



pro **EDGE VG**

Side valve gate system

EWIKON

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The next level of side gating performance

Precision side gating with the highest quality and without compromises on ease of maintenance. The pro EDGE VG valve gate system for direct side gating opens up new possibilities in mould making and is the first choice for all applications that require maximum process reliability and injection point quality.

+ Unique ease of maintenance

All wear parts (valve pin, valve pin guide, valve pin seal) can be replaced as a single assembly on the open mould.

+ Process reliability with maximum gate quality

Direct side gating combined with valve gate perfection.
For processing of standard materials (polyolefins) and soft materials (TPE).
High-precision and perfectly synchronous valve pin actuation by latest generation linear servo motor.

+ Extended gating options

Gating possible on even the smallest side surfaces.

+ Compact mould design and simple mould assembly

Space-saving drive mechanism enables a very low mould height. Mould inserts do not have to be split for the installation of the nozzle, resulting in greater mould stability and simplified cooling.



Valve gate extends the options

■ Perfect gating points and more freedom in design

When gating with pro EDGE VG, no shear-off areas are required to achieve a perfect gate. In contrast to open side gating, the gating point can also be positioned in small areas of the article geometry. In general, an area that corresponds to the gate diameter of the valve pin is sufficient.

■ Gating soft plastics from the side? No problem!

For the first time, pro EDGE VG also allows the process-reliable side gating of articles made of soft plastics such as TPE - processing of these materials was previously only possible to a limited extent with open side gating.

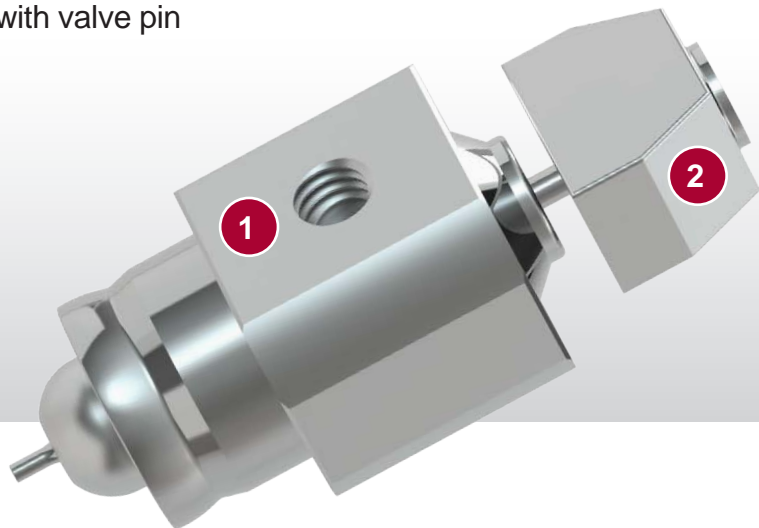


Quick routine maintenance

- All wear parts such as valve pin, valve pin guide and valve pin seal integrated in one assembly.
- Replacement of the complete assembly directly on the injection moulding machine from the parting line. No need to dismantle the mould.
- Reduced downtimes for routine maintenance.

1 Tip insert with valve pin guide and valve pin seal

2 Valve pin holder with valve pin



Maintenance? Simple as ever!

With the pro EDGE VG nozzle, the high level of service friendliness already offered by the open versions for side gating has been consistently maintained. The innovative valve gate concept allows maintenance to be carried out directly on the injection moulding machine when the mould is open, thus ensuring maximum efficiency in production.





Compact design – smart drive technology

Space-saving mould design

- No additional plate structure for backwards positioned drive components.
- Mould inserts do not have to be split to install the nozzle, resulting in greater mould stability and simplified cooling.

