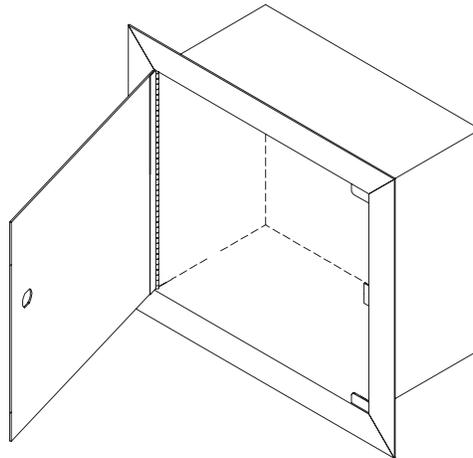
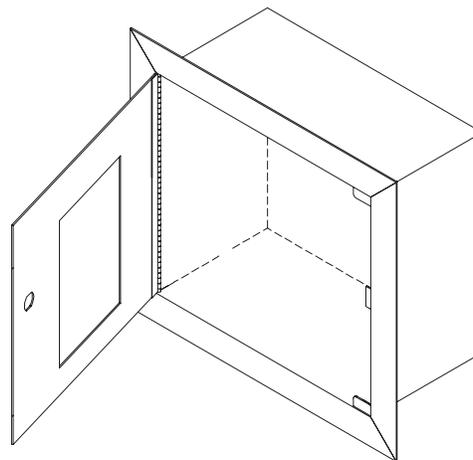


THIS BOOKLET CONTAINS PROPRIETARY INFORMATION OF BEACONMEDÆS AND IS PROVIDED TO THE PURCHASER SOLELY FOR USE IN CONJUNCTION WITH MGVB SERIES MASTER GAS VALVE BOXES.



Solid Door



Door With Window

## Important

These instructions are for experienced operators who know the general principles and safety precautions to be observed in handling compressed gases. If you are not certain you fully understand the safety precautions for handling gases, we urge you to obtain and read the Material Safety Data Sheet (MSDS) for each gas being used.

Do not permit untrained persons to install, operate, or maintain these manifolds. Do not attempt to install or operate these manifolds until you have read and fully understand these instructions. If you do not fully understand these instructions, contact BeaconMedæS.

Be sure this information reaches the operator. Your supplier has extra copies.



### 1 - Safety Precautions

Protect yourself and others. Read and understand the following instructions before attempting to use this equipment. Failure to understand and follow these instructions could result in serious personal injury and/or damage to equipment. Because of the many potential hazards associated with gases, read the Material Safety Data Sheet for each gas you will be using.

- Know and understand the physical and chemical properties of the gas being used.
- Observe general precautions for the use of gases.
- Observe safety precautions for the gas being used.
- Read and follow precautions on cylinder labels.
- Never use equipment with gases not compatible with the materials of construction. The use of gases not compatible with the materials of construction may cause damage to equipment or injury to personnel.
- If flammable gases are used with this equipment do not locate it near open flames or any other source of ignition.
- Many gases can cause asphyxiation by displacing oxygen in the atmosphere. Make certain the area where these manifolds are operated is well ventilated. Provide a device to warn personnel of oxygen depletion in the work area.
- Do not release toxic or flammable gases in the vicinity of personnel. Use this equipment only in well ventilated areas. Vent gases to the outside atmosphere, and in an area away from personnel. Be sure that venting and disposal methods are in accordance with Federal, State, Provincial and local requirements. Locate and construct vent lines to prevent condensation or gas accumulation. Be sure the vent outlet is **NOT** obstructed by rain, snow, ice, insects, birds, etc. Do not inter-connect vent lines; if more than one vent is needed, use separate lines.
- Relief devices should be installed and properly vented in all gas handling systems to protect against equipment failure and over-pressurization.
- Never connect gas equipment to a supply source having a pressure greater than the maximum rated pressure. Refer to the Product Specifications for maximum inlet pressures.
- Never permit oil, grease, or other combustible materials to come in contact with cylinders, manifolds, and connections. Oil and grease may react and ignite when in contact with some gases – particularly oxygen and nitrous oxide.
- Cylinder, header, and master valves should always be opened very s-l-o-w-l-y. Heat of recompression may ignite combustible materials.
- Flexible hoses should never be kinked, twisted, or bent into a radius smaller than 3 inches. Mistreatment may cause the flexible hoses to burst.
- Do not apply heat. Some materials may react and ignite while in contact with some gases – particularly oxygen and nitrous oxide.
- Cylinders should always be secured with racks, chains, or straps. Unrestrained cylinders may fall over and damage or break off the cylinder valve which may propel the cylinder with great force.
- Oxygen equipment and cylinders should be grounded. Static discharges and lightning may ignite materials in an oxygen atmosphere, creating a fire or explosive force.
- Welding should not be performed near nitrous oxide piping. Excessive heat may cause the gas to dissociate, creating an explosive force.
- Do not use leak test solution that contains ammonia. Solutions containing ammonia may cause brass tubing to crack.
- Always use oxygen compatible leak test solution on oxygen or nitrous oxide service equipment.

