

## **INTERSTOP**°

## STEEL / FLOW CONTROL TECHNOLOGY

Tundish Gate Submerged Nozzle Changer Type 33QC-SNC/A



# Tundish Gate Submerged Nozzle Changer Type 33QC-SNC/A

#### Overview

- Increased sequence length on tundish set-up due to SN change
- Low operational costs
- Play-free drive coupling
- No interruption of casting operation during SN change
- Increased productivity of the caster
- Process control technology for automatic casting
- Off-line assembly

#### Concept

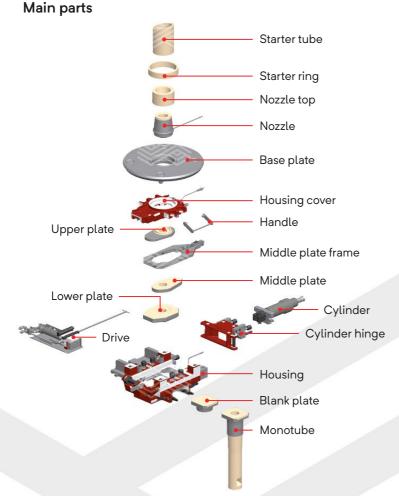
- Combination of the proven INTERSTOP<sup>®</sup> Tundish Gate 33QC and the INTERSTOP<sup>®</sup> Submerged Nozzle Changer SNC-N
- No interruption of casting operation during SN change ((1 sec)
- Two independent and heat-shielded tensioning systems
- Inert gas application on tundish nozzle and plate joints
- Air-tight system concept supported by argon bath principle
- Fully supported lower plate for best plate stability and system tightness
- Blank plate for emergency shut-off

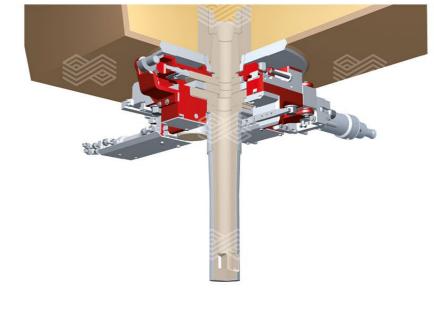
### INTERSTOP<sup>®</sup> Flow Control Technology

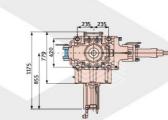
- Automatic monitoring by detailed process visualization
- Fully automatic start-up features
- Automatic mold level control
- Precise steel flow regulation independent of refractory wear
- Programs for early breakout detection and mold overflow
- Long sequence casting

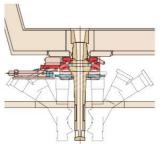
#### Assembly

- Ready-to-use refractories
- Tundish nozzle setting from inside or outside possible
- Separate preheating of submerged nozzle possible
- Semi-robotic SN handling available
- Tight push edge refractory design
- Eccentric self-locking design of housing
- Compact design
- Easy assembly and maintenance, designed to minimize the number of components





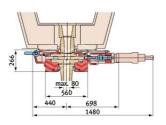




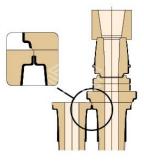
#### Mounting and Drive

- Configurable gates, no specific left or right gate required
- High availability of 33QC-SNC/A units due to off-line handling
- Easy and quick mounting of the 33QC-SNC/A to the tundish bottom
- by means of an assembly car
- Easily detachable hydraulic cylinders
- Hydraulic cylinders remain on tundish car
- All hydraulic circuits are closed-loop
- Designed for fully automatic casting
- High safety standard for operator and CCM

#### Dimensions in mm



#### Tight push edges





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