

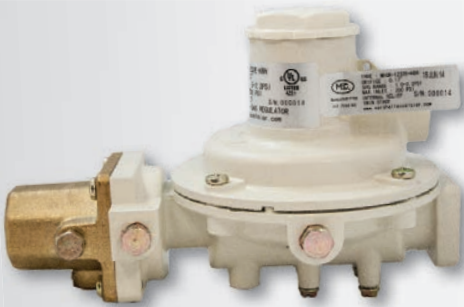


MARSHALL EXCELSIOR
 innovation made simple

EXCELA-FLO

Full Size and Compact Regulators for Domestic Applications

2015



Tested in the
 U.S.A

Marshall Excelsior Company

1506 George Brown Drive Marshall, MI 49068 - P# 269.789.6700 - F# 269.781.3840

Warranty Information

Warning

Marshall Excelsior's products are mechanical devices made of materials such as rubber and metal, and are subject to wear, the effects of contaminants, corrosion, and aging, and these devices will eventually become inoperative. **Regular inspection and maintenance is essential.** Marshall Excelsior's products have a long record of quality and service, and therefore LP-Gas dealers may forget hazards that can arise from using aging devices that have outlived their safe service life. The safe service life of these products will be affected by the environment and the conditions of their use. The LP-Gas dealer knows better than anyone what this environment and the conditions of use are.

There are developing trends in state legislation and proposed national legislation making the owner of products responsible for replacing products before they outlive their safe service life. LP-Gas dealers should be aware of such legislation as it affects them.

All Marshall Excelsior products must be installed, inspected and maintained by a trained and experienced professional adhering to all installation instructions, product and safety warnings, local, state, and federal regulations, codes and standards and any other standards set by, but not limited to, NFPA, DOT or ANSI.

LP-Gas is a highly explosive and flammable gas that should never be vented near a possible ignition source.

Limited Warranty

THIS WARRANTY for Marshall Excelsior manufactured products is provided by Marshall Excelsior, Inc., 1506 George Brown Drive, Marshall, MI 49068. Marshall Excelsior, unless otherwise specified in writing, warrants to the original buyer that for a period of five (5) years from the date of manufacture its products and repair kits will be free from defects in material and workmanship under normal service and use. This warranty covers manufacturing defects only, and does not cover defects and product non-compliance due to, misuse, alteration, neglect, accident, fire, or other external causes, alterations, or repairs. This limited warranty also does not cover normal wear and tear. During this warranty period, if a defect arises in the product, and you follow the instructions for returning the product, Marshall Excelsior will, at its option, to the extent permitted by law, either (i) repair the product using either new or refurbished parts, (ii) replace the product with a new or refurbished product that is equivalent to the product that is to be replaced, or (iii) refund to you all or part of the purchase price of the product. This limited warranty applies to the extent permitted by law, to any repair, replacement part or replacement device for the remainder of the original warranty period or for ninety (90) days whichever period is longer. All replaced parts and products for which a refund is given shall become the property of Marshall Excelsior. This is the only warranty or representation made by Marshall Excelsior, and the sole basis for liability respecting quality, performance, defects, repair, delivery, and replacement of products and repair kits. The foregoing shall constitute Marshall Excelsior's sole liability.

Marshall Excelsior does not warrant any product or part that has been altered, accidentally damaged, disassembled, modified, misused, neglected, not properly maintained or installed, or not kept in continuous

service after installation. Marshall Excelsior does not warrant cosmetic issues including but not limited to dents, scratches, product discoloration, color fading or any other imperfection that does not affect the functionality of the product. Marshall Excelsior does not warranty any product or part not installed according to Marshall Excelsior's installation instructions or installed in violation of any regulation or warning by state, local, or federal regulators, or in violation of any standard or code set by, but not limited to, NFPA, DOT or ANSI requirements. The foregoing shall constitute Marshall Excelsior's sole liability to distributors, vendees and end users.

Limitations

TO THE EXTENT PERMITTED BY LAW, THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES, AND MARSHALL EXCELSIOR SPECIFICALLY DISCLAIMS ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND AGAINST HIDDEN OR LATENT DEFECTS. IF MARSHALL EXCELSIOR CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES, THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY AND TO REPAIR OR REPLACEMENT AND SERVICE.

MARSHALL EXCELSIOR IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY.

MARSHALL EXCELSIOR'S LIABILITY (EXCEPT AS TO TITLE) ARISING OUT OF THE SALE, USE OR OPERATION OF PRODUCTS OR REPAIR KITS, WHETHER ON CLAIMS FOR BREACH OF WARRANTY, CONTRACT, NEGLIGENCE OR OTHERWISE (INCLUDING CLAIMS OF CONSEQUENTIAL OR INCIDENTAL DAMAGES) SHALL NOT IN ANY EVENT EXCEED THE COST OF FURNISHING OR REPLACEMENT OF THE DEFECTIVE PRODUCT OR REPAIR KIT.

Warranty Claims and Notice

Warranty claims shall be made in writing to Marshall Excelsior's Home Office at 1506 George Brown Drive, Marshall, Michigan 49068 by the distributor, vendee or end user within twenty (20) days of discovery of the defect and the product must be postmarked and shipped F.O.B. origin to Marshall Excelsior's Home Office within thirty (30) days of the discovery of the defect. Marshall Excelsior will not accept any products or repair kits that does not have a Return Material Authorization (RMA) number from the Home Office in Marshall, Michigan. After Marshall Excelsior has inspected the product and deemed the product to be defective, at its discretion, Marshall Excelsior will repair, replace or refund the purchase price of the defective product or repair kit. If the buyer does not comply with the above stated requirements the buyer will waive unconditionally and absolutely any and all claims arising out of the alleged defect.



Marshall Excelsior Company

Introducing



EXCELA-FLO

Full Line of Domestic Regulators

First Stage

Compact and Full Size



Second Stage

Compact and Full Size



Compact, Full Size, Back Mount



Automatic Changeover

2 PSI Service

Full Size & Back Mount



Light Commercial Second Stage

Two Stage Integral

Compact and Full Size



- MEC regulators have been tested under some of the most harsh conditions possible – over 500,000 cycles flowing at 20% droop through all seasons on propane with ZERO failures!
- Extensive field evaluations in all climates conducted with ZERO failures!
- Features include: molded lip fabric reinforced diaphragms, stainless steel internal components, durable powder coat finish inside and out, hardened aluminum orifices, GLT Viton seals, the industry's only "Peel-N-Stick" leak check label, and our exclusive "Tri-Tap" two stage pressure port system, plus much more!
- Recommended service life of 25 years.
- 100% production tested in the USA.



Tested in the USA

For Your Local Marshall Excelsior Distributor Call (269) 789-6700, Fax (269) 781-8340

