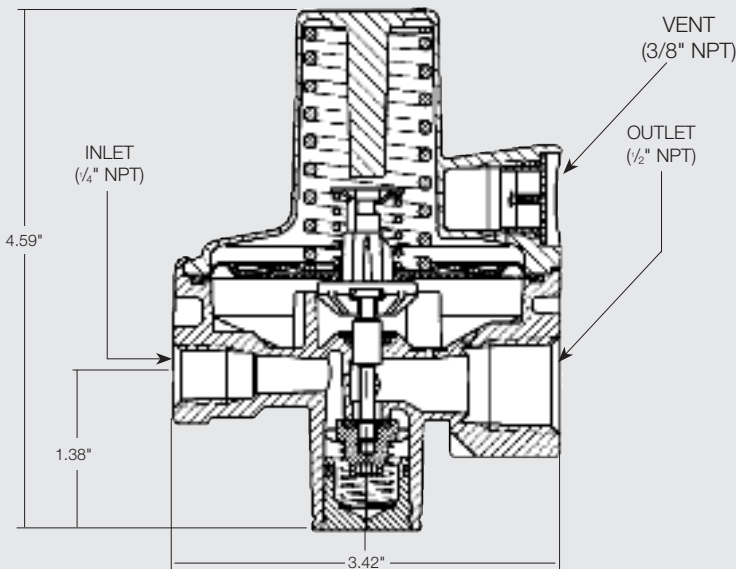


# Compact High Pressure First Stage Regulator

LV3303TR



## Application

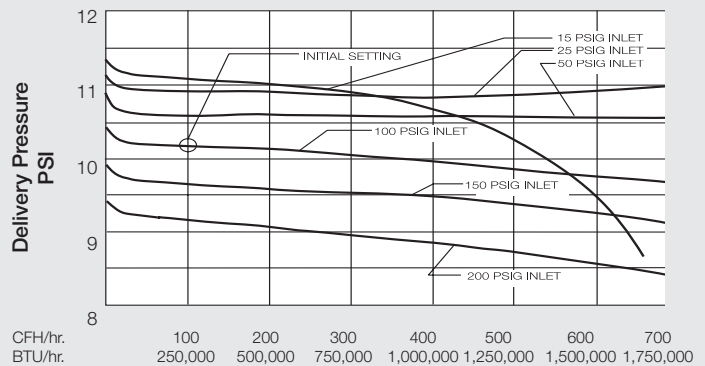
Ideal for use as a first stage regulator on any domestic size ASME or DOT container in propane gas installations requiring no more than 1,500,000 BTUs/hour. These regulators are factory set to reduce tank pressure to an intermediate pressure of approximately 10 PSIG.

## Features

- Compact design can be connected to the service valve using either a POL adapter or a Rego® Products pigtail.
- Ideal size fits easily inside of domes and collars.
- Large threaded 3/8" bonnet vent can be easily piped-away in underground installations without the need for glue kits or extra adapters.
- Non-adjustable negative direct acting design helps to keep regulator delivery pressures constant even as tank pressures drop.
- Negative direct acting design provides for excellent performance when needed most—in cold weather, when tank pressures are lowest and system demands are highest.
- Consistent delivery pressure, especially in cold weather, helps assure maximum performance from the second stage regulator.
- Large 1/4" orifice helps protect against regulator freeze-ups.
- Built-in relief valve and travel stop comply with NFPA 58 overpressure requirements.
- Incorporates built-in 1/4" FNPT downstream pressure tap for easy in-line checks of the regulator's downstream delivery pressure.
- Molded diaphragm provides an o-ring like seal between the body and the bonnet.
- Fully painted in brilliant red for complete corrosion protection.
- Bonnet and body are assembled in the USA using the unique, patented RegULok<sup>SM</sup> Seal System.

