

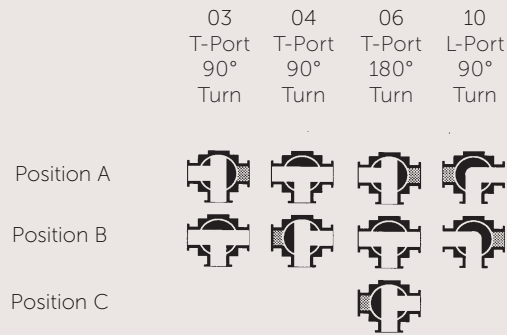
# Flow Pattern Diagrams

The IMI PBM Flow Pattern Diagrams show the top view as though you were looking down on the stem. The clear areas indicate the path available for process flow. Shaded areas indicate unused ports for given flow position. Fail position must be selected for spring return actuators only.

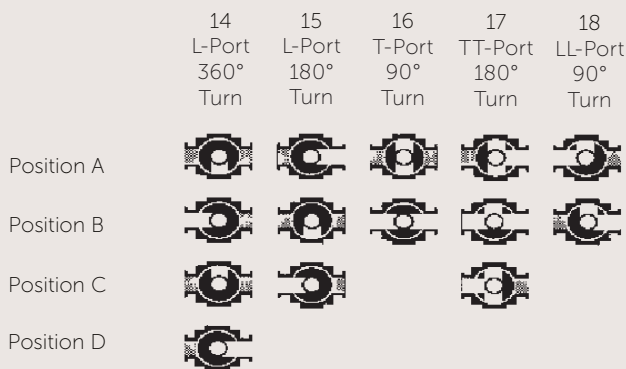
## DIVERTER PORT PATTERNS

By specifying a T-Port, Double T-Port (TT), Angle Port (L) or Double Angle Port (LL) Ball, different flow configurations are possible. For example, an IMI PBM DP Valve with a T-Port Ball might be used to control flow to one or two simultaneous operations. The side entry Angle Port Ball and the bottom entry Double Angle Port Ball are ideal for connecting two relief valves to a system. The Double Angle Port Ball diverts flow from one outlet to another outlet 180° away, with only 90° stem rotation. This allows use of 90° double acting or spring return actuation, instead of 180°.

### SIDE ENTRY



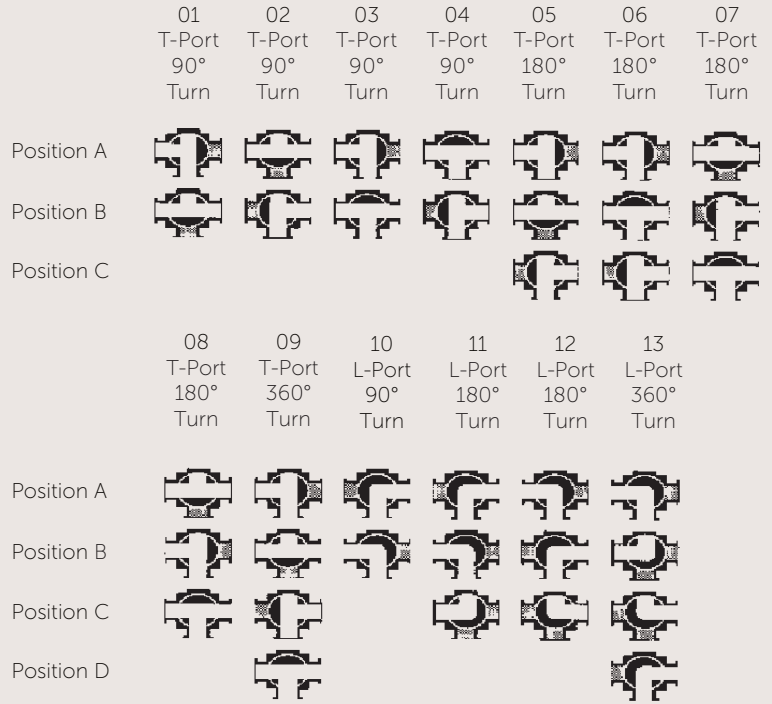
### BOTTOM ENTRY



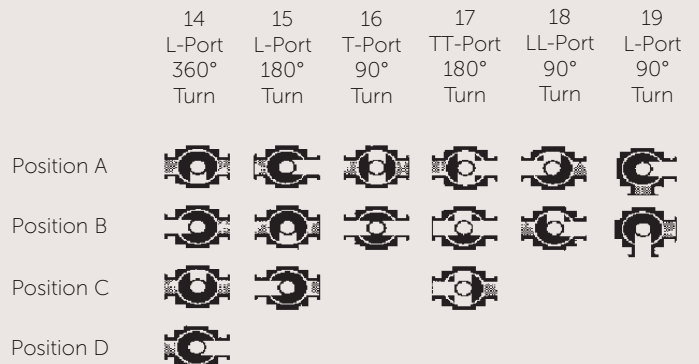
## 3-WAY MULTI-PORT PATTERNS

3-Way Multi-Port Valves are a popular choice in a variety of industries. A seal at every port distinguishes the IMI PBM 3-Way MP/MI Valve from diverting type valves. In some applications, the 3-Way MP/MI valve can take the place of two or three 2-Way Valves, with corresponding savings in piping and fittings. For applications requiring simultaneous process line changes, two 3-Way MP/MI Valves may be mounted in tandem and controlled with a single actuator or handle for greater control and additional savings. Additional flow patterns are possible by using manifolds of two or more valves.

