

ENGINEERING DATA SHEET

<i>"G" Series Explosion Proof Motors</i>		
Date	Supersedes	No.
03/26/99	10/23/84	33E

Chempump "G" series pumps are available with Explosion Proof U.L. labels, that meet the requirements of Class I, Group D, Division I and Class I, Group C & D, Division 1 locations.

Two designs have been approved by the Underwriters Laboratories for Explosion Proof service:

Construction #1 makes use of flame paths that restrict the openings between the rotor shaft and the shaft clearance hole in the bearing housings and also between the bearing housings and stator liner.

Construction #2 does not require flame paths but the pump must be equipped with a device that will detect the loss of liquid in the motor cavity. A current monitor, pressure or flow sensor can be used to meet this requirement. It is the responsibility of the user to install such a device, please refer to the "Series G" instruction manual (especially section 2-3.4) for instructions on how these devices should be applied.

Chempump has recently approval from U.L. to expand the number of models and modifications that can be used in Explosion Proof locations. Some models and modifications will require a non-witnessed hydrostatic test to satisfy the requirements set forth by Underwriters Laboratories Inc. The following is a list of all design conditioned, pump models and modifications that can be offered with a Class I, group D, Division 1 or Class I, Group C & D, Division 1 Explosion Proof Label. These lists will also state if a hydrostatic test is necessary to validate the label.

Please note that the Design Conditions must be met in all cases regardless of the pump model or modification being used.

Design Conditions

Maximum fluid temperature (Group D)	200°F
Maximum fluid temperature (Group C & D)	120°F
Minimum fluid temperature (Groups D and C & D)	Minus (-) 30°F
Maximum design pressure	300 psi

Note: The fluid temperature limits are for flammable or nonflammable fluids.

Models

Model	Hydrostatic Test Required
GA	No
GB	No
GC	No
GVBS.....	No
GVD	No
GVE	No
GVHS.....	No
GG	No
W2B	Yes
W2C (up to 300 psi)	Yes
N2S (up to 20K)	Yes
GLD	Yes

Modifications

Model	Hydrostatic Test Required
Solid Fill Stator	No
Dry Fill Stator	No
Water or Steam Jacket/Welded Type	Yes
Water Jacket/Removable Type	No
Heat Exchanger/Welded Type	Yes
Heat Exchanger/Removable Type	Yes
Steel Jacket Circulation Tube	Yes
F2 Bearings	No
Silicone Carbide Bearings	No
Rulon Bearings	No
M2 or M3 Shaft Journals	No
Pressurized Circulation	Yes
Reverse Circulation	Yes
Back Flushing	Yes
High Pressure Lead Connector	Yes

Modifications (continued)

Model	Hydrostatic Test Required
Leakproof Junction Box	No
Stator Oil Expansion Chamber	Yes
Special TCO (less than 420 F)	Yes
Ring Joint Flanges	Yes
Vapor Vent Valve	Yes
Inducer	No
Bearing Wear Detector (Local Mount)	No
Bearing Wear Detector (Remote Mount)	Yes
Discharge Orifice	Yes
Stainless Steel Base	No
Stainless Steel Stator Band and End Bells	No
Special Pump Casing Drain	Yes
Stainless Steel Bolts	No
Thermowell in the Rear Bearing Housing	Yes
Drain In the Rear Bearing Housing	Yes
Drain or Vent on the Stator Band	Yes
Submerged Design	No
Backweld Fittings	No
Locking Devices	No
In-Line Relief Valve	No
Special Gaskets	Yes
Lifting Lugs	Yes
Omitting the Discharge Filter	Yes
"T" Model Pumps (within temperature ranges)	Yes

Note: Modifications not listed, such as special voltage or 1750 RPM motors, can not be supplied with explosion proof motors. If an option does not appear on the above tables, please consult the factory prior to quoting.