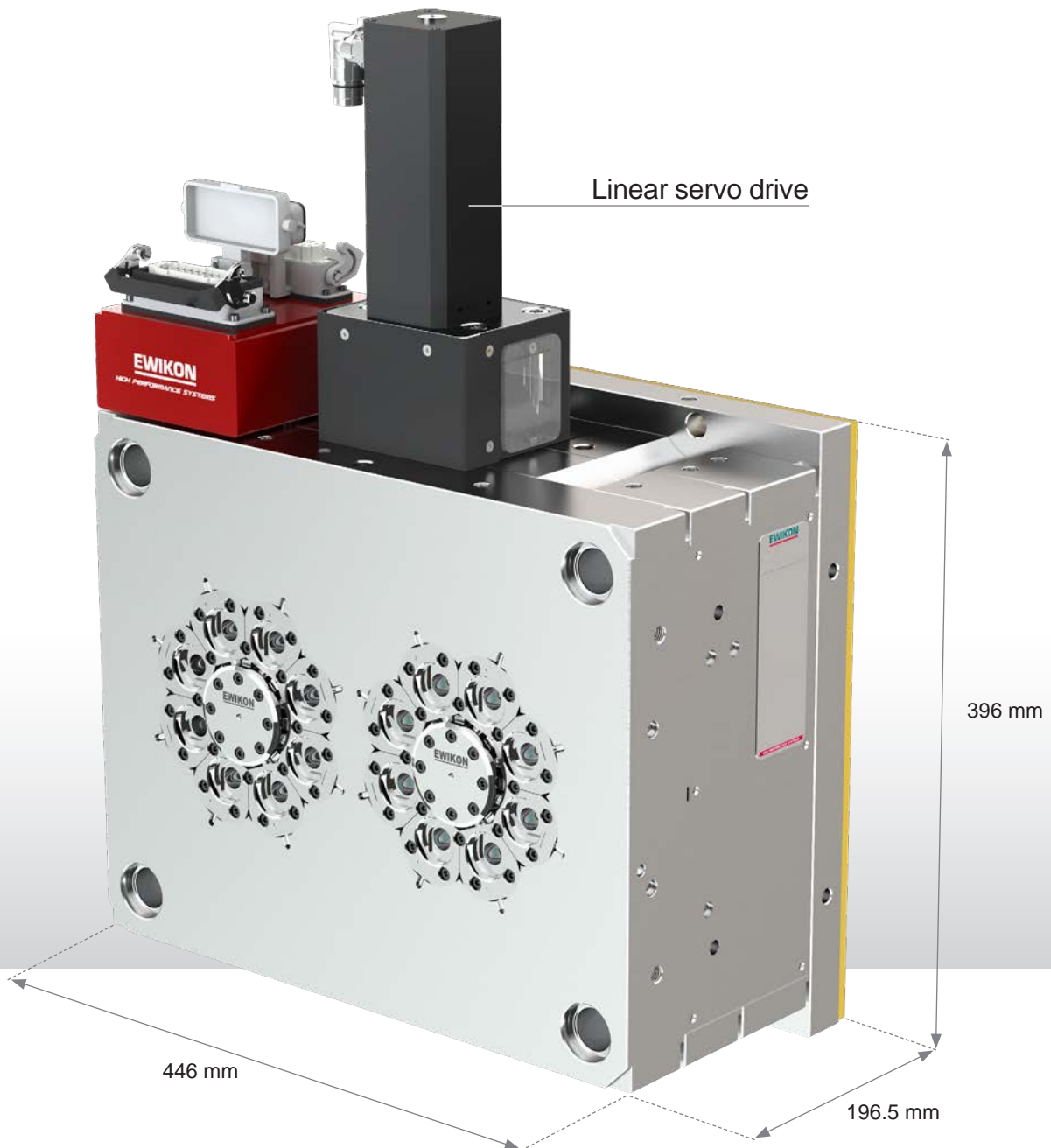
High-precision valve pin actuation

- Linear servo motor of the latest generation.
- Synchronous valve pin actuation.
- Valve pin stroke and opening speed are infinitely variable and can be perfectly adapted to the process requirements.
- Robust and zero-backlash actuating mechanism with precise guide elements.

motion **CONTROL** SD

High-precision control technology





Safe demoulding due to precise valve pin control

- Approach of several valve pin positions in the cycle.
- Reliable demoulding of the part.



Opening the valve pin, injecting.



Closing the valve pin.
End position 0.2 mm in the gate.

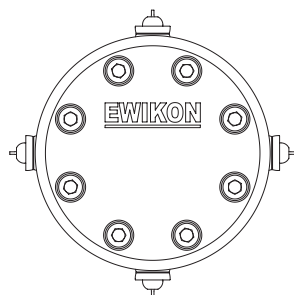


Valve pin is retracted to demoulding position, the part is demoulded.