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## 2 - Abbreviations

<b>C</b>	Common	<b>OSHA</b>	Occupational Safety & Health Administration
<b>CGA</b>	Compressed Gas Association	<b>PSIG</b>	Pounds per Square Inch Gauge
<b>FT-LBS</b>	Foot-Pounds	<b>SCFH</b>	Standard Cubic Feet per Hour
<b>IN-LBS</b>	Inch-Pounds	<b>VAC</b>	Voltage, Alternating Current
<b>N/C</b>	Normally Closed	<b>VDC</b>	Voltage, Direct Current
<b>N/O</b>	Normally Open	<b>PCB</b>	Printed Circuit Board
<b>NPT</b>	National Pipe Taper		

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## 3 - Disclaimer

BeaconMedæS shall not be liable for errors contained herein or incidental or consequential damages in connection with providing this manual or the use of material in this manual.

## 4 - Manufacturer Statement

The information contained in this instruction booklet has been compiled by BeaconMedæS, from what it believes are authoritative sources, and is offered solely as a convenience to its customers. While BeaconMedæS believes that this information is accurate and factual as of the date printed, the information, including design specifications, is subject to change without prior notice.

## 5 - Introduction

These instructions are intended for use by experienced operators only. BeaconMedæS master gas valve boxes are tested and prepared for the indicated gas service and are built following National Fire Protection Association and Compressed Gas Association guidelines. This master gas valve box is composed of a recessed enclosure, a trim frame assembly with door and two mounting brackets. The master gas valve boxes can also be supplied with a zone valve assembly factory installed.

## 6 - Description & Specifications

<b>Door</b>	Type 304 16-Gauge Stainless Steel
<b>Hinge</b>	Stainless Steel
<b>Rough-In (Back Box)</b>	Spot-Welded 16-Gauge Type 304 Stainless Steel
<b>Optional Window</b>	Acrylic - 1/4" Thick

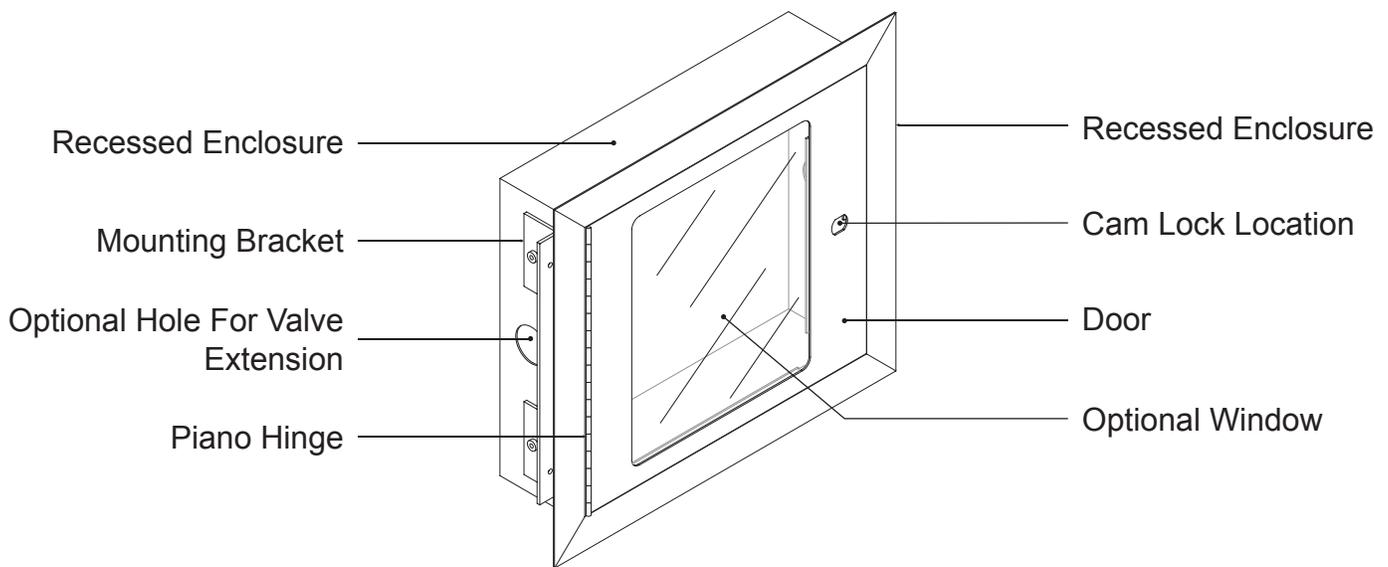
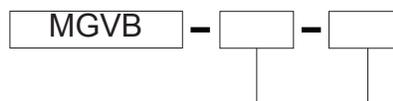


