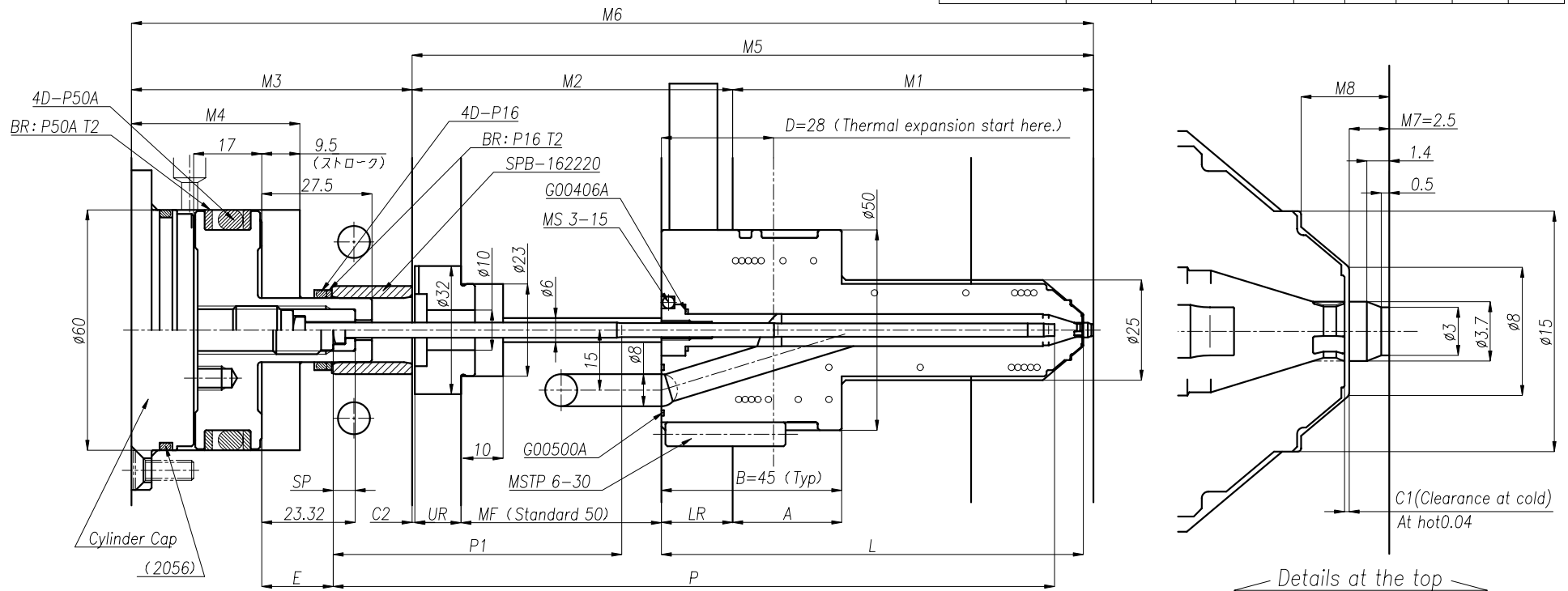


# SVP3F Assembly drawing (φ 3.0)

## SVP3F Base dimension

規格	L Dimension	P Dimension (P1 Dimension)	E	SP	M1	M2	M3	M6
For SVP2F-85	85	160 (70)	17.82	5.5	70	80	70	220
For SVP2F-105	105	180 (70)			90			240
For SVP2F-125	125	200 (70)			110			260

Cylinder caps and O-ring 2056 are to be arranged by customer.  
 • φ60 Piston Theoretical Thrust =  $(\pi/4) \times 6^2 \times 5 = 141$  (kgf)



<Formula for C1 Clearance> (D=28: Thermal expansion)  
 Thermal expansion =  $(M2 - LR + D) \times (\text{Manifold Temp.} - \text{Mold Temp.}) \times 1.2 \div 100000$   
 C1 (Clearance) = Thermal expansion + 0.04 (Clearance at hot)

<Formula for A (depth)> (M7=2.5: Gate land, B=45)  
 Lower Riserpad height = Body Length + C1 + M7 - M1  
 Formula for A (depth) = B - LR

<Formula for C2 Clearance>  
 Thermal expansion =  $(M2 - LR + D) \times (\text{Manifold Temp.} - \text{Mold Temp.}) \times 1.2 \div 100000$

\* Compression =  $(M2 + A) \times 10 \div (2.1 \times 10000)$   
 C2 (Clearance) = Thermal expansion - Compression  
 UR (upper riser height) = M2 - LR - MF - C2

<Formula for M4 (Cylinder depth)>  
 Thermal expansion of Valve Pin =  $\{ (L - D) \times 0.95 \times (\text{Body Temp.} - \text{Mold Temp.}) + (MF + D) \times 0.7 \times (\text{Manifold Temp.} - \text{Mold Temp.}) \} \times 1.0 \div 100000$

M4 (Cylinder depth) = M6 + 0.1 (Pin stick out) - (P + Thermal expansion of Valve Pin + E)  
 M8 = M7 + 3.0 (M8 = M7 + 3.5 (When Gate land 2.5mm, M8 = 5.5mm))

Manifold temp. = Melt temp., Body temp. = Melt temperature + 20°C  
 Ratio 0.95 and 0.6 in the formula of valve pin thermal expansion is based on experimental value.  
 \* 10Kgf/mm<sup>2</sup> is set value by Seiki.  $2.1 \times 10^4$  Kgf/mm<sup>2</sup>: Yong's modulus of elasticity

Select valve pin and spacer

- Select valve pin
  - Round off decimals of M5 dim to 0. ... (M5A)
  - M5A + 10 = M5B
  - Round off the number of units of the calculated M5 B value dim to 1. ... Valve pin length (P)
- Select spacer
  - E = M5A - P + 27.82 27.82 is fixed number
  - The spacer dimension to be selected accordingly to E dimension.