

# S E R I E S

EXPLOSION PROOF











The **AVANT® MY Series** is a new offering of submersible pumps developed by Tsurumi Pump, a leader in the pump industry since 1924. The AVANT® MY Series was created to deliver maximum customer satisfaction, using impressive knowledge in submersible pumps and wastewater treatment equipment. The AVANT® MY Series combines quality material and premium engineering to be able to uphold the Tsurumi name. Tsurumi has been a leading company in the field of water solutions for nearly a century.



## **MY Series**

#### Motors

From 2.5 to 20 HP

#### **Hydraulics**

- Open Channel (MYB)
- Chopper (MYCZ)
- Grinder (MYG)
- Vortex (MYU)

The **AVANT® MY Series** is designed and built with a heavy emphasis on durability and pumping efficiency. These high quality pumps are highly reliable and smooth running compared to other pumps in the marketplace. In addition, for higher versatility, the AVANT® MY Series offers four types of impellers (Open Channel, Chopper, Grinder and Vortex). Offered in discharge sizes from 2in. to 4in. with 2 and 4 pole motors from 2.5 to 20 HP.

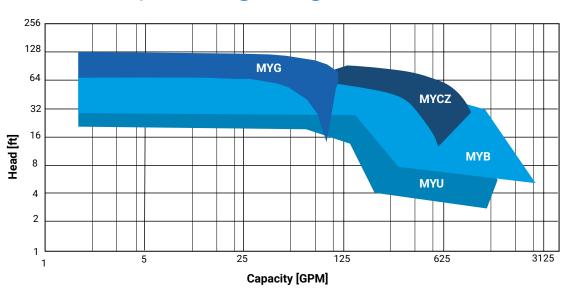
# Specifications

- Cast iron structure
- Three-phase motor from 2.5 to 20 HP
- Insulation: class H (356°F)
- Protection rating: IP68
- 60 Hz

- · Thermal protection devices incorporated in stator
- AISI 431 drive shaft
- Two silicon carbide mechanical seals in large oil chamber
- Discharge from 2in. to 4in. ANSI Flange
- · Large free passage



# Overview of operating ranges



# Construction materials

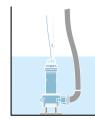
Motor casing	Cast iron GJL-250
Impeller	Cast iron GJL-250
Mechanical seals	Silicon carbide
Nuts and bolts	Stainless steel - class A2-70
Standard gaskets	Viton
Drive shaft	AISI 431 stainless steel
Grinder Mechanism	Chromium steel
Paint	Bicomponent epoxy paint with high resistance to corrosion

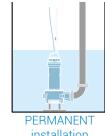
# Operating specifications

Max operating temperature	104°F
pH of liquid	6 to 14
Max submergence	65 ft
Max liquid density	68 lb/ft³
Max acoustic pressure	<70 dB
Max. starts/hour	20 (<12 HP) 15 (>12 HP)

# Installations and accessories

Accessories are available to simplify installation.





installation



**BOTTOM COUPLER** 

#### Base plates

- In cast iron or galvanized steel
- Free standing installation



Guide rail fitting devices

- Cast iron body stainless steel hardware
- · 3in. to 4in. ANSI

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# **AVANT**

# Features

#### HANDLE

Sturdy stainless steel handle for lifting and transport.

#### **CABLE GLAND**

Threaded cable gland allows connection of conduit to protect the power cable from mechanical or chemical damage.

#### PRESSURIZED TESTING

Every model undergoes pressurized testing to guarantee complete assembly and operation of the gaskets, cable gland, and mechanical seals.

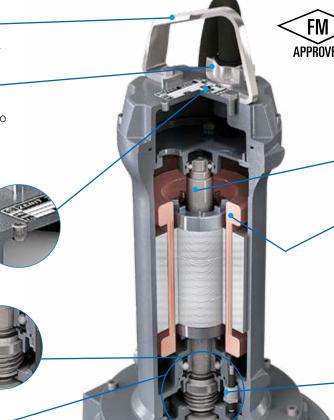
#### **MECHANICAL SEALS**

Two silicon carbide mechanical seals protect the motor from water incursion. Isolation in the oil chamber prevents all contact between the mechanical seals and any solids or filaments in the wastewater.

#### **OIL CHAMBER**

A large oil chamber

promotes longer mechanical seal life. A leakage detection sensor is standard in the oil chamber.





