



# Type 6500/6600

## Large Flow Capacity Volume Booster

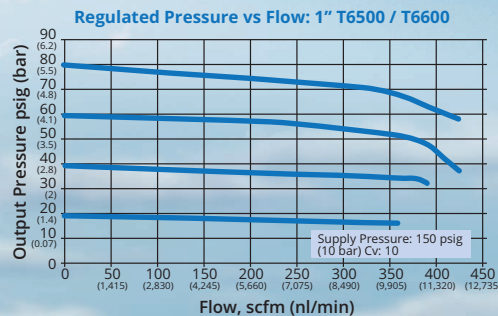
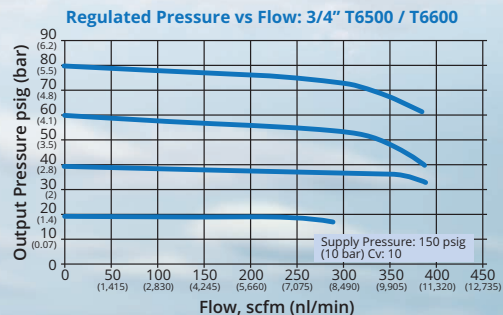
Rapid Stroke Capability in a Rugged Aluminum or Stainless Steel Casing



The ControlAir Type-6500 aluminum and Type-6600 stainless steel volume boosters are 1:1 signal to output relays that are utilized in applications that require high flow capacity. Typically they are used to increase throttling speed of large volume valve actuators. They are suitable for either diaphragm or piston actuators. A fixed deadband and adjustable bypass valve combine to allow small incremental downstream adjustment without opening the main booster valve. The bypass valve is used to adjust dynamic response to provide stable operation over a wide range of actuator sizes.

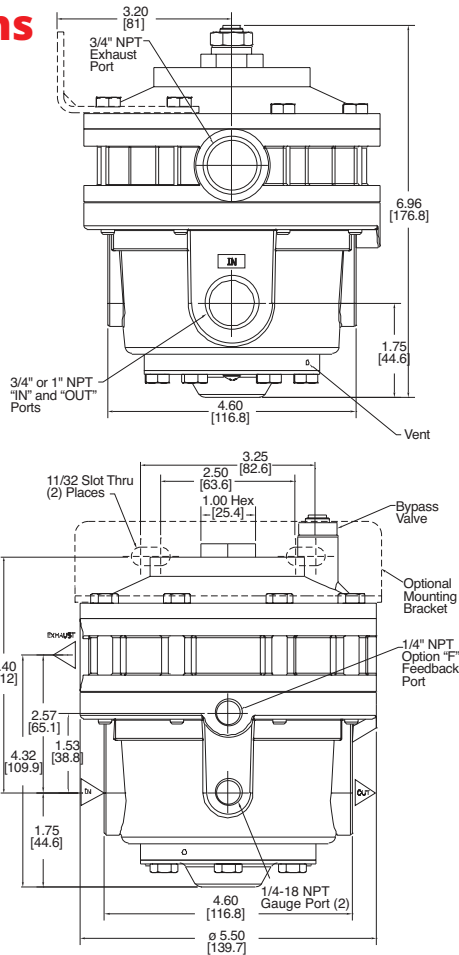
### Features

- **316 Stainless Steel Construction**
- **3/4" or 1" NPT Porting**
- **Integral Adjustable Bypass Valve**  
Allows small incremental signal changes without opening the primary valve
- **High Flow Capacity**  
For rapid actuator stroking
- **Soft Valve Seat Design** Provides tight shutoff and eliminates leakage in steady state operation
- **High Temperature Operation**  
Up to 200°F (93°C)
- **Tapped High Output Exhaust Port**  
3/4" NPT exhaust port relieves 100 scfm (2,830 NL/min)
- **2 Gauge Ports** Optional Output Feedback Port
- **IEC 65108 SIL 3 Compliant**
- **Low Temperature Option** Silicone elastomers allow use to -62° F (-52° C)