## Materials

Body	.....	Zinc
Bonnet	.....	Zinc
Spring	.....	Steel
Valve Seat Disc	.....	Resilient Rubber
Diaphragm	.....	Integrated Fabric & Synthetic Rubber



## Ordering Information

Part Number	Inlet Connection	Outlet Connection	Orifice Size	Factory Delivery Pressure	Bonnet Vent Position	Vapor Capacity BTU/hr. Propane*
LV3303TR	1/4" F.NPT	1/2" F.NPT	1/4"	10 PSIG	Over Outlet	1,500,000

\* Maximum flow based on 15 PSIG inlet pressure and 8 PSIG delivery

# High Pressure First Stage Regulators

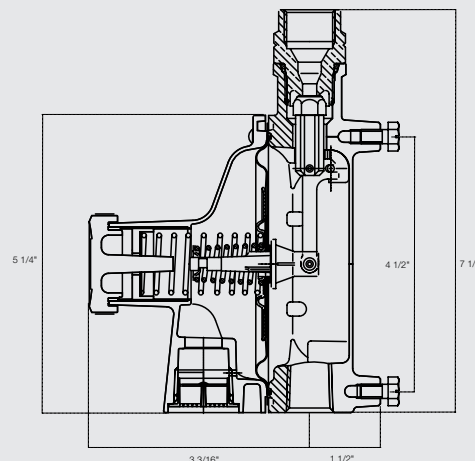
LV4403SR and TR Series

## Application

Provides accurate first stage regulation in two-stage bulk tank systems. Reduce tank pressure to an intermediate pressure of 5 to 10 PSIG. Also used to supply high pressure burners for applications like industrial furnaces or boilers. Also incorporated in multiple cylinder installations.

## Features

- Incorporate integral relief valves for added system protection.
- Large vent helps prevent blockage and has 3/4" F.NPT thread for vent piping.
- Bonnet vent positioned over outlet to avoid icing and contamination by foreign material.
- Unique bonnet vent profile designed to minimize vent freeze over when properly installed.
- Replaceable valve orifice and valve seat disc.
- Straight-line valve closure reduces wear on seat disc.
- Large molded diaphragm is extra sensitive to pressure changes.
- Built in pressure tap has plugged 1/8" F.NPT outlet. Plug can be removed with a 3/16" hex allen wrench.
- Extra long lever arm provides uniform delivery pressure.
- Brilliant red finish.



## Materials

Body	Die Cast Zinc
Bonnet	Die Cast Zinc
Nozzle Orifice	Brass
Spring	Steel
Valve Seat Disc	Resilient Rubber
Diaphragm	Integrated Fabric and Synthetic Rubber

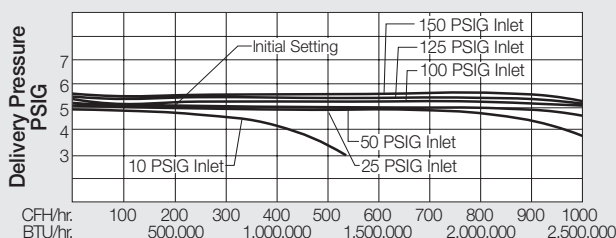
## Ordering Information

Part Number	Inlet Connection	Outlet Connection	Orifice Size	Factory Delivery Pressure (PSIG)	Adjustment Range* (PSIG)	Integral Relief Included	Vapor Capacity BTU/hr. Propane**
LV4403SR4	1/2" F. NPT	1/2" F. NPT	1/4"	5	1-5	Yes	2,500,000
LV4403TR4				10	5-10		
LV4403SR9	F. POL	1/2" F. NPT		5	1-5		
LV4403TR9				10	5-10		
LV4403SR96		3/4" F. NPT		5	1-5		
LV4403TR96				10	5-10		

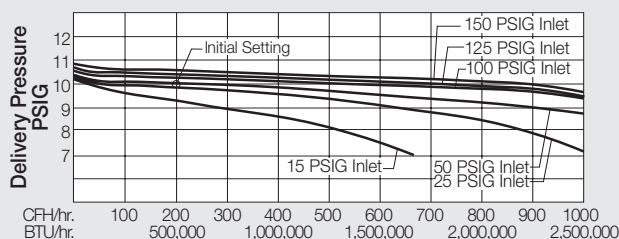
\* When used for final stage pressure control, must either incorporate integral relief valve or separate relief valve should be specified in accordance with NFPA Pamphlet 58.

