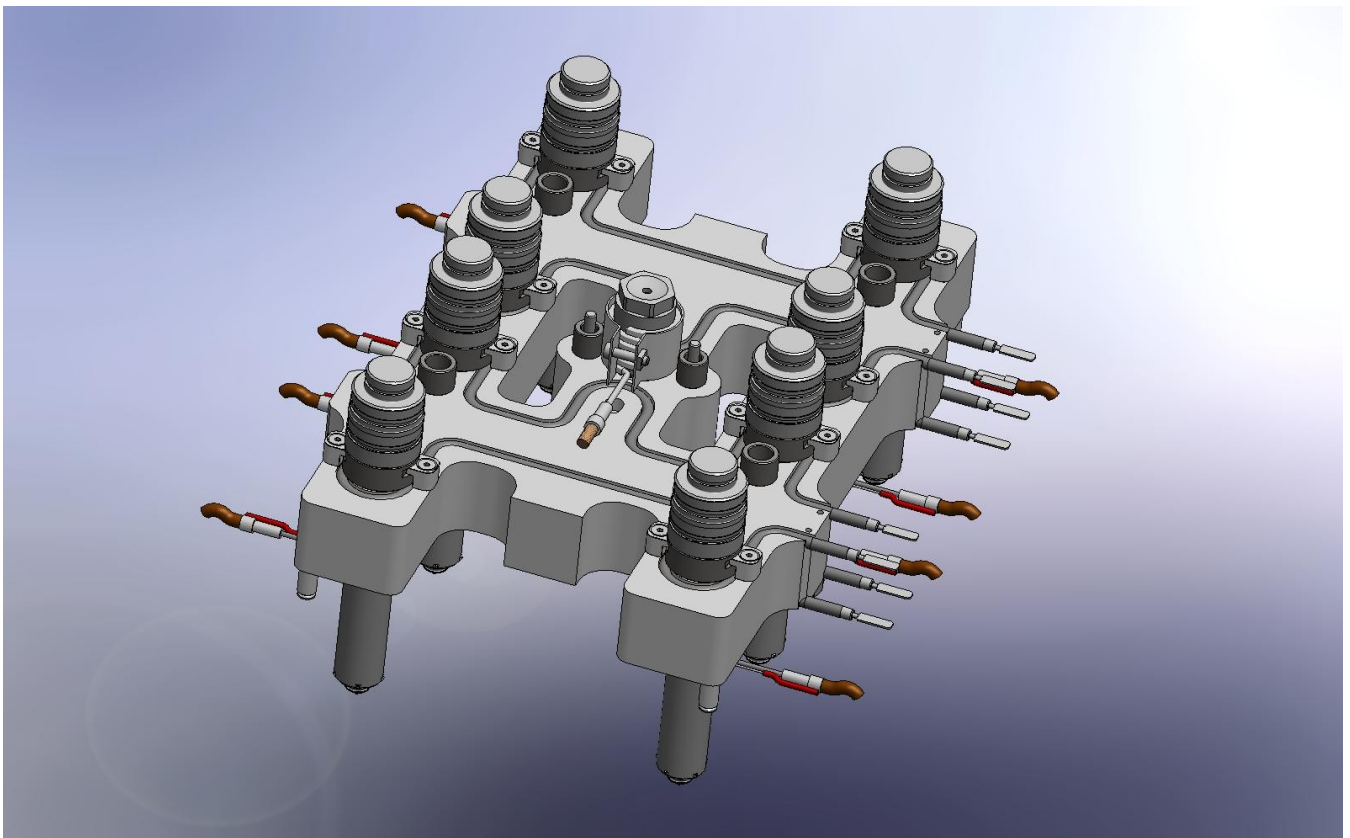


Valve Gate Systems with CY2 CLICK Cylinders mounted on manifold

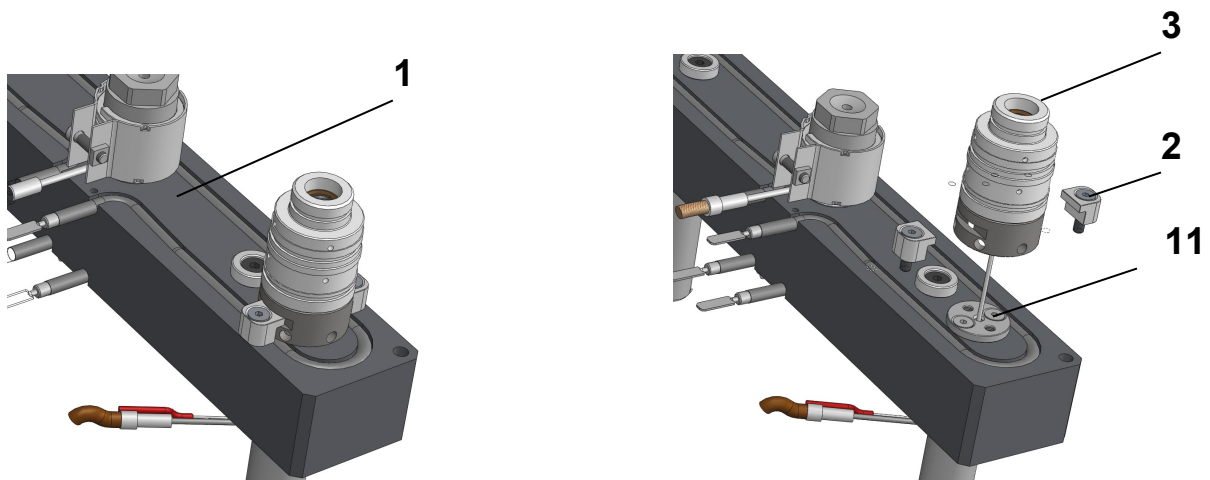