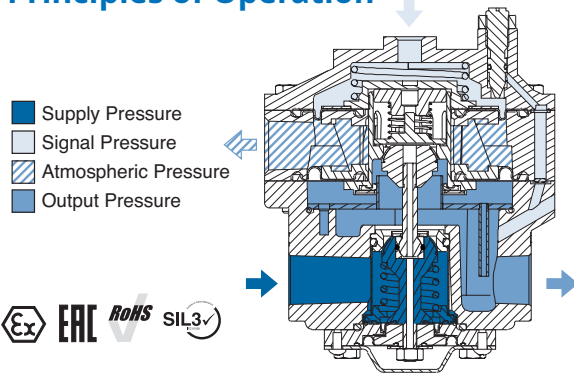


# Type 6500/6600 Large Flow Capacity Volume Booster

## Dimensions



## Principles of Operation



**Warranty** ControlAir, Inc. products are warranted to be free from defects in materials and workmanship for a period of eighteen months from the date of sale, provided said products are used according to ControlAir, Inc. recommended usages. ControlAir, Inc.'s liability is limited to the repair, purchase price refund, or replacement in kind, at ControlAir, Inc.'s sole option, of any products proved defective. ControlAir, Inc. reserves the right to discontinue manufacture of any products or change products materials, designs or specifications without notice. Note: ControlAir does not assume responsibility for the selection, use, or maintenance of any product. Responsibility for the proper selection, use, and maintenance of any ControlAir product remains solely with the purchaser and end user. Drawing downloads available at [www.controlair.com](http://www.controlair.com)

## Specifications

<b>Signal/Output Ratio</b>	1:1		
<b>Supply Pressure</b>	250 psig (17.0 BAR) Maximum		
<b>Signal Pressure</b>	150 psig (10.0 BAR) Maximum		
<b>Temperature Limits</b>	-40 to 200 °F (-40 to 93 °C) Low temperature option -62 to 194 °F (-52 to 90 °C)		
<b>Maximum Flow Coefficients (Cv)</b>		Forward	Exhaust
	3/4"	8.0	8.0
	1"	9.0	8.0
<b>Exhaust Capacity</b>	3/4" 150 scfm (4,245 NL/min) 5 psig (0.35 BAR) above setpoint 1" 150 scfm (4,245 NL/min)		
<b>Output Accuracy</b>	2.0% of span		
<b>Deadband</b>	Under 0.2 psig (.01 BAR)		
<b>Supply Pressure Effect</b>	0.3 psig (0.02 BAR) for a 100 psig (7 BAR) change		
<b>Signal Port</b>	1/4" NPT		
<b>Supply/Output Port</b>	3/4" or 1" NPT		
<b>Exhaust Port</b>	3/4" NPT		
<b>Gauge Port (2)</b>	1/4" NPT		
<b>Feedback Port (Option)</b>	1/4" NPT		
<b>Weight</b>	Type 6500 Aluminum	6.5 lbs (2.95 kg)	
	Type 6600 Stainless Steel	15.0 lbs (6.80 kg)	

## Materials

Materials	Type 6500	Type 6600
<b>Housing</b>	Aluminum	316 Stainless Steel
<b>Bolting</b>	Zinc Plated Steel	316 Stainless Steel
<b>Other trim</b>	Aluminum	316 Stainless Steel
<b>Internal components</b>	Aluminum	Stainless Steel
<b>Elastomers</b>	Nitrile	Nitrile
Low Temperature Option:	Silicone	Silicone

## Ordering

Part Number	Casting Material	Porting
6500-EA	Aluminum	3/4" NPT
6500-FA	Aluminum	1" NPT
6600-ES	316 Stainless Steel	3/4" NPT
6600-FS	316 Stainless Steel	1" NPT

**Options** Add proper letter at end of model number.

- F Feedback Port
- L Low Temperature Operation
- R EAC TR-CU
- S Stainless Steel Trim (Type-6500 only)
- X ATEX 94/9/EC

### Accessories

- Mounting Bracket (zinc plated steel):** P/N 449-542-040
- Mounting Bracket (316 stainless steel):** P/N 449-542-041
- 3/4" NPT Exhaust Screen/Muffler Fitting:**  
Plated Steel: P/N 445-761-006  
316 Stainless Steel: P/N 445-761-007



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