"Quality Pumps Since 1939"

SECTION: Z4.30.100
ZM2198
0109
Supersedes
0807

Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.

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Submersible Wastewater Pump Association
SWPA Approved Curve and Data Format

X71 HAZARDOUS ENVIRONMENT SERIES
CLASS 1, DIVISION 1, GROUPS C & D
GRINDER PUMP PRODUCT FEATURES
3, 5 & 7½ BHP

FM APPROVED
Standard 3600 & 3615

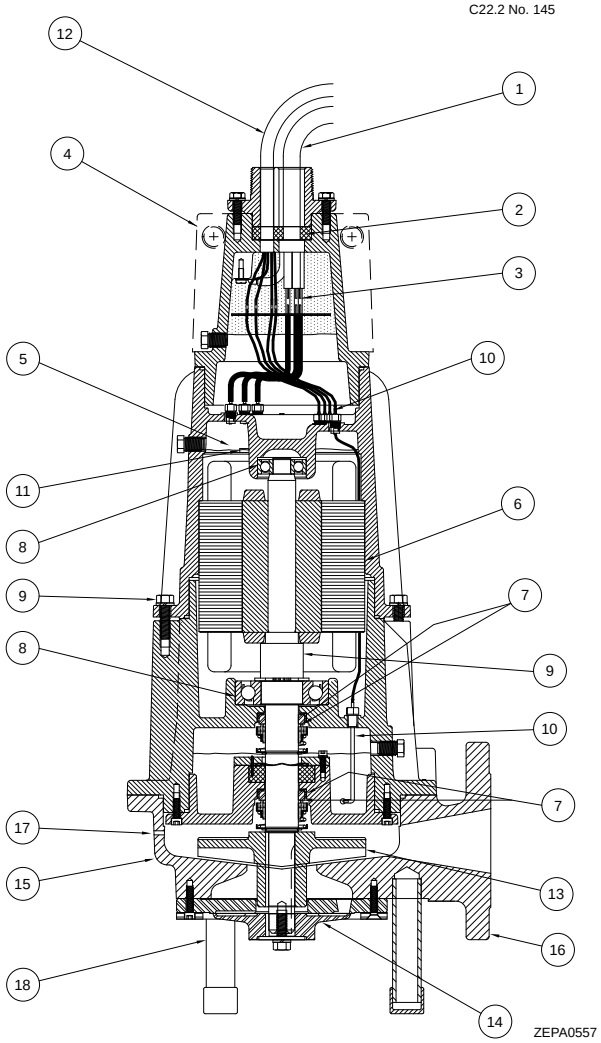
C SA US
Certified to CSA Standard C22.2 No. 145

Covered by US Patent Number 6,364,620.

APPLICATIONS
- Sewage lift stations.
- Housing developments.
- Low pressure sewer systems.
- High vertical lift or long force mains.
- WARNING: Not for use in acidic atmospheres.

MATERIAL FEATURES
PUMP:
- 440 stainless steel cutter and plate hardened to Rockwell C55-60.
- Discharge size - 2½" flanged horizontal adaptable to 3" flange, 2" NPT optional.
- Seals - dual mechanical carbon/rotary ceramic/stationary, Buna-N elastomers.
- Moisture detection system.
- Construction - Cast iron ASTM A-48, Class 30, 30,000# tensile strength, protected with a corrosion resistant baked on epoxy powder coating.
- Balanced concentric pump housing and impeller.
- Attaching hardware - 304 stainless steel.
- O-ring seals - Buna-N.
- Impeller - Bronze vortex design.
- Optional:
  - ☐ Trimmed impeller.
  - ☐ Silicon carbide seal(s).
  - ☐ 50' power and sensor cables.
  - ☐ 2" NPT vertical discharge - HH & HF only.
  - ☐ High flow.
  - ☐ Automatic Reversing - (3-Phase Flanged Models Only).
  - ☐ Non-sparking rail system.

MOTOR:
- FM and cCSAus rated Class 1, Division 1, Group C & D construction.
- 1 Phase - 230 Volt (3 & 5 BHP only).
- 3 Phase - 200/230/460/575 Volt, 3450 RPM.
- Stator - Class F insulation and lead wires. Nema B design.
- Thermal sensor with leads.
- Housing - Cast iron, oil-filled.
- Ball bearings - Upper and lower high carbon chromium steel.
- Power and sensor cable length - 25'.



