



February 24, 2012

ZOELLER PUMP CO.
WES COMBS
3949 CANE RUN RD
VERSAILLES KY 40211

Re: Description: SEWAGE TREATMENT SYSTEMS, AERATED (also see SEWAGE TREATMENT APPARATUS)
Manufacturer: ZOELLER PUMP CO.
Product Name: FUSION SERIES
Model Number(s): ZF-450
[36 IN. MAX. DEPTH OF BURY; 52.0 IN. L.L.; 450 GPD MAX. DOMESTIC DWF; MAX. BOD5/DAY = 1.03 LBS.; TANK DIMENSIONS = 85 IN. L X 44 IN. W X 68 IN. H ; PRESURE DISTRIBUTION REQUIRED]
Product File No: 20120053

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. **This approval is valid until the end of February 2017.**

This approval is contingent upon compliance with the following stipulation(s):

- This tank must be designed to withstand the pressures to which it will be subjected.
- The manufacturer must keep at the manufacturing plant a set of plans and specifications bearing the department's stamp of approval. The plans and specifications must be open to inspection by an authorized representative of the department.
- All manhole covers terminating above grade must have effective locking devices.
- When this product receives wastewater from dwellings, it will produce an effluent quality with a maximum monthly average value for BOD5 of less than or equal to 30 mg/L, TSS of less than or equal to 30 mg/L TSS and F.O.G. of less than 30 mg/L and fecal coliform of less than or equal to 10,000 cfu/100ml.
- Before this product is installed a warning label meeting the requirement of SPS s. 384.25(8)(b), Wis. Admin. Code must be securely attached to the manhole cover.
- MAINTENANCE: This system shall be installed as per s. SPS 384.25 (7) to provide a means for inspection or required servicing or maintenance of the tank. Inspection openings for tanks located below ground shall extend at least to the finished grade. Covers or access ports located at or above ground for openings when larger than 8 inches in diameter shall be provided with locking devices and shall remain locked except for cleaning or maintenance purposes.
- The maximum vertical distance for any riser is 36 inches.

- AS OF MARCH 1, 2009 ALL ELECTRICAL CONNECTIONS FOR PRIVATE SEWAGE SYSTEMS MUST COMPLY WITH S. COMM 16.300 WIRING METHODS.
- **Product installation utilizes the following blower: Linear Air Diaphragm Blower, manuf. by Fuji Clean, Model MX-80 NZ; 80 liters/minute, 2.83 CFM or 0.047 CFS.**
- **BEDDING AND BACKFILL: Excavate an area large enough for the unit providing 12-18 inches to the length and width of unit. Construct 6-inch stone pad and level to 1/8 inch. Fill unit with clean water to normal operating depth prior to back filling. Backfill around unit with good quality granular fill free of organic matter, rock, stone, tree roots or other debris that could damage the unit. Tamp around perimeters; stabilize to reduce settling. Cover no more than 12 inches and with final backfill with a convex counter so water is shed away from excavation.**

Table 1 Maintenance, Inspection, Pumping Requirements

Zoeller pump- FUSION SERIES
(Models ZF-450 and ZF-600)

Initial/Startup Inspection/ Maintenance	Service agreement may be required
Routine Inspection/Maintenance	6-month maintenance check
Ongoing Pumping Cycle And/Or Requirements	Recommended annual pumping, when sludge depth is 30 or 40 inches (model 450 and 600, or 800, respectively), or as per state/local requirements
Back-Wash Cycle NSF 40 Effluent Standard*	N/A
NSF 40 Effluent Standard*	NSF 40 Class 1 Effluent Standard*
BOD5 Credit For Downsizing Distribution Area	YES
Fecal Credit For Reduction Of Vertical Separation	YES
Additional Comments	

- A copy of this approval letter and the manufacturer's printed installation and maintenance instructions must be supplied to the buyer of this product and the property owner.
- For seasonal use, refer to manufacturer's manual for homeowner care and instructions.
- A copy of this approval letter must accompany each installation of this product in the State of Wisconsin.
- This device must display a permanent label or data plate that displays the manufacturer's name and address, and the model number of this device.

This approval supersedes the approval issued on 9/27/2007 under product file number 20070422.

This approval letter shall be incorporated with your previously approved plans and/or specifications approved under product file number 20070422.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Jean M. MacCubbin, CST
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