MYB
Open channel
impeller



MYCZ Chopper impeller



**MYG** Grinder



MYU Vortex impeller

#### **MOTOR**

The **AVANT® MY Series** is rated to IP68. Equipped with a high performance induction motor, specifically designed for submersible pumps. These pumps come standard with Class H insulation, rated at 356°F to prevent motor burn out. Capable of up to 20 starts per hour.

#### SHAFT

The **AVANT® MY Series** shaft is SUS431 grade stainless steel for superior strength, durability, and corrosion resistance properties. The shaft is tapered for easy assembly/disassembly.

#### **SENSORS**

The **AVANT® MY Series** pumps are equipped with thermal sensors embedded on the stator windings that prevents the motor from over-heating. An overheat condition will allow the control panel to shut the pump down. For further protection, the leakage sensor is installed inside the oil chamber, allowing the detection of water intrusion.



#### ANTI-CLOGGING SYSTEM

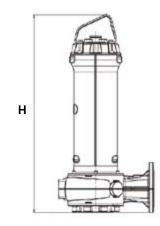
The anti-clogging system uses the centrifugal force of the impeller to pull out the stringy material via a spiral groove cut into the diffuser plate. This combination eliminates the fibrous material clogging of the impeller.

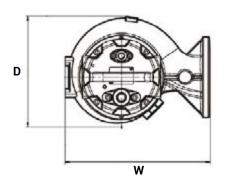
#### PAINT

Bi-component epoxy paint (7.9 thou) is used as standard for all **AVANT® MY Series** pumps. This provides superior corrosion resistance.

#### MATERIAL

The **AVANT® MY Series** uses FC250 grade cast iron. Compared to other pumps of its class, this type is stronger and more durable. Double silicon carbide mechanical seals are enclosed in the oil chamber, preventing leaks and protecting internal components.





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# MYB (Open Channel) FM APPROVED



Tsurumi's explosion proof open channel solids handling pump. Designed for raw sewage and wastewater in municipal, industrial and commercial applications. The MYB open channel impeller maximizes free passage of solids. Clogging risk is minimized through the anti-clog spiral groove within the pump's suction plate. Offered in 3in. and 4in. discharge sizes with motor sizes up to 15 HP.

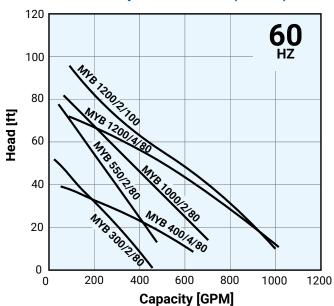
#### Hydraulics

- Channel impeller
- Full free passage

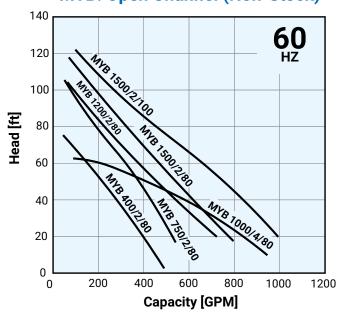
#### Suitable for

- · Solids laden wastewater
- Civil and industrial lift stations
- · Sewage treatment systems and livestock wastewater

## **MYB: Open Channel (Stock)**



### **MYB: Open Channel (Non-Stock)**



Model	Motor Output	Rated Current (A)		*S.S. (RPM)	Discharge Size	Max Head (ft)		BEP Head (ft)	BEP Flow	Dimensions (in.)			Free Passage (in.)
	(HP)	230V	460V	(KFIVI)	(in.)	(11)	(gpm)	(11)	(gpm)	Н	W	D	(111.)
MYB 300/2/80	3	8.1	4.0	3600	3	52	460	28	225	22 1/2	13 1/2	10	1.38
MYB 400/2/80*	4	-	5.6	3600	3	75	490	47	230	24 1/2	13 1/2	10	1.18
MYB 400/4/80	4	11.7	5.9	1800	3	39	640	27	310	25 3/4	15 1/2	11 1/2	2.36
MYB 550/2/80	5.5	13.4	6.7	3600	3	78	480	46	260	26 3/4	13 1/2	10	1.57
MYB 750/2/80*	7.5	-	9.3	3600	3	105	540	61	300	26 3/4	13 1/2	10	1.57
MYB 1000/2/80	10	23.7	11.9	3600	3	83	700	46	370	30 7/8	13	11	1.97
MYB 1000/4/80*	10	-	13.9	1800	3	62	950	41	540	35 3/8	19 1/8	14 3/8	2.36
MYB 1200/2/80*	12	-	14.0	3600	3	104	730	62	370	33 3/8	13	11	1.97
MYB 1200/2/100	12	28.0	14.0	3600	4	96	1,000	48	610	33 5/8	16 3/8	12	1.77
MYB 1200/4/80	12	29.7	14.9	1800	3	72	1,020	48	550	38 1/2	19 1/8	14 3/8	2.36
MYB 1500/2/80*	15	-	16.9	3600	3	117	800	72	390	33 3/8	13	11	1.97
MYB 1500/2/100*	15	-	16.9	3600	4	122	1,050	65	610	33 5/8	16 3/8	12	1.77