Pin Adjustment Instruction

CY2 CLICK

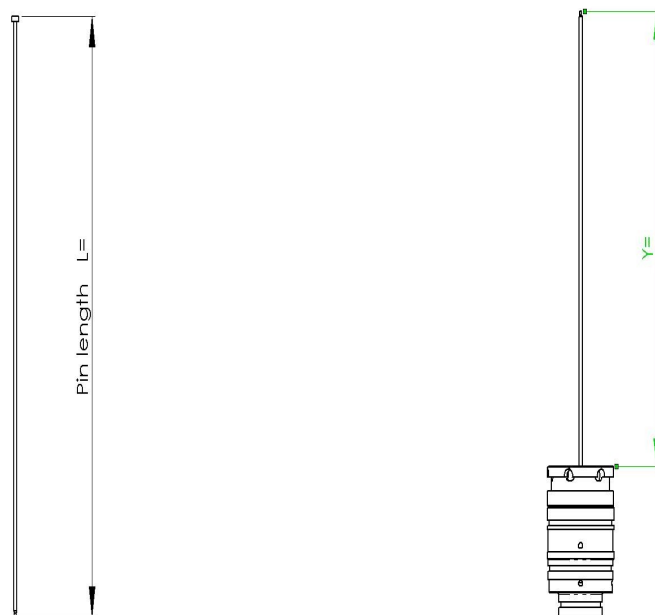


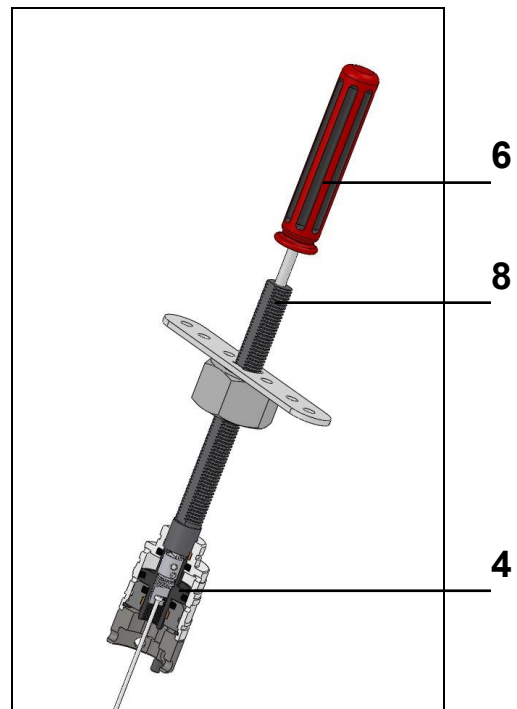