Figure 1 – MGVB Main Components

## 7 - Ordering Information

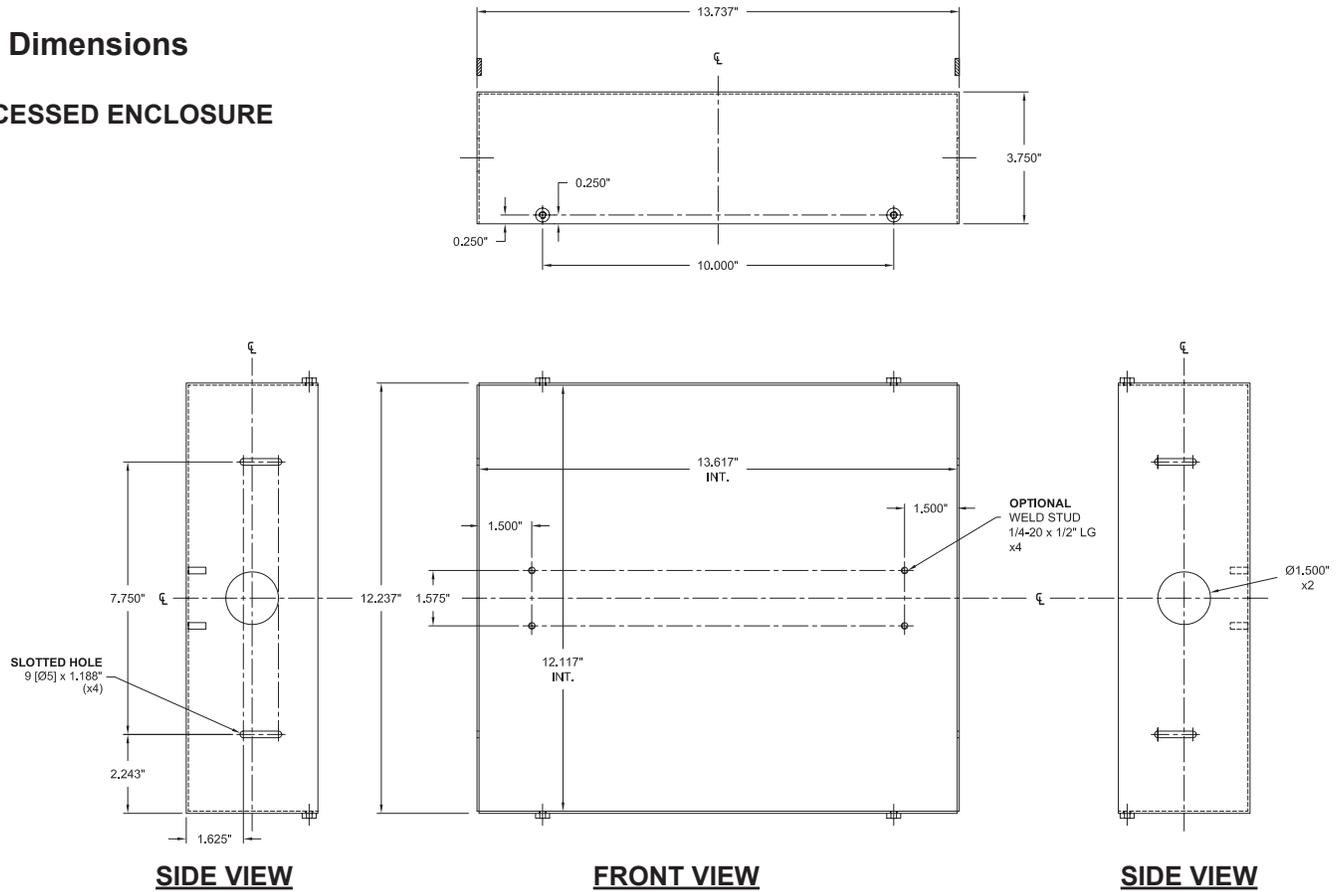
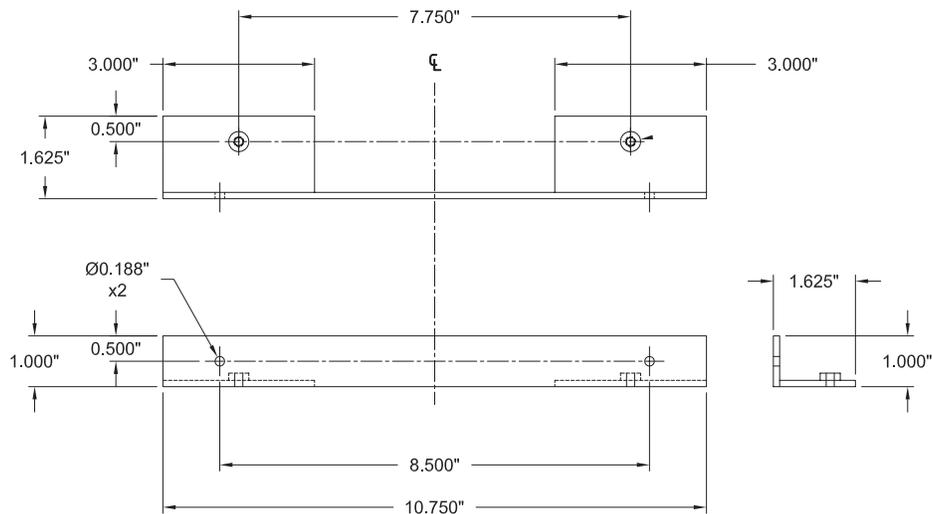