### SIDE ENTRY



### BOTTOM ENTRY

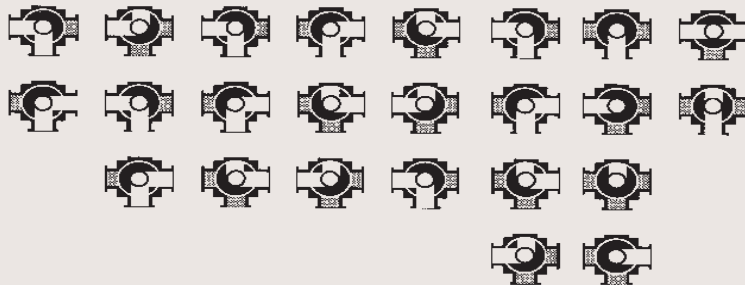


## 4-WAY MULTI-PORT PATTERNS

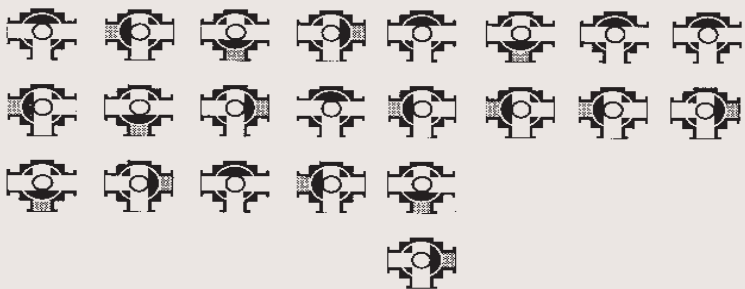
4-Way IMI PBM Multi-Ports are a true Multi-Port Valve with seals at every port. This design makes the IMI PBM 4-Way MP/MI Series ideal for flow switching operations. In some applications, this valve can replace as many as four ordinary 2-Way Valves, with corresponding savings in piping and fittings. The following illustrations show how different ball and port configurations create many flow patterns with a single 4-Way Multi-Port.

### BOTTOM ENTRY

20	21	22	23	24	25	26	27
LL-Port	LL-Port	LL-Port	LL-Port	LL-Port	LL-Port	L-Port	T-Port
90°	180°	180°	180°	180°	360°	360°	90°
Turn	Turn	Turn	Turn	Turn	Turn	Turn	Turn



28	29	30	31	32	33	34	35
TT-Port	TT-Port	TT-Port	TT-Port	TT-Port	TT-Port	TT-Port	TT-Port
180°	180°	180°	180°	360°	90°	90°	90°
Turn	Turn	Turn	Turn	Turn	Turn	Turn	Turn



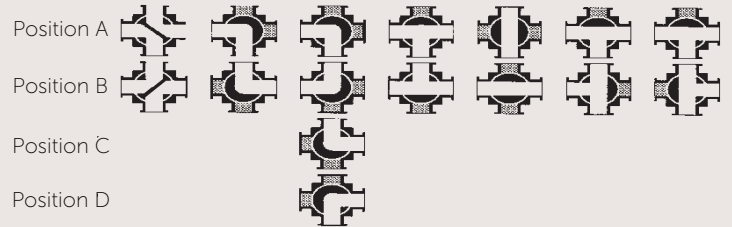
36
TT-Port
90°
Turn



## 4-WAY MULTI-PORT PATTERNS

### SIDE ENTRY

37	38	39	40	41	42	43
LL-Port	L-Port	L-Port	T-Port	Straight	T-Port	T-Port
90°	180°	360°	180°	Port	90°	90°
Turn	Turn	Turn	Turn	90° Turn	Turn	Turn

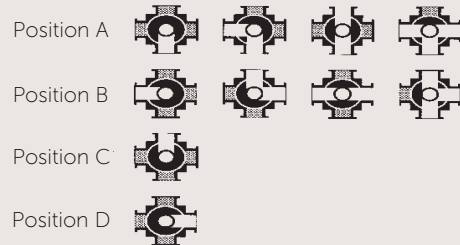


## 5-WAY MULTI-PORT PATTERNS

5-Way IMI PBM Multi-Ports are five seated to provide positive shut-off and flow control at each port. This design is not only versatile, but extremely economical. In some applications, this valve can replace as many as four ordinary 2-Way valves, with corresponding savings in piping and fittings. The following illustrations show available flow patterns with a single 5-Way Multi-Port Valve.

### BOTTOM ENTRY

44	45	46	47
L-Port	LL-Port	T-Port	TT-Port
360°	180°	90°	90°
Turn	Turn	Turn	Turn



48	49	50	51
TT-Port	TT-Port	TT-Port	LL-Port
90°	180°	360°	360°
Turn	Turn	Turn	Turn