Nozzle configurations



2-drop / 0°



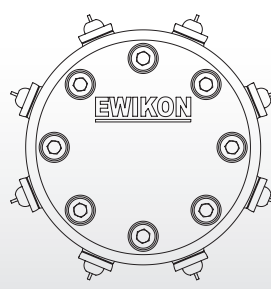
4-drop / 0°



4-drop / 45°



8-drop / 0°



8-drop / 22.5°



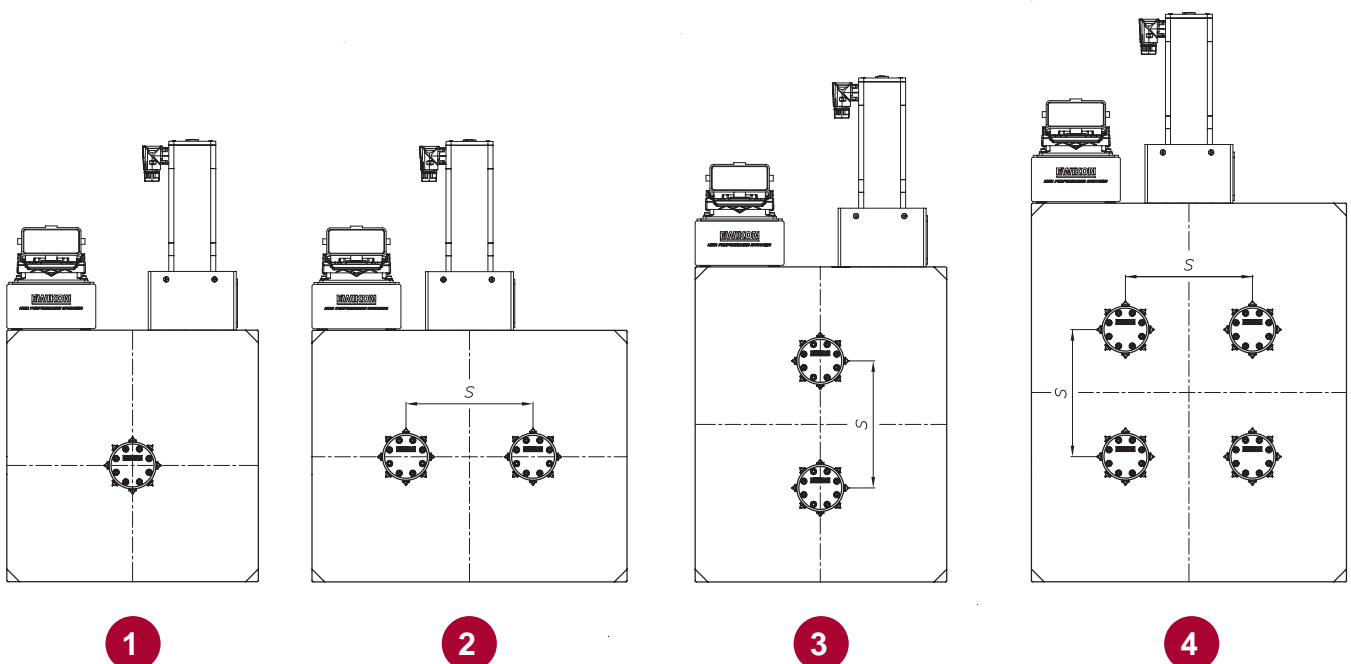
Hot halves

pro EDGE VG systems are available exclusively as hot half for easy installation and quick start-up. The complete solution includes the integrated hot runner system as well as all drive components and the ready-to-plug-in electrical wiring.