E-mail: sales@marshallexcelsior.com

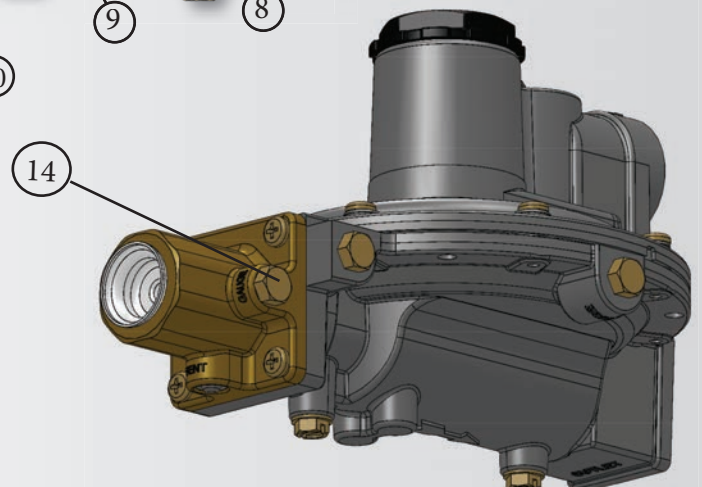
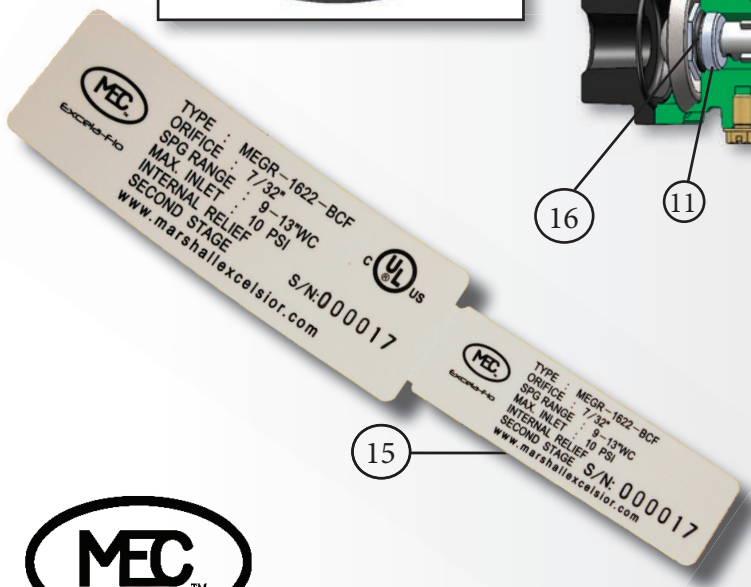
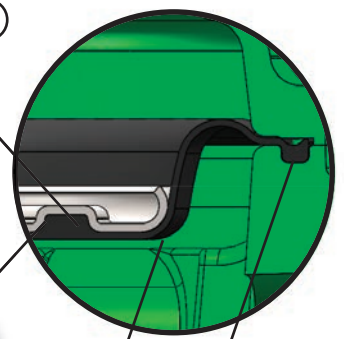
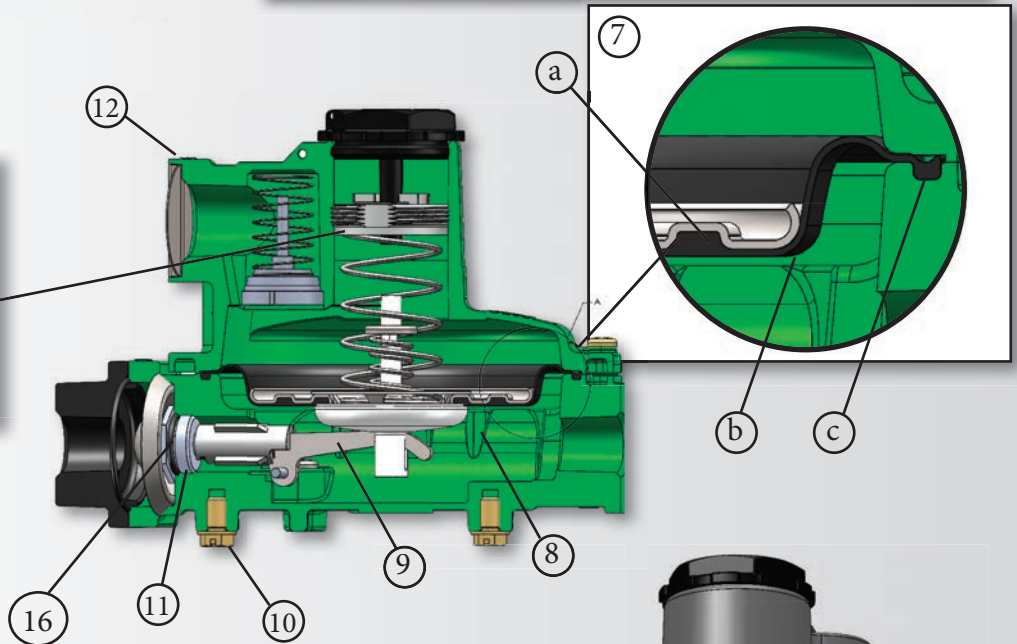
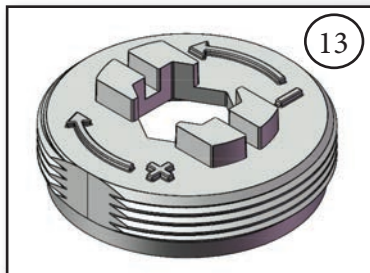
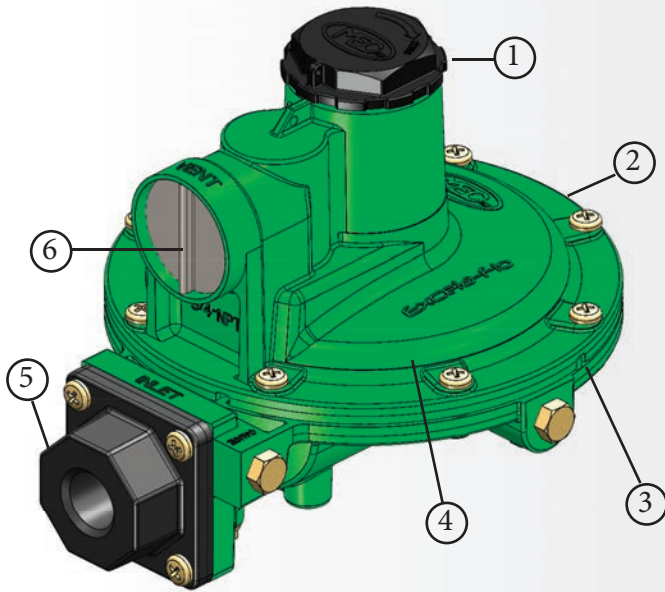
www.marshallexcelsior.com

Marshall Excelsior
— MEC —
Gas Connections

Excela-Flo

Exclusive Features and Benefits

1. Dust Cap with Hex and Finger Grips
 2. Full Round Flange for evenly distributed diaphragm compression
 3. Locating tabs to ensure proper vent relocation
 4. Premium Powder Coat finish inside & outside body
 5. Large Wrench Flats that fit standard wrenches
 6. Ribbed Vent Screen for Easy Removal
 7. Fabric Reinforced Molded Diaphragm
 - a. Interlocking diaphragm and diaphragm plate.
 - b. Rounded edges on diaphragm plate
 - c. Sealing and locating bead on diaphragm
 8. Integrated Travel Stops - to prevent damage to diaphragm
 9. Stainless Steel Lever Design
 10. Pre-Installed Mounting Screws for Installation Convenience
 11. Large Precision Machined Aluminum Orifice
 12. Large Drip Vent
 13. Adjustment Direction Indicator
 14. Plugged High Pressure Gauge Port on all Integral Two Stage Regulators
 15. Tear off data label for installation records
 16. GLT Viton Seats for maximum protection against contamination
- * Some Features - Patent Pending



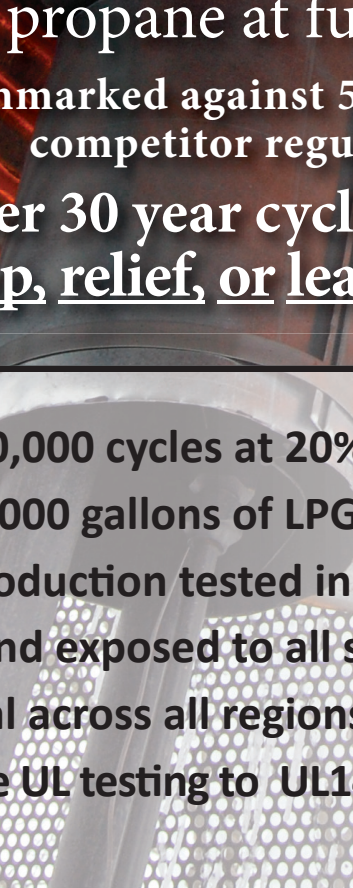
••••• *Extensive Testing* •••••



**TESTING DONE ON OVER
100 MEC REGULATORS**

**with propane at full cycle life
benchmarked against 50 additional
competitor regulators**

**Over 30 year cycle with NO
lock-up, relief, or leakage failures**

- 
- Over 500,000 cycles at 20%-30% droop
 - Over 15,000 gallons of LPG used
 - 100% production tested in the USA
 - Tested and exposed to all seasons
 - Field trial across all regions of the USA
 - Extensive UL testing to UL144 / UL144C



Excelsa-Flo **First Stage Domestic Regulators**

Application:

These first stage regulators are used to reduce LP gas tank pressures for a second stage regulator (normally 10 PSIG). All MEC first stage regulators are red indicating high outlet pressure. First stage regulator vents have 3/4" FNPT tapped ports and E-Z Grip screens located over the outlet. Both the MEGR-1122H and the MEGR-1622H series offer optimal relief performance that well exceeds UL test requirements providing double failure overpressure protection when used with MEC MEGR-1622, MEGR-1642 & MEGR-1652 Series Second Stage regulators. All MEC Excelsa-Flo domestic regulators feature a 25 year recommended replacement life and our exclusive tear away leak check adhesive sticker.

