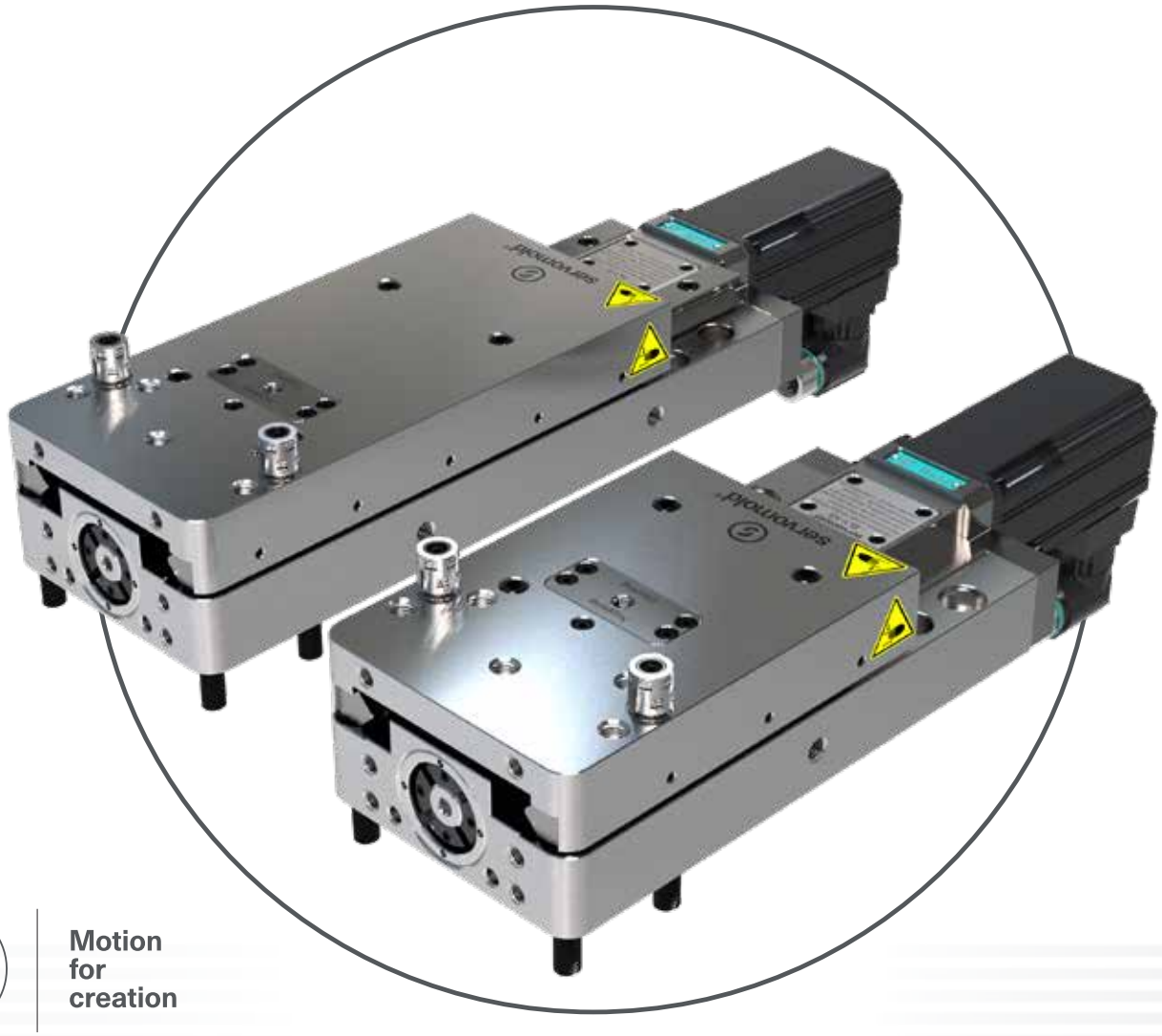
DME®



25 YEARS

Motion for creation

servomold®

CORE PULLING UNIT

SLY Series

A PRECISE AND COMPACT SLIDER UNIT WITH DURABLE BALL SCREW SPINDLE AND HIGH-PERFORMANCE SERVO MOTOR

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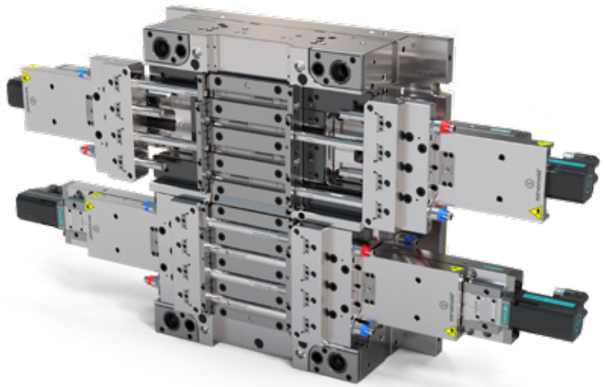
Applications
SLY

New and retrofit tools

The Core Pulling Unit (SLY), is the perfect alternative to hydraulic cylinders, both for new molds and for retrofitting existing molds.

The application possibilities and areas of use are diverse and allow clean, precise and highly dynamic slider movement – ideal for clean room environments.



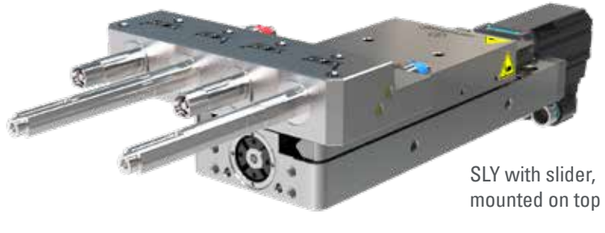
Process advantages