No. of Valves	Inscribe
1/2" Ball Valve	8
3/4" Ball Valve	12
1" Ball Valve	16
1-1/4" Ball Valve	20
1-1/2" Ball Valve	24
2" Ball Valve	32

Door Style	Inscribe
Solid Door	SD
Door With Window	WD
Solid Door With Window	SDL

**Important Ordering Information**

- Gas Valve ordered separately

**8 - Dimensions**
**RECESSED ENCLOSURE**

*Figure 2 – Recessed Enclosure Dimensions*
**WALL BRACKET (2)**

*Figure 3 – Wall Bracket Dimensions*



### TRIM FRAME ASSEMBLY

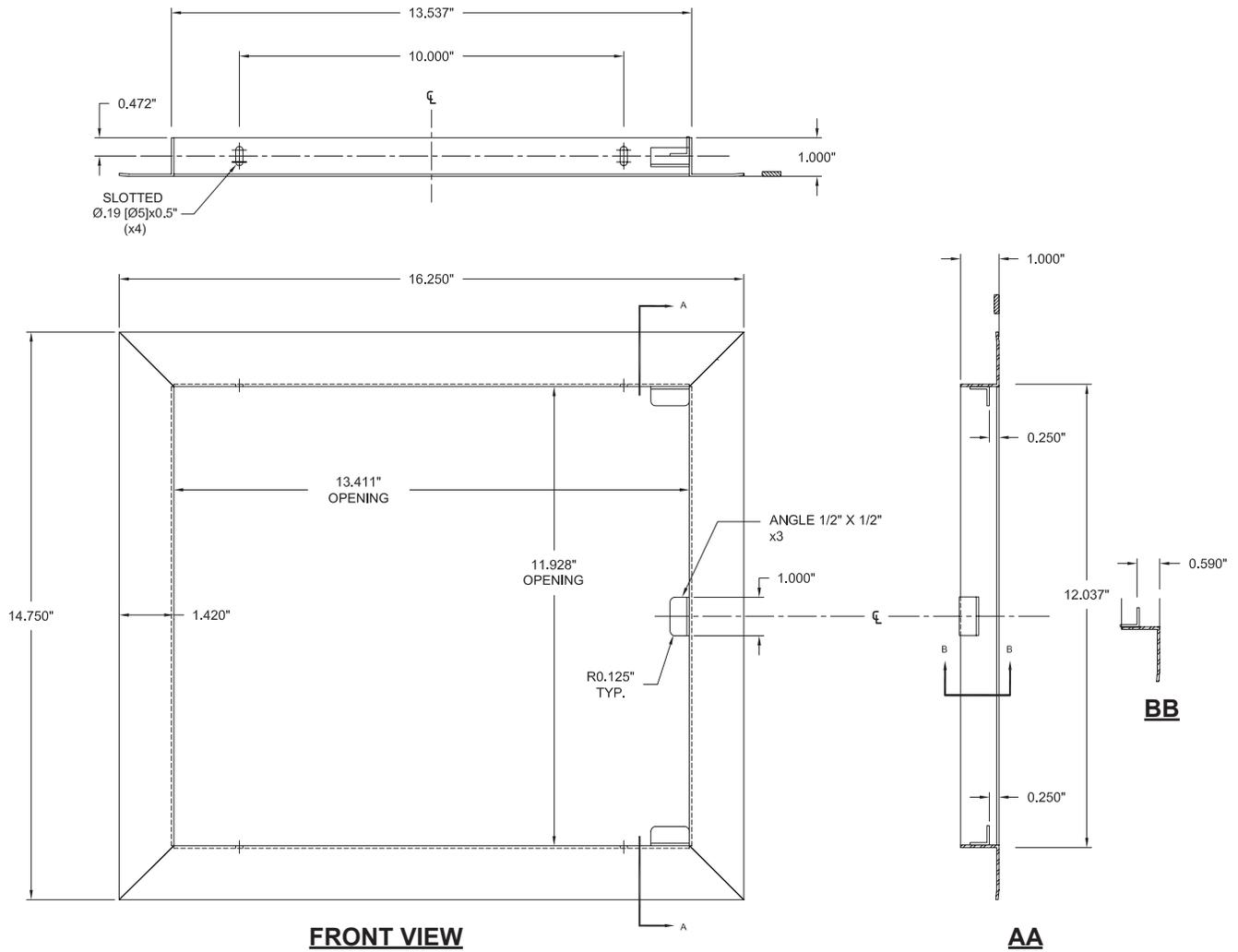


Figure 4– Trim Frame Assembly Dimensions

## 9 - Installation

### NOTE

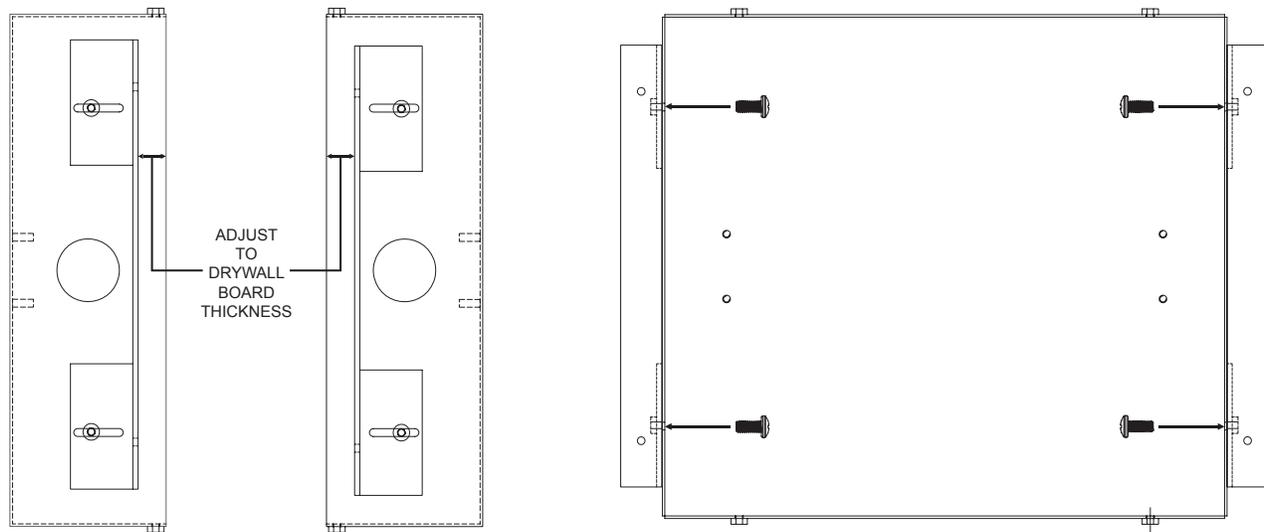
This enclosure must be installed inside a building.

### VALVE INSTALLATION

**Customer Supplied Valve** - If the MGVB Series Master Gas Valve Box has not been purchased with the valve installed at the factory. It is strongly recommended to install the customer-supplied valve into the enclosure prior to its installation to the wall. In that case, the installer is required to supply all hardware and make all required holes to the enclosure. The enclosure is generally made out of stainless steel with low galvanic potential. As a special order, the enclosure can also be made out of mild steel with several layers of epoxy paint. In either case, we strongly recommend to protect the valve pipe extension with plastic or rubber grummets. Not only the grummets will prevent any galvanic reactions between the pipe extensions and the enclosure, they will prevent any cuts and scratches to personnel due to presence of metal shavings and sharp edges.