MEGR-1122H & MEGR-1622H Series Specifications:

Type: First Stage
Max. Inlet Pressure: 250 PSIG
Exterior Finish: Red Powder Coat
Orifice Size: .15" (Compact) & 7/32" Full
Diaphragm: Fabric Reinforced NBR Molded Lip O-Ring Bonnet/Body Seal
Relief Type: Internal Relief - Spring Loaded
Bonnet / Body Material: Die Cast Aluminum
Seat Material: Fluorocarbon (FKM)
Listings: cUL_{US} / UL 144
Mounting Holes: Standard 3-1/2" Center
Pressure Taps: #54 Orifice 1/8" FNPT Plugged (2)
Relief Travel Stop: Molded in Adjustment Cap - Gray (Compact), Black (Full Size)

PATENT PENDING



MEGR-1122H Compact Series



MEGR-1122H Series: Offers a compact first stage regulator design perfect for tight applications such as underground tank domes. They feature an adjustment range from 9-12 PSIG (factory set @ 10 PSIG), stainless steel internal components, fluorocarbon (FKM) seat discs, molded lip fabric reinforced diaphragms and large aluminum precision machined orifice to minimize freeze ups while providing superior downstream regulation and maximum corrosion resistance against weather or contaminated gas.

PATENT PENDING



MEGR-1622H Full Size Series



MEGR-1622H Series: Offers all of the same features as the compact MEGR-1122H Series in a full size version. Our full size MEGR-1622H Series has a large fabric reinforced diaphragm for superior downstream regulation, heavy duty wrench flats, and a large 3/4" FNPT tapped drip lip vent to help prevent relief vent blockage.

MEC Excelsa-Flo First Stage Domestic Regulators

Part No.	Type	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range (PSI)	Outlet Set Point (PSI)
MEGR-1122H-AAJ	Compact	1,000,000	1/4" FNPT	1/2" FNPT	9-12	10
MEGR-1122H-AAJXB ⁽²⁾	Compact	1,000,000	1/4" FNPT	1/2" FNPT	9-12	10
MEGR-1622H-BGJ	Full Size	2,200,000	1/2" FNPT	1/2" FNPT	9-12	10
MEGR-1622H-DGJ	Full Size	2,500,000	3/4" FNPT	3/4" FNPT	9-12	10
MEGR-1622H-HGJ	Full Size	2,300,000	F. POL	1/2" FNPT	9-12	10
MEGR-1622H-JGJ	Full Size	2,750,000	F. POL	3/4" FNPT	9-12	10

⁽¹⁾ Based on 30 PSIG Inlet pressure and 20% droop
⁽²⁾ Indicates vent orientation over pressure taps



MEC **Excela-Flo**
INDUSTRY FIRST

Compact First Stage F. POL Domestic Regulators

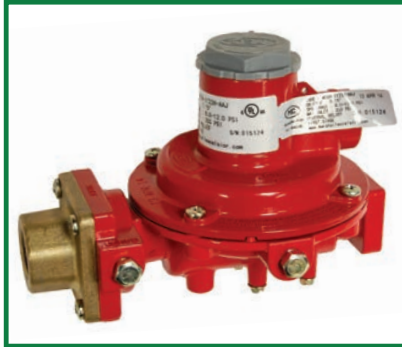
Application:

These first stage regulators are used to reduce LP gas tank pressures for a second stage regulator (normally 10 PSIG). All MEC first stage regulators are red indicating high outlet pressure. Compact First stage regulator vents have 3/8" FNPT tapped ports and E-Z Grip screens located over the outlet. The MEGR-1222H series offers optimal relief performance that well exceeds UL test requirements providing double failure overpressure protection when used with MEC MEGR-1622, MEGR-1642 & MEGR-1652 Series Second Stage regulators. All MEC Excela-Flo domestic regulators feature a 25 year recommended replacement life and our exclusive tear away leak check adhesive sticker.

MEGR-1222H Series Specifications:

Type: First Stage
Max. Inlet Pressure: 250 PSIG
Exterior Finish: Red Powder Coat
Orifice Size: .14" (Compact)
Diaphragm: Fabric Reinforced NBR Molded Lip O-Ring Bonnet/Body Seal
Relief Type: Internal Relief - Spring Loaded
Bonnet / Body Material: Die Cast Aluminum
Seat Material: Fluorocarbon (FKM)
Listings: cUL_{us} / UL 144
Mounting Holes: Standard 3-1/2" Center
Pressure Taps: #54 Orifice 1/8" FNPT Plugged (2)
Relief Travel Stop: Molded in Adjustment Cap - Gray (Compact)

PATENT PENDING



MEGR-1222H Compact Series

MEGR-1222H Series: Offers a compact first stage regulator design perfect for tight applications such as underground tank domes. They feature an adjustment range from 9-12 PSIG (factory set @ 10 PSIG), stainless steel internal components, fluorocarbon (FKM) seat discs, molded lip fabric reinforced diaphragms and large aluminum precision machined orifice to minimize freeze ups while providing superior downstream regulation and maximum corrosion resistance against weather or contaminated gas.



MEC Excela-Flo First Stage Domestic Regulators						
Part No.	Type	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range (PSI)	Outlet Set Point (PSI)
MEGR-1222H-BGF	Compact	1,000,000	F. POL	1/2" FNPT	9-12	10
MEGR-1222H-BGFXB ⁽²⁾	Compact	1,000,000	F. POL	1/2" FNPT	9-12	10

(1) Based on 30 PSIG Inlet pressure and 20% droop
 (2) Indicates vent orientation over pressure taps



Tested in the U.S.A

Excelsa-Flo **Second Stage Domestic Regulators**

PATENT PENDING



MEGR-1222 Compact Series 

PATENT PENDING



MEGR-1622 Full Size Series 

PATENT PENDING



MEGR-1652 Back Mount Series 

Application:

These second stage regulators are used to reduce outlet pressures from first stage regulators (normally 10 PSI) to 11" WC in domestic installations. All MEC second stage regulators are green indicating low outlet pressure. Second stage regulator vents have 3/4" FNPT tapped ports and our exclusive E-Z grip screens located over the inlet. All MEC second stage domestic regulators feature a stainless steel inlet filter screen to reduce debris from passing through the regulator. Both the MEGR-1622 and the MEGR-1652 Series offer optimal relief performance that well exceeds UL test requirements providing double failure overpressure protection (no more than 2 PSI downstream pressure) when used with MEGR-1122H, MEGR-1222H and MEGR-1622H Series First Stage regulators. All MEC Excelsa-Flo domestic regulators feature a 25 year recommended replacement life and our exclusive tear away leak check adhesive sticker.

MEGR-1222, MEGR-1622 & MEGR-1652 Series

Type: Second Stage
Max. Inlet Pressure: 10 PSIG
Exterior Finish: Green Powder Coat
Orifice Size: .14" (Compact) & 7/32" (Full)
Diaphragm: Fabric Reinforced (NBR) Molded Lip O-Ring Bonnet/Body Seal
Relief Type: Internal Relief - Spring Loaded
Bonnet / Body Material: Die Cast Aluminum
Seat Material: Fluorocarbon (FKM)
Listings: cUL_{us} / UL 144
Mounting Holes: Standard 3-1/2" Center
Pressure Taps: #54 Orifice 1/8" FNPT Plugged (2)
Relief Travel Stop: Molded In Adjustment Cap -
 Black (Full Size), Gray (Compact)

MEGR-1222 Series: Offers a compact second stage regulator design perfect for lower BTU applications. They feature an adjustable range from 8-14" WC (factory set @ 11" WC), stainless steel internal components, fluorocarbon (FKM) seat discs, molded lip fabric reinforced diaphragms and large aluminum precision machined orifices providing superior downstream regulation and maximum corrosion resistance against weather or contaminated gas.

MEGR-1622 & MEGR-1652 Series: Offers all of the same features as the compact MEGR-1122 Series but in a full size, high capacity version. Our full size second stage regulators have a large fabric reinforced diaphragm for superior downstream regulation, heavy duty wrench flats, and a large 3/4" FNPT tapped drip lip vent to help prevent relief valve blockage. The MEGR-1622 Series have both the inlet and outlet in line where the MEGR-1652 series have a rear discharge back mount outlet for convenient wall mount applications.

MEC Excelsa-Flo Second Stage Domestic Regulators						
Part No.	Type	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range ("WC)	Outlet Set Point ("WC)
MEGR-1222-BAF	Compact	500,000	1/2" FNPT	1/2" FNPT	9.5-13	11
MEGR-1622-BCF	Full Size	710,000	1/2" FNPT	1/2" FNPT	9-13	11
MEGR-1622-CFF	Full Size	1,300,000	1/2" FNPT	3/4" FNPT	9-13	11
MEGR-1622-DFF	Full Size	1,300,000	3/4" FNPT	3/4" FNPT	9-13	11
MEGR-1652-CFF ⁽²⁾	Back Mount	1,000,000	1/2" FNPT	3/4" FNPT	9-13	11
MEGR-1652-DFF ⁽²⁾	Back Mount	1,000,000	3/4" FNPT	3/4" FNPT	9-13	11

(1) Based on 10 PSIG inlet pressure and 20% droop
 (2) Indicates back mount configuration



Side Outlet Second Stage Domestic Regulators

PATENT PENDING



MEGR-1642 Full Size Series



Application:

These second stage regulators are used to reduce outlet pressures from first stage regulators (normally 10 PSI) to 11" WC in domestic installations. All MEC second stage regulators are green indicating low outlet pressure. Second stage regulator vents have 3/4" FNPT tapped ports and our exclusive E-Z grip screens located over the inlet. All MEC second stage domestic regulators feature a stainless steel inlet filter screen to reduce debris from passing through the regulator. The MEGR-1642 Series offers optimal relief performance that well exceeds UL test requirements providing double failure overpressure protection (no more than 2 PSI downstream pressure) when used with MEGR-1122H, MEGR-1222H and MEGR-1622H Series First Stage regulators. All MEC Excelsa-Flo domestic regulators feature a 25 year recommended replacement life and our exclusive tear away leak check adhesive sticker.