<sup>\*</sup>Non-Stock. Only Available In 460V.

\*Synchronous Speed

# MYCZ (Chopper) FM APPROVED



Tsurumi's explosion proof solids handling chopper pump. Designed for municipal, industrial and commercial applications prone to fibrous solids. The chopping mechanism is formed by the rotating screw type channel impeller against the cast sharp tooth on the suction plate. Offered in 3in. and 4in. discharge sizes with motor sizes up to 20 HP.

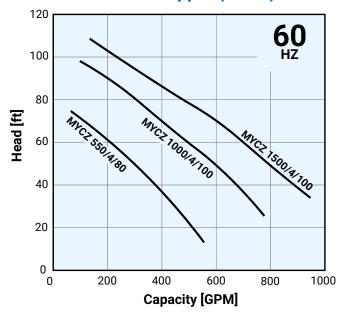
#### Hydraulics

- · Multi-Channel open impeller
- · Cast chopper tooth suction plate

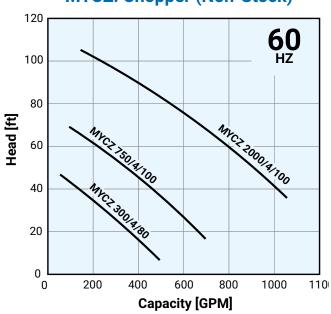
#### Suitable for

- Liquids containing large-sized solids which can be broken down
- Industrial process solids handling

## **MYCZ: Chopper (Stock)**



# **MYCZ: Chopper (Non-Stock)**



Model	Motor Rated Curr Model Output (A)			*S.S. (RPM)	Discharge Size	Max Head	Max Flow	BEP Head	BEP Flow (gpm)	Dimensions (in.)			Free Passage
	(HP)	230V	460V	(KFIVI)	(in.)	(ft)	(gpm)	(ft)	(95111)	Н	W	D	(in.)
MYCZ 300/4/80*	3	-	4.6	1800	3	47	495	28	270	25 1/4	16	13 3/8	1.26
MYCZ 550/4/80	5.5	14.8	7.4	1800	3	62	555	40	300	30 3/8	16	13 3/8	1.18
MYCZ 750/4/100*	7.5	-	10.4	1800	4	69	690	42	430	31	18 5/8	16 1/8	1.42
MYCZ 1000/4/100	10	27.8	13.9	1800	4	82	780	52	470	33 3/4	18 5/8	16 1/8	1.34
MYCZ 1500/4/100	15	35.6	17.8	1800	4	90	950	56	635	38 1/2	19 1/2	16 3/8	1.73
MYCZ 2000/4/100*	20	-	26.9	1800	4	105	1,060	69	695	42	19 1/2	16 3/8	1.65

<sup>\*</sup>Non-Stock. Only Available In 460V.

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<sup>\*</sup>Synchronous Speed





# MYG (Grinder) FM APPROVED



Tsurumi's explosion proof solids handling grinder pump. Designed for high pressure small diameter piping within municipal, industrial and commercial applications. Solids are cut into fine particles by the chromium tri-blade grinder mechanism and moved through the pump via multi-channel impeller. Offered in 2in. discharge size with motor sizes up to 10 HP.