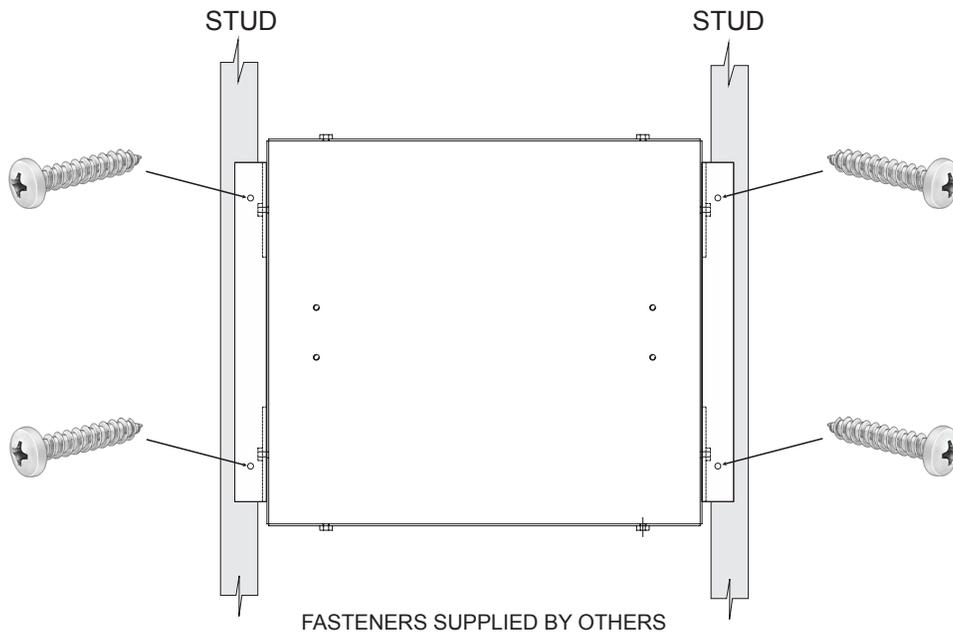
**Pre-Installed Valve** – If the MGVB Series Master Gas Valve Box has been delivered with a factory installed valve. Unless otherwise specified, the valve is equipped with two pipe extensions that protrude outside of the enclosure. The wall studs must be prepared to allow the pipe extensions to stick out of the studs for connections to the building piping system.

### RECESSED ENCLOSURE INSTALLATION



*Figure 5 – Wall Mounting Bracket Adjustments*

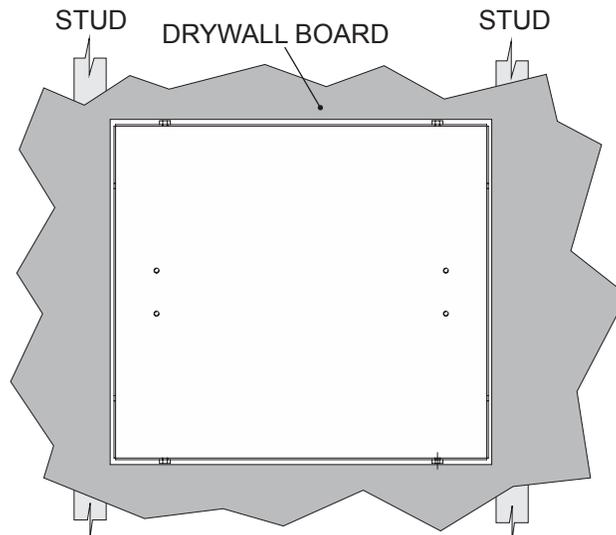
The wall mounting brackets must be adjusted so that the front edges of the recessed enclosure are flush (or slightly recessed) with the exposed sides of the drywall boards. The fasteners to attach the wall mounting brackets to the recessed enclosure are provided by BeaconMedæS.