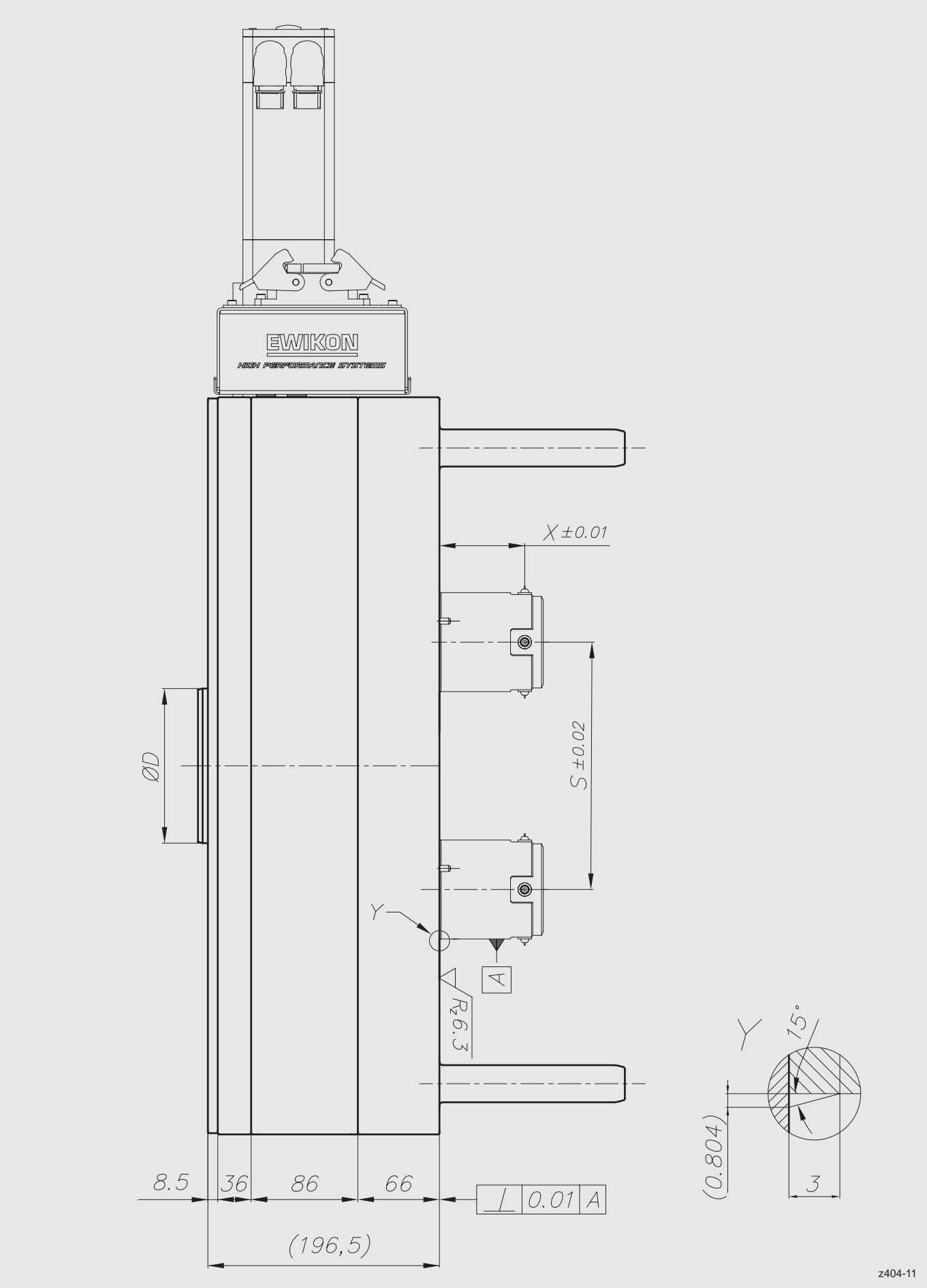


16-drop hot half

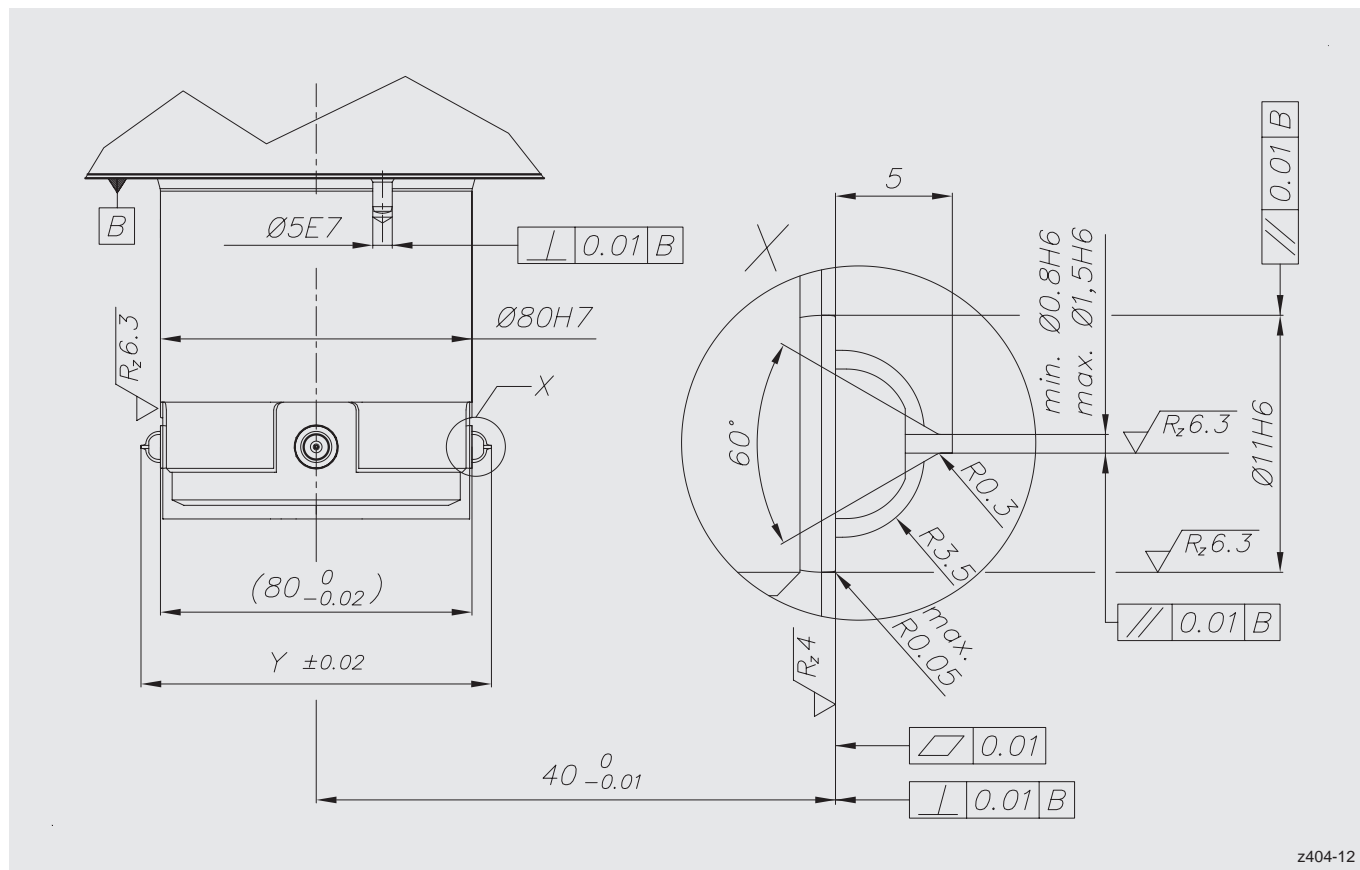
<i>pro</i> EDGE VG	Hot half 2- / 4- / 8-drop (single nozzle) ①	Hot half 4- / 8- / 16-drop, horizontal (2 nozzles) ②	Hot half 4- / 8- / 16-drop, vertical (2 nozzles) ③	Hot half 8- / 16- / 32-drop, (4 nozzles) ④
Nozzle pitch (S)	—	200		
Min. dimensions	396 x 396	396 x 446	596 x 446	596 x 446
Total height of the plate assembly (H) / Height of the clamping plate	101.5 / 27	196.5 / 36	196.5 / 36	216.5 / 36
Machine radius (R)	13.2 - 40			
Diameter of locating ring (D)	100 - 175	125 - 175		
Number of tips per nozzle	2 / 4 / 8			
Nozzle length (X)	49 / 69			
Pitch diameter (Y)	90			
Recommended gate diameters	0.8 - 1.5			
Maximum injection unit contact pressure	30 kN			