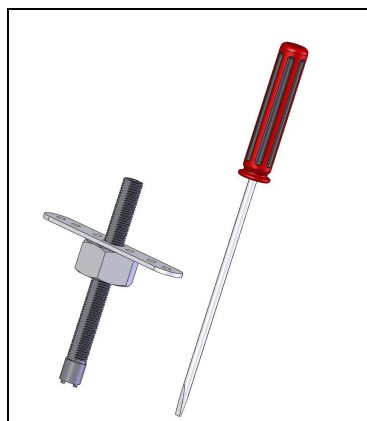
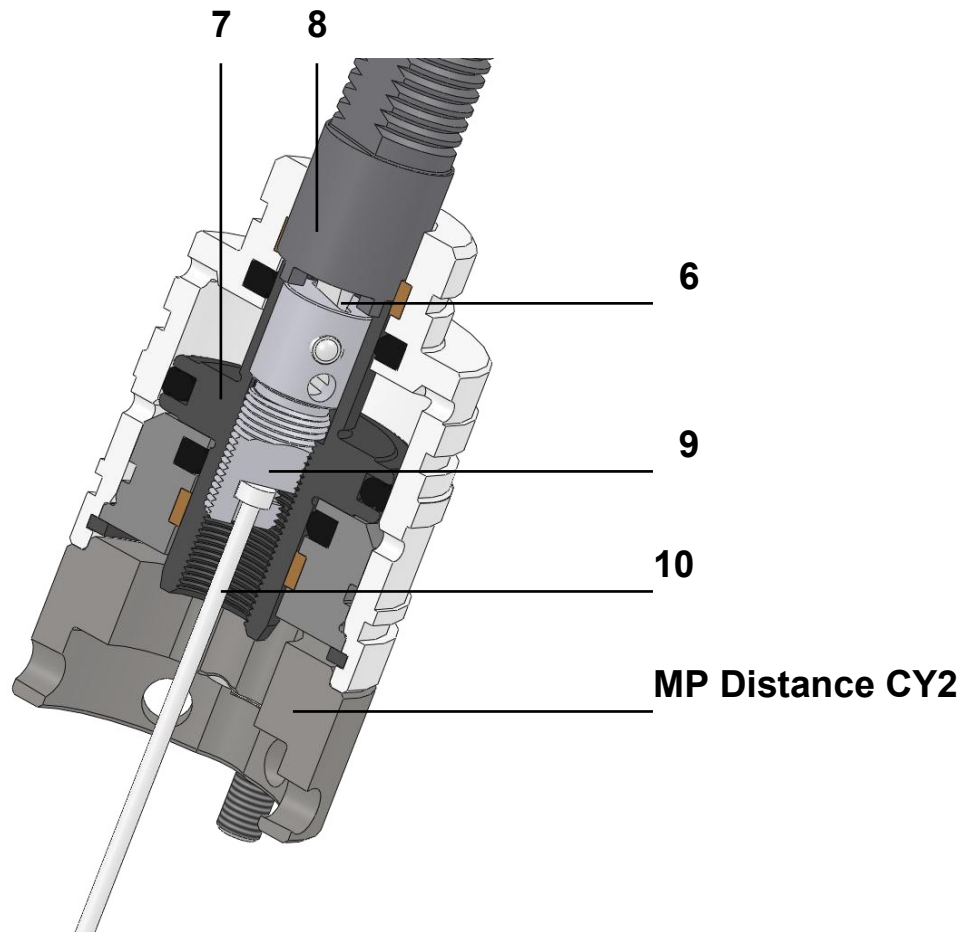
Pin Adjustment Instruction CY2 CLICK (mounted on manifold)