*Figure 6 – Recessed Enclosure Installation to Drywall Studs*

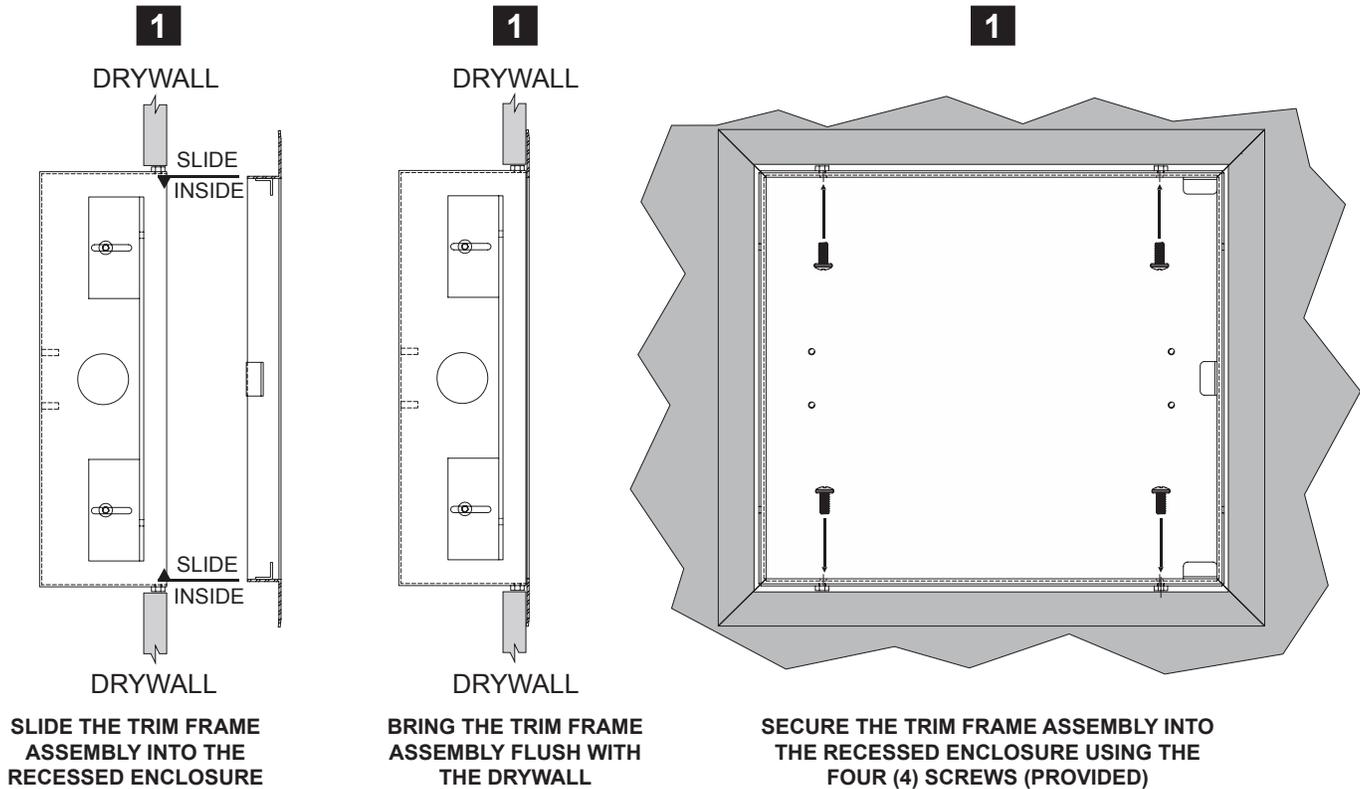
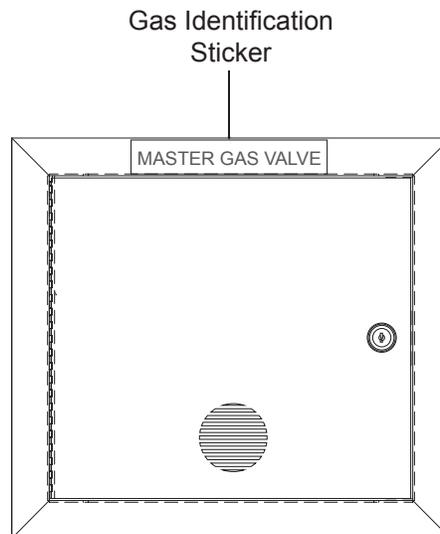
Using the wall mounting brackets, secure the recessed enclosure to two drywall studs (one each side). The fasteners must be supplied by the installer. The height of the enclosure is left to the discretion of the specifying engineer (some building codes may apply) or to the end user's requirements.