MEGR-1642 Series Specifications:

Type: Second Stage
Max. Inlet Pressure: 10 PSIG
Exterior Finish: Green Powder Coat
Orifice Size: 7/32" (Full)
Diaphragm: Fabric Reinforced (NBR) Molded Lip O-Ring Bonnet/Body Seal
Relief Type: Internal Relief - Spring Loaded
Bonnet / Body Material: Die Cast Aluminum
Seat Material: Fluorocarbon (FKM)
Listings: cUL_{us} / UL 144
Mounting Holes: Standard 3-1/2" Center
Pressure Taps: #54 Orifice 1/8" FNPT Plugged (2)
Relief Travel Stop: Molded In Adjustment Cap - Black

MEGR-1642 Series: Features an adjustable range from 8-14" WC (factory set @ 11" WC), stainless steel internal components, fluorocarbon (FKM) seat discs, molded lip fabric reinforced diaphragms and large aluminum precision machined orifices providing superior downstream regulation and maximum corrosion resistance against weather or contaminated gas.

The MEGR-1642 Series offers all of the same features as the compact MEGR-1122 Series but in a full size, high capacity version. Our full size second stage regulators have a large fabric reinforced diaphragm for superior downstream regulation, heavy duty wrench flats, and a large 3/4" FNPT tapped drip lip vent to help prevent relief valve blockage. The MEGR-1642 Series has the outlet at 90 degrees from the inlet making it ideal for vapor meter installations.

MEC Excelsa-Flo Second Stage Domestic Regulators						
Part No.	Type	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range ("WC)	Outlet Set Point ("WC)
MEGR-1642-DFP ⁽²⁾	Side Outlet	900,000	3/4" FNPT	3/4" FNPT	9-13	11
(1) Based on 10 PSIG inlet pressure and 20% droop						
(2) Indicates side outlet configuration						



Tested in the
U.S.A

MEC[™] Excela-Flo 2 PSI Service Regulators

Application:

These 2 PSI service regulators are used to reduce outlet pressures from first stage regulators (normally 10 PSI) to a nominal 2 PSI. 2 PSI service regulators are used in conjunction with an LPG line regulator either at the indoor appliance or a remote manifold distribution header inlet. All MEC 2 PSI service regulators are green with white adjustment caps. Our 2 PSI service regulator vents have 3/4" FNPT tapped vents and our exclusive E-Z grip screens located over the inlet. All MEC 2 PSI service regulators feature a stainless steel inlet filter screen to reduce debris from passing through the regulator. Both the MEGR-1622E and MEGR-1652E series offer optimal relief performance that well exceeds UL test requirements. All MEC Excela-Flo domestic regulators feature a 25 year recommended replacement life and our exclusive tear away leak check adhesive sticker.

MEGR-1622E & MEGR-1652E Series Specifications:

Type: 2 PSI
Max. Inlet Pressure: 10 PSI
Exterior Finish: Green Powder Coat
Orifice Size: 7/32"
Seat Material: Fluorocarbon (FKM)
Diaphragm: Fabric Reinforced (NBR) / Molded Lip O-Ring Bonnet/Body Seal
Relief Type: Internal Relief - Spring Loaded
Bonnet / Body Material: Die Cast Aluminum
Listings: cUL_{US} / UL 144
Mounting Holes: Standard 3-1/2" Center
Pressure Taps: #54 Orifice 1/8" FNPT Plugged (2)
Relief Travel Stop: Molded in Adjustment Cap - White



PATENT PENDING



MEGR-1622E Series: Offers a full size high capacity molded lip fabric reinforced diaphragm, stainless steel internal components, fluorocarbon (FKM) seat discs, precision machined aluminum orifices, and an adjustment range from 1-2.2 PSI (factory set @ 2 PSI) providing superior downstream regulation and maximum corrosion resistance against weather or contaminated gas.

MEGR-1652E Series: Offers all of the same features as the MEGR-1622E Series but with a rear discharge back mount outlet for convenient wall mount applications.

MEC Excela-Flo 2 PSI Service Regulators						
Part No.	Type	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range (PSI)	Outlet Set Point (PSI)
MEGR-1622E-BCH	Full Size	1,100,000	1/2" FNPT	1/2" FNPT	1-2.2	2
MEGR-1622E-DCH	Full Size	1,400,000	3/4" FNPT	3/4" FNPT	1-2.2	2
MEGR-1652E-DFH ⁽²⁾	Back Mount	1,300,000	3/4" FNPT	3/4" FNPT	1-2.2	2

(1) Based on 10 PSIG inlet pressure and 20% droop.

(2) Indicates back mount configuration.



Integral Two-Stage 2 PSI Service Regulators

PATENT PENDING



MEGR-1232E Compact Series: Offers a compact integral two-stage 2 PSI regulator design perfect for lower BTU applications and confined spaces. They feature an adjustment range from 1-2.2 PSI (factory set @ 2 PSI). Stainless steel integral components, fluorocarbon (FKM) seat discs, molded lip fabric reinforced diaphragms, and large precision machined aluminum orifices providing superior downstream regulation and maximum corrosion resistance against weather or contaminated gas.



MEGR-1632E Full Size Series: Offers all of the same features as the compact MEGR-1232E series in a full size high capacity version. The full size MEGR-1632E diaphragm provides superior downstream regulation, has heavy duty wrench flats and a large 3/4" FNPT tapped drip lip vent to help prevent relief vent blockage.

Application:

MEC **Excela-Flo** integral two-stage regulators combine the first and second stage regulator set-up into one convenient unit converting tank pressure to 2 PSI. All MEC integral two-stage 2 PSI regulators are white indicating 2 PSI outlet pressure. Integral two-stage 2 PSI regulators are recommended for installations with short piping distances, but provide the same advantages of two-stage regulation with a single unit. 2 PSI service regulators are used in conjunction with an LPG line regulator either at the indoor appliance or a remote manifold distribution header inlet. All MEC integral two-stage regulator vent have tapped ports (7/16 -24 - First Stage) (3/8" FNPT or 3/4" FNPT - Second Stage) and our exclusive E-Z Grip screens located over the outlet. Both the MEGR-1232E and MEGR-1632E series offer optimal relief performance that well exceeds UL test requirements providing over pressure protection of no more than 4 PSI downstream pressure.

MEC **Excela-Flo** integral two-stage domestic regulators feature a 25 year recommended replacement life, our exclusive Tri-Tap™ (tank, 10 PSI, 2 PSI) pressure port system and tear away leak check adhesive sticker.

MEGR-1232E & MEGR-1632E Series Specifications:

- Type:** Integral Two-Stage 2 PSI
- Max. Inlet Pressure:** 250 PSIG
- Exterior Finish:** White Powder Coat
- Orifice Size:** .17" (Compact) & 7/32" (Full)
- Seat Material:** Fluorocarbon (FKM)
- Diaphragm:** Fabric Reinforced NBR/Molded Lip O-Ring Bonnet/Body Seal
- Relief Type:** Internal Relief - Spring Loaded
- Bonnet / Body Material:** Die Cast Aluminum
- Listings:** cUL_{us} / UL 144
- Mounting Holes:** Standard 3-1/2" Center
- Pressure Taps:** #54 Orifice 1/8" FNPT Plugged (3)
- Relief Travel Stop:** Molded in Adjustment Cap - Gray (Compact), White (Full Size)