- 1) If you want to adjust the pin without replacing it - continue to step 7.
If you want to replace the pin - remove the clamping plate to release the CY2 cylinders.
- 2) If hot runner system contains plastic material: Heat up the hot runner system (1).
To disassemble the pin the hot runner must be heated. Remove screws for the distance clamp (2) and take out the CY2 cylinder with pin as one unit. Measure existing length $Y=$. Important: The piston must be in position "closed" (forward), when you measure the length Y .



- 3) Disassemble the CY2 cylinder (4): The pin (10) is "hooked" into the pin adjustment screw (9). The pin adjustment screw needs to be unscrewed from the CY2 cylinder to release the pin.
If piston (7) is rotating: Hold the piston with the pin adjustment tool (8).





- 4) Assemble new pin into CY2 cylinder and measure length Y. Important: The piston must be in position “closed” (forward), when you measure the length Y.
This step is a pre-setting of the pin. The fine tuning of the pin is to be made with the system assembled into the mould.
If new system: calculate Y according system drawing.
If old pin exist: copy the old dimension Y.
Adjust the length Y by clicking the pin adjustment screw (9) with a screw driver (6).
If piston is rotating: Hold the piston with the pin adjustment tool (8).

Conical and cylindrical gate:

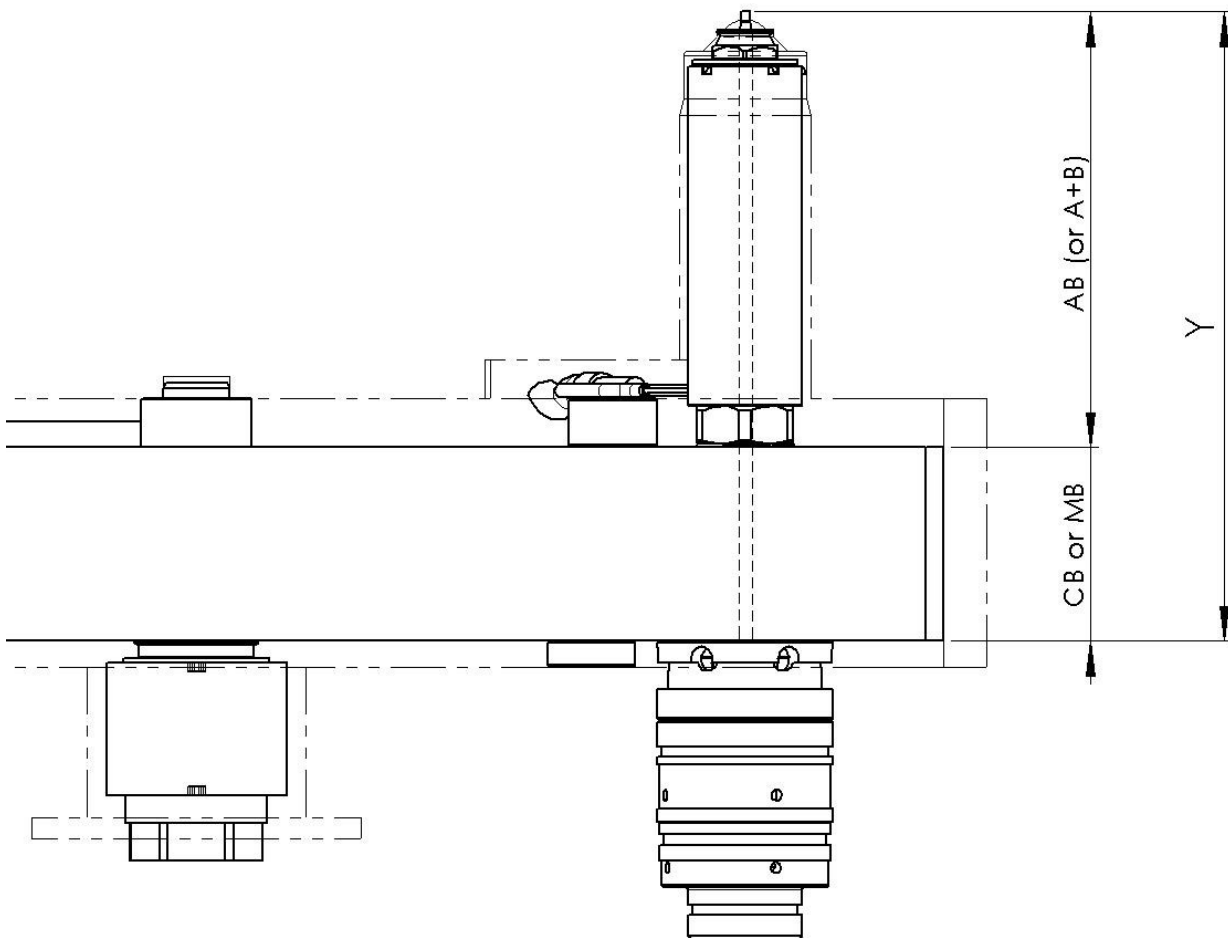
See system drawing.