#### **DRYWALL INSTALLATION**



*Figure 7 – Drywall Installation*

The drywall can be installed once the valve has been connected to the building pipe system and the pressure test has been done successfully. The installer can install the drywall directly against the sides of the recessed box or leave a slight gap all around (some building code requirements may apply. In the later case, the trim frame assembly will cover the gap.

**TRIM FRAME ASSEMBLY INSTALLATION**

*Figure 8 – Trim Frame Assembly Installation*
**GAS IDENTIFICATION STICKER**

*Figure 9 – Gas Identification Sticker Installation*

The final installation step is to install the gas identification sticker. This sticker has been shipped with the master gas valve box not installed. The installer is responsible to apply the sticker as shown in figure 9.

## 10 - Name Tag

Each MGVB Series Master Gas Valve Box comes standard with a name tag. This name tag is applied inside the cabinet, top left corner. Removing this name tag voids automatically voids the warranty.

<b>MASTER GAS VALVE BOX</b>	
<b>MODEL</b>	<b>MGVB-12-WD</b>
<b>Materials</b>	<b>Type 304 S.S.</b>
<b>Door Type</b>	<b>Door w/Window</b>
<b>Fluid Service</b>	<b>Natural Gas</b>
<b>Wetted Parts M.A.W.P.</b>	<b>400 PSIG</b>
<b>Valve Size</b>	<b>3/4" NPS</b>
<b>Year MFG</b>	<b>March 2014</b>
<b>Installation</b>	<b>Indoor</b>
<b>Operating Temp.</b>	<b>32°F to 120°F</b>
<b>Project Number</b>	<b>XX-XXX</b>
 <b>BEACONMEDÆS®</b>	

## 11 - Warning

Our equipment is primarily intended for use in compressed gas systems. BeaconMedæS products are designed for use by persons technically trained in the proper use and safe handling of gas delivery systems. Due to the high pressure and hazardous gases employed in these processes, misapplication could result in injury or death. BeaconMedæS expressly warns against the sale to, or use of our products by, anyone other than professionally trained personnel. Do not use this equipment where pressures and temperatures can exceed those listed under the « Specifications » section.

Through misuse, age, or malfunction, components used with inert, combustible, corrosive, toxic, or oxidizing gases can fail in various modes. The system designer is warned to consider the failure modes of all component parts used with the above mentioned gases and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure modes. Adequate safeguards can be, but are not limited to:

- Pressure relief devices adequately piped to a safe location;
- Gas detection devices connected to a proper warning audible and visual alarm;
- Automatic shutoff valves and/or manual shutoff valves with an emergency stop push button;
- Self-contained breathing apparatus;
- Pipeline purge system with inert gas;
- Fire extinguishers and/or automatic sprinklers.

**System designers must provide a warning to end users in the systems instructional manual if protection against a failure mode cannot be adequately provided for.**

It should be recognized that warnings are valid for any equipment, regardless of manufacturer, and are not restricted to equipment manufactured by BeaconMedæS. BeaconMedæS's reputation for equipment quality performance is well established. We feel we have the additional obligation to provide information or warnings to customers to assist them in applying our equipment in a reasonable and safe manner.

## 12 - Design Changes

In line with our commitment to continuous improvement, BeaconMedæS reserves the right to make design modifications or discontinue manufacture of any equipment without prior notice.

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VCR is a trademark of Cajon Company

**LIMITED WARRANTY**

**WARRANTY:** The Seller expressly warrants that the products manufactured by it will be free from defects in material, workmanship and title at the date of shipment. This warranty is exclusive and is IN LIEU OF ALL IMPLIED OR STATUTORY WARRANTIES (INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM COURSE OF DEALING OF USAGE OR TRADE) or any other express or implied warranties or representations. All claims under this warranty must be made in writing and delivered to the seller prior to the expiration of 1 year from the date of shipment from the factory, or be barred. Upon receipt of a timely claim, the seller shall inspect the item or items claimed to be defective, and seller shall, at its option, modify, repair, or replace free of charge, any item or items which the seller determines to have been defective at the time of shipment from the factory, excluding normal wear and tear. Inspection must be performed at the seller's plant and in such event, freight for returning items to the plant shall be paid by Buyer. Seller shall have no responsibility if such item has been improperly stored, installed, operated, maintained, modified and/or repaired by an organization other than the seller. Adjustment for products not manufactured by Seller shall be made to the extent of any warranty of the manufacturer or supplier thereof. The foregoing shall be the Seller's sole and exclusive liability and buyer's sole and exclusive remedy for any breach of warranty or for any other claim based on any defect in, or non-performance of, the products whether based on breach of contract or in tort, including negligence or strict liability.