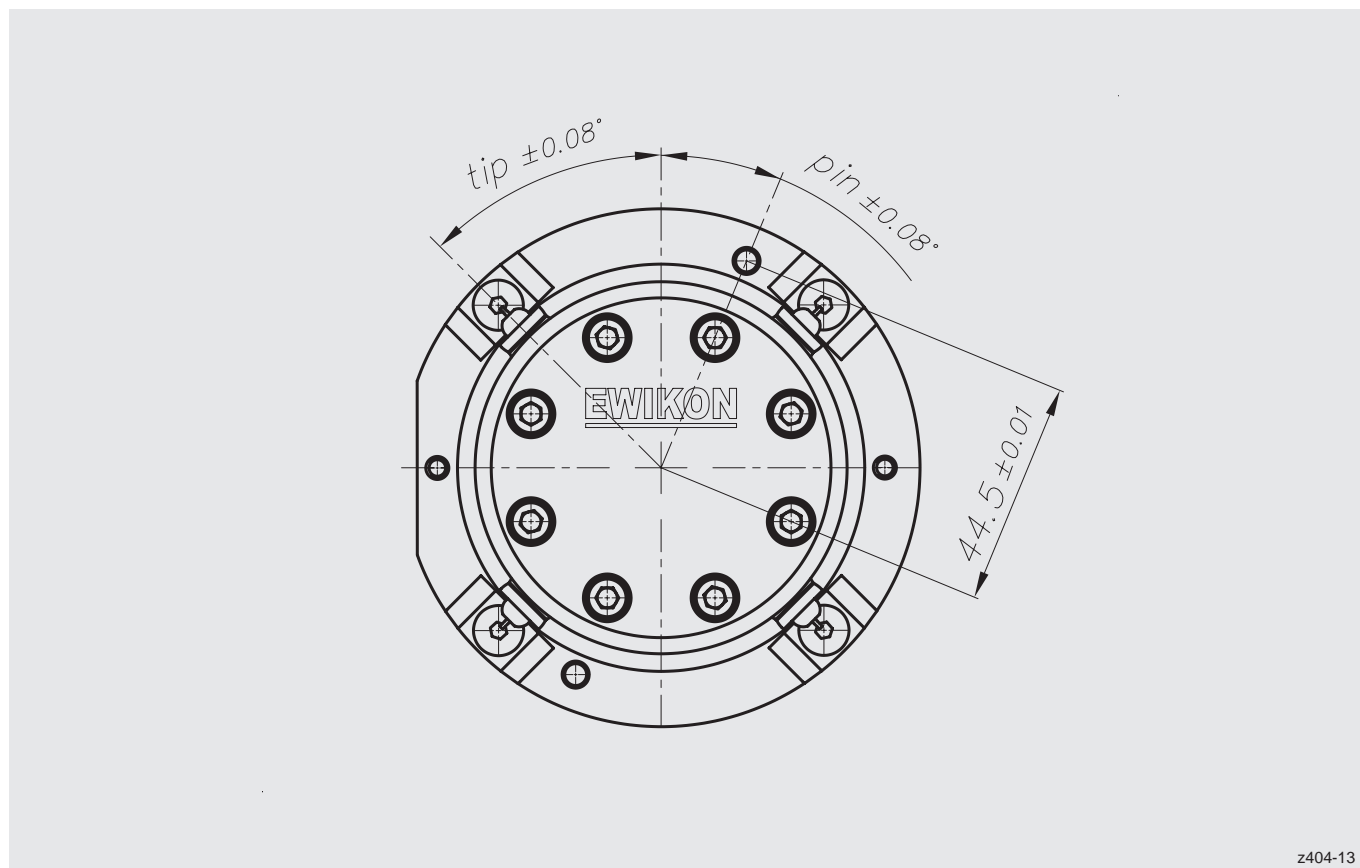
Hot half 4- / 8- / 16- / 32-drop (2 or 4 nozzles)



Nozzle and tip insert installation geometry

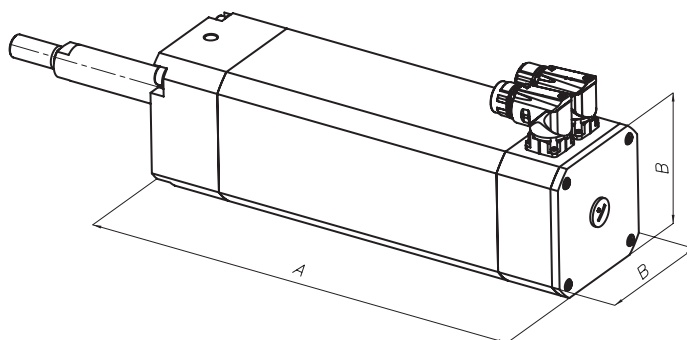


Orientation of tip and centring pin



Drive and control technology


Drive



z285-05

	Linear servo motor 18449
Maximum valve pin stroke	3.5 mm
Valve pin speed	1 - 15 mm/s
Maximum closing force of synchronous plate	4800 N
Resolution	< 0.01 mm
Dimension A	205 mm
Dimension B	74 mm

motion CONTROL SD controllers with accessories

	1-zone controller 68162.271	2-zone controller 68162.272
		
Signal cable M23, 17-pin, pin, 6 m	1 piece 60070.050-V06	1 piece 60070.050-V06
Motor connection cable M23 servo drive unit 3/6 m	1 piece per drive unit 63050.110-V03/V06	1 piece per drive unit 63050.110-V03/V06
Resolver cable M23 servo drive unit 3/6 m	1 piece per drive unit 63050.120-V03/V06	1 piece per drive unit 63050.120-V03/V06

Available options

motion CONTROL SD - AI	2 analogue inputs (standard: without analogue inputs)
motion CONTROL SD - RY	Digital outputs potential-free (relay contacts)
motion CONTROL SD - SA	Customer-specific special version

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Technical information subject to alteration | EWIKON 03/2025 EN

