

# Ladle Slide Gate and Tundish Stopper High-Temperature Servo Hydraulic Cylinders

## Photo of Slide Gate Hydraulic Cylinder





## Stopper High-Temperature Servo Cylinder — Photo



### 1. Ladle Slide Gate High-Temperature Servo Cylinder

The ladle slide gate hydraulic cylinder is the core actuator driving the ladle slide gate mechanism. Its main functions:

- **Precise Flow Control:** Adjusts cylinder stroke to fine-tune slide gate opening, ensuring accurate control of molten steel flow.
- **Opening & Closing:** Drives three plates (upper nozzle, sliding plate, lower nozzle) to perform on/off control and throttling of molten steel.
- **Safe Shut-Off:** Provides rapid and reliable shut-off at the end of casting or during emergencies (e.g., steel leakage, equipment failure).
- **Automated Casting:** Integrated with sensors and PLC systems, it is a key component for fully automated, unmanned casting.

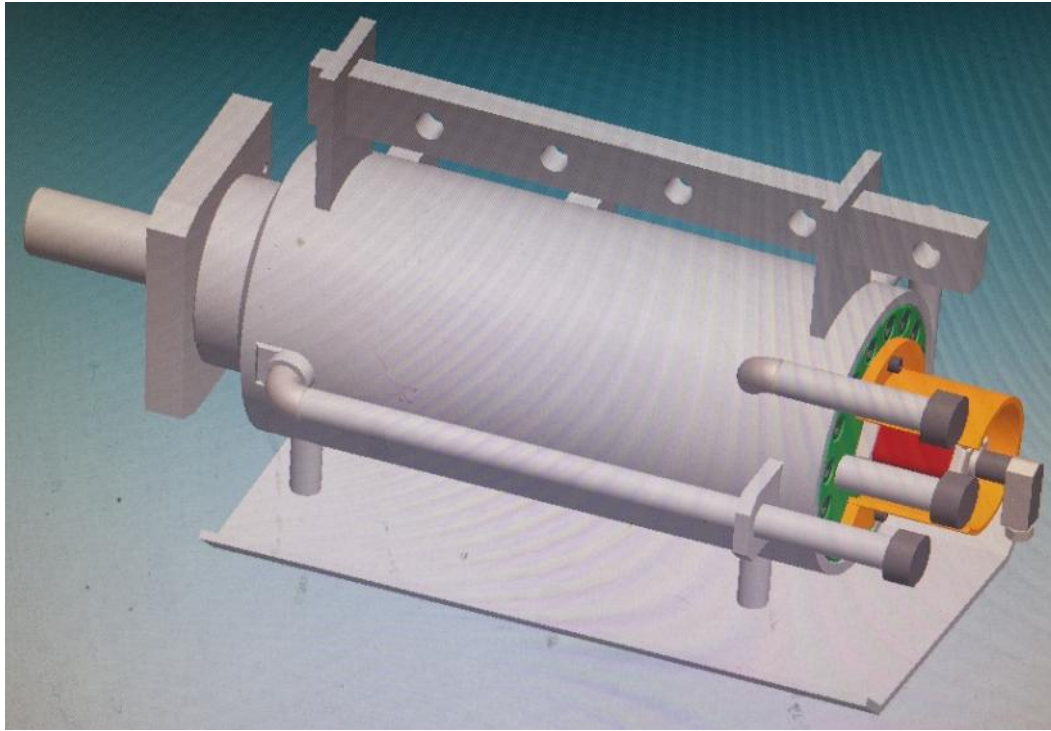
Technical Features of Uranus Slide Gate Cylinders:

- **High Precision:** Built-in displacement sensor significantly improves casting accuracy.
- **High-Temperature Resistance:** Special seals and coatings, radiation shields, and air-cooling jackets ensure long-term leak-free performance.
- **High Reliability:** Robust design withstands heavy loads and side forces, ensuring stable long-term operation.

