			
		208V	220V	460V	575V			A	B	C	
50SQ2.75	1	3.5	3.4	1.6	1.3	3600	2	7 1/16	7 1/16	15 1/8	0.236

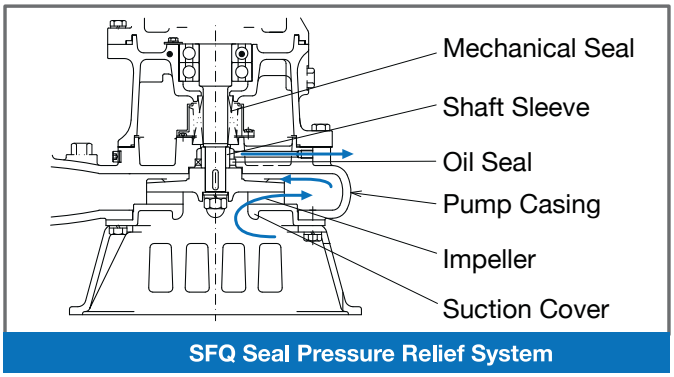
SFQ Series

TSURUMI **SFQ Series** *Stainless Steel Pumps are solidly engineered pumps to endure the corrosive environment of your toughest applications.*

- All wetted metal components are SS 316 Stainless Steel
- Viton elastomers
- Dual inside mechanical seals with Silicon Carbide faces, running in an oil filled chamber and further protected by an exclusionary lip seal, providing the most durable seal available
- Optional 316 SS Slide rail system is available for models from 7 1/2 - 15hp
- Seal pressure relief system features an independent chamber separate from the oil casing in which the mechanical seal is housed

Performance Curves





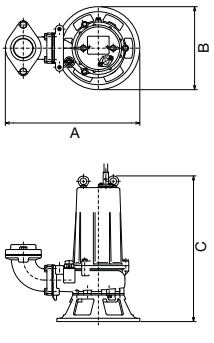
SFQ Seal Pressure Relief System

Specifications

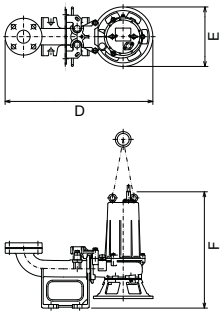
* Synchronous Speed

Three Phase Model	Motor Output (HP)	Rated Current (A)				*S.S. (RPM)	Discharge Size (in.)	Dimensions (in.)						Max. Solids Dia. (in.)
								Free Standing Models			TO Guide Rail Models			
		208V	230V	460V	575V			A	B	C	D	E	F	
50SFQ2.75	1	3.5	3.1	1.6	1.4	3600	2	9 15/16	7 11/16	15 11/16	N/A	N/A	N/A	0.236
80SFQ21.5	2	6.9	6.7	3.4	2.7	3600	3	12 15/16	8 11/16	19 1/16	N/A	N/A	N/A	0.236
80SFQ23.7	5	13.8	12.8	6.4	5.0	3600	3	14 1/8	10 1/8	21 5/16	N/A	N/A	N/A	0.591
100SFQ25.5	7.5	19.3	18.2	9.4	7.5	3600	4	25 3/8	14 3/16	33 1/4	37 3/16	14 3/16	35 7/8	0.787
100SFQ27.5	10	26.0	24.4	12.2	9.5	3600	4	25 3/8	14 3/16	33 1/4	37 3/16	14 3/16	35 7/8	0.787
100SFQ211	15	37.0	35.2	17.6	13.9	3600	4	25 3/8	14 3/16	35 1/8	37 3/16	14 3/16	37 13/16	0.906

Dimension: Free Standing



Dimension: Guide Rail Fitting (TOS)



VANCS Series

The **VANCS SERIES** *submersible pump is designed for handling raw sewage, wastewater, industrial and commercial sump pump applications. The* **VANCS SERIES** *has a proven track record for offering long life in both continuous and intermittent sump applications. With the pump made of complete molded resin material and all other parts coming in contact with the pump liquid in either 304 SS or Titanium.*

