

**Features**

- **In-line** or **Right Angle**
- Allows rapid cylinder return
- Multiple porting options
- Relieve 100 in<sup>3</sup> in 2 seconds
- Male pipe thread for direct cylinder mount
- Threaded or controllable exhaust port
- Swivel cylinder port



## Quick Exhaust Valves

### In-line

The 570 In-line Quick Exhaust Valve offers the convenience of in-line plumbing with a 1/8 NPT output and 1/8 NPT(F) input. Six exhaust holes located on either side relieve large amounts of flow in a minimal amount of time. It is ideal for allowing rapid cylinder return without air traveling back through the system.

### Function

As pressure is applied through input port 1 (figure A) the poppet and seal shift forward blocking the exhaust port and allowing flow through output port 2.

When pressure is removed from input port 1 (figure B) back flow at port 2 unseats the poppet and allows flow through exhaust port 3.

### Performance Data

Part Number	Temperature Range	Operating Pressure	C <sub>v</sub>	Flow Rate (scfm)		Fill Time sec/ in <sup>3</sup> 0-90 psi	Exhaust Time sec/ in <sup>3</sup> 100-10 psi
				50 psi	125 psi		
<b>C570501</b>	-20°F to 160°F	0-125 psi	.20	7.3	14.7	.02	.01
<b>QE11-*.**</b>			.20	8.2	20.2	.02	.02
* <b>QE10-FMF</b>			.15	5.0	10.8	.03	.06

\*Not recommended for use with cylinders larger than 1" diameter; stroke up to 12".

- Flow information supplied for flow path 1-2.

C<sub>v</sub> per ANSI / (NFPA) T3.21.3

### "11" Series- Right Angle

Pneumadyne's "11" Series Quick Exhaust Valve allows rapid cylinder return without permitting air to travel back through the system. There are sixty possible porting configurations incorporating the standard Pneumadyne "11" Series design with the addition of the 1/4 NPT male and 1/8 NPT male **output** ports. The **exhaust port** options include the 1/8 NPT female for use with a sintered bronze or industrial muffler, the 1/4-28 UNF female for use with a speed control needle ([see chart](#)), and the 1/4" push-to-connect fitting that is specially designed with a captive collet that is retained even when tubing is disconnected (recommended for use with 1/4 OD Polyurethane (95A) tubing).

### Function

As pressure is applied through input port 1 (figure C) the poppet shifts forward blocking the exhaust port and allowing flow through output port 2.

When pressure is removed from input port 1 (figure D) back flow at port 2 unseats the poppet and allows flow through exhaust port 3.