\*\* Maximum flow based on inlet pressure 20 PSIG higher than the regulator setting and delivery pressure 20% lower than the setting.

LV4403SR



LV4403TR



# High Pressure Industrial / Commercial Pounds-to-Pounds Regulators

597F Series

## Application

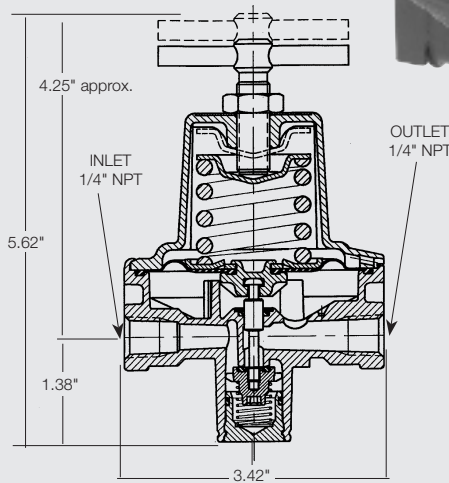
Designed to reduce propane gas container pressure down to between 3 and 100 PSIG. Ideal for liquid or vapor service, they can be used in a variety of applications including salamander heaters, weed burning torches, fish cookers, tar pot heaters, and other industrial type services.

## Features

- Provides high capacity performance at a reasonable price.
- Suitable for both liquid and vapor service.
- Compact design provides for easy installation.
- Negative direct acting design helps to keep regulator delivery pressures constant even as tank pressures drop.
- Negative direct acting design provides for excellent performance when needed most – in cold weather, when tank pressures are lowest and system demands are highest.
- Consistent delivery pressure, especially in cold weather, helps assure maximum performance from the second stage regulator.
- Can be readily fitted with a pressure gauge in the 1/4" F.NPT port.
- Molded diaphragm provides an o-ring like seal between the body and the bonnet.
- Fully painted in brilliant red for complete corrosion protection.
- Available in four adjustable ranges for maximum performance.
- Bonnet and body are assembled in the USA using the unique, patented RegULok<sup>SM</sup> Seal System.

## Materials

Body ..... Zinc  
 Bonnet ..... Zinc  
 Spring ..... Steel  
 Valve Seat Disc ..... Resilient Rubber  
 Diaphragm ..... Integrated Fabric  
 ..... & Synthetic Rubber  
 Adjusting Screw ..... Brass

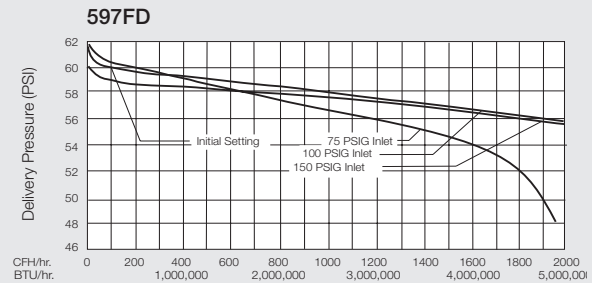
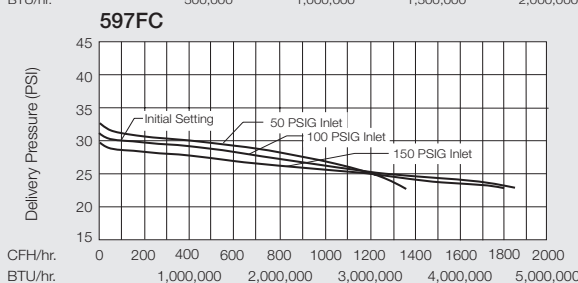
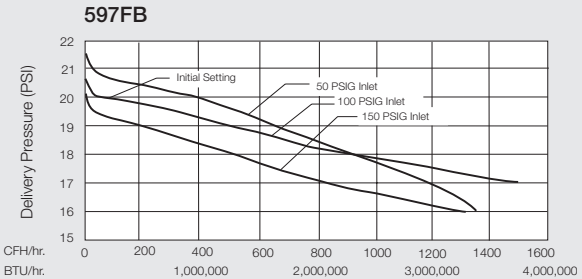
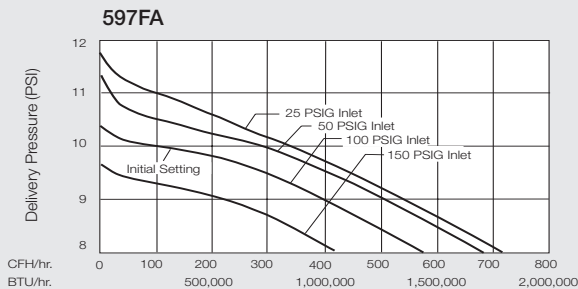