ZEPA0557

FEATURES:
1. 25' heavy duty power cable.
2. Protected cable entrance.
3. Each conductor is individually sealed to eliminate cord wicking of liquids.
4. Lifting lug integral part of housing (orientation 90° from illustrated view).
5. Oil-filled explosion proof rated motor housing assures uniform heat distribution, lubricates bearings, and conducts heat for cooler running.
6. Heavy duty explosion proof rated motor features ball bearing construction. Class F motor insulation is double dipped and baked. End connections and lead wires are Class F. At maximum load, winding temperature will not exceed 250°F with motor housing not submerged.
7. Tandem seals. Carbon/rotating, ceramic/stationary, Buna-N elastomers.
8. Upper and lower high carbon chromium steel ball bearings.
9. Stainless steel shaft and hardware resists corrosion.
10. Patented moisture detection system with upper and lower probes, protecting the motor from liquid entry.
11. Thermal sensor protection.
12. 25' sensor cable.
13. High efficiency impeller design made of cast bronze, fully balanced with integral pump out vane to clear debris.
14. "Star" type stainless steel cutter and plate hardened to Rockwell C55-60.
15. Concentric case reduces radial loading for longer bearing and seal life.
16. 2½" flanged horizontal discharge adaptable to 3" flange. Optional 2" NPT vertical discharge available for HH and HF models.
17. Vent hole helps prevent air locking.
18. Screw on pipe legs for field flexibility.
19. Class 30 cast iron housing protected with corrosion resistant baked on epoxy powder coating.
20. Finned motor housing for quicker heat dissipation.

X71 HAZARDOUS ENVIRONMENT SERIES

CLASS 1, DIVISION 1, GROUPS C & D

GRINDER PUMPS TECHNICAL DATA

3, 5 & 7½ BHP

Submersible Wastewater Pump Association SWPA Approved Curve and Data Format

FM APPROVED Standard 3600 & 3615

C SP US Certified to CSA Standard C22.2 No. 145

MODEL NUMBER:	☐ X7110	☐ X7111	☐ X7112
PUMP NAME PLATE HORSEPOWER: BHP	3.0	5.0	7.5
SERVICE FACTOR:	1.2	1.2	1.2
NEC LOCKED ROTOR CODE:	M (1 Ph) G (3 Ph)	G (1 Ph) H (3 Ph)	D
MAXIMUM KW INPUT:	5.3	6.4	8.0
IMPELLER DIAMETERS:	REFER TO THE PERFORMANCE DATA SHEETS		
DISCHARGE SIZE:	☐ 2 1/2" FLANGED, ADAPTABLE TO 3"	☐ 2" NPT	
☐ HIGH HEAD DESIGN	☐ HIGH FLOW DESIGN	☐ REVERSIBLE DESIGN (3 PHASE FLANGED MODELS ONLY)	

IMPELLER TYPE:	BRONZE VORTEX	TANDEM SEALS:	STANDARD
FLANGE:	ANSI B16.1	MOTOR DESIGN LETTER:	NEMA B (3 Ph) NEMA L (1Ph)
PUMP NET WEIGHT: lbs. (kg)	245 lbs. (111 kg)	POWER CORD LENGTH: ft (m)	25' (7.6 m) ☐ 50' (15.2 m)
MOTOR SHAFT:	416 SS	POWER CORD:	#12-4 SO or #8-4 SO*
RPM:	3450	STATOR & LEAD WIRES INSULATION:	CLASS F
MOTOR TYPE:	SUBMERSIBLE EXPLOSION PROOF	MAXIMUM STATOR TEMPERATURE:	311°F (155°C)

SHAFT SEAL CONSTRUCTION:	STANDARD	CARBON/CERAMIC
	OPTIONAL UPPER	☐ CARBON /SILICON CARBIDE ☐ SILICON CARBIDE/SILICON CARBIDE
	OPTIONAL LOWER	☐ CARBON /SILICON CARBIDE ☐ SILICON CARBIDE/SILICON CARBIDE
STANDARD SENSING DEVICES**	MOTOR THERMAL SHUTOFF	THERMAL SENSORS
	MOISTURE DETECTION	MOISTURE SENSING PROBES
IMPELLER TRIM: ☐ OPTIONAL		DESIGN POINT: ____ GPM @ ____' TDH, IMPELLER DIA. ____"
MAXIMUM WATER TEMPERATURE:		104°F (40°C)

* Units with FLA greater than 20 amps use a #8-4 gauge power cord.

** Requires a circuit in control panel to function.

MODEL	BHP	SERVICE FACTOR	☐ 230V / 1 PHASE		☐ 200V / 3 PHASE		☐ 230V / 3 PHASE		☐ 460V / 3 PHASE		☐ 575V / 3 PHASE	
			FLA	LRA	FLA	LRA	FLA	LRA	FLA	LRA	FLA	LRA
X7110	3.0	1.2	23.6	132	17.3	66.0	15.1	57.0	7.5	28.5	6.0	25.2
X7111	5.0	1.2	28.0	132	20.7	94.0	18.0	82.0	9.0	41.0	7.2	36.0
X7112	7.5	1.2	NA	NA	25.3	94.0	22.0	82.0	11.0	41.0	9.0	36.0

RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

Zoeller Engineered Products • 3649 Cane Run Road • Louisville, Kentucky 40211-1961 • (502) 778-2731

SWPA Data Categories Presented -- Data on this sheet supply design information as the minimum recommended by the Submersible Wastewater Pump Association and is defined in accordance with SWPA's Standardized Definitions for Pump and Motor Characteristics. The accuracy of the data is the responsibility of Zoeller Engineered Products.