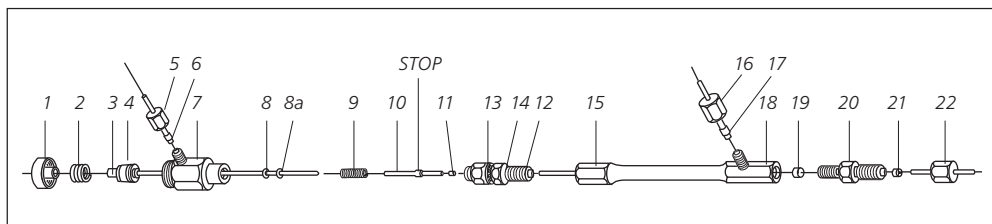


# PNEUMATIC ON/OFF VALVES

## Type MOVPT & MOVPT



### Code

MOVPT - 1/50  
 MOVPT - 1/100  
 MOVPT - 1/50  
 MOVPT - 1/100

### Part No.

**1236091**  
**1236092**  
**1236103**  
**1236104**

## ABOUT YOUR VALVE

- i. This valve has an ON/OFF function which is actuated pneumatically by a remote toggle switch or solenoid valve (not supplied). A 50-55 psi compressed gas supply with a 1/16" tubing outlet is required.
- ii. Your valve will provide you with ON/OFF control for vacuums to 10-9 torr or pressures up to 35 atmospheres.
- iii. The stem (15) and body (18) of the valve can be heated to 300 °C. However, the pneumatic control assembly (items 1-7) should be located outside the hot zone and not heated over 100 °C.
- iv. Standard stem lengths are 50 mm and 100 mm which is the distance from the lower side arm connection (16) to the bulkhead lock nut (14).

## CAPILLARY COLUMN CONNECTION

An inexpensive kit (Order code VAK P/N 1034606 is available to adapt SGE micro valves to accept fused silica capillary columns or tubing. The kit consists of inserts to reduce the bores of the connecting arms plus special nuts and ferrules.

## INSTALLATION

- i. Turn off all flows before installing the valve or when replacing parts.
- ii. Unscrew stem assembly (15) from union (12)
- iii. Remove lock nut (14) and star washer (13).
- iv. The exposed thread (12) can then be placed through a 4 mm hole in an instrument or bracket and held in position with the locknut and washer.
- v. Reassemble stem onto union.
- vi. Connect a 1/16" OD line to the union sidearm on the pneumatic head body (7) using nut (5) and ferrule (6). This should then be attached to a toggle switch or solenoid valve and a 50 - 55 psig air supply.

## VESPEL SEAT (19) REPLACEMENT

- i. Remove tubing, nut (22) and ferrule (21) from double ended union (20). Then remove union (20) from stem body (18).
- ii. Unscrew stem assembly (15) from union (12).
- iii. Gently tap stem body (18) to dislodge seat. If unsuccessful, insert wire removal tool (supplied) through stem (15) and push out the seat.
- iv. Insert new seat.
- v. Replace and tighten union (20) in stem body (18).
- vi. Reconnect stem assembly.
- vii. Reconnect tubing with nut (22) and ferrule (21).

## PTFE SEAL (11) REPLACEMENT

Two spare seals are provided in the unlikely event replacement is required. The seal is simply a small PTFE tube 1.6 mm OD x 1 mm ID x 2 mm long and is located inside fitting 12-14. The method for replacement is as follows:

- i. Unscrew pneumatic head assembly (7) from union (12).
- ii. Unscrew union (12) from stem (15).
- iii. Insert wire removal tool through union to dislodge the PTFE seal (11).
- iv. Place a new seal onto the needle shaft.
- v. Reconnect stem (15) onto union (12) and partly insert needle shaft into union.
- vi. Pull thrust tube (10) down needle shaft and insert the shorter length beneath the stop on the thrust tube, into the union. This will locate seal (11) into union (12). When the thrust tube seats the seal, the stop should be a nominal 2 mm above the face of the male thread of the union.
- vii. Reconnect pneumatic head.

## Itemised Parts Listing

This listing details the individual parts for the illustrated valve and should be used for ordering replacement parts.

Item	Part No.	Code	Description
1	0932185	-	Pneumatic Head Cap
2	1236700	-	MOVP Piston Spring
3	-	-	Piston Plunger Shaft - 50 mm
or	-	-	Piston Plunger Shaft - 100 mm
4	0932163	-	Skirt Seal
5	103404	BN/16	1/16" Brass Nut
6	072603	GFF/16	1/16" Graphite Ferrule
7	0932186	-	Pneumatic Body
8	040103	BS001	O' Ring Seal
8a.	-	-	Flat MOVP Washer
9	1236701	-	MVTL Seal Spring
10	1236702	-	Thrust Tube
11	123687	-	PTFE Shaft Seal
12	123682	MVTL-BU	Brass Union (Modified) Star Washer
14	1034043	BLN/16	Lock Nut
15	-	-	Lower Stem
16	103403	SSN/16	1/16" Stainless Steel Nut
17	072603	GFF/16	1/16 Graphite Ferrule
18	-	-	Stem Body
19	123681	VSV-6	Vespeal Valve Seat
20	103330	SSU/16/16	S.S. Union
21	072603	GFF/16	1/16" Graphite Ferrule
22	103403	SSN/16	1/16" Stainless Steel Nut

## 'O' RING REPLACEMENT

A spare 'O' Ring is supplied which can be fitted as follows:

- i. Unscrew pneumatic head assembly (7) from union (12).
- ii. Remove thrust tube (10) and spring (9).
- iii. Unscrew cap (1) and remove spring (2).
- iv. Withdraw piston/needle shaft (3) from body (7).
- v. Remove 'O' Ring (8) and washer (8a) with wire removal tool and fit the replacement 'O' - Ring into position followed by the washer (8a).
- vi. Reassemble in reverse order taking care that the thrust tube (10) is the correct way around.

## Packing List

Qty	Description
1	Valve
1	'O' - Ring BS001
1	Seal/Seat Removal Tool
1	VSV-6 Seat
5	1/16" Graphite Ferrules GFF/16
2	PTFE Seals PVS

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