The core pulling unit is mounted on the injection mold tools and allows different sliders to be mounted on the carriage.

- Linear guideways with needle bearing allow the carriage to be guided extremely precisely and smoothly
- Cleanroom-compatible minimum lubrication
- Multi-stage movements allow individual design of the demolding process
- Optional motor brakes for vertical arrangement prevent sagging of the mechanics when switching off the power

SLY – closed

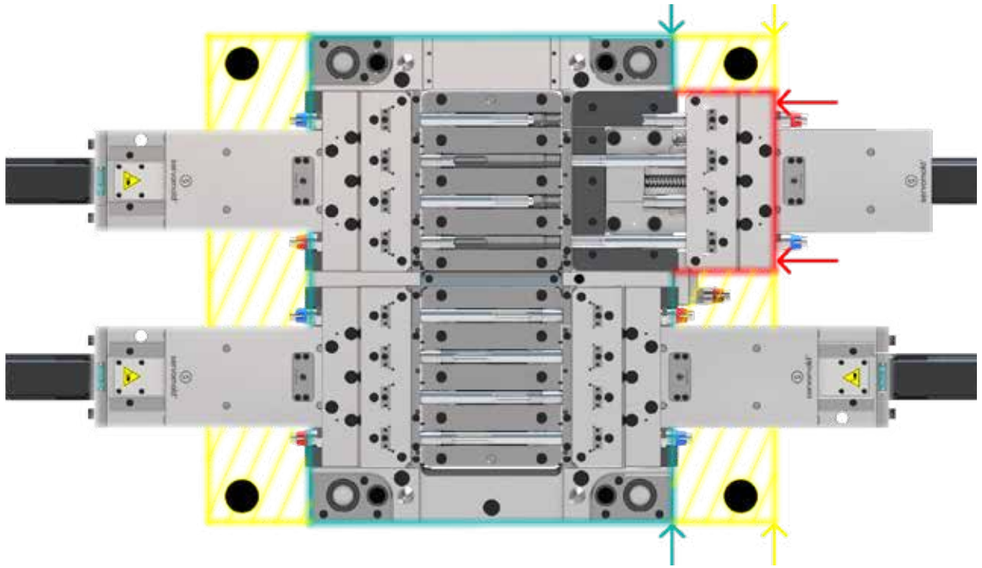
SLY – pulled out



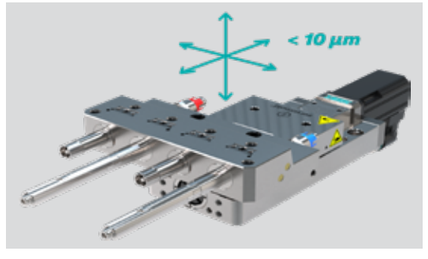
SLY with slider, mounted on top

Compact tool dimensions

Significantly more compact form sizes by moving the slide guide outside the mold frame.

