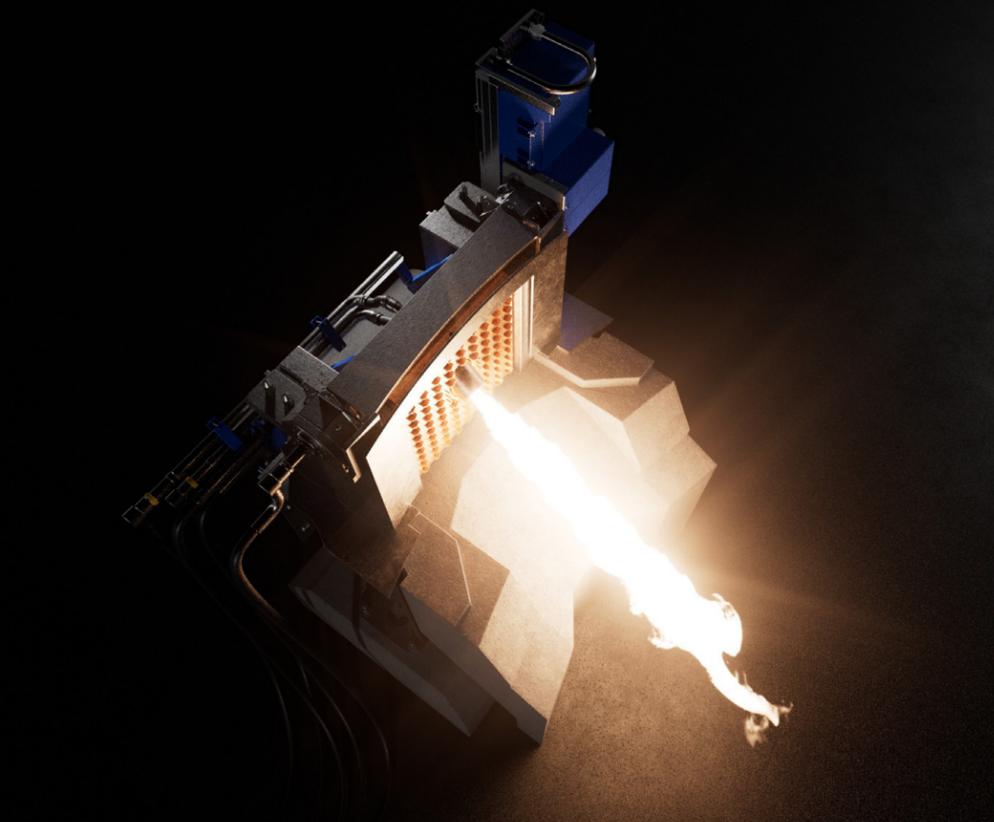




**WE ARE
SWINGDOOR™**

INTECO
PTI process
technology
international



ABOUT INTECO PTI



WHO WE ARE...

As a member of the INTECO Group since 2013, we contribute 30 years of expertise to an international successful group with a leadership in metallurgical process technology and equipment for melting, refining, casting, remelting and atomization for high performance steels, superalloys and titanium. Our dedicated team of qualified engineers, metallurgists and technical support staff with subsidiaries in Europe and Shanghai ensure global customer satisfaction.

WHAT WE DO...

Our core competencies within the group lie in high-tech applications, particularly chemical energy systems for electric arc furnaces, including oxy-fuel burners, material injection systems as well as control and automation systems, pre-heating and drying combustion systems to enhance efficiency, productivity and safety. We offer full-service combustion and injection solutions, including design, engineering, manufacturing, testing, commissioning, training and process optimization.

WHAT WE AIM FOR...

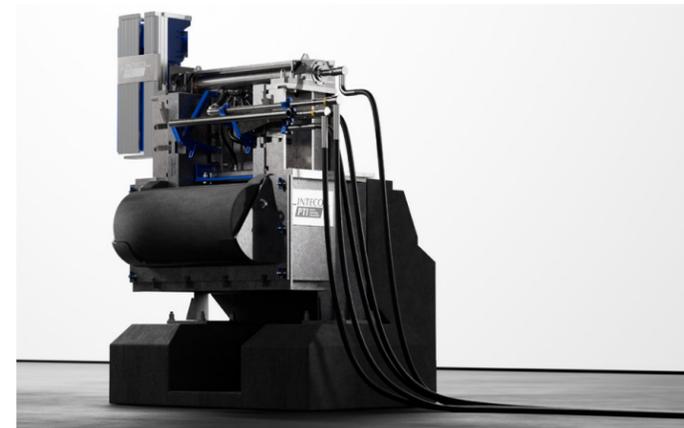
Always eager to further develop our products and serve you – our valued customer – with the best equipment possible, we conduct research and submit patents for our innovative and tailor-made solutions.

INCREASE YOUR OPERATOR SAFETY

The INTECO PTI SwingDoor™ is designed for modern EAF operation. The system is specifically made to allow the EAF to operate with a closed slag door which notably improves operator safety. The position of the SwingDoor™ prevents scrap from accumulating in the slag door area and furnace breast. The new system does not require the slag door area to be cleaned during the EAF melting cycle. It is designed to maintain a thick layer of slag in the furnace. This improves arc efficiency and reduces energy and additive consumption by allowing the operator to control slag level in the furnace during the whole melting time.



The INTECO PTI SwingDoor™ is mounted flush with the hot face of the water cooled panels. By installing the SwingDoor™ in-line with the water cooled panels, the slag door tunnel is eliminated and scrap is prevented from accumulating on the furnace breast. The SwingDoor's™ integrated burner operates with the same efficiency as a sidewall burner due to its proximity to the scrap and steep burner angle. The combination of the closed door and the integrated burner stops slag and steel from building up in the breast area. As a result, the slag door area is automatically cleaned and the need for a slag door lance or mechanical pusher is eliminated.



Our Technology – Your Advantage

- › Avoids furnace door tunnel
- › Charging and melting with door closed
- › No scrap falling to EAF breast
- › Self clearing feature with integrated burner – no scrap pushing from the door
- › Controlled deslagging – stops slag flow by door closing
- › Up to 1m consistent slag layer in the furnace
- › Improved yield and energy use
- › Increases yield average 0.8%-1% (impact translates to ≈ 5 kWh/t+)
- › Decreases energy consumption up to 10 kWh/t
- › Decreases electrode consumption 0.5 lbs/t
- › Direct and indirect CO₂ savings of combined 16.5 lbs CO₂ per ton of liquid steel produced
- › Reliable robust design – low maintenance
- › Easy installation for any furnace shell
- › Fast