## Ordering Information

Part Number	Adjustment Method	Inlet Connection	Outlet Connection	Recommended Delivery Pressure Range (PSIG)	Capacity Determined at Set Pressure of PSIG*	Capacity BTU/hr. Propane**
597FA	Tee Handle	1/4" NPT	1/4" NPT	1-15	10	1,750,000
597FB				10-30	20	3,000,000
597FC				20-45	30	3,500,000
597FD				40-100	40	4,500,000

\* Set pressure established at 100 PSIG inlet and a flow of 250,000 BTU/hr.

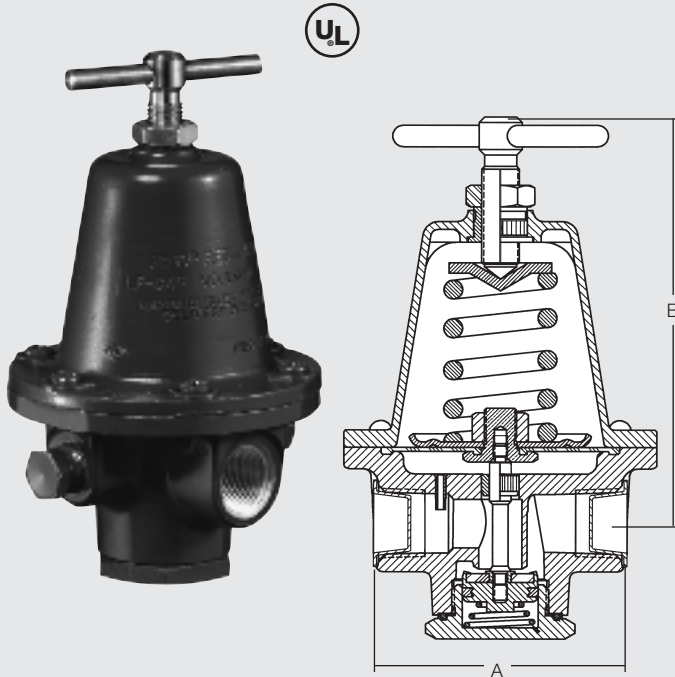
\*\* Capacity determined at actual delivery pressure 20% less than set pressure with inlet pressure 20 PSIG higher than the set pressure.



A

# High Pressure Industrial / Commercial Pounds-to-Pounds Regulators

1580M Series and AA1580M Series



### Application

Designed to reduce LP-Gas and anhydrous ammonia container pressures to between 3 and 125 PSIG. Precision-built with a multi-million BTU capacity, the 1580M series is perfect for such big, tough jobs as crop dryers, asphalt batch mixing plants, road building "tar wagons", heat treating and other large industrial and commercial loads. It's also ideal as a first stage regulator in large multiple operations. The AA1580M series is ideal for use in anhydrous ammonia applications such as blue print machines and heat treating.

### Features

- Large nozzle and straight through flow provides high capacity and resistance to freeze-up.
- O-ring on retainer assembly provides a dampening effect to reduce vibration.
- Suitable for both liquid and vapor service.
- Can be readily fitted with pressure gauge in 1/4" F. NPT port.