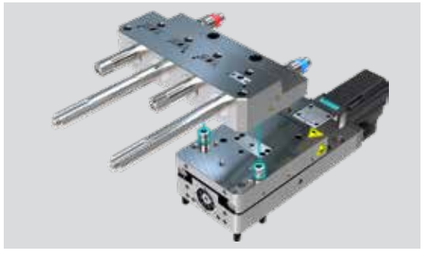


Extreme precision



- Outstanding precision for assembly and positioning in all three axes.

Precise centering



- Preloaded centering elements for µm-precise positioning of the slider bodies.

Precision guides

- Maximum load capacity, rigidity and accuracy thanks to low-maintenance linear guides with cage guidance.

Servo-electric drive train

- Servo-electric drive train with special ball screw spindle for clean and efficient operation.

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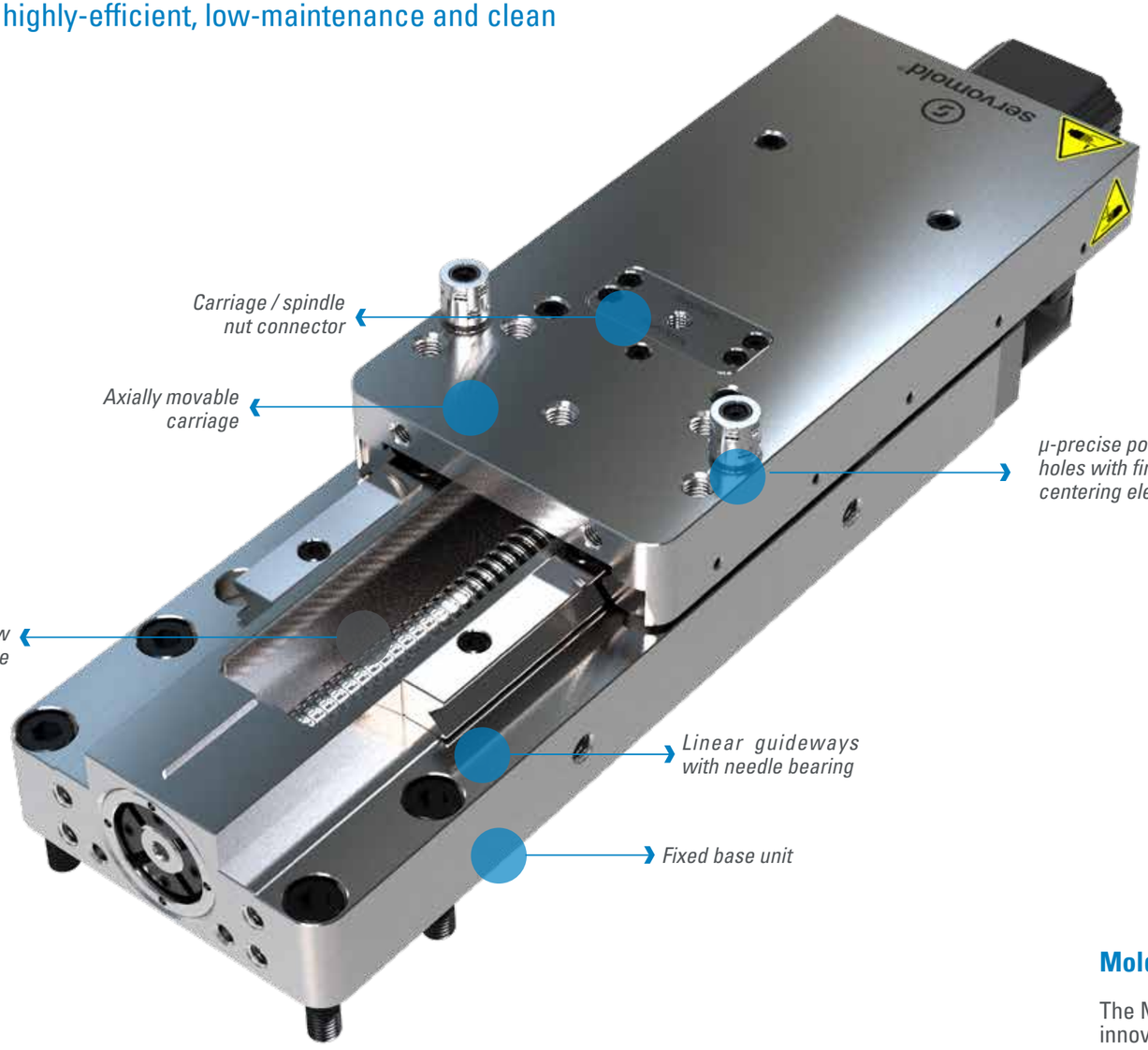
PRODUCT HIGHLIGHTS SLY