## Quick Exhaust Cross Section

figure A  
Fill

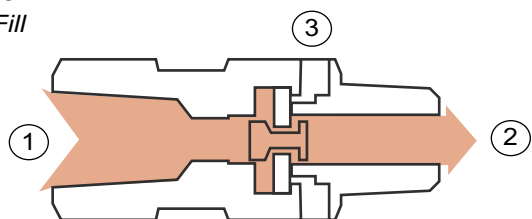


figure B  
Exhaust

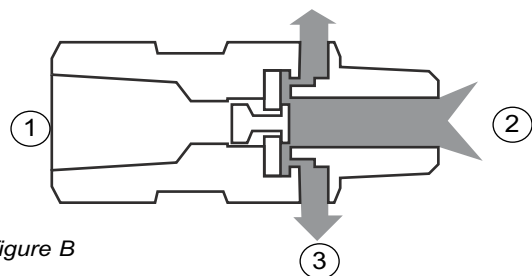


figure C  
Fill

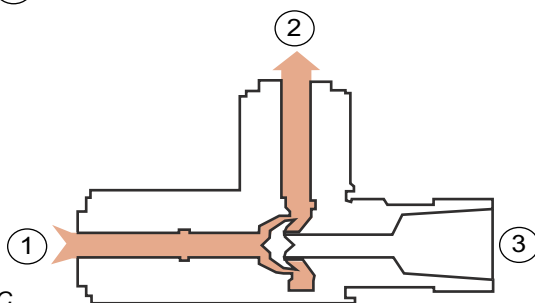
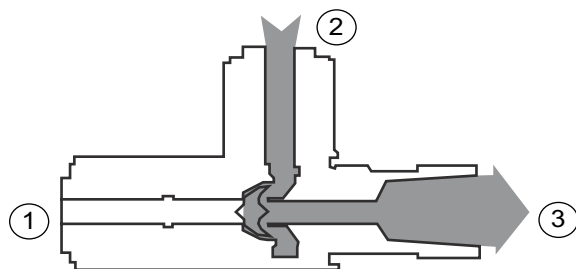
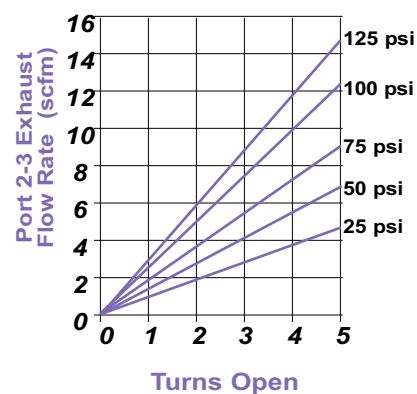


figure D  
Exhaust



### Quick Exhaust "11" Series with Locking Speed Control Needle



### Port Options

Definition		Options
Inline	Port 1 Input	● 1/8 NPT (F)
	Port 2 Output	● 1/8 NPT
	Port 3 Exhaust	● Non-Threaded
Right Angle	Port 1 Input	● 10-32 (F) ● 1/8 NPT / 10-32 (F) ● 1/8 NPT (F) ● 1/4 Push-in ● 5/32 Push-in
	Port 2 Swivel Output	● 10-32 (M) ● 1/8 NPT ● 1/8 NPT (F) ● 1/4 Push-in ● 5/32 Push-in ● 1/4 NPT
	Port 3 Exhaust	● 10-32 (F) ● 1/8 NPT (F) ● 1/4-28 UNF ● 1/4 Push-in

### Materials

**In-line:** Brass/ Electroless Nickel, Buna-N, PUR

**Right Angle:** Aluminum/ Black Anodize, Brass/ Black Dichromate, Buna-N, Acetal, Stainless Steel, Brass/ Electroless Nickel

## Ordering Information

● To order “11” Series Quick Exhaust select product number from Product Information listing or use Product Number Diagram to develop required component configuration.

1. Replace the “\*” in the **Product Information** listing with one of the exhaust port codes listed below:

- M- for 1/8 NPT (F)
- S- for 1/4-28 UNF (F)
- P- for 1/4 push-to-connect

2. Select from the **Additional Accessories (sold separately)**

- **QE-MS** Sintered Bronze Muffler 1/8 NPT for use with QE-M-xx.
- **QE-MI** Industrial Muffler 1/8 NPT for use with QE-M-xx.
- **QE-S** Speed Control Needle 1/4-28 UNF with locking nut- for use with QE-S-xx.
- Contact factory for custom porting configurations.

*1/4” push-to-connect exhaust port is specially designed with a captive collet that is retained even when tubing is disconnected*

## Product Diagram Quick Exhaust Valves

### QE 11 - S - 18

#### Series

QE11= Quick Exhaust  
“11” Series-  
Right angle  
porting

#### Exhaust Port

M= 1/8 NPT (F)  
P= 1/4 Push-in  
S= 1/4-28 UNF (F)

#### Input Port

1= 1/8 NPT /  
10-32 (F)  
4= 1/8 NPT (F)  
6= 1/4 Push-in  
7= 5/32 Push-in

#### Output Port

1= 1/8 NPT  
4= 1/8 NPT (F)  
6= 1/4 Push-in  
7= 5/32 Push-in  
8= 1/4 NPT

#### Example:

Quick Exhaust, “11” Series, 1/4-28 UNF (F) thread for use with Speed Control Needle (sold separately), 1/8 NPT /10-32 (F) input, 1/4 NPT output.

