



#### **APPLICATION DATA**

Pump Bypass

- Maintain Upstream Pressure in Steam Distribution Systems
- Maintain Upstream Pressure in Liquid Distribution Systems

#### **RATINGS** (Maximum Inlet Conditions)

Construction	Pressure PSIG (bar)	Temperature ℉(℃)
Cast Iron Cast Steel	· · ·	<ul><li>@ 450 (232)</li><li>@ 750 (400)</li></ul>

#### SPRING PRESSURE RANGES (PSIG)

TYPE Q	TYPE Q2
3-20	100-300
5-50	
10-100	
20-150	

Canadian Registration # OC 0591.9C

# **TYPE Q** BACK PRESSURE PILOT

### CONTROLS 3 to 300 PSIG

- Self Contained
- Spring Operated
- Normally Open
- Packless Construction
- Four Adjustable Spring Ranges
- Fluid, Gas & Vapor Applications
- Loading Pressure Supplied by any Fluid
- Accurate Regulation Unaffected by Service Conditions
- Easy In-line Maintenance

#### **O**PTIONS

- Enclosed Spring Chamber
- Adjusting Handle
- High Pressure

#### MODELS

- **TYPE Q** for ± 1 psig accuracy controlling back pressures between 3 and 150 psig.
- **TYPE Q2** for ± 2 psig accuracy controlling back pressures between 100 and 300 psig.
- **TYPE Q73** air adjusted for ± 1 psig accuracy controlling back pressure at high retained pressures when available loading air is at low pressure. Delivery to loading pressure is 6-2/3 to 1 psig.

#### **TYPICAL CONFIGURATIONS**

BACK PRESSURE CONTROL	Type EQ
BACK PRESSURE CONTROL	Type E2Q
BACK PRESSURE CONTROL	TYPE E5Q

SIZING INFO PAGE 122



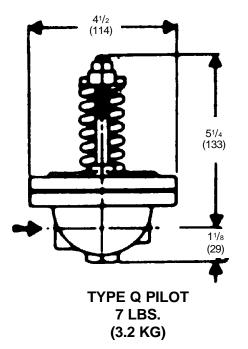
## **TYPE Q** BACK PRESSURE PILOT

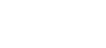
#### **S**PECIFICATION

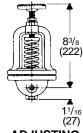
The Pilot shall be separate from the main valve and connected to it with a male union. The Pilot shall be normally closed design with packless construction. A strainer screen shall be built into the Pilot inlet. The Pilot shall be interchangeable on all sizes of main valves.

#### **MATERIALS OF CONSTRUCTION**

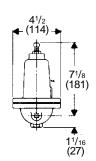
Body, Cast Iron	ASTM A126 CI B
Body, Cast Steel .	ASTM A216 GR. WCB
Disc	440 St. St. ASTM A276-75 COND A
Seat	440 St. St. ASTM A276-75 COND A
Gasket	Non-Asbestos
Diaphragm	
Spring	Steel



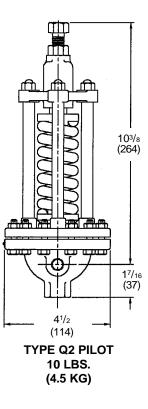


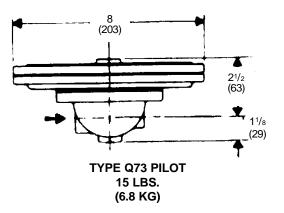


ADJUSTING HANDWHEEL



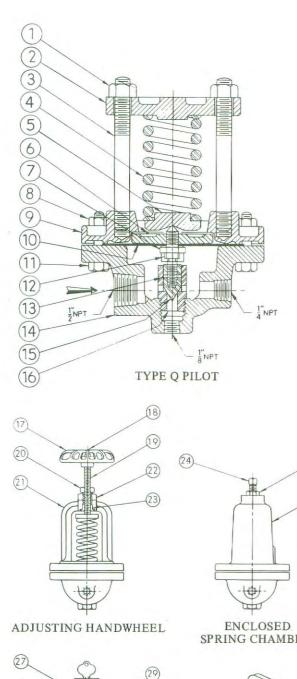
SPRING CHAMBER







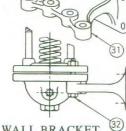






(25)

(26)

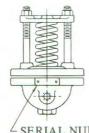


WALL BRACKET

LOCKING DEVICE

1

TT



SERIAL NUMBER PLATE OR NUMBER STAMPED IN OVER CONTROL PIPE TAP



SPENCE ENGINEERING COMPANY, INC. Walden, New York 12586

### **Parts List** TYPE Q PILOT

When ordering parts it is essential that the pilot type, service and serial number be stated.

Select parts by item number but order by part number. Specify complete part number when ordering.

\* Recommended Spare Parts

Item No.	Part Name	Material	Part No
1	Adjusting Nut	Steel	5-02874-0
2	Spring Yoke	Iron	5-06183-0
3	Standard	St. Steel	4-05219-0
4	Adj. Spring 3-20 psi	Steel	5-05007-0
	Adj. Spring 5-50 psi	Steel	5-05003-0
	Adj. Spring 10-100psi	Steel	5-05005-0
	Adj. Spring 20-150 psi	Steel	5-05012-0
5	Spring Button	Steel	4-01040-0
6	Pressure Plate	Steel	4-03679-0
7	Diaphragm Screw	St. Steel	4-04823-0
8	Diaphragm Nut	Steel	5-02871-0
9	Cowl	Iron	4-01508-0
+10	Diaphragm Note 1	St. Steel	4-01623-0
11	Diaphragm Bolt &	Steel	5-04764-0)
	Diaphragm Nut	Steel	5-02871-0
12	Disc Adjusting Screw	St. Steel	4-04761-0
13	Dowel Pin	St. Steel	5-03242-0
14	Body	Iron	4-00737-0
	Body	Bronze	4-00739-0
	Body	Steel	4-00738-0
15	Disc	St. Steel	4-01712-0
16	Seat Ring	St. Steel	4-04381-0
	Adju	sting Handwhe	el
17	Handwheel	Mall. Iron	5-06139-0
18	Handwheel Nut	Steel	5-02872-0
19	Adjusting Screw	Steel	4-04752-0
20	Adj. Screw, Locknut	Steel	5-02952-0
21	Cowl Yoke Note 2	Iron	4-06166-0
	Cowl Yoke Note 3	Duct. Iron	4-06167-0
22	Yoke Bushing, Locknut	Steel	5-02947-0
23	Yoke Bushing	Bronze	4-01152-0
	Enclos	ed Spring Cham	ber
24	Adjusting Screw	Steel	5-04860-0
25	Locknut	Steel	5-02942-0
26	Spring Chamber	Iron	4-01393-0
20	Spring Chamber	Bronze	4-01393-0
	Spring Chamber	Steel	4-01395-0
			4-01394-0
25 1		Locking Device	
27	Padlock	Brass	5-03204-0
28	Lock Pin	Steel	4-03272-0
29	Lock Bar	Steel	4-00436-0
30	Spring Yoke &	Iron	4-06182-0
	Lock Pin	Steel	4-03272-0 \$
		Wall Bracket	
31	Wall Bracket	Iron	4-01029-0
32	Diaphragm Bolt &	Steel	5-04766-02
	Diaphragm Nut	Steel	5-02871-0

Note 1 – Requires 2 per set. Note 2 – Applies to iron pilot. Note 3 – Applies to bronze and steel pilots.

(28)