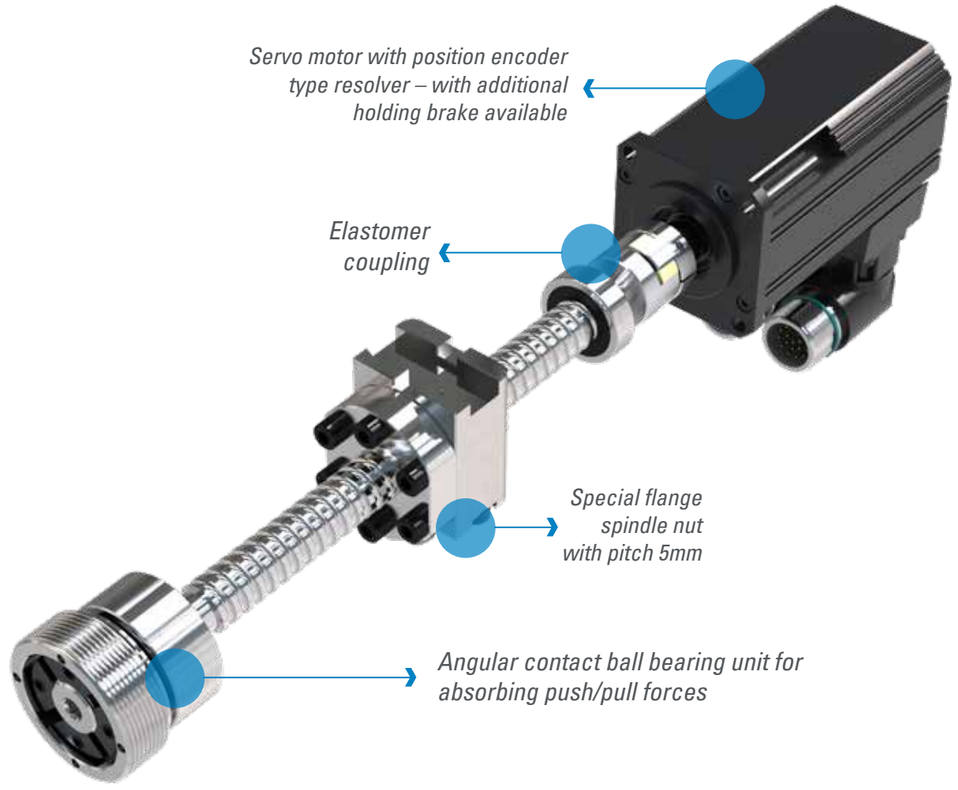
Precise, highly-efficient, low-maintenance and clean



Features

- Compact, clean, and highly dynamic alternative to hydraulic cylinders – especially for slide movements and clean room environments
- Continuously high forces and speeds possible up to 12 kN force and 600mm / sec velocity (150 mm in 0.5 sec – including acceleration and deceleration)
- Attached, replaceable high-performance servo motor
- Easy maintenance access to spindle nut
- µ precise assembly and movements

The SLY core pulling unit is supplied fully assembled and tested by Servomold. The µ precise positioning holes enable extremely precise assembly of the core pulling unit and the slider.



Mold Control

The Mold Control units including touch panel offer an innovative operating concept with which all important parameters and functions are displayed clearly and quickly accessible.

