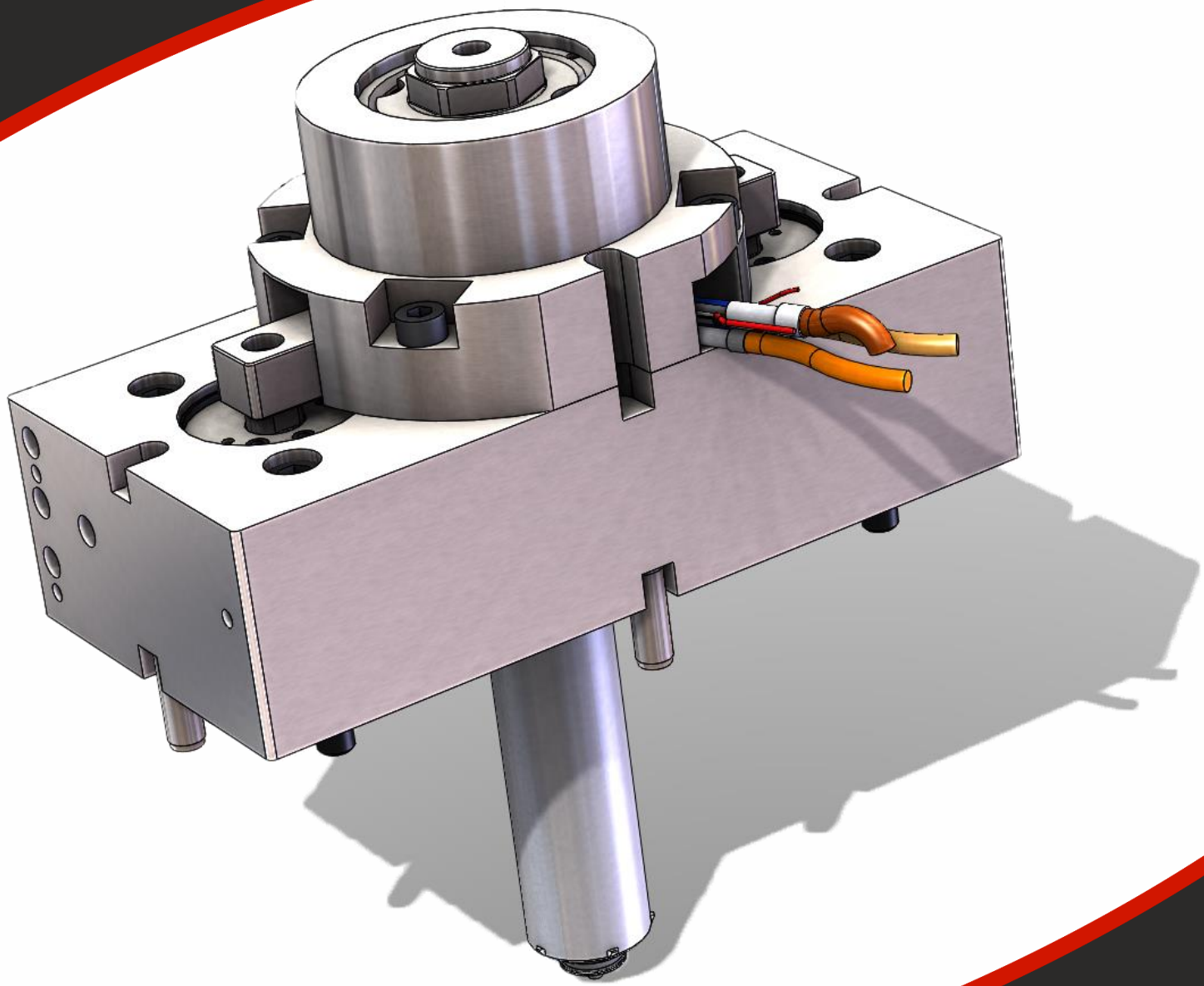
MP PIN ADJUSTMENT
SINGLE VALVE GATE (SMP)