MEC Excela-Flo Integral Two-Stage 2 PSI Service Regulators						
Part No.	Type	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range (PSI)	Outlet Set Point (PSI)
MEGR-1232E-BBH	Compact	550,000	1/4" FNPT	1/2" FNPT	1-2.2	2
MEGR-1232E-BBHXA ⁽²⁾	Compact	550,000	1/4" FNPT	1/2" FNPT	1-2.2	2
MEGR-1232E-HBH	Compact	600,000	F. POL	1/2" FNPT	1-2.2	2
MEGR-1232E-HBHXA ⁽²⁾	Compact	600,000	F. POL	1/2" FNPT	1-2.2	2
MEGR-1632E-BCH	Full Size	1,000,000	1/4" FNPT	1/2" FNPT	1-2.2	2
MEGR-1632E-BCHXA ⁽²⁾	Full Size	1,000,000	1/4" FNPT	1/2" FNPT	1-2.2	2
MEGR-1632E-CFH	Full Size	1,050,000	1/4" FNPT	3/4" FNPT	1-2.2	2
MEGR-1632E-CFHXA ⁽²⁾	Full Size	1,050,000	1/4" FNPT	3/4" FNPT	1-2.2	2
MEGR-1632E-HCH	Full Size	1,025,000	F. POL	1/2" FNPT	1-2.2	2
MEGR-1632E-HCHXA ⁽²⁾	Full Size	1,025,000	F. POL	1/2" FNPT	1-2.2	2
MEGR-1632E-JFH	Full Size	1,050,000	F. POL	3/4" FNPT	1-2.2	2
MEGR-1632E-JFHXA ⁽²⁾	Full Size	1,050,000	F. POL	3/4" FNPT	1-2.2	2

(1) Based on 30 PSIG inlet pressure and 20% droop
 (2) Indicates regulator vents opposite pressure tap ports



Tested in the U.S.A

Integral Two-Stage Domestic Regulators

PATENT PENDING



MEGR-1232 Compact Series: Offers a compact integral two-stage regulator design perfect for lower BTU applications and confined spaces. They feature an adjustment range from 9-13" WC (factory set @ 11" WC). Stainless steel integral components, fluorocarbon (FKM) seat discs, molded lip fabric reinforced diaphragms, and large precision machined aluminum orifices providing superior downstream regulation and maximum corrosion resistance against weather or contaminated gas.



MEGR-1632 Full Size Series: Offers all of the same features as the compact MEGR-1232 series in a full size high capacity version. The full size MEGR-1632 diaphragm provides superior downstream regulation, has heavy duty wrench flats and a large 3/4" FNPT tapped drip lip vent to help prevent relief vent blockage.

Application:

These integral two-stage regulators combine the first and second stage regulator set-up into one convenient unit converting tank pressure to 11" WC. All MEC integral two-stage domestic regulators are gray indicating low outlet pressure. Integral two-stage regulators are recommended for installations with short piping distances, but provide the same advantages of two-stage regulation with a single unit. All MEC integral two-stage regulator vent have tapped ports (7/16 -24-First Stage) (3/4" FNPT - Second Stage) and our exclusive E-Z Grip screens located over the outlet. Both the MEGR-1232 and MEGR-1632 series offer optimal relief performance that well exceeds UL test requirements providing over pressure protection of no more than 2 PSI downstream pressure. MEC **Excela-Flo** integral two-stage domestic regulators feature a 25 year recommended replacement life, our exclusive Tri-Tap™ (tank, 10 PSI, 11" WC) pressure port system and tear away leak check adhesive sticker.

MEGR-1232 & MEGR-1632 Series Specifications:

Type: Integral Two-Stage
Max. Inlet Pressure: 250 PSIG
Exterior Finish: Gray Powder Coat
Orifice Size: .17" (Compact) & 7/32" (Full)
Seat Material: Fluorocarbon (FKM)
Diaphragm: Fabric Reinforced NBR/Molded Lip O-Ring Bonnet/Body Seal
Relief Type: Internal Relief - Spring Loaded
Bonnet / Body Material: Die Cast Aluminum
Listings: cUL_{us} / UL 144
Mounting Holes: Standard 3-1/2" Center
Pressure Taps: #54 Orifice 1/8" FNPT Plugged (3)
Relief Travel Stop: Molded in Adjustment Cap -
 Gray (Compact), Black (Full Size)

MEC **Excela-Flo** Integral Two-Stage Domestic Regulators

Part No.	Type	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range ("WC)	Outlet Set Point ("WC)
MEGR-1232-BBF	Compact	450,000	1/4" FNPT	1/2" FNPT	9.5-13	11
MEGR-1232-BBFXA ⁽²⁾	Compact	450,000	1/4" FNPT	1/2" FNPT	9.5-13	11
MEGR-1232-HBF	Compact	450,000	F. POL	1/2" FNPT	9.5-13	11
MEGR-1232-HBFXA ⁽²⁾	Compact	450,000	F. POL	1/2" FNPT	9.5-13	11
MEGR-1632-BCF	Full Size	700,000	1/4" FNPT	1/2" FNPT	9-13	11
MEGR-1632BCFXA ⁽²⁾	Full Size	700,000	1/4" FNPT	1/2" FNPT	9-13	11
MEGR-1632-CFF	Full Size	950,000	1/4" FNPT	3/4" FNPT	9-13	11
MEGR-1632-CFFXA ⁽²⁾	Full Size	950,000	1/4" FNPT	3/4" FNPT	9-13	11
MEGR-1632-HCF	Full Size	700,000	F. POL	1/2" FNPT	9-13	11
MEGR-1632-HCFXA ⁽²⁾	Full Size	700,000	F. POL	1/2" FNPT	9-13	11
MEGR-1632-JFF	Full Size	900,000	F. POL	3/4" FNPT	9-13	11
MEGR-1632-JFFXA ⁽²⁾	Full Size	900,000	F. POL	3/4" FNPT	9-13	11

(1) Based on 30 PSIG inlet pressure and 20% droop

(2) Indicates regulator vents opposite pressure tap ports


EXCELA-FLO
Automatic Changeover Regulators

Application:

These Two Stage Automatic Changeover regulators combine the first and second stage regulator into one unit converting tank pressure to 11” WC. MEC EXCELA-FLO Automatic Changeover regulators prevent gas outages by switching supply cylinders over to the reserve cylinder automatically when the primary cylinder is near empty. When the primary cylinder is depleted causing the changeover to occur a red indicator will appear signifying the reserve cylinder is now in use and the primary cylinder can be refilled without loss of service.



MEGR-175CS61222-BAF



MEGR-175CS61222-BAF Series: Offers a compact two stage regulator option for lower BTU applications such as mobile or seasonal homes. They feature a second stage adjustment from 8-14” WC (factory set @ 11” WC), stainless steel internal components, fluorocarbon (FKM) seat discs, molded lip fabric reinforced diaphragms, and large precision machined aluminum orifices providing superior downstream regulation and maximum resistance against weather or contaminated gas.

MEGR-175CS61222 & MEGR-175CS61622 Series Specifications:

Type: Automatic Changeover Two-Stage
Max. Inlet Pressure: 250 PSIG
Exterior Finish: Gold / Gray Powder Coat
Orifice Size: .14” (Compact) & 7/32” (Full)
Seat Material: (NBR) 1st Stage, Fluorocarbon (FKM) 2nd Stage
Diaphragm: Fabric Reinforced (NBR) / Molded Lip O-Ring Bonnet/Body Seal
Relief Type: Internal Relief - Spring Loaded
Bonnet / Body Material: Die Cast Zinc/Plastic 1st Stage
Die Cast Aluminum 2nd Stage
Listings: cUL_{us} / UL 144 2nd Stage
Mounting Holes: Standard 3-1/2” Center
Pressure Taps: #54 Orifice 1/8” FNPT Plugged (1)
Relief Travel Stop: Molded in Adjustment Cap -
Gray (Compact), Black (Full Size)



MEGR-175CS61622-BCF



MEGR-175CS61622-BCF Series: Offers all of the same features as the compact MEGR-175S61222 series but with a full size high capacity second stage regulator option. The full size second stage diaphragm provides superior downstream regulation has heavy duty wrench flats and a large 3/4” FNPT tapped drip lip vent to help prevent relief vent blockage perfect for manifolding larger tanks together such as 420 LB cylinders.

MEC EXCELA-FLO Automatic Changeover Regulators							
Part No.	Type	Primary Cylinder Capacity in BTU/H LPG ⁽¹⁾	Auxiliary Cylinder Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range (“WC)	Outlet Set Point (“WC)
MEGR-175CS61222-BAF	Compact	400,000	340,000	1/4” IF (2)	1/2” FNPT	9.5-13	11
MEGR-175CS61622-BCF	Full Size	650,000	570,000	1/4” IF (2)	1/2” FNPT	9-13	11

(1) Based on 30 PSIG inlet pressure and 20% droop



**Tested in the
U.S.A**

Light Commercial Second Stage Regulator



MEGR-1HSRL Series

Application:

These light commercial second stage regulators are used to reduce outlet pressures from first stage regulators (normally 10 PSI) to 11" WC.

MEGR-1HSRL Series: Offers a full size high capacity light commercial type regulator with an adjustment range from 6-14" WC (factory set @ 11" WC), a heavy duty cast iron body with a universal body to bonnet union for fast relocation of inlet to outlet vent location.