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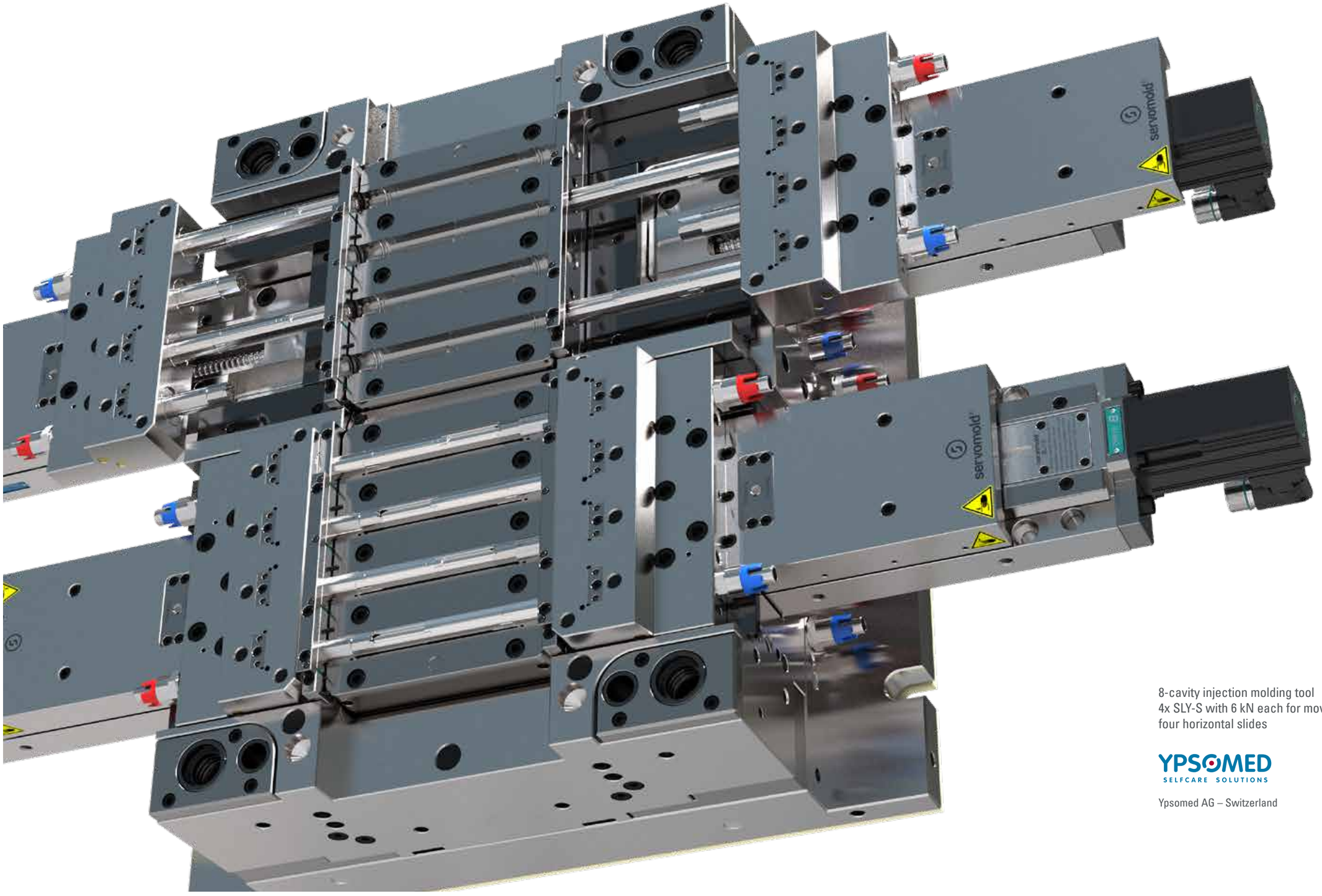
REFERENCES



8-cavity injection molding tool
4x SLY-S with 6 kN each for moving four horizontal slides