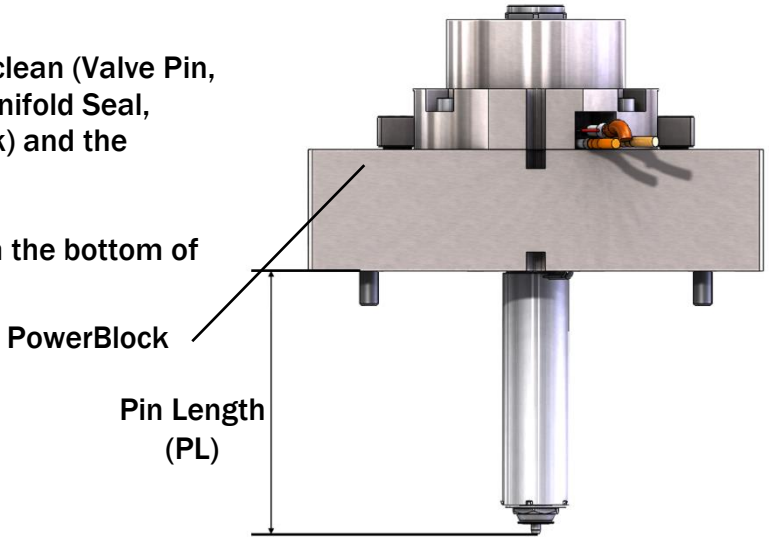


MasterFlow®

LEADER IN HOT RUNNER TECHNOLOGY

1. Make sure that the hot runner is clean (Valve Pin, End Cap, Pin Guide(s), Shank, Manifold Seal, Bushing Block and Injection Block) and the system is completely assembled.

2. Measure the Pin Length (PL) from the bottom of the valve pin to the PowerBlock.



Series	Description		AB	SB
	PowerBlock™	Bushing		
30	SPB30	MFC30 059	50	56
		MFC30 079	70	
		MFC30 099	90	
		MFC30 119	110	
		MFC30 139	130	
		MFC30 159	150	
		MFC30 179	170	
		MFC30 199	190	
40	SPB40	MFC40 074	64	64
		MFC40 099	89	
		MFC40 124	114	
		MFC40 149	139	
		MFC40 174	164	
		MFC40 199	189	
		MFC40 224	214	
		MFC40 249	239	
50	SPB50	MFC50 089	71	86
		MFC50 119	101	
		MFC50 149	131	
		MFC50 179	161	
		MFC50 209	191	
		MFC40 239	221	

3. Calculate the “acceptable” measurement.

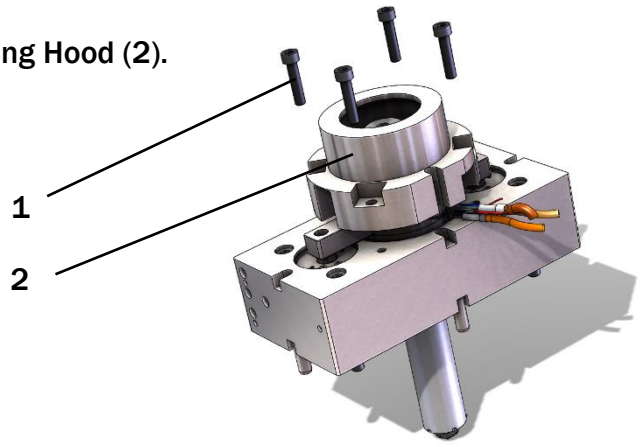
a. *Alternative Cylindrical Gate (CT)*
AB + 0,2 = PL ±0,1mm
AB = See table for the specific bushing
PL = Pin Length from **Step 2**

b. *Alternative Cylindrical Gate (CF)*
AB + FF + 0,2 = PL ±0,1mm
AB = See table for the specific bushing
FF = (Series 30 = 1,0), (Series 40 = 1,5)
PL = Pin Length from **Step 2**

c. *Alternative Tapered Gate*
AB + 0,3 = PL ±0,1mm
AB = See table for the specific bushing
PL = Pin Length from **Step 2**

4. If the measured distance in **step 2** is within tolerance of the result from **step 3**, the length is in calibration position. If it’s not, continue to **step 5.**