MEGR-1HSRL Series Specifications:

Type: Second Stage
Max. Inlet Pressure: 40 PSIG
Exterior Finish: Gray Powder Coat
Diaphragm: Fabric Reinforced - NBR
Relief Type: Internal Relief - Spring Loaded
Bonnet/Body Material: Die Cast Aluminum/Cast Iron
Orifice Size: 3/8"

MEC Excela-Flo Light Commercial Second Stage Regulators

Part No.	Capacity in BTU/H LPG ⁽¹⁾	Inlet	Outlet	Outlet Adj. Range ("WC)	Outlet Set Point ("WC)
MEGR-1HSRL-BFC	2,000,000	3/4" FNPT	3/4" FNPT	6-14	11
MEGR-1HSRL-CFC	2,500,000	1" FNPT	1" FNPT	6-14	11

(1) Based on 10 PSIG inlet pressure and 20% droop

Installation and Operation Instructions For 1100, 1200 and 1600 Excelsa-Flo Series Regulators

!WARNING!

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion and/or fire causing property damage and personal injury or death.

Marshall Excelsior equipment must be installed, operated and maintained in accordance with federal, state and local codes and MEC instructions. The installation in most states must also comply with NFPA 54 and NFPA 58 standards.

Only personnel trained in the proper procedures, codes, standards and regulations of the LP-Gas industry shall install and service this equipment.

Things to tell the gas customer:

1. Show the customer the vent, vent assembly or vent line. Stress that this opening must remain unobstructed at all times. Tell the customer to check the vent opening after a freezing rain, sleet storm, or snow to make sure ice has not formed in the vent.
2. Show the customer the shutoff valve on the container. The customer should close this valve immediately if gas is smelled, appliance pilot lights fail to stay on or appear higher than usual or any other abnormal situation occurs.
3. Tell the customer to call your company to service the regulator if the regulator vents gas or a leak develops in the system. **Only a qualified gas service person shall install or service the regulators.**

Scope of the Manual

This instruction manual covers installation and maintenance for the first stage, second stage, and integral two-stage regulators used on LP-Gas vapor service applications. **They are not to be used on liquid service.**

Description

25 Year Recommended Replacement Life: The MEC Regulator Series is designed using rugged time-proven design concepts and constructed of corrosion resistant materials, both internally and externally. With proper installation and periodic inspection and maintenance, they will meet a 25 Year Recommended Replacement Life.

Screened Drip-Lip: Screened Drip-Lip is oriented either over the inlet, outlet, or at 90° depending on the configuration.

Pressure Tap Size Restrictions: 1/8" NPT / #54 (0.055") orifice on all pressure points.

Temperature Capabilities: -40°F to 160°F (-40°C to 71°C)

Contact the factory if the regulator is to be used on any service other than LP-Gas. The following information is located on the spring case: The Part Number, orifice size, spring range and date code.

2nd Stage Low Pressure Regulator - UL Listed:

The second stage regulator is designed to reduce the outlet pressure from a first-stage regulator (usually 10 psig (0,69bar)) to an outlet pressure of 11 -inches water column (27 bar).

The combination of a high capacity relief valve and large vent provide overpressure protection which exceeds UL standards and is capable of limiting the downstream pressure to 2 psig (0,14 bar) even in a double failure situation when used with a first-stage regulator.

Integral Two-Stage Regulator - UL Listed:

The integral two-stage regulator contains a non-adjustable first stage regulator on the inlet of the second stage portion of the regulator. It is designed to reduce the tank pressure to an outlet pressure of 11 inches



Figure 1: 1200 Series and 1600 Series Regulators

water column. The second stage portion has a high capacity internal relief valve construction. The first stage does not have an internal relief valve.

First Stage Regulator - UL Listed:

The first stage regulators are designed for high pressure (pounds per square inch) vapor service. These regulators have high capacity internal relief valves. The outlet pressure setting is factory set at a nominal 10 psig.

Installation

!WARNING!

All vents should be kept open to permit free flow of air in and out of the regulator. Protect vent openings against the entrance of rain, snow, ice formation, paint, mud, insects or any other foreign material that could plug the vent or vent line.

LP-Gas may discharge to the atmosphere through the vent. An obstructed vent which limits air or gas flow can cause abnormally high pressure that could result in personal injury or property damage.

The first stage and integral two-stage regulators are not suitable for indoor installations. Never use them on low pressure (inches of water column) service because personal injury or property damage could occur.

Before installation:

- Check for damage, which may have occurred in shipment.
- Check for and remove any dirt or foreign material that may have accumulated in the regulator body.
- Replace old pigtailed. Blow out any debris, dirt or copper sulfate in the copper tubing and the pipeline.
- Apply pipe compound to the male threads of the pipe before installing the regulator.
- Make sure gas flow through the regulator is in the same direction as the arrow on the body. "Inlet" and "Outlet" connections are clearly marked.

Installation Location, see Figure 2:

- The installed regulator should be adequately protected from vehicular traffic and damage from other external sources.
- **Install the regulator with the vent pointed vertically down.** If the vent cannot be installed in a vertically down position, the regulator must be installed under a separate protective cover. Installing the regulator with the vent down allows condensation to drain,

minimizes the entry of water or other debris from entering the vent, and minimizes vent blockage from freezing precipitation.

- **Do not install the regulator in a location where there can be excessive water accumulation or ice formation**, such as directly beneath a down spout, gutter or roof line of building. Even a protective hood may not provide adequate protection in these instances.
- Install the regulator so that any gas discharge through the vent or vent assembly is over 3 -feet (0,9 meters) horizontally from any building opening below the level of discharge and not less than 5-feet in any direction away from any source of ignition, openings into direct vent appliances, or mechanical ventilation air intakes.
- Install the regulator high enough above ground level - at least 24-inches (60 cm) - so that rain splatter cannot freeze in the vent.
- Some installations, such as in areas with heavy snowfall, may require a hood or enclosure to protect the regulator from snow load and vent freeze over.

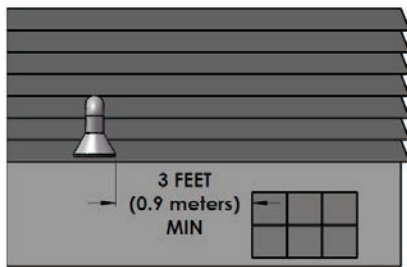
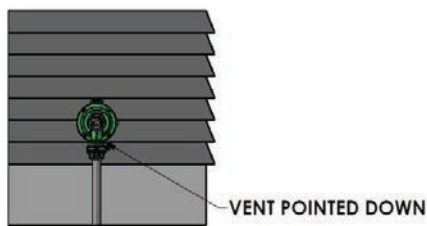


Figure 2: Regulator with Vent Pointed Down

Horizontally Installed Regulators, see Figure 3:

Horizontally mounted regulators, such as found in single cylinder installations and ASME tanks, must be installed beneath a protective cover or under the ASME tank dome. If possible, slope or turn the vent down sufficiently to allow any condensation to drain out of the spring case. Be careful that the slot in the tank dome or protective cover for the regulator's outlet piping does not expose the vent to the elements. The first stage vent on the integral two-stage regulator should be pointed down.

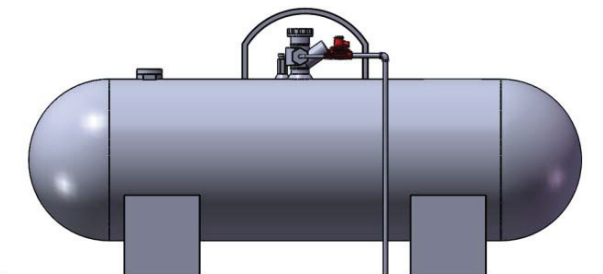


Figure 3: Tank Installation

Indoor Installations, see Figure 4:

The first stage and integral regulators are not recommended for indoor installations. The second stage regulator may be installed indoors as follows.

By code, regulators installed indoors have limited inlet pressure, and they **require** a vent line to the outside of the building. A vent assembly, such as MEC ME960 or at least 3/4" NPT pipe, Gray PVC Schedule 40 Rigid Non-Metallic Electrical Conduit for above Ground Service, per UL 651, should be used. The same installation precautions, previously discussed throughout this manual for the regulator vent, apply to the end of the vent tube assembly. Vent lines must not restrict the gas flow from the regulator's internal relief valve. To install the vent line, remove the vent screen and apply a good grade of pipe compound to the male threads of the line. Vent lines should be as straight as possible with a minimum number of bends.