Threaded connection between bushing and manifold.

$Y = AB + CB$ (manifold).

Or floating connection between bushing and manifold.

$Y = A + B + MB$ (manifold).



- 5) Assemble the CY2 cylinder with pin into the hot runner system.
Assemble the distance clamps (2) with the screws.
Grease the 3 O-rings on the outside of the CY2 cylinder with soap.
Manifold seals (11) must be cleaned carefully. Do not damage any sealing surfaces.
Manifold seals have a critical sealing function and have a natural wear during the pin movement. We recommend replacing the manifold seal if the pin is replaced or/when needed.
- 6) Assemble the clamping plate. Be careful with the 3 O-rings on the outside of the CY2 cylinder.
- 7) Divide the mould in fixed and movable half.
- 8) Connect the water cooling of the fixed mould half. Heat up the hot runner system (1) and the fixed mould half (mould temperature) to production temperature. Correct dimensions can only be maintained with correct temperatures on hot runner and mould. It is important to have separate water cooling in the clamping plate. Only with correct temperatures the fine tuning will be optimal.
- 9) Adjust the pin into the correct height of the end cap/gate by clicking the pin with a screwdriver. Look from the cavity side on the pin when clicking the pin adjustment screw. Stop when you can see or feel that the pin is leaving the gate. Now you have found the calibration position. We recommend that two people are working together to find the calibration position. **Every click means the pin is moved 0,05 mm.** Important: The piston must be in position “closed” (forward) when you find the calibration position.
- 10) Alternative: Conical gate
When you have found the calibration position, push piston (7) back into position “open” (backward). Screw in the pin adjustment screw (9) another five “click” forward ($5 \times 0,05 = 0,25$ mm). This is to create a small air/oil gap under the piston. And secure that the conical gate is closing.

Alternative: Cylindrical gate

Continue to next step.

- 11) Check the movement of the pin. (As alternative you can use pressurized air). You can find correct stroke in chart. Check the movement only after reaching operating temperature on hot runner and mould. To operate the pins without reaching the production temperatures may damage the system.

Cylinder stroke and maximum pressure

Series	Cylinder	Max cylinder pressure (bar)	Cylinder stroke (mm)
20 Hydraulic	CY2	8	8.5
20 Pneumatic	CY2	8	8.5
30 Hydraulic	CY2	15	8.5
30 Pneumatic	CY2	10	8.5
40 Hydraulic	CY2	40	8.5

- 12) 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 sizes of bushings. When using oil pressure from injection moulding machine. Set the pressure limit valve (mechanical) at maximum required pressure. Pressure peaks above maximum pressure may damage seals, pins and the mould.