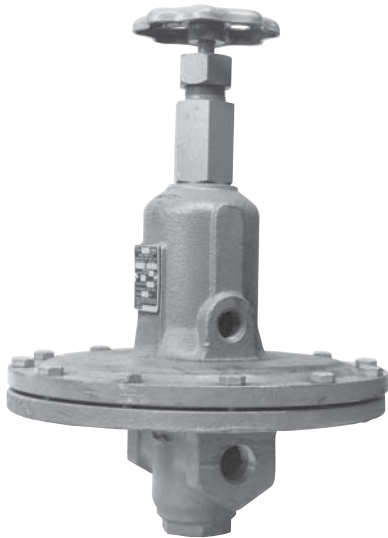


## North American Oil Pressure Differential Regulators



An Oil Pressure Differential Regulator maintains a constant drop across an oil valve. The regulator thus assures constant flow of oil at a given valve setting. This permits electrical or mechanical "linking" of motorized oil and combustion air valves for close control of input and ratio.

7458 Regulators are located upstream of the oil valve, and cross-connected downstream of it, per Figure 1. Oil flow is not affected by pressure fluctuations in burner atomizers due to variations in steam or compressed air flow.

These regulators are used with North American 5643, 5646, and other full- and semi-emulsion atomizers. The 7458 is suitable for light oil while a high temperature model 7458-H is used with heavy oils. Pressure drop (differential) across the downstream valve is adjusted by a hand-wheel on the regulator. Three springs are available to provide differentials from 2 to 30 psi.

### CONSTRUCTION

- Body: cast steel
- Spring case: cast steel
- Trim: stainless steel
- Diaphragm: Viton for 7458
- Maximum inlet pressure: 300 psi
- Maximum outlet pressure: 125 psi
- Maximum temperature: 300 F for 7458, 450 F for 7458- -H stainless steel for 7458- -H

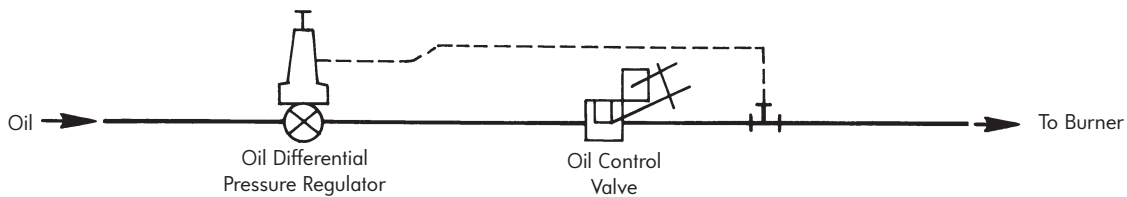


Figure 1. Schematic installation of Oil Differential Pressure Regulator.

### 7458 CAPACITIES FOR LIGHT OIL gph at 0.85 sp gr and 40 SSU viscosity

Inlet Pressure, psi	Outlet Pressure, psi	7458-01 (95LD-1/2")	7458-0 (95LD-3/4")	7458-1 (95LD-1")
150	100	180	720	780
	75	300	780	1020
125	100	180	720	780
	75	300	780	1020
100	90	120	420	480
	75	180	600	720

**7458- -H CAPACITIES FOR HEAVY OIL  
gph at 1.0 sp gr and 150 SSU viscosity**

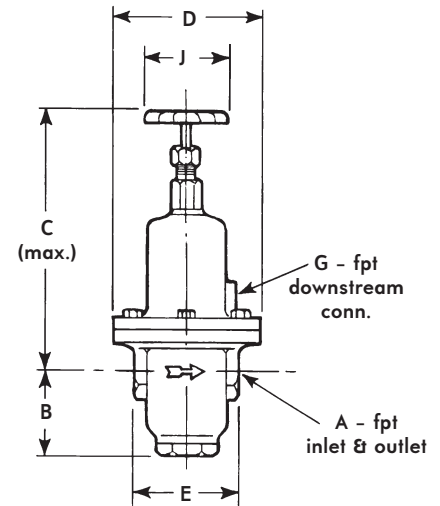
Inlet Pressure, psi	Outlet Pressure, psi	7458-01-H (95LD-1/2")	7458-0-H (95LD-3/4")	7458-1-H (95LD-1")
150	100	120	420	480
	75	180	480	600
125	100	120	420	480
	75	180	480	600
100	90	78	240	300
	75	120	360	420

**7458 REGULATOR SPRINGS**

Outlet Pressure Range	Color	Designation	R-number
5-15 psi (standard)	Green	-01-G	R690-6810
		-0-G, -1-G	R690-6815
		-01-Y	R690-6821
2-6 psi (optional)	Yellow	-0-Y, -1-Y	R690-6791
		-01-R	R690-6800
13-30 psi (optional)	Red	-0-R, -1-R	R690-6805

**DIMENSIONS inches**

Regulator designation	dimensions in inches						
	A	B	C	D	E	G	J
7458-01, -H	1/2	1 13/16	7 15/16	7	3 7/8	1/4	4
7458-0, -H	3/4	2 1/4	10 1/8	10 3/16	4 7/8	1/2	4
7458-1, -H	1	2 1/4	15 5/16	10 3/16	4 7/8	1/2	4



To order, specify: 7458-code-(H if applicable) (spring letter)  
 Examples: 7458-01-G Regulator with green spring  
 7458-0-HR High Temperature Regulator with red spring

DIMENSIONS SHOWN ARE SUBJECT TO CHANGE. PLEASE OBTAIN CERTIFIED PRINTS FROM FIVES NORTH AMERICAN COMBUSTION, INC. IF SPACE LIMITATIONS OR OTHER CONSIDERATIONS MAKE EXACT DIMENSION(S) CRITICAL.

**WARNING:** Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., are inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and Insurance Underwriters' recommendations, and care in operation.



**CONTACT US:**  
 Fives North American Combustion, Inc.  
 4455 East 71st Street - Cleveland, OH 44105 - USA  
 Tel: +1 216 271 6000 - Fax: +1 216 373 4237  
 Email: fna.sales@fivesgroup.com

www.fivesgroup.com