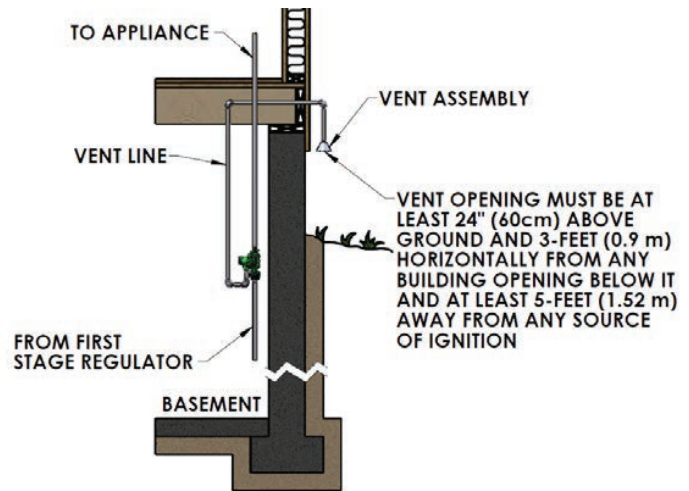


Figure 4: Basement Installation

Underground Installations, see Figure 5:

!WARNING!

The integral two-stage regulators require 2 vent lines, one for the first stage vent (1/4" OD copper tube inverted flare connection: 7/16-24 UN thread) and the other for the second stage vent (3/8" NPT) of the regulator. Failure to use 2 separate vent tubes can result in early regulator failure and / or over pressuring the second stage that could result in fire or personal injury.

A regulator installed in the dome of an underground container requires a vent line to prevent water from entering the regulator spring case.

Remove the vent screen(s) and install a vent line(s). The vent line must be run from the regulator vent(s) to above the maximum water table. The vent line opening(s) must terminate at the extreme top inside of the dome cover. Make sure the regulator's closing cap is on tightly, and maintain drainage away from the dome at all times.

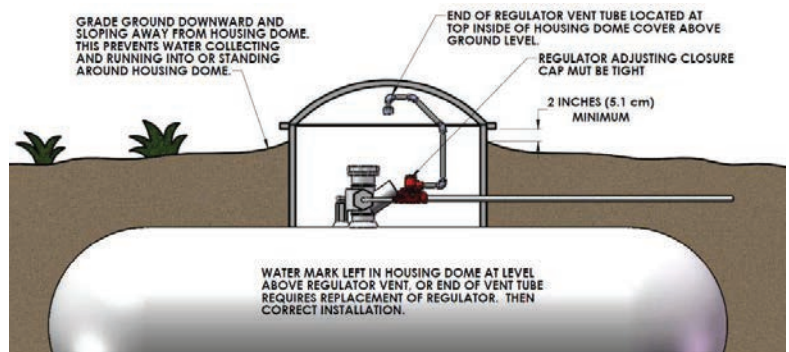


Figure 5: Underground Installation

Adjustment

Each regulator is factory set. If it becomes necessary to increase the outlet pressure, remove the closing cap and turn the adjustment screw clockwise. Turn the adjusting screw counterclockwise to decrease the outlet pressure.

The inlet and outlet pressure tap plugs may be removed using a 7/16" wrench. The pressure tap is restricted with a #54 orifice, so the plug can be removed with pressure in the regulator. Install a pressure gauge to determine the regulator's inlet pressure and outlet setting during adjustment. Actual pressure at the second stage regulator may be less due to line loss. After setting, add thread sealant to the pipe plug and reinstall it. Replace the closing cap. Check the plug for leakage.

Overpressure Protection

!WARNING!

Some type of overpressure protection is needed if actual inlet pressure can exceed the inlet pressure rating. Overpressuring any portion of this equipment above the limits shown in the Specifications may cause damage to regulator parts, leaks in the regulator, or personal injury due to bursting of pressure-containing parts or explosion of accumulated gas.

If any portion of the regulator is exposed to an overpressure condition that exceeds the limits in the Specifications, it must be inspected for damage that may have occurred.

Large volumes of gas may discharge though the regulator vent during internal relief valve operation, which can, if not controlled, result in fire or explosion from accumulated gas.

The first stage, integral two-stage, and second stage series regulator, **except for the first stage of the integral two-stage**, contain internal relief valves. The internal relief valve in all units will give overpressure protection against excessive build-up resulting from seat leakage due to worn parts, chips or foreign material on the orifice. The amount of internal relief protection provided varies with the regulator type and the cause for the overpressure relief valve operation. When the internal relief valve opens, gas escapes to the atmosphere through the regulator's vent.

Some type of additional external overpressure protection must be provided if the outlet pressure in an overpressure condition exceeds the inlet pressure rating of the gas system or downstream equipment. Common methods of external overpressure protection include relief valves, monitoring regulators, shutoff devices, and series regulation.

Maintenance

!WARNING!

To avoid personal injury or equipment damage, do not attempt any maintenance or disassembly without first isolating the regulator from system pressure and relieving all internal pressure.

Regulators that have been disassembled for repair must be tested for proper operation before being returned to service. Only parts manufactured by MEC should be used for repairing MEC regulators. Relight pilot lights according to normal startup procedures found in the appliance manufacturers instructions.

Due to normal wear or damage that may occur from external sources, these regulators must be inspected and maintained periodically. The frequency of inspection and replacement of the regulators depends upon the severity of service conditions or the requirements of local, state and federal regulations. Even under ideal conditions, these regulators should be replaced after 25 years from date of manufacture or sooner should inspection reveal the need.

Visually inspect the regulator each time a gas delivery is made for:

- Improper installation; such as vent not pointed vertically down or under a cover, no vent line on underground systems
- Plugged or frozen vent
- Wrong regulator or no regulator in the system
- External corrosion
- Flooded Regulator; water in spring case, regulator submersed on underground tanks
- Regulator age
- Any other condition that could cause the uncontrolled escape of gas

Failure to do the above could result in personal injury or property damage.

Vent Opening

Make sure the regulator vent, vent assembly, or vent line does not become plugged by mud, insects, ice, snow, paint, etc. The vent screen aids in keeping the vent from becoming plugged; the screen should be clean and properly installed.

Water inside Regulators from Floods, Weather or Water Table on Underground Systems

Replace any regulator that has been flooded or has been submersed below the water, has water in the spring case or shows evidence of external or internal corrosion. Checking for internal corrosion on the first stage and integral two-stage of the second stage portion, can be done by removing the closing cap and with the aid of a flashlight observing the condition of the relief valve spring, main spring and internal spring barrel area. A more detailed examination will require shutting down the gas system and the complete removal of the adjusting screw. The second stage regulator must be completely disassembled by a qualified person to look for internal corrosion. Closely examine regulators installed with their vent horizontal for signs of corrosion. Correct any improper installations.

Regulator Replacement

Older regulators are more likely to fail catastrophically because of worn or corroded parts. Replace all regulators over 25 years of age. Other service or environmental conditions may dictate replacement of the regulator before the end of its 25 year service life.

Regulators that are installed on underground systems and in areas that are subject to sea salt (coastal) atmospheres should be inspected annually for external and internal corrosion and may require replacement sooner.

Regulator Repair

Only personnel trained in the proper procedures, codes, standards and regulations of the LP-Gas industry shall install and service this equipment.

Regulators that have been disassembled for repair must be tested for proper operation before being returned to service. Only parts manufactured by MEC should be used to repair MEC regulators. Be sure to give the complete Part Number of the regulator when corresponding with the factory.

The part number, orifice size, and spring range are on a label attached to the spring barrel. The date of manufacture is stamped on the regulator. Always provide this information in any correspondence with your MEC Distributor regarding replacement parts or technical assistance. **If construction changes are made in the field, be sure that the regulator marking is also changed to reflect the most recent construction.**



