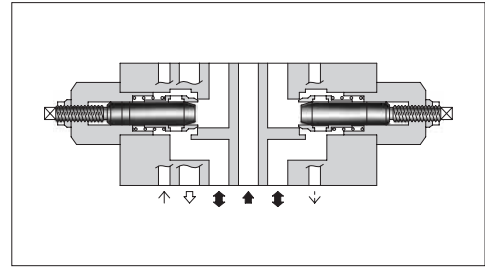


Throttle and Check Modular Valves

Specifications

| Model Numbers | Max. Operating Pressure MPa (PSI) | Max. Flow L/min (U.S.GPM) |
|--|--------------------------------------|------------------------------|
| MSA-10-*-30/3090 MSB-10-*-30/3090 MSW-10-*-30/3090 | 25 (3630) | 800 (211) |



Model Number Designation

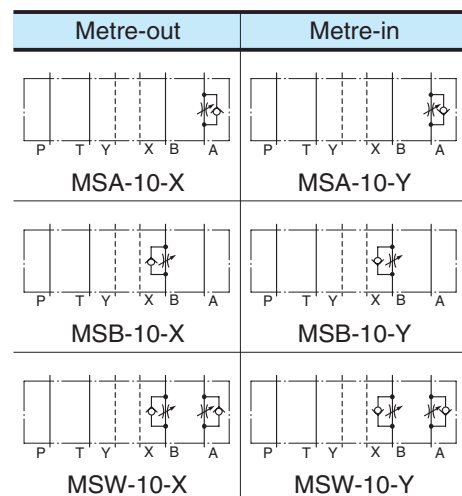
| F- | MSW | -10 | -X | -30 | * |
|---|--|------------|---|---------------|-----------------|
| Special Seals | Series Number | Valve Size | Direction of Flow | Design Number | Design Standard |
| F: Special Seals for Phosphate Ester Type Fluids (Omit if not required) | MSA : Throttle and Check Valves for A-Line MSB : Throttle and Check Valves for B-Line MSW : Throttle and Check Valves for A&B-Lines | 10 | X : Metre-out Y : Metre-in | 30 | Refer to ★ |

★ Design Standards: None Japanese Standard "JIS" and European Design Standard 90 N. American Design Standard

Instructions

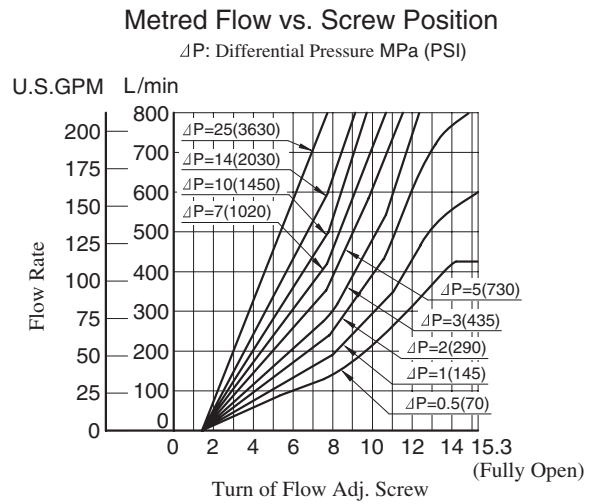
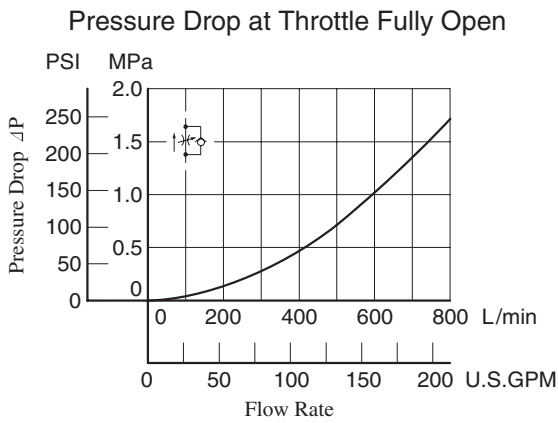
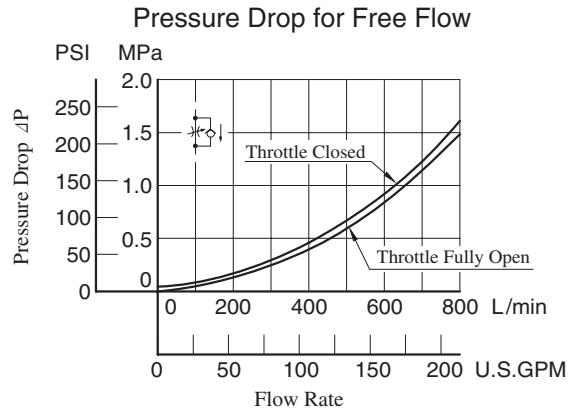
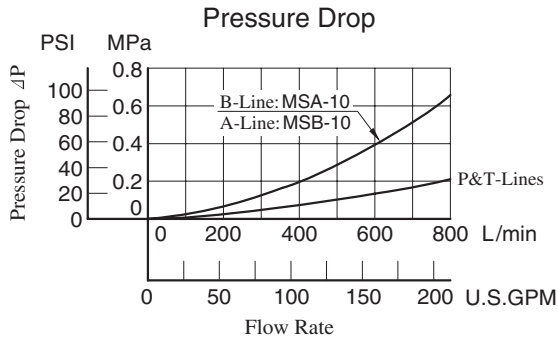
- To make flow rate adjustment, loosen the lock nut and turn the flow adjustment screw clockwise or anti-clockwise. To throttle the flow, turn the screw clockwise. Be sure to re-tighten the lock nut firmly after the adjustment of the flow rate is completed.

