SVY Assemble drawing (Φ1.2, 2.0)

SVY Basic dimension

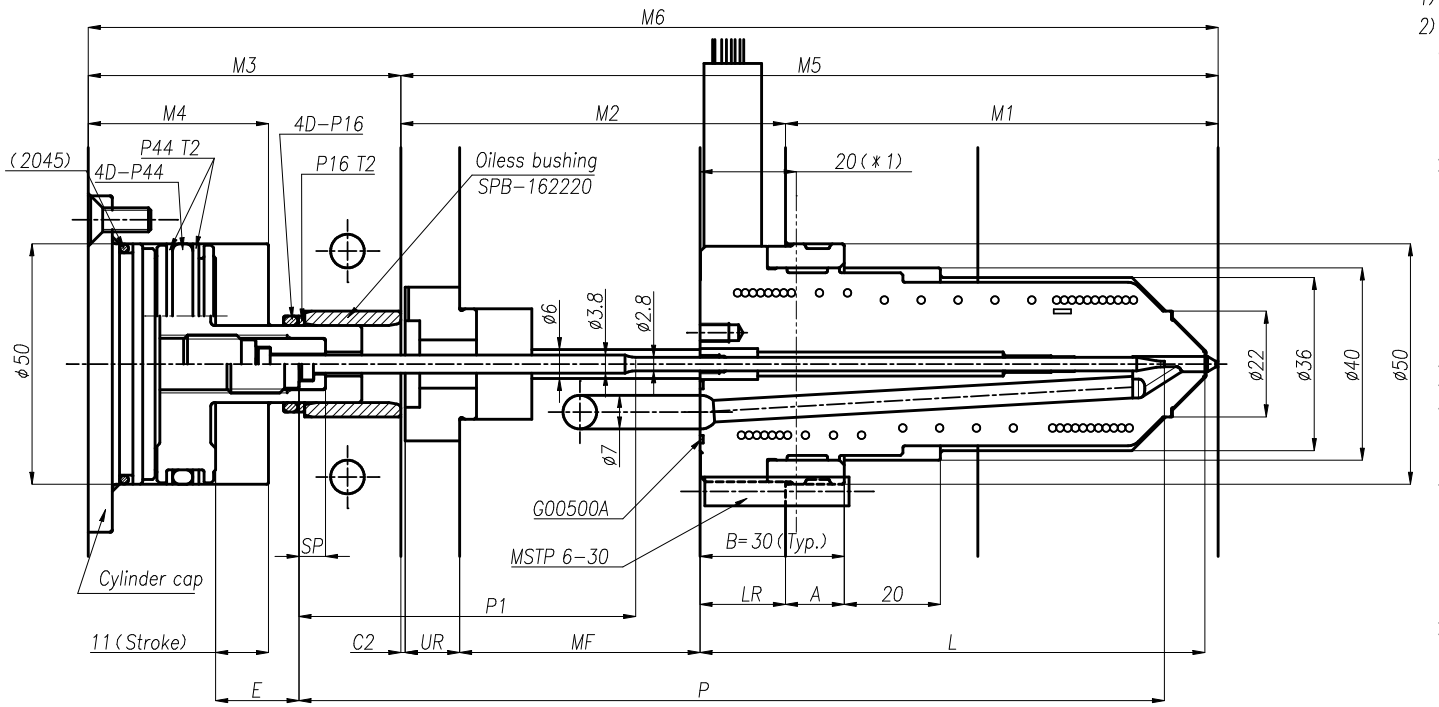
Standard	L dim.	P dim. (P1 dim.)	E	SP	M1	M2	M3	M6
SVY- 85	85	160 (70)	17.35	5.5	70	80	70	220
SVY-105	105	180 (70)			90			240
SVY-125	125	200 (70)			110			260

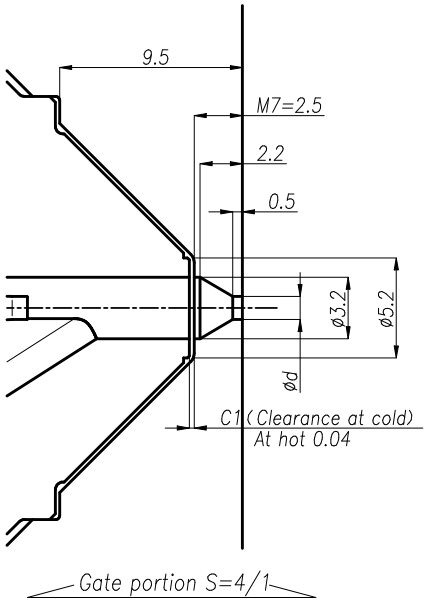
Cylinder caps and O-rings 2045 are to be arranged by customer.

・φ50 piston theoretical thrust= (π/4) ×5² ×5=98 (kgf)

Select valve pin and spacer

1. Select valve pin
   1) Round off decimals of M5 dim. to 0. ··· (M5A)
   2) M5A+10=M5B
   3) Round off the number of units of the calculated M5 B value dim. to 0.···・・Valve pin length (P)
2. Select spacer
   1) E=M5A-P+27.35 27.35 is fixed number
   2) The spacer dimension to be selected accordingly to E dimension.





<Formula for C1 Clearance> (D=20)※1

Expansion= (Body L dim. -D) × (Body temp.-Mold temp.) × 1.2÷ 100000

C1 (Clearance) = Expansion+0.04 (Clearance at hot)

<Formula for A (depth)> (M7=2.5: Gate land , B=30)

LR (lower riser height) =Body L dim.+C1 +M7 -M1

A (depth) = B-LR

<Formula for C2 Clearance>

Expansion= (M2-LR+D) × (Manifold temp.-Mold temp.) × 1.2÷ 100000

※ Compression= (M2+A) × 10÷ (2.1× 10000)

C2 (Clearance) = Expansion-Compression

UR (upper riser height) = M2-LR-MF-C2

Formula for M4 (cylinder depth)

Thermal expansion of pin= { (L-D) ×0.95× (Body temp.-Mold temp.) + (MF+D) ×0.6 × (Manifold temp.-Mold temp.) } × 1.0÷ 100000

M4 (cylinder depth) = M6+0.1 (Pin stick out) - (P+Thermal expansion of pin+E)

Manifold temp.=Melt temperature , Body temp.=Melt temperature+20℃

Ratio 0.95 and 0.6 in the formula of valve pin thermal expansion is based on experimental value.

※ 10Kgf/mm² is set value by Seiki. 2.1×10⁴ Kgf/mm² Yong's modulus of elasticity

Note

※1 Thermal expansion start here.

SEIKI VALVE & SPEAR SYSTEM