### Materials

Body ..... Forged Aluminum  
 Bonnet ..... Die Cast Aluminum  
 Spring ..... Steel  
 Valve Seat Disc ..... Resilient Rubber  
 Diaphragm ..... Integrated Fabric and Synthetic Rubber

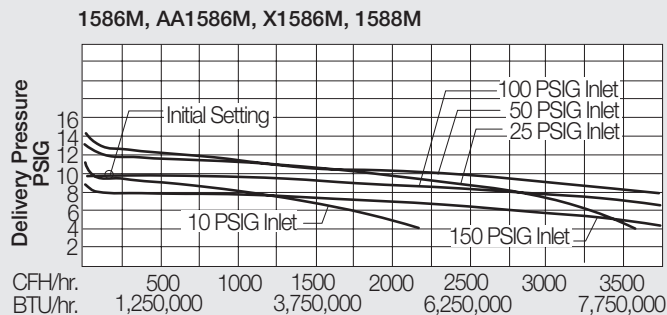
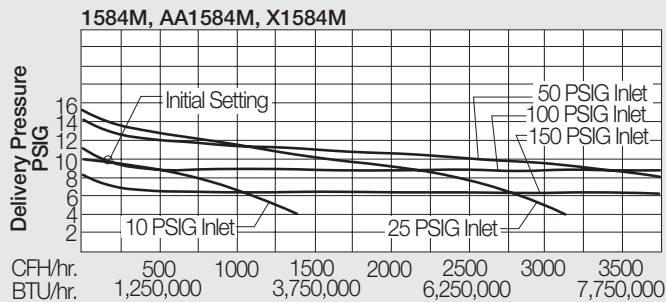
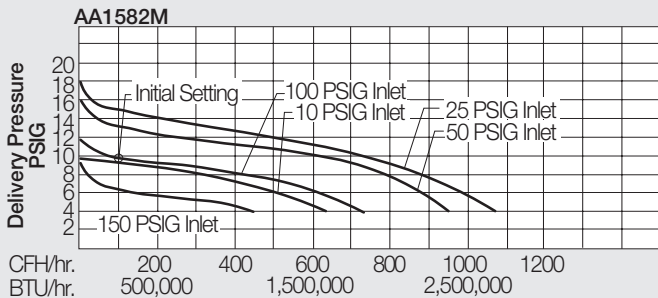
### Ordering Information

Part Number	Service	Adjustment Method	Inlet & Outlet Connections	Recommended Delivery Pressure Range (PSIG)	Width A	Height (max.) B	Capacity Determined at Set Pressure of PSIG	Capacity**
AA1582MW	NH <sub>3</sub>	Tee Handle	1/4" F. NPT	3-25	2 3/16"	4 1/8"	20	2,100 CFH NH <sub>3</sub>
AA1582MK		Hex Head						
AA1582ML								
AA1582MH								
1584MN	LP-Gas	Tee Handle	1/2" F. NPT	3-30	2 15/16"	4 7/8"	20	7,000,000 BTU/hr. LPG
1584ML				25-50			30	7,500,000 BTU/hr. LPG
1584MH				45-125			60	8,000,000 BTU/hr. LPG
AA1584MW	NH <sub>3</sub>	Tee Handle	1/2" F. NPT	3-25	3 1/2"	7"	20	4,500 CFH NH <sub>3</sub>
AA1584ML				20-50			30	4,800 CFH NH <sub>3</sub>
AA1584MH				45-125			60	5,100 CFH NH <sub>3</sub>
1586MN	LP-Gas	Tee Handle	3/4" F. NPT	3-30	3 1/2"	7"	20	11,000,000 BTU/hr. LPG
1586ML				25-50			30	12,000,000 BTU/hr. LPG
1586MH				45-125			60	14,000,000 BTU/hr. LPG
AA1586MW	NH <sub>3</sub>	Tee Handle	1/2" F. NPT	3-25	3 1/2"	7"	20	7,000 CFH NH <sub>3</sub>
AA1586ML				20-50			30	7,700 CFH NH <sub>3</sub>
AA1856MH				45-125			60	8,900 CFH NH <sub>3</sub>
1588MN	LP-Gas	Tee Handle	1" F. NPT	3-30	3 1/2"	7"	20	11,000,000 BTU/hr. LPG
1588ML				25-50			30	12,000,000 BTU/hr. LPG
1588MH				45-125			60	14,000,000 BTU/hr. LPG