Graphic Symbols



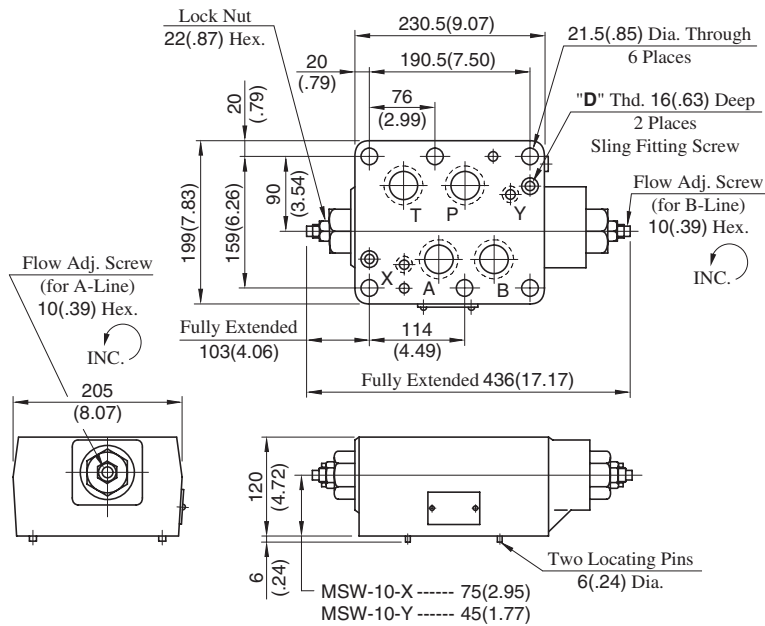
■ Typical Performance Characteristics

Hydraulic Fluid: Viscosity 35 mm²/s (164 SSU), Specific Gravity 0.850



MSW-10-X-Y-30/3090

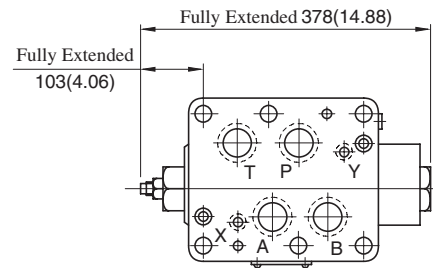
DIMENSIONS IN MILLIMETRES (INCHES)



| Model Numbers | "D" Thd. |
|---------------|-------------|
| MS*-10-*-30 | M8 |
| MS*-10-*-3090 | 5/16-18 UNC |

Approx. Mass..... 35.7 kg (78.7 lbs.)

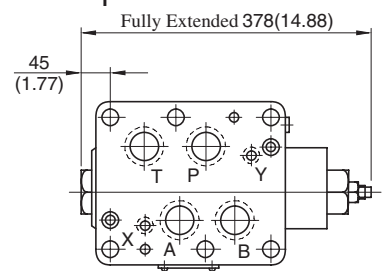
MSA-10-X-Y-30/3090



Approx. Mass..... 35 kg (77.2 lbs.)

• For other dimensions, refer to "MSW-10" drawing left.

MSB-10-X-Y-30/3090

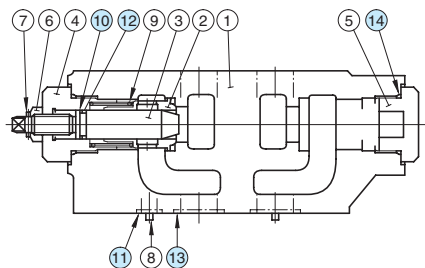


Approx. Mass..... 35 kg (77.2 lbs.)

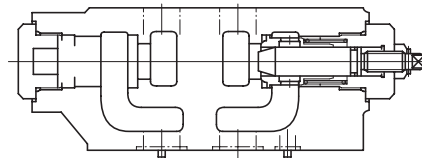
• For other dimensions, refer to "MSW-10" drawing left.

Spare Parts List

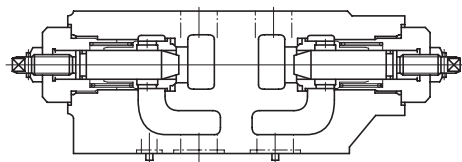
MSA-10-*-30/3090



MSB-10-*-30/3090



MSW-10-*-30/3090



List of Seals

| Item | Name of Parts | Part Numbers | Quantity | | |
|------|---------------|--------------|----------|--------|--------|
| | | | MSA-10 | MSB-10 | MSW-10 |
| 10 | Back Up Ring | SO-BB-P20 | 1 | 1 | 2 |
| 11 | O-Ring | SO-NB-P16 | 2 | 2 | 2 |
| 12 | O-Ring | SO-NA-P20 | 1 | 1 | 2 |
| 13 | O-Ring | SO-NB-P40 | 4 | 4 | 4 |
| 14 | O-Ring | SO-NB-P44 | 2 | 2 | 2 |

Note: When ordering seals, please specify the seal kit number from the table right.

List of Seal Kits

| Valve Model Numbers | Seal Kit Numbers |
|---------------------|------------------|
| MSA-10 | KS-MSA-10-10 |
| MSB-10 | |
| MSW-10 | KS-MSW-10-10 |