



# CIRCULATING WATERBATH VAPORIZER

## OPERATION

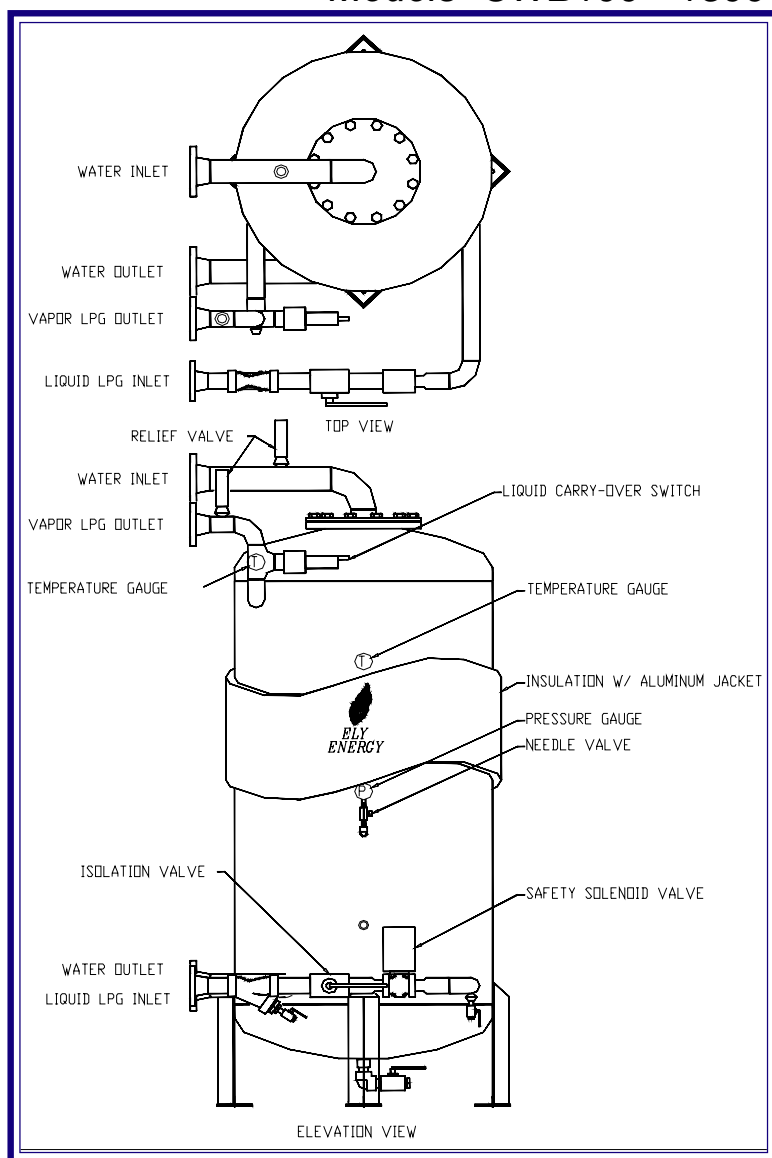
The **AQUA-BATH™ CWB Series** (Circulating Waterbath Vaporizer) is specifically designed for low to medium capacity City Gas systems, 'base load' applications and Peak Shaving applications. The design is based on a helical coil heat exchanger immersed in a waterbath, using circulating hot water as the energy source.

During operation, hot water from an external hot water source circulates through the vaporizer's waterbath. Liquid LPG enters the vaporizer's helical coil and is heated by the hot water. Thermal energy transfers from the waterbath to the LPG causing vaporization. The LPG vapor then passes out of the heat exchanger area into the vaporizer's external vapor header. The vapor exits through the vapor outlet.

## STANDARD FEATURES

- Helical steel coil designed and manufactured per ASME Pressure Vessel Code, Section VIII, Division 1.
- LPG coil rating: 1.72Mpa (250Psig)
- UL stamped external relief valve: 1.72Mpa (250Psig)
- All electrical components and their installation comply with (USA) NFPA Pamphlet 58 and 70.
- Explosion Proof configuration meets Class I, Division 1, Group D design.
- Safeties Include:
  - *Liquid LPG carry-over switch*
  - *LPG Relief Valve*
  - *Water Pressure Relief Valve*
  - *Safety Solenoid Valve*
- Water requirements based on 85°C (194° F) at 30m (43.5Psig) head.
- Fully insulated with aluminum jacket.
- Float activated high liquid LPG level switch.
- Inlet safety solenoid valve with "full flow" bidirectional flow eliminating the need for a bypass.
- All exposed metal surfaces are mechanically cleaned, primed and painted. Includes Aluminum Data Tag.
- Complete with all operating and safety controls.
- Remote mounted NEMA 12 Control Panel.

Models CWB100 - 1500



## OPTIONS

- Low Vapor Temperature Switch
- Spare Parts Kit

# AQUA-BATH™ CWB SERIES

# CIRCULATING WATERBATH VAPORIZOR SPECIFICATIONS

		MODEL CWB ▶	100	200	300	400	500	750	1000	1500
<b>VAPORIZATION CAPACITY</b>	kg/h		100	200	300	400	500	750	1000	1500
	U.S. Gallon/h		50	100	150	200	250	350	475	700
<b>HEAT EXCHANGER SURFACE AREA</b>	m <sup>2</sup>		0.67	1.35	2.0	2.7	3.4	5.1	6.8	10.1
	ft <sup>2</sup>		7.27	14.6	21.8	29.1	36.4	54.6	72.7	109
<b>SHIPPING WEIGHT</b>	kg		334	346	401	432	458	505	635	819
	lbs		735	762	883	950	1008	1111	1398	1801
<b>MINIMUM WATER REQUIREMENTS</b>	FLOW	m <sup>3</sup> /hr	2.56	5.13	7.7	10.3	12.8	19.2	25.6	38.4
		gpm	11.3	22.6	33.9	45.1	56.4	84.6	113	169
	TEMP	C°/F°	← 85°/194° →							
	HEAD	m/psig	← 30/43.5 →							
<b>HEAT EXCHANGER DESIGN PRESSURE</b>	Mpa		←		1.72		→			
	PSIG		←		250		→			
<b>HEAT EXCHANGER TEST PRESSURE</b>	Mpa		←		2.58		→			
	PSIG		←		375		→			
<b>ELECTRICAL</b>	v/ph/hz		←		220/1/50		→			
			←		110/1/60		→			
<b>LPG RELIEF VALVE SET POINT</b>	Mpa		←		1.72		→			
	PSIG		←		250		→			
<b>SHELL DESIGN PRESSURE</b>	Mpa		←		0.34		→			
	PSIG		←		50		→			
<b>SHELL RELIEF VALVE SET POINT</b>	Mpa		←		0.34		→			
	PSIG		←		50		→			

- Vaporization ratings at .69Mpa (100Psig) and -18°C (0°F) with LPG of 70%B, 30%P.
- Product improvement is a continuing goal at Ely Energy, Inc. Designs and specifications are subject to change without notice.

AQUA-BATH™ is a U.S. trademark of Ely Energy, Inc.

Ask for your free **"ELY ENERGY CORPORATE BROCHURE"**



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Publication 4/14/03  
SupercedesCWB1/99.1