### QE 10 - F M F

#### Series

QE10= Quick Exhaust

#### Input Port

F= 10-32 (F)  
5= M5  
7= 5/32 Push-in

#### Output Port

M= 10-32  
G= M5 Adj M  
A= 10-32 Adj M

#### Exhaust Port

F= 10-32 (F)  
5= M5

## Product Information

### In-line

Part Number	Input	Output
C570501	1/8 NPT (F)	1/8 NPT
<i>Right Angle</i>		
QE10-5G5	M5	M5 Adj. (M)
QE10-7MF	5/32 Push-in	10-32 (F)
QE10-FAF	10-32 (F)	10-32 Adj. (M)
QE10-FMF	10-32 (F)	10-32 (M)

### "11" Series Right Angle

QE11-*-11	1/8 NPT	1/8 NPT
QE11-*-14	1/8 NPT	1/8 NPT (F)
QE11-*-16	1/8 NPT	1/4 Push-in
QE11-*-17	1/8 NPT	5/32 Push-in
QE11-*-18	1/8 NPT	1/4 NPT
QE11-*-41	1/8 NPT (F)	1/8 NPT

### "11" Series Right Angle (cont'd)

Part Number	Input	Output
QE11-*-44	1/8 NPT (F)	1/8 NPT (F)
QE11-*-46	1/8 NPT (F)	1/4 Push-in
QE11-*-47	1/8 NPT (F)	5/32 Push-in
QE11-*-48	1/8 NPT (F)	1/4 NPT
QE11-*-61	1/4 Push-in	1/8 NPT
QE11-*-64	1/4 Push-in	1/8 NPT (F)
QE11-*-66	1/4 Push-in	1/4 Push-in
QE11-*-67	1/4 Push-in	5/32 Push-in
QE11-*-68	1/4 Push-in	1/4 NPT
QE11-*-71	5/32 Push-in	1/8 NPT
QE11-*-74	5/32 Push-in	1/8 NPT (F)
QE11-*-76	5/32 Push-in	1/4 Push-in
QE11-*-77	5/32 Push-in	5/32 Push-in
QE11-*-78	5/32 Push-in	1/4 NPT



"11" Series Quick Exhaust shown with accessories

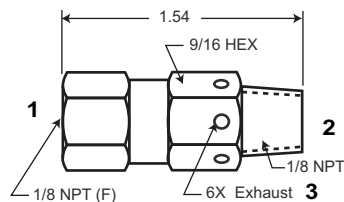
### Additional Accessories

Part Number	Description
QE-MS	1/8 NPT Sintered Bronze Muffler
QE-MI	1/8 NPT Industrial Muffler
QE-S	1/4-28 UNF Speed Control Needle

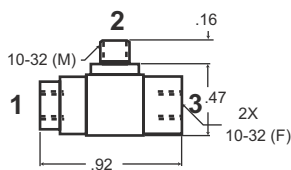
## Quick Exhaust

## Port Designation

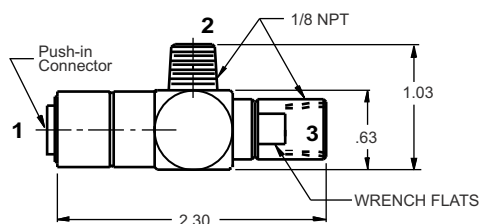
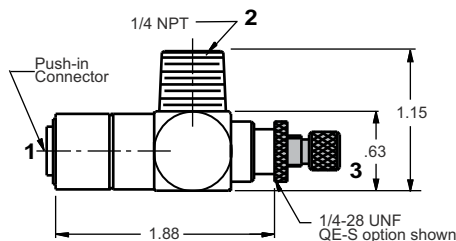
### C570501 Inline



### QE10-FMF Right Angle



### Right Angle



Typical drawings illustrate the overall package size of the Quick Exhaust "11" Series valve. There are **sixty** (60) possible configurations- contact factory for additional drawings.

● When design makes a dimension critical- contact factory for confirmation. All dimensions shown subject to change without notice.