**Tested in the
U.S.A**

TABLE 1: 1100 AND 1200 SERIES SPECIFICATIONS

REGULATOR APPLICATION	PART NUMBER	CAPACITY BTU/HR PROPANE (1)	INLET CONNECTION	OUTLET CONNECTION	3/8-INCH FNPT SCREENED VENT STANDARD LOCATION	NOMINAL RELIEF VALVE START-TO-DISCHARGE	MAX OUTLET PRESSURE WITH DISC REMOVED		ORIFICE SIZE	MAX ALLOWABLE INLET PRESSURE	MAX EMERGENCY INLET PRESSURE	OUTLET PRESSURE STANDARD SETPOINT	OUTLET PRESSURE SPRING RANGE	REGULATOR COLOR
							INLET PRESSURE	MAX OUTLET PRESSURE						
Second Stage	MEGR-1222-BAF	500,000	1/2-in FNPT	1/2-in FNPT	Over Inlet	1 psi (0,069 bar)	30 psig (2,07 bar)	2 psig (0,14 bar)	0.14-in (3,6 mm)	10 psig (0,69 bar)	75 psi (5,2 bar)	11-in w.c. (27 mbar)	9.5 to 13-in w.c. (24 to 32 mbar)	Green
Integral Two-Stage	MEGR-1232-BBF	450,000	1/4-in FNPT		First Stage (2): Down Second Stage: Over Outlet		250 psig (17,2 bar)		0.17-in (4,3 mm)	250 psig (17,2 bar)	250 psig (17,2 bar)	First Stage: approx. 10 psi (0,69 bar) Second Stage: 11-in w.c. (27 mbar)	First Stage: non-adjustable Second Stage: 9.5 to 13-in w.c. (24 to 32 mbar)	Gray
	MEGR-1232-HBF		FPOL		First Stage (2): Down Second Stage: Opposite Gauge Taps									
	MEGR-1232-8BFXA		1/4-in FNPT											
	MEGR-1232-HBFXA	FPOL												
2 PSI (0,14 bar) SERVICE	MEGR-1232E-BBH	900,000	1/4-in FNPT	1/2-in FNPT	First Stage (2): Down Second Stage: Over Outlet	4 psi (0,28 bar)	50 psig (3,4 bar)	5 psig (0,34 bar)	7/32-in (5,6 mm)	10 psig (0,69 bar)	15 psig (1,03 bar)	2 psig (0,14 bar)	1 to 2.2 psi (0,069 to 0,15 bar)	WHITE
	MEGR-1232E-BBHXA		FPOL		First Stage (2): Down Second Stage: Opposite Gauge Taps									
	MEGR-1232E-HBH				First Stage (2): Down Second Stage: Over Outlet									
	MEGR-1232E-HBHXA		First Stage (2): Down Second Stage: Opposite Gauge Taps											
First Stage	MEGR-1122H-AAJ	1,000,000	1/4-in FNPT	FPOL	Over Outlet	16 psi (1,10 bar)	250 psig (17,2 bar)	30 psig (2,07 bar)	0.15-in (3,8mm)	250 psig (17,2 bar)	250 psig (17,2 bar)	10 psi (0,69 bar)	8 to 12 psi (0,55 to 0,83 bar)	Red
	MEGR-1122H-AAJXB		Over Gauge Taps											
	MEGR-1222H-BGF		Over Outlet											
	MEGR-1222H-BGFXB		Over Gauge Taps											

(1): Capacities Based on:
 Second Stage: 10 psig (0,69 bar) inlet pressure with 2-inches w.c. (5 mbar) droop.
 Integral Second Stage: 30 psig (2,07 bar) inlet pressure and 2-inches w.c. (5 mbar) droop.
 First Stage: 30 psig (2,07 bar) inlet pressure and 20% droop.
 (2): Integral First Stage Vent size: 7/16-24 UN thread for 1/4-inch OD copper tube inverted flare fitting.

TABLE 2: 1600 SERIES SPECIFICATIONS

REGULATOR APPLICATION	PART NUMBER	CAPACITY BTU/HR PROPANE (1)	INLET CONNECTION	OUTLET CONNECTION	3/4-INCH FNPT SCREENED VENT STANDARD LOCATION	NOMINAL RELIEF VALVE START-TO-DISCHARGE	MAX OUTLET PRESSURE WITH DISC REMOVED		ORIFICE SIZE	MAX ALLOWABLE INLET PRESSURE	MAX EMERGENCY INLET PRESSURE	OUTLET PRESSURE STANDARD SETPOINT	OUTLET PRESSURE SPRING RANGE	REGULATOR COLOR	
							INLET PRESSURE	MAX OUTLET PRESSURE							
Second Stage	MEGR-1622-BCF	710,000	1/2-in FNPT	1/2-in FNPT	Over Inlet	1 psi (0,069 bar)	50 psig (3,4 bar)	2 psig (0,14 bar)	7/32-in (5,6 mm)	10 psig (0,69 bar)	15 psig (1,03 bar)	11-in w.c. (27 mbar)	9 to 13-in w.c. (22 to 32 mbar)	Green	
	MEGR-1652-CFF	1,000,000	3/4-in FNPT												
	MEGR-1652-DFF	1,000,000	3/4-in FNPT												
	MEGR-1622-CFF	1,300,000	1/2-in FNPT												
	MEGR-1622-DFF		3/4-in FNPT												
	MEGR-1642-DFF		3/4-in FNPT												
Integral Two-Stage	MEGR-1632-BCF	700,000	1/4-in FNPT	1/2-in FNPT	First Stage (2): Down Second Stage: Over Outlet	1 psi (0,069 bar)	250 psig (17,2 bar)			250 psig (17,2 bar)	250 psig (17,2 bar)	First Stage: approx. 10 psi (0,69 bar) Second Stage: 11-in w.c. (27 mbar)	First Stage: non-adjustable Second Stage: 9 to 13-in w.c. (22 to 32 mbar)	Gray	
	MEGR-1632-HCF	FPOL													
	MEGR-1632-CFF	950,000	1/4-in FNPT												
	MEGR-1632-JFF	900,000	FPOL												
	MEGR-1632-BCFXA	700,000	1/4-in FNPT												
	MEGR-1632-HCFXA	FPOL	1/2-in FNPT												
	MEGR-1632-CFFXA	950,000	1/4-in FNPT												
MEGR-1632-JFFXA	900,000	FPOL	3/4-in FNPT												
2 PSI (0,14 bar) SERVICE	MEGR-1622E-BCH	1,100,000	1/2-in FNPT	1/4-in FNPT	Over Inlet	4 psi (0,28 bar)	50 psig (3,4 bar)	5 psig (0,34 bar)	7/32-in (5,6 mm)	10 psig (0,69 bar)	15 psig (1,03 bar)	2 psig (0,14 bar)	1 to 2.2 psi (0,069 to 0,15 bar)	WHITE	
	MEGR-1622E-DCH	1,400,000	3/4-in FNPT												
	MEGR-1632E-BCH	1,200,000	1/4-in FNPT		Over Inlet										
	MEGR-1632E-BCHXA				1/2-in FNPT										
	MEGR-1632E-CFH				3/4-in FNPT										
	MEGR-1632E-CFHXA	FPOL	1/2-in FNPT												
	MEGR-1632E-HCH	1,100,000	FPOL		Over Inlet										
	MEGR-1632E-HCHXA				1/2-in FNPT										
	MEGR-1632E-JFH				3/4-in FNPT										
	MEGR-1632E-JFHXA				3/4-in FNPT										
	MEGR-1652E-DFH	1,300,000	3/4-in FNPT		3/4-in FNPT										Over Inlet
	First Stage	MEGR-1622H-BGJ	2,200,000		1/2-in FNPT										FPOL
MEGR-1622H-HGJ		2,300,000													
MEGR-1622H-JGJ		2,750,000													
MEGR-1622H-DGJ		2,500,000	3/4-in FNPT												

(1): Capacities Based on:
 Second Stage: 10 psig (0,69 bar) inlet pressure with 2-inches w.c. (5 mbar) droop.
 Integral Second Stage: 30 psig (2,07 bar) inlet pressure and 2-inches w.c. (5 mbar) droop.
 First Stage: 30 psig (2,07 bar) inlet pressure and 20% droop.
 (2): Integral First Stage Vent size: 7/16-24 UN thread for 1/4-inch OD copper tube inverted flare fitting.



ALSO AVAILABLE FROM MEC!



High Pressure

Introducing



Vapor Backpressure/
Relief Valve

EXCELA-FLO

Complete line of
Industrial Regulators



First Stage/
High Pressure

Second Stage



Pilot Operated/
Industrial



First Stage/
High Pressure



Light Commercial
Second Stage



Second Stage/
Low Pressure



For Your Local Marshall Excelsior Distributor
Call (269) 789-6700, Fax (269) 781-8340
E-mail: sales@marshallexcelsior.com
www.marshallexcelsior.com



Made in the
USA



MARSHALL EXCELSIOR

innovation made simple



MEC TEST FACILITIES

The industry's first LPG flow test laboratory. Located at our headquarters facility in Marshall, Michigan this laboratory employs state-of-the-art technology to allow our engineering group to conduct flow and product validation testing on-site utilizing liquid propane. This allows us to ensure every product we design and manufacture is validated on propane before being launched into service. We are proud to reinvest in our industry with the construction of the first test facility of its kind in the world as a continuation of our commitment to providing the industry with the best equipment designs possible.

Over the course of time Marshall Excelsior Co. has become a name that our customers can rely on not only for high-quality products and service, but as a partner in building their business. It is through this personal touch that our family-owned and -operated business has become the organization that it is today, and we look forward to becoming your partner for the future!

For more information please visit www.marshallexcelsior.com

Tel: 269.789.6700

Marshall Excelsior Company

1506 George Brown Drive Marshall, MI 49068 - P# 269.789.6700 - F# 269.781.3840

Email: sales@marshallexcelsior.com

The contents of this publication are for informational purposes only. While every effort has been made to ensure accuracy, these contents are not to be construed as warranties or guarantees, expressed or implied, regarding the products or services described herein or for their use or applicability. Marshall Excelsior Co. reserves the right to modify or improve the designs or specifications of such products at any time without notice.

The MEC™ logo is the trademark of Marshall Excelsior Co.