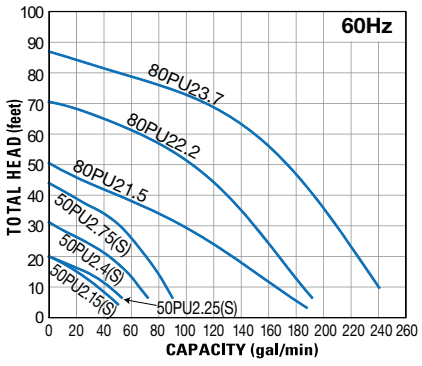
- Residential, commercial, industrial, effluent, wastewater and site drainage.
- Chemical spill containment
- Raw water supply from rivers or lakes.
- ***For TM Series: Titanium components increases corrosion resistance in a wide variety of applications. Ideal use for salt wastewater, site drainage and bilge pumps***
- ***Automatic Operation and Auto Alternating Operation are available***

☑ *AUTO DUPLEXING - MADE SIMPLE*

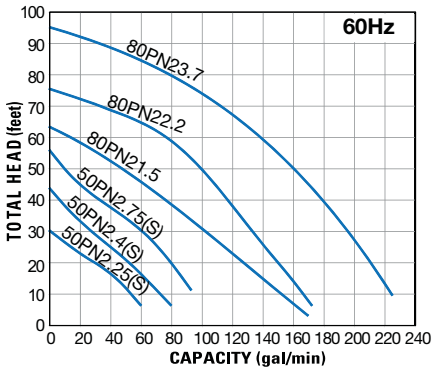
VANCS Series pumps are available with automatic duplexing capabilities eliminating the need for a duplexing control panel*. The auto-alternating model has three floats and can be identified by the suffix “W”. Refer to standard specifications for availability and model numbers. It is available in the same output range of the automatic pumps.
*Note: Must be installed in accordance with all National or Local Electrical or Building Codes.

Performance Curves

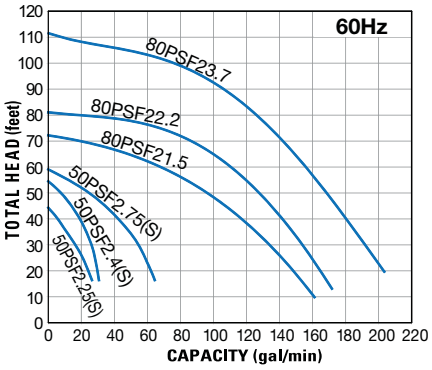
PU Series



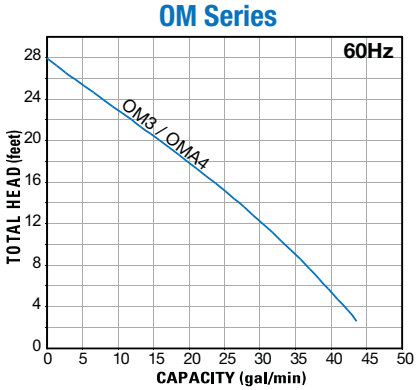
PN Series



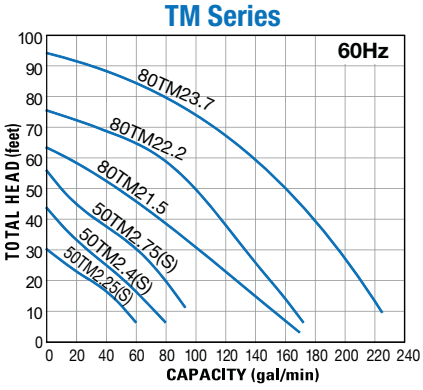
PSF Series



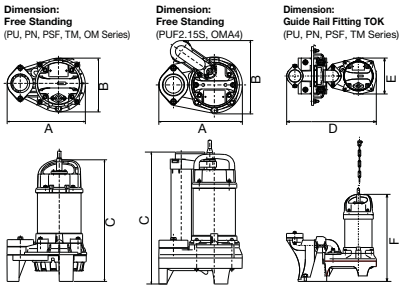
OM Series



TM Series



Specifications



S.S = Synchronous Speed
* Rated Current 440V

OM Series

Single Phase Model	Motor Output (HP)	Rated Current (A)		S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			Max. Solids Dia. (in.)
		115V	230V			A	B	C	
OM3	1/5	3.2	1.6	3600	1.5	8	5 1/2	12 7/16	0.394
OMA4	1/5	3.2	1.6	3600	1.5	8	7	12 5/8	0.394

