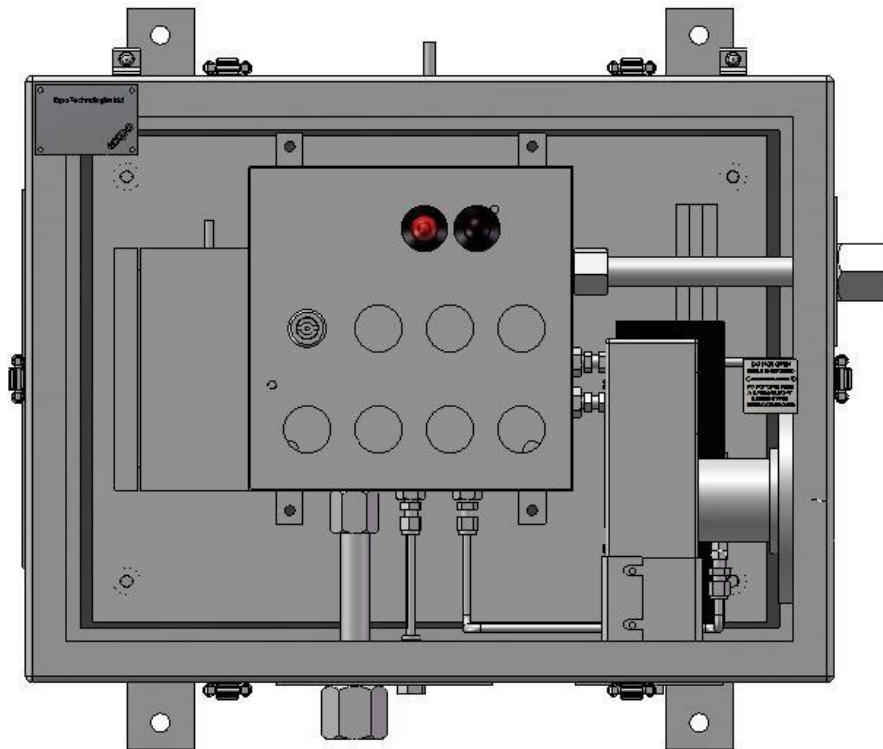


Size 2 Low Temp Environmental Enclosure Manual ML 456



IMPORTANT NOTE

It is essential for safety that the installer and user of the Expo system observe **the following instructions:**

Please refer to the standard for principles and definitions.

(N.B. These instructions apply only to the Pressurizing system. It is the responsibility of the manufacturer of the Pressurized Motor Enclosure to provide appropriate instructions for the Enclosure.)

THIS ADDENDUM IS TO BE USED IN CONJUNCTION WITH THE RELEVANT PURGE SYSTEM MANUAL.

Contents

1. General Specification Sheet
2. Operating Parameters
3. Application suitability
4. Installation of the system
5. Commissioning
6. Maintenance of the System
7. Fault finding

1 General System Specification

Low Temperature Housing

Part Number: AGM-GM00-249

(Part number refers to Insulated Housing, Heater, RTD's and Fittings, excludes purge unit)

Size 450mm x 600mm x 350mm (HxWxD)

MiniPurge Control Unit Data

Refer to Relevant purge unit Manual.

The AGM-GM00-249 Environmental enclosure includes heating and temperature measurement to create a local environment, maintained as suitable for the MiniPurge unit installed within it. The standard heater is 50W but up to 500W is permissible. Higher power may be necessary for very low ambient with very low purge air temperature.

2 Operating Parameters

There are two RTD's fitted inside the low temperature housing, one is used to monitor the incoming purge air/purge gas temperature and the second one to monitor the temperature inside the low temperature housing. These RTD's are platinum thin film four wire PT100 types; it is the users responsibility to interface with these two items. Refer to drawing for the terminal box layout attached.

The environment enclosure has integral heating and insulation to maintain its internal temperature at a minimum of -20°C with an ambient temperature of -60°C.

Power must be maintained to the enclosure heater at all times that the purge system is in use.

Re-purge is the process whereby the purge system automatically recommences purging after a system fault condition. Typically this will be a motor enclosure low pressure fault; this may be activated by the inadvertent removal of such items as inspection covers during maintenance, temporary loss of purge air/purge gas supply etc.

If the inlet air/purge gas supply temperature falls below -10°C action must be taken to rectify the condition.

If the internal temperature inside the low temperature housing falls to -20°C the purge system is tripped.

3 Application Suitability

This enclosure allows the MiniPurge to be operated in temperatures down to -60°C.

For all other details please refer to relevant MiniPurge Manual.

4 Installation of the System

Refer to Relevant MiniPurge Manual.

In addition due to the low temperature all connections and pipe work should be suitably selected, installed and protected for the low temperature environment.

The system also has two RTD's which need to be connected via suitable IS barriers.

Should either the heater fail or the air supply become too cold then the RTD will indicate a fault which must produce an alarm which will indicate a MiniPurge failure.

Also refer to Operating Parameters.

5 Commissioning of the System

Refer to relevant MiniPurge Manual for commissioning of the Purge System.