YPSOMED
SELFCARE SOLUTIONS

Ypsomed AG – Switzerland

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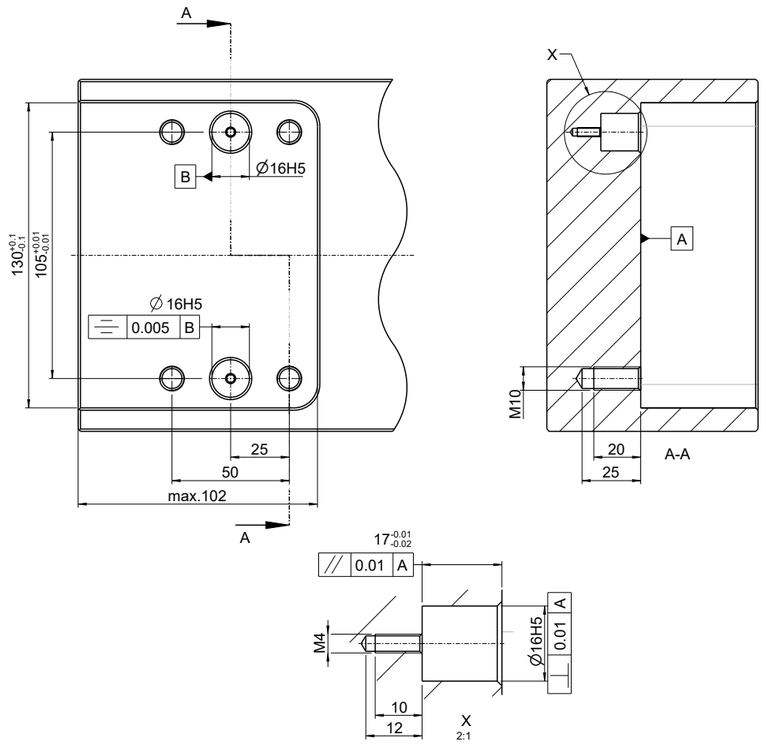
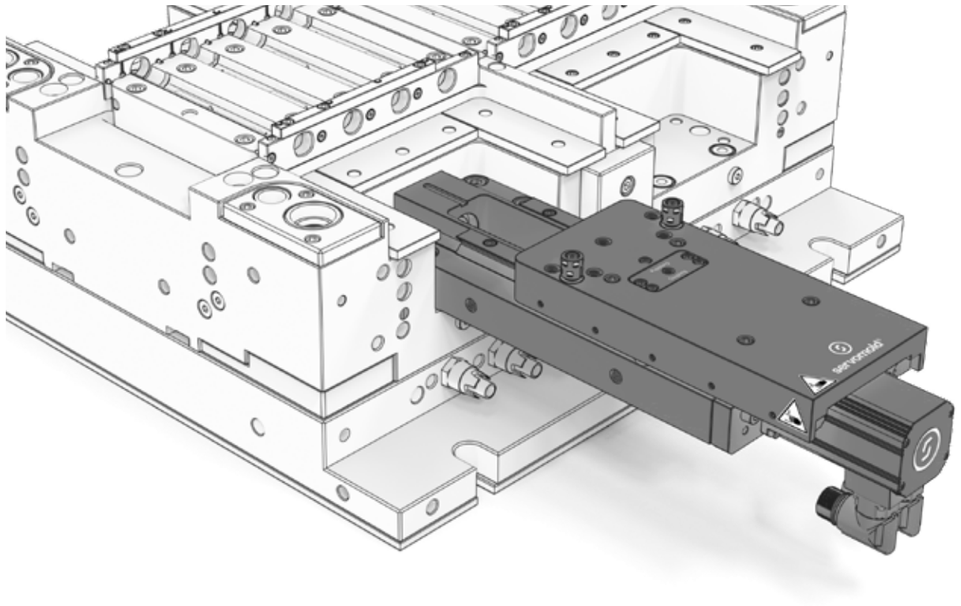
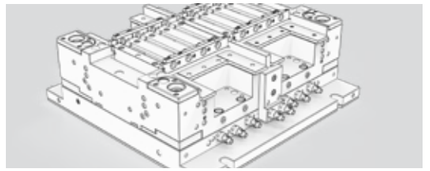
INSTALLATION EXAMPLE





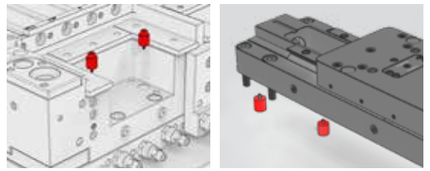
ASSEMBLY

1. Preparations



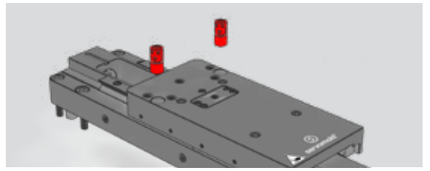
- In all cases, maintain clean fine centering surfaces and contact surfaces to ensure proper functionality.