PU Series

Single Phase Model	Motor Output (HP)	Rated Current (A)		S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		115V	230V			A	B	C	D	E	F	
(TOK)50PU2.15S	1/5	3.2	1.6	3600	2	8 7/8	6 1/16	14 13/16	16 13/16	6 1/16	16 1/8	1.38
(TOK)50PU2.25S	1/3	4.6	2.3	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	1.38
(TOK)50PU2.4S	1/2	5.8	2.9	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	1.38
(TOK)50PU2.75S	1	9.2	4.6	3600	2	9 5/16	6 3/8	14 15/16	17 3/16	6 3/8	16	1.38
Three Phase Model	Motor Output (HP)	Rated Current (A)				S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		208V	220V	460V	575V			A	B	C	D	E	F	
(TOK)50PU2.25	1/3	1.65	1.6	0.75	---	3600	2	9 5/16	6 3/8	13 3/4	17 3/16	6 3/8	14 3/4	1.38
(TOK)50PU2.4	1/2	2.1	2.0	0.95	---	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	1.38
(TOK)50PU2.75	1	3.2	3.2	1.5	---	3600	2	9 5/16	6 3/8	14 3/4	17 3/16	6 3/8	15 3/4	1.38
(TOK)80PU21.5	2	6.9	6.6	*3.6	---	3600	3	11 5/8	7 11/16	18 11/16	20 11/16	7 11/16	19 5/16	1.81
(TOK)80PU22.2	3	9.1	8.5	4.2	3.3	3600	3	12 1/4	8 3/8	22 15/16	21 5/16	8 3/8	23 3/8	1.81
(TOK)80PU23.7	5	14.4	13.4	6.5	5.0	3600	3	12 1/4	8 3/8	24 5/16	21 5/16	8 3/8	24 3/4	1.81

PN Series

Single Phase Model	Motor Output (HP)	Rated Current (A)		S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		115V	230V			A	B	C	D	E	F	
(TOK)50PN2.25S	1/3	4.6	2.3	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	0.394
(TOK)50PN2.4S	1/2	5.8	2.9	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	0.394
(TOK)50PN2.75S	1	9.2	4.6	3600	2	9 5/16	6 3/8	14 15/16	17 3/16	6 3/8	16	0.394
Three Phase Model	Motor Output (HP)	Rated Current (A)				S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		208V	220V	460V	575V			A	B	C	D	E	F	
(TOK)50PN2.25	1/3	1.65	1.6	0.75	---	3600	2	9 5/16	6 3/8	13 3/4	17 3/16	6 3/8	14 3/4	0.394
(TOK)50PN2.4	1/2	2.1	2.0	0.95	---	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	0.394
(TOK)50PN2.75	1	3.2	3.2	1.5	---	3600	2	9 5/16	6 3/8	14 3/4	17 3/16	6 3/8	15 3/4	0.394
(TOK)80PN21.5	2	6.9	6.6	*3.6	---	3600	3	11 5/8	7 11/16	17 1/8	20 11/16	7 11/16	19 5/16	0.787
(TOK)80PN22.2	3	9.1	8.5	4.2	3.3	3600	3	12 1/4	8 3/8	22	21 5/16	8 3/8	23 3/8	0.787
(TOK)80PN23.7	5	14.4	13.4	6.5	5.0	3600	3	12 1/4	8 3/8	23 3/8	21 5/16	8 3/8	24 3/4	0.787

PSF Series

Single Phase Model	Motor Output (HP)	Rated Current (A)		S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		115V	230V			A	B	C	D	E	F	
(TOK)50PSF2.25S	1/3	4.6	2.3	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	0.315
(TOK)50PSF2.4S	1/2	5.8	2.9	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	0.315
(TOK)50PSF2.75S	1	9.2	4.6	3600	2	9 5/16	6 3/8	14 15/16	17 3/16	6 3/8	16	0.315
Three Phase Model	Motor Output (HP)	Rated Current (A)				S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		208V	220V	460V	575V			A	B	C	D	E	F	
(TOK)50PSF2.25	1/3	1.65	1.6	0.75	---	3600	2	9 5/16	6 3/8	13 3/4	17 3/16	6 3/8	14 3/4	0.315
(TOK)50PSF2.4	1/2	2.1	2.0	0.95	---	3600	2	9 5/16	6 3/8	14 3/16	17 3/16	6 3/8	15 3/16	0.315
(TOK)50PSF2.75	1	3.2	3.2	1.5	---	3600	2	9 5/16	6 3/8	14 3/4	17 3/16	6 3/8	15 3/4	0.315
(TOK)80PSF21.5	2	6.9	6.6	*3.6	---	3600	3	11 5/8	7 11/16	17 1/8	20 11/16	7 11/16	19 5/16	0.512
(TOK)80PSF22.2	3	9.1	8.5	4.2	3.3	3600	3	12 1/4	8 3/8	22	21 5/16	8 3/8	23 3/8	0.512
(TOK)80PSF23.7	5	14.4	13.4	6.5	5.0	3600	3	12 1/4	8 3/8	23 3/8	21 5/16	8 3/8	24 3/4	0.512