Purge start

The purge system may be started if within its design operating temperature of -20°C to +55°C; this temperature may be measured using the purge system controller environment RTD.

Air supply/purge gas temperature to the purge system unit to be maintained at -10°C minimum.

Purge in progress

The parameters as detailed for purge system start apply.

Purge complete

The parameters as detailed for purge system start apply.

Re-purge

The operating parameters for the purge system are as for purge start apply.

The operating parameters for the purge system Relief Valve are as for purge start apply.

6 Maintenance of the system

Refer to relevant MiniPurge System Manual

Prior to onset of cold weather ensure that all insulation is in good order and replace if damaged.

7 Fault Finding

Refer to relevant MiniPurge System Manual

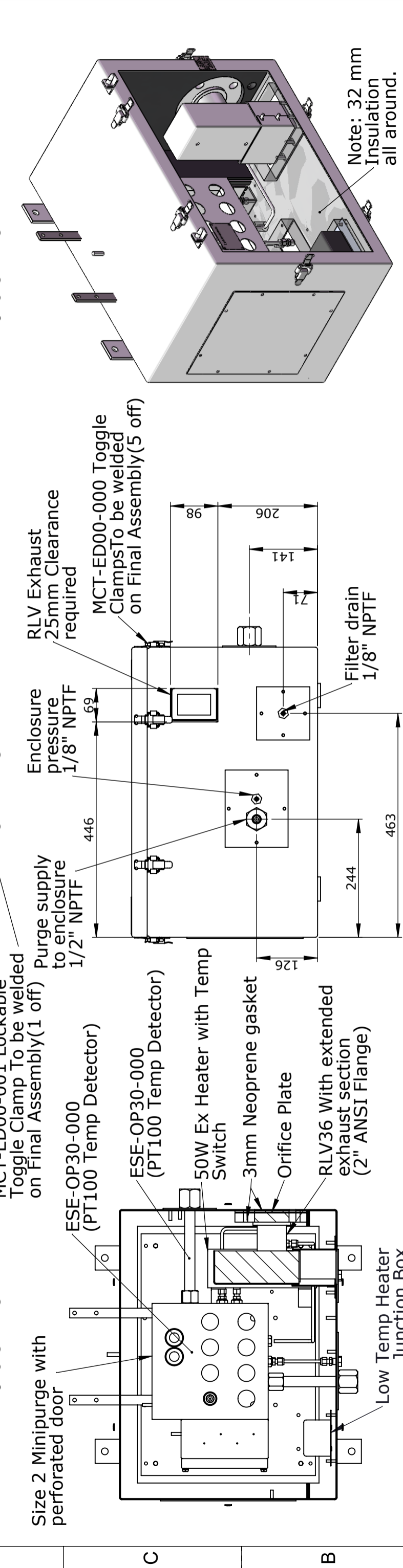
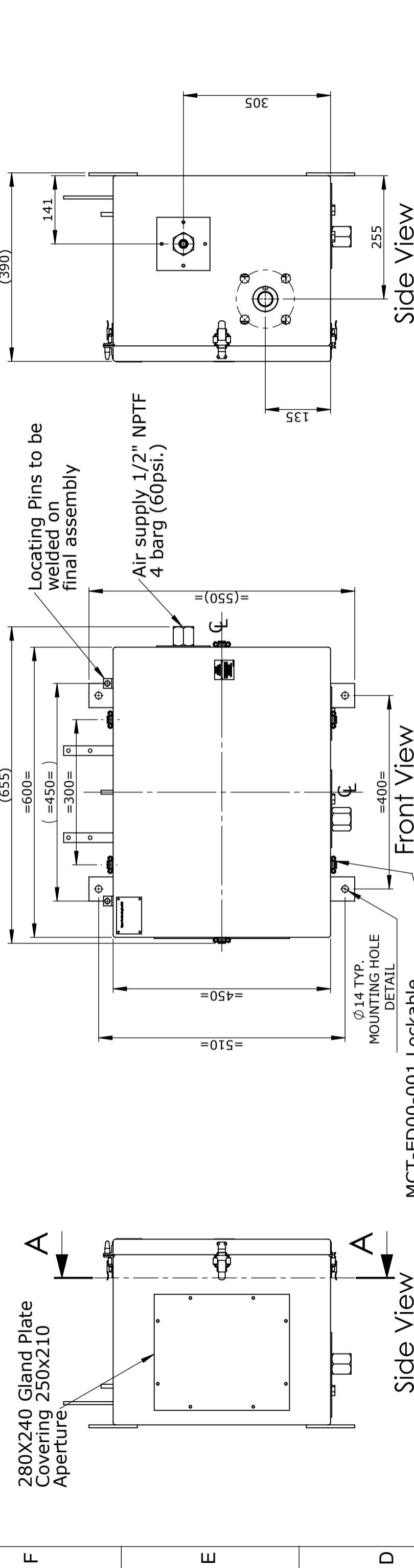
In addition check the internal heater is working correctly.

During re-purge consideration must be taken of the following factors due to the possibility that the Relief Valve operating cylinder may fall below its design operating temperature.