**Product Examples:**

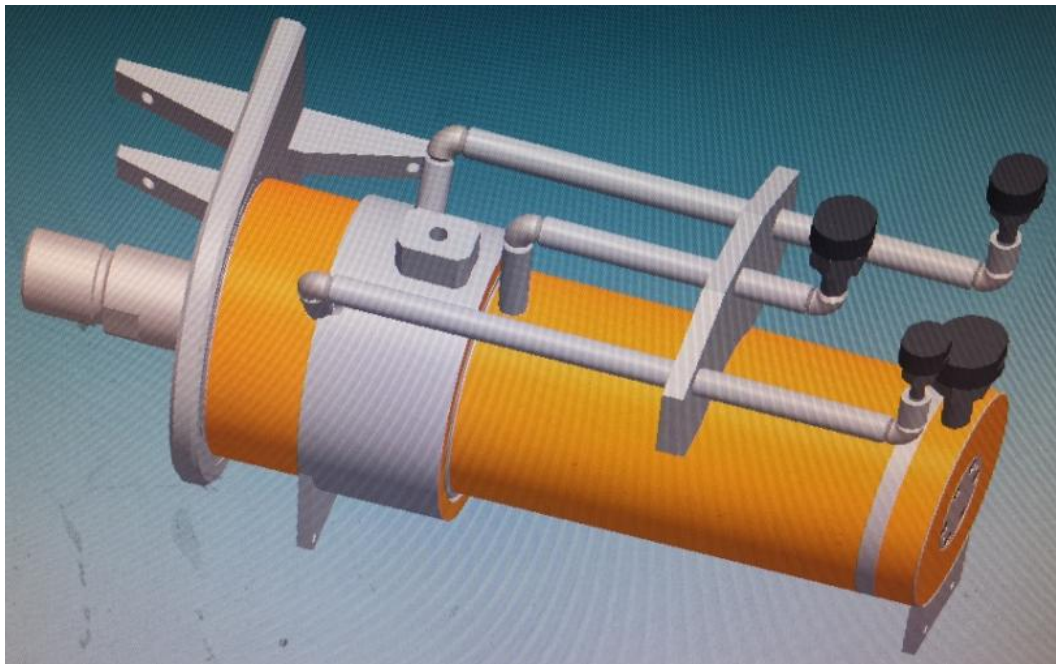
## 1. Slide Gate High-Temperature Servo Cylinder

- Cylinder Bore: 120 mm, Rod Diameter: 63 mm, Stroke: 240 mm
- Working Pressure: 16 MPa, Test Pressure: 24 MPa
- Medium: Hydraulic Oil
- Built-in displacement sensor



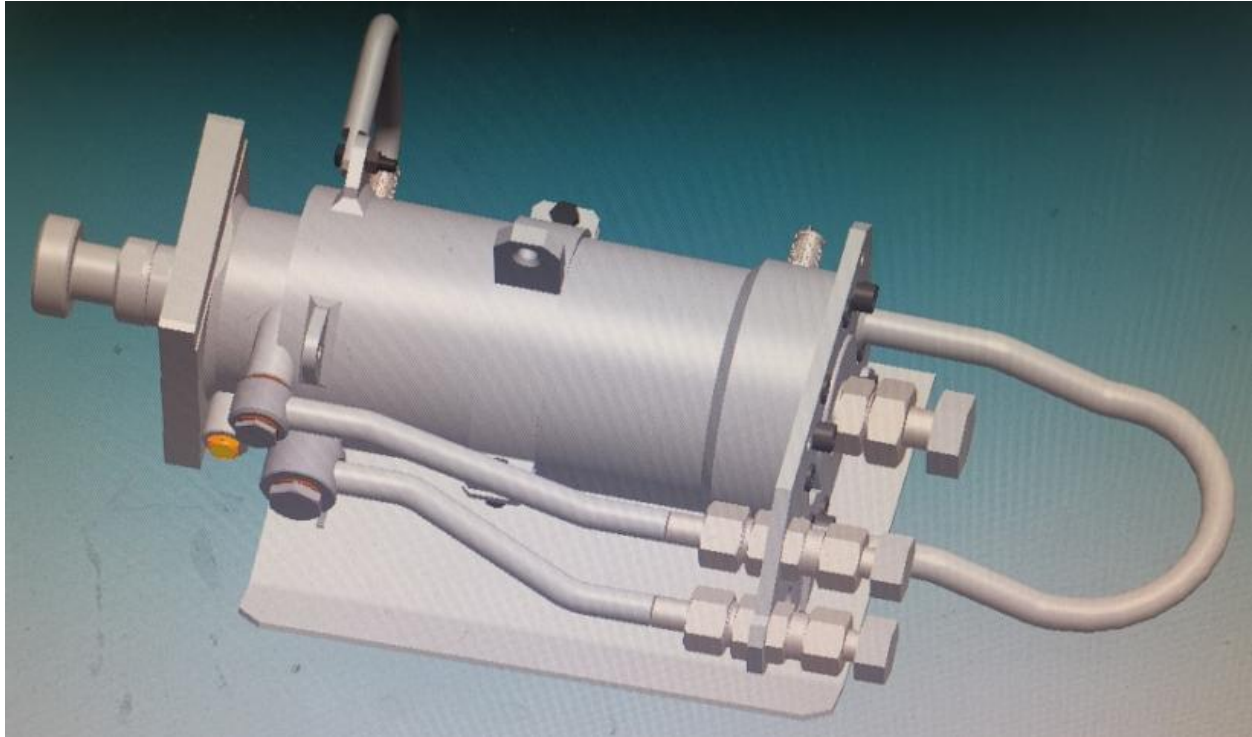
## 2. Double-Cylinder Slide Gate High-Temperature Servo Cylinder