2. Mounting the Tool Centering Mechanism

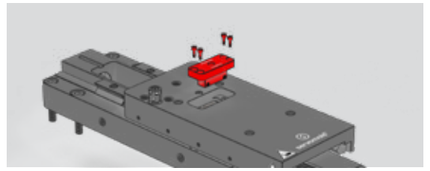


- Top and bottom may only be installed in pairs

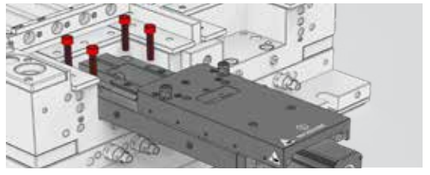
3. Mounting the Tool Centering Mechanism



4. Removing the Coupling and Retracting the Slide

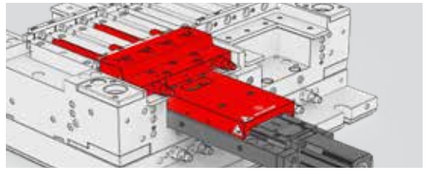


5. Installing the Core Pull Unit onto the Tool



6. Installing the Slide

7. Checking Slide Operations and Moving to End Position



- To check the accuracy of fit, carefully move the slider to the end position.

8. Mounting the Coupling

- Do not use force when mounting the coupling
- The coupling should be mountable with minimal pressure

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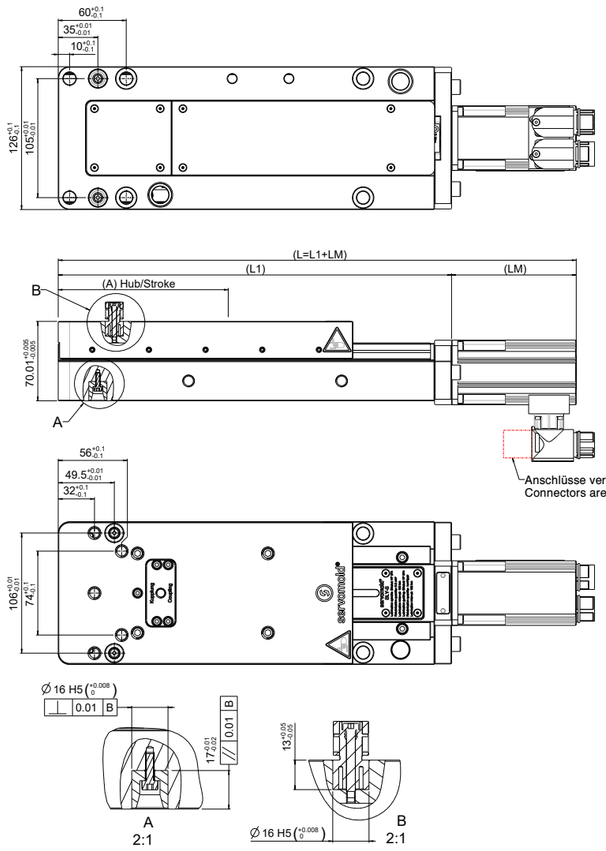
SLY VARIENTS

Core Pulling Unit – technical details

Type	SLY-S-75	SLY-S-Plus-75	SLY-S-100	SLY-S-Plus-100	SLY-S-150	SLY-S-Plus-150
Stroke (A) [mm]	75	75	100	100	150	150
Thrust max./nominal [kN]	6,8/1	12/3	6,8/1	12/3	6,8/1	12/3
(L1) ± 0.1 [mm]	270	270	298	298	347	347
Speed [mm/sec]	600	500	600	500	600	500
Weight ± 0.2 [kg]	14	14	15	15	17	17

Motor type	Resolver	Resolver + Brake	Absolute encoder	Absolute encoder + Brake
Engine length [mm]	126	149	143	188



Position encoder systems

The core pulling units are available with two different types of position encoder systems.