5. Lose the screws (1) and remove the Centering Hood (2).



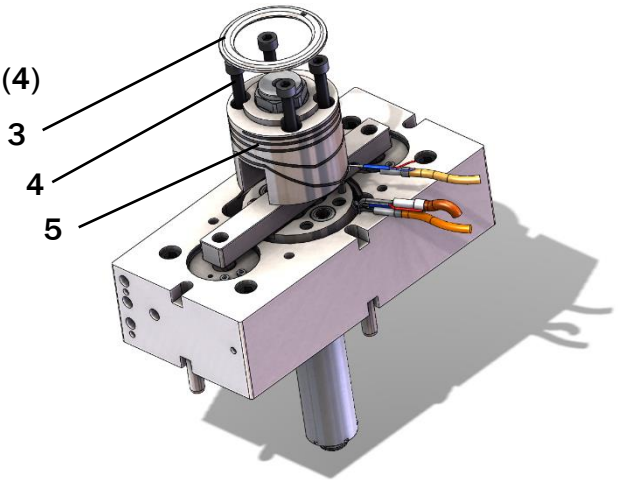
MasterFlow AB
Hultmansgatan 1
Box 501, SE-593 25 Västervik
Sweden

Telefon/ Telephone
Nat. 0490-822 60
Int. +46-490-822 60

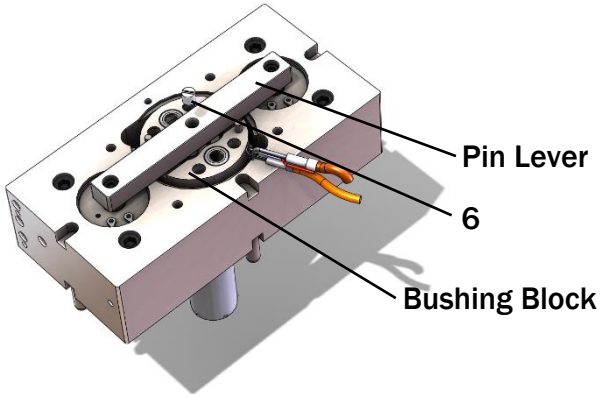
E-post/ E-mail
info@masterflow.se
Hemsida/ Website
www.masterflow.se

Doc. No: TSMF-MP-14/02-E
Effective: 2022-08-18
Replace: 2022-06-20

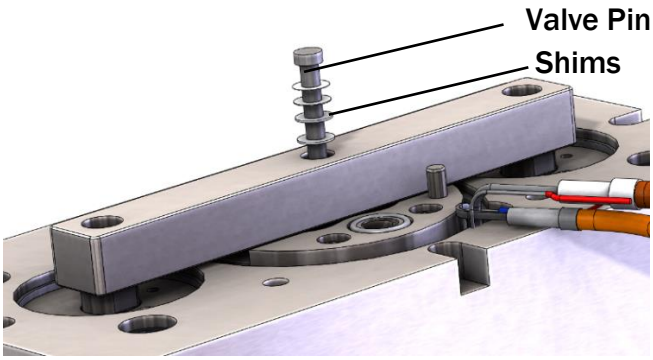
6. Take of the isolation ring (3), lose the screws (4) and remove the Injection Block (5).



7. Lose the stop screw (6) with a screwdriver.



8. Adjust the length by adding or removing shims to get the pin within tolerance. MasterFlow will always put shims under the pin.



9. Reassemble according to above backwards (**step 7 – step 5**) and measure the length of the pin (**step 2**) and make sure it's within tolerance. Please note that correct torque is needed. Cylinder stroke and maximum pressure.

- **Step 7 –** Stop screw
  - **Series 30 & 40:** 15Nm
  - **Series 50:** 40Nm

- **Step 6 & 5 –** Screws (class 12.9)
  - **M6:** 17 Nm
  - **M8:** 40 Nm
  - **M10:** 79Nm

Series	Max cylinder pressure (bar) **Pneumatic**	Max cylinder pressure (bar) **Hydraulic**	Cylinder stroke (mm)
30	15	15	8,5
40	15	15	11
50	15	15	14

10. At production, adjust the air/oil pressure to required level for the specific application. Do not use more air/oil pressure than required. See chart maximum pressure for the different series. When using oil pressure from injection moulding machine, set the pressure limit valve (mechanical) at maximum required pressure. ***Important:*** *Pressure peaks above maximum pressure may damage seals, pins and the mould.*

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SERVICE:

MasterFlow AB
Hultmansgatan 1
SE-593 32 Västervik
SWEDEN

Telephone: +46 - (0)490 822 60
E-mail: info@masterflow.se
Website: www.masterflow.se