- Large Cylinder: Bore 125 mm, Rod 90 mm, Stroke 21.5 mm
- Small Cylinder: Bore 110 mm, Rod 50 mm, Stroke 180 mm
- Working Pressure: 20 MPa, Test Pressure: 31.5 MPa
- Medium: SP868
- Small cylinder with displacement sensor, cylinder head with heat shield



### 3. Slide Gate High-Temperature Hydraulic Cylinder

- Cylinder Bore: 125 mm, Rod Diameter: 50 mm, Stroke: 200 mm
- Working Pressure: 18 MPa, Test Pressure: 27 MPa
- Medium: Hydraulic Oil
- Equipped with thermal shield and air-cooling jacket on cylinder head



### 4. Slide Gate High-Temperature Hydraulic Cylinder

- Cylinder Bore: 100 mm, Rod Diameter: 50 mm, Stroke: 200 mm
- Working Pressure: 25 MPa, Test Pressure: 31.5 MPa
- Medium: Hydraulic Oil
- Cylinder head with air-cooling jacket and heat shield

## 2. Tundish Stopper High-Temperature Servo Cylinder

The tundish stopper high-temperature servo cylinder is an intelligent electro-hydraulic actuator that integrates a servo valve, high-precision displacement sensor, and high-temperature hydraulic cylinder. It is installed on the tundish of the continuous casting machine. Its core function is to drive the stopper rod with precise vertical motion according to control system commands, thereby regulating the molten steel flow from the tundish to the mold.

#### Technical Features of Uranus Stopper Hydraulic Cylinders:

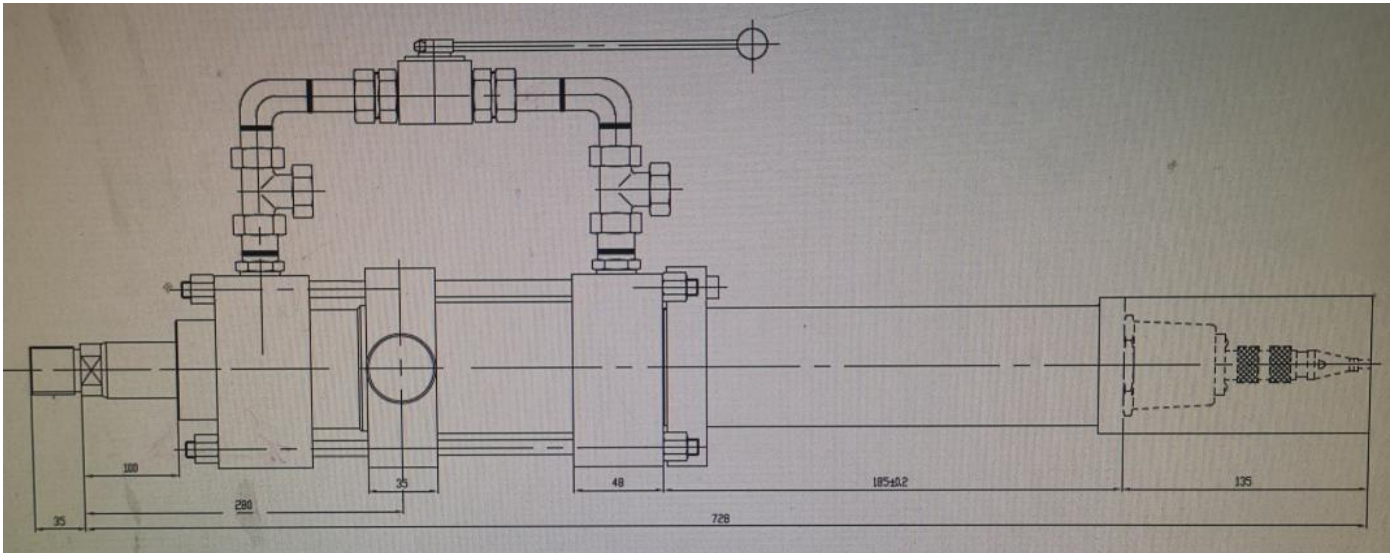
- Built-in high-precision sensor with robust anti-collision thermal shield, ensuring long-term stable operation;
- High-temperature, high-pressure sealing elements effectively prevent internal and external leakage under harsh conditions;
- Piston rod equipped with an external flame-retardant, dust-proof thermal cover, extending the service life of the seals.



## Product Examples:

### 1. Stopper Servo Hydraulic Cylinder

- Cylinder Bore: 50 mm, Rod Diameter: 28 mm, Stroke: 120 mm
- Working Pressure: 10 MPa, Test Pressure: 15 MPa
- Medium: Hydraulic Oil
- Equipped with protective thermal shield for sensor



### 2. Stopper Servo Hydraulic Cylinder

- Cylinder Bore: 50 mm, Rod Diameter: 28 mm, Stroke: 120 mm
- Working Pressure: 10 MPa, Test Pressure: 15 MPa
- Medium: Hydraulic Oil
- Equipped with protective thermal shield for sensor