TM Series

Single Phase Model	Motor Output (HP)	Rated Current (A)		S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		115V	230V			A	B	C	D	E	F	
50TM2.25S	1/3	4.6	2.3	3600	2	9 5/16	6 3/8	14 3/16	N/A	N/A	N/A	0.394
50TM2.4S	1/2	5.8	2.9	3600	2	9 5/16	6 3/8	14 3/16	N/A	N/A	N/A	0.394
50TM2.75S	1	9.2	4.6	3600	2	9 5/16	6 3/8	14 15/16	N/A	N/A	N/A	0.394
Three Phase Model	Motor Output (HP)	Rated Current (A)				S.S. (RPM)	Discharge Size (in.)	Dimensions (in.) Free Standing Models			TOK Guide Rail Models			Max. Solids Dia. (in.)
		208V	220V	460V	575V			A	B	C	D	E	F	
50TM2.25	1/3	1.65	1.6	0.75	---	3600	2	9 5/16	6 3/8	13 3/4	N/A	N/A	N/A	0.394
50TM2.4	1/2	2.1	2.0	0.95	---	3600	2	9 5/16	6 3/8	14 3/16	N/A	N/A	N/A	0.394
50TM2.75	1	3.2	3.2	1.5	---	3600	2	9 5/16	6 3/8	14 3/4	N/A	N/A	N/A	0.394
80TM21.5	2	6.9	6.6	*3.6	---	3600	3	11 5/8	7 11/16	17 1/8	N/A	N/A	N/A	0.787
80TM22.2	3	9.1	8.5	4.2	3.3	3600	3	12 1/4	8 3/8	22	N/A	N/A	N/A	0.787
80TM23.7	5	14.4	13.4	6.5	5.0	3600	3	12 1/4	8 3/8	23 3/8	N/A	N/A	N/A	0.787

CONTROL PANELS & MOISTURE DETECTOR

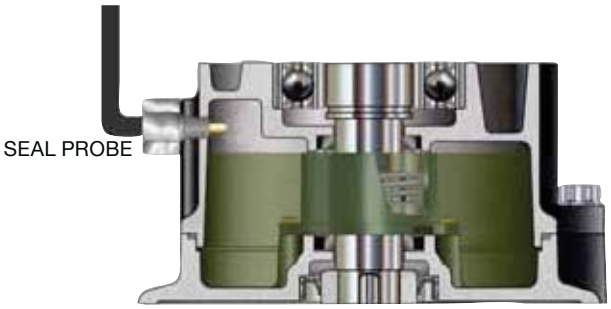
TS SERIES CONTROL PANELS

Features

- Lockable – 4X Enclosures
- HOA Switch – Heavy Duty Oil Tight
- Terminal Block – For Field Wiring
- Pump Run Indicator – Heavy Duty Oil Tight
- Multi-Tap Control Transformer 208/230/460VAC Operation
- Control Alarm Fuse
- Motor Protective Switch
- Adjustable Overload Protection
- IEC Rated Magnetic Contactor
- Horn Silence Switch – Heavy Duty Oil Tight
- Auto Reset Horn Silence
- Buzzer – 95db warble
- Red Alarm Beacon
- Includes three (3) Mechanical Float Switches & Pipe Clamp

SEAL MOISTURE PROBE

The **TSMP SEAL MOISTURE PROBE** *is designed to detect moisture in the mechanical seal chamber, alerting customers of potential motor failure. The* **TSMP SEAL MOISTURE PROBE** *can be field installed on any new or existing Tsurumi pump models and connected to the control panel for the appropriate alarm or notification.*



Principle of Operation:

Sensor is installed through the oil port and directly into the mechanical seal chamber which contains an electrically non-conductive oil.
The presence of water changes the chamber fluid mixture to a conductive condition and therefore completes the circuit which will result in a leakage indication on the control panel.

Electrical Specification

Sensor Type:	Conductive
Suggested Seal Fail Relay Voltage:	24 VAC
Required Wiring:	Single wire in separate sensor cable to be connected to seal leak relay in control panel by customer.

TSURUMI PUMP
For Sales, Service, and Specifications, call:
1-888-TSURUMI (878-7864)

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Glendale Heights, IL 60139
Tel: 1-888-878-7864 (Toll-Free)
1-630-793-0127
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