\* Set pressure is established with 100 PSIG inlet pressure and a flow of 500,000 BTU/hr. propane for 1580M Series, 90 CFH/hr. NH<sub>3</sub> for AA1582M Series and 180 CFH/hr. NH<sub>3</sub> for AA1584M and AA1586M Series.

\*\* Capacities determined at actual delivery pressure 20% less than set pressure with inlet pressure 20 PSIG higher than set pressure.

NOTE: Care must be taken to prevent re-liquefaction of propane at normal temperatures by heat tracing or other effective means. Use of a relief valve upstream or downstream of these regulators is recommended in accordance with NFPA 58.



## High Pressure / High Temperature Industrial / Commercial Pounds-to-Pounds Regulators

### Application

Designed to reduce LP-Gas container pressures to between 3 and 50 PSIG. Ideal for crop drying, heat treating, asphalt batch mixing and other large industrial and commercial load application utilizing high temperature LP-Gas or high temperature atmosphere under conditions up to 300°F. Also ideal as a first stage regulator in large multiple operations.

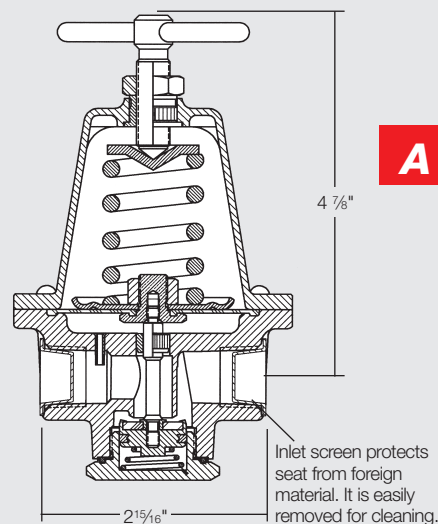
### Features

- Special diaphragm and seat materials are suitable for up to 300°F. temperatures.
- Large nozzle and straight through flow provides high capacity and resistance to freeze ups.
- Suitable for both liquid and vapor service.
- Can be fitted with high pressure gauge in 1/4" F. NPT port. Engineered Controls International, Inc. recommends that these gauges use silver bronze rather than soft solder construction.

### Materials

Body ..... Forged Aluminum  
 Bonnet ..... Die Cast Aluminum  
 Spring ..... Stainless Steel  
 Diaphragm ..... High Temperature Synthetic Composition  
 Seat Disc ..... High Temperature Resilient Composition  
 Backup Seal ..... High Temperature Resilient Composition

X1584M, X1586M Series



### Ordering Information

Part Number	Service	Adjustment Method	Inlet & Outlet Connections	Recommended Delivery Pressure Range (PSIG)	Capacity Determined at Set Pressure of PSIG*	Capacity BTU/hr. Propane**
X1584MN	LP-Gas	Tee Handle	1/2" F. NPT	3-30	20	7,000,000
X1584ML	LP-Gas	Tee Handle	1/2" F. NPT	25-50	30	7,500,000
X1586MN	LP-Gas	Tee Handle	3/4" F. NPT	3-30	20	11,000,000
X1586ML	LP-Gas	Tee Handle	3/4" F. NPT	25-50	30	12,000,000

\* Set pressure is established with 100 PSIG inlet pressure and a flow of 500,000 BTU/hr. propane.

\*\* Capacities determined at actual delivery pressure 20% less than set pressure with inlet pressure 20 PSIG higher than set pressure.

NOTE: Care must be taken to prevent re-liquefaction of propane at normal temperatures by heat tracing or other effective means. Use of a relief valve upstream or downstream of these regulators is recommended in accordance with NFPA 58.