- Motor ambient temperature
- Motor internal air temperature
- Motor casing temperature
- Time between purge fail and re-purge

8	3RD ANGLE PROJECTION	3RD ANGLE PROJECTION	8	7	DIMENSIONS IN mm [] DENOTES IMPERIAL	6	TOLERANCES UNLESS OTHERWISE STATED FLATNESS TO BE LESS THAN 0.4 OVER ANY 100mm LENGTH	5	DO NOT SCALE IF IN DOUBT ASK	4	3	2	1
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Section A-A

Bottom View

Isometric View
(NOTE: DOOR AND DOOR INSULATION OMITTED FOR CLARITY.)

REVISION	MOD No.	DATE	DRAWN	CHECKED	APPROVED	DRAWN DATE	CONTROLLED MATERIAL	WEIGHT (kg)	Expo Technologies Limited SURREY TW16 5DB UNITED KINGDOM	DRAWING No.
03	DQN-12507	27/04/2022	CE	TW	AW	11/06/2008	SEE PART DETAILS		AGM-GM00-249-GA	
02	5501	13/03/2012			JPdB	RELEASED	SEE PART DETAILS		AGM-GM00-249-GA	
01	DRAWN	11/06/2008	SB	NRB	JPdB	SCALE 1:10	SEE PART DETAILS		AGM-GM00-249-GA	
TITLE										SHEET No. 1 OF 1
SIZE 2 - 50 DEG ENVIRONMENTAL ENCLOSURE										



<p>8</p> <p>3RD ANGLE PROJECTION</p>	<p>7</p> <p>DIMENSIONS IN mm () DENOTES IMPERIAL</p>	<p>6</p> <p>TOLERANCES UNLESS OTHERWISE STATED FLATNESS TO BE LESS THAN 0.4 OVER ANY 100mm LENGTH</p>	<p>5</p> <p>DO NOT SCALE IF IN DOUBT ASK</p>	<p>4</p>	<p>3</p>	<p>2</p>	<p>1</p>																																													
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<p>F</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Ex e TERMINAL BOX LAYOUT</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>EXPO</th> <th>CUSTOMER</th> </tr> </thead> <tbody> <tr> <td>EARTH</td> <td>EARTH</td> </tr> <tr> <td>COMMON SWITCH</td> <td>COMMON SWITCH</td> </tr> <tr> <td>2</td> <td>2</td> </tr> <tr> <td>+</td> <td>+</td> </tr> <tr> <td>+</td> <td>+</td> </tr> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>WHITE</td> <td>S-</td> </tr> <tr> <td>WHITE</td> <td>P-</td> </tr> <tr> <td>RED</td> <td>S+</td> </tr> <tr> <td>RED</td> <td>P+</td> </tr> <tr> <td>WHITE</td> <td>S-</td> </tr> <tr> <td>WHITE</td> <td>P-</td> </tr> <tr> <td>RED</td> <td>S+</td> </tr> <tr> <td>RED</td> <td>P+</td> </tr> </tbody> </table> </div> <div style="width: 45%; border: 1px dashed black; padding: 5px;"> <p>HEATER TERMINAL BOX LAYOUT</p> <p>50W/230VAC SELF LIMITING HEATER WITH TEMPERATURES SWITCH</p> <p style="font-size: small;">SEE MANUFACTURING MANUAL FOR HEATER AND TEMPERATURE SWITCH WIRING</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>EARTH, TA</td> <td>EARTH</td> <td>CUSTOMER</td> </tr> <tr> <td>BLUE, TA</td> <td>BROWN, HEATER</td> <td></td> </tr> <tr> <td>BROWN, TA</td> <td>LIVE</td> <td></td> </tr> <tr> <td>BLUE, HEATER</td> <td>NEUTRAL</td> <td>CUSTOMER</td> </tr> <tr> <td>EARTH, HEATER</td> <td>EARTH</td> <td></td> </tr> </tbody> </table> </div> </div>							EXPO	CUSTOMER	EARTH	EARTH	COMMON SWITCH	COMMON SWITCH	2	2	+	+	+	+	1	1	WHITE	S-	WHITE	P-	RED	S+	RED	P+	WHITE	S-	WHITE	P-	RED	S+	RED	P+	EARTH, TA	EARTH	CUSTOMER	BLUE, TA	BROWN, HEATER		BROWN, TA	LIVE		BLUE, HEATER	NEUTRAL	CUSTOMER	EARTH, HEATER	EARTH	
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Expo Technologies USA

Expo Technologies Inc.
9140 Ravenna Road Unit #3
Twinsburg,
OH 440878, USA
T: +1 440 247 5314
F: +1 330 487 0611
E: sales.na@expoworldwide.com

Expo Technologies UK

Expo Technologies Ltd.
Unit 2 The Summit, Hanworth Road
Sunbury-On-Thames,
TW16 5DB, UK
T: +44 20 8398 8011
F: +44 20 8398 8014
E: sales@expoworldwide.com

Expo Technologies China

Qingdao Expo M. & E. Technologies Co. Ltd
617 Shillin Er Road
Jimo District, Qingdao,
266200 China
T: +86 532 8906 9858
F: +86 532 8906 9858
E: qingdao@expoworldwide.com

www.expoworldwide.com