#### Hydraulics

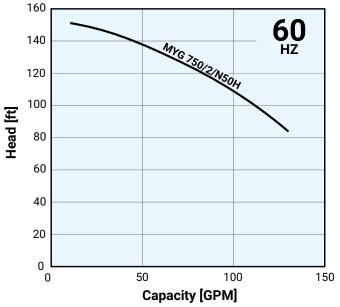
- Multi-Channel open impeller
- · Grinding system with rotary knife

#### Suitable for

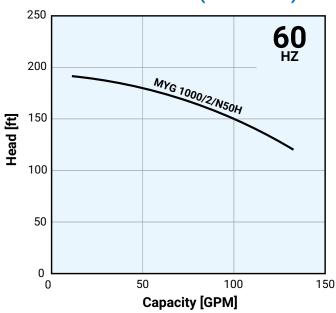
- · Soiled liquids containing fibers and filaments
- · Commercial, industrial, and municipal applications
- Livestock farms



# **MYG: Grinder (Stock)**



## **MYG: Grinder (Non-Stock)**



#### Motor Rated Current Dimensions ischarg \*S.S. **BEP Flow** Free Passage (A) Model Output Size (RPM) (ft) (ft) (gpm) (gpm) (in.) (HP) 230V 460V (in.) W D MYG 750/2/N50H 9.3 3600 151 127 25 3/4 7.5 18.5 112 95 10 3/8 2 14 MYG 1000/2/N50H\* 11.9 191 10 3600 132 143 110 28 5/8 14

\*Synchronous Speed

# MYU (Vortex) FM APPROVED

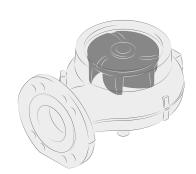
Tsurumi's explosion proof vortex pump. Designed for water circulation, civil lift stations, and storm water drainage systems. Open space within the pump volute maximizes free passage while minimizing abrasive wear on the impeller. Offered in 2.5in. to 4in. discharge sizes with motor sizes up to 12 HP.

## Hydraulics

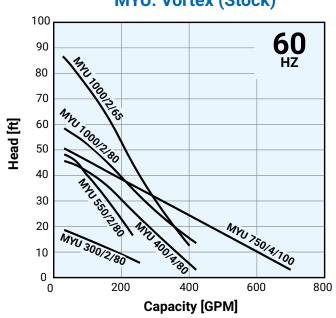
- Vortex impeller
- Full free passage

#### Suitable for

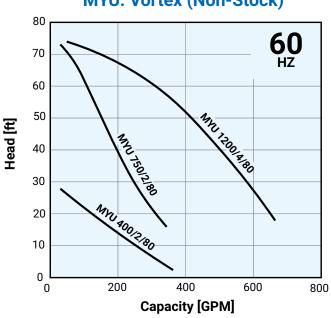
- Industrial and process water recirculation
- Civil lift stations
- Sewage and storm water drainage systems



### **MYU: Vortex (Stock)**



# **MYU: Vortex (Non-Stock)**



Model	Motor Output	Rated Current (A)		*S.S. (RPM)	Discharge Size	Size Max Head		BEP Head	BEP Flow (gpm)	Dimensions (in.)			Free Passage
	(HP)	230V	460V	(KPIVI)	(in.)	(ft)	(gpm)	(ft)	(95111)	Н	W	D	(in.)
MYU 300/2/80	3	8.1	4.0	3600	3	19	260	12	160	23 3/4	12 3/8	9 1/8	3.15
MYU 400/2/80*	4	-	5.6	3600	3	29	365	15	185	25 3/4	12 1/4	9 1/8	3.15
MYU 400/4/80	4	11.7	5.9	1800	3	46	460	32	185	27 1/4	15 3/8	12	3.15
MYU 550/2/80	5.5	13.4	6.7	3600	3	48	230	31	140	29 3/8	12 1/2	10	2.56
MYU 750/2/80*	7.5	-	9.3	3600	3	73	345	44	185	28	12 5/8	9 3/4	2.68
MYU 750/4/100	7.5	20.9	10.4	1800	4	51	700	34	220	33	16 1/8	12	3.15
MYU 1000/2/65	10	23.7	11.9	3600	2.5	87	400	60	160	31 7/8	12	9	2.56
MYU 1000/2/80	10	23.7	11.9	3600	3	59	420	39	200	32 1/4	12 1/2	10	3.15
MYU 1200/4/80*	12	-	14.9	1800	3	74	665	57	340	38 5/8	19 1/8	14 3/4	2.36

<sup>\*</sup>Non-Stock. Only Available In 460V.

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<sup>\*</sup>Non-Stock. Only Available In 460V

<sup>\*</sup>Synchronous Speed

# PROVEN<br/>ABILITY

Designed for durability and reliability the AVANT MY Series can withstand the challenges presented by hazardous locations. Backed by a highly knowledgeable engineering team for added support.





Product colors may vary in actual appearance, features are highlighted for illustrative purposes.

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