Resolver:

The more robust, more compact and cost-effective system, but after switching on the control unit, the home position must always be reset using the homing operation.

Absolute encoder:

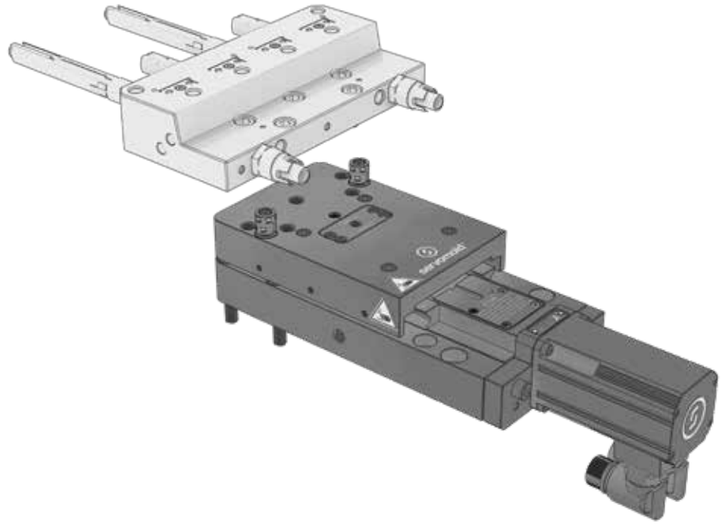
The more expensive and mechanically more sensitive system, but the motor maintains the exact position even after the control unit is switched off. Once the system has been homed, it can be used immediately after switching on, without the need for further homing.

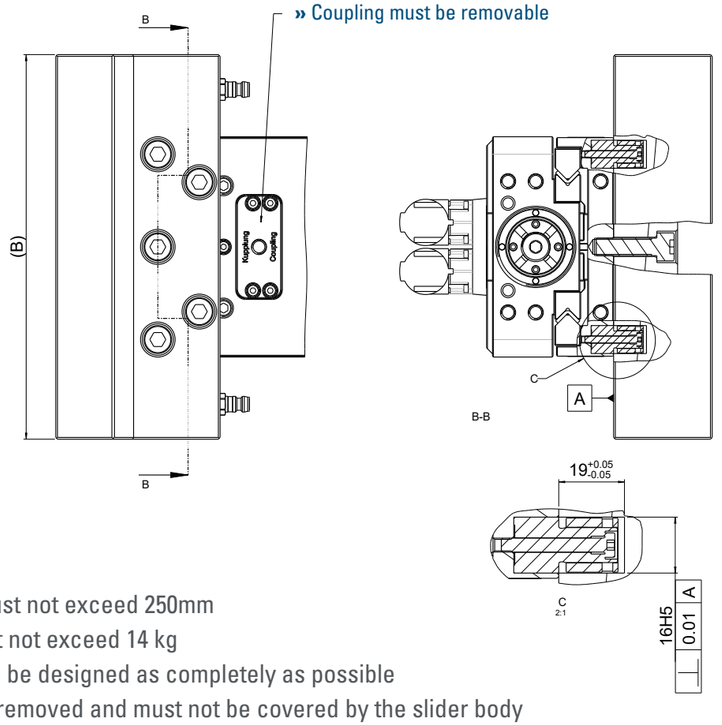
Brake

The motor brake is intended only as a holding brake and prevents vertical axis from sagging.

The stopping of the movement is achieved by the electrical energization of the motor (regulated counter-torque).

Illustration of slider and core pulling unit





Important

- The slider width (8) must not exceed 250mm
- The slider weight must not exceed 14 kg
- The slider body should be designed as completely as possible
- The coupling must be removed and must not be covered by the slider body
- The unit must not be disassembled or reworked

With tens of thousands of products to choose from, DME is your one-stop shop for everything molding. From complex undercuts solutions and plate control to standard pins, bushings and interlocks, the DME line of mold components will help you build or rebuild your mold base inside out, top to bottom. Industrial Supplies, Mold Bases, MUD Quick-Change, Control Systems, and Hot Runner solutions round out our extensive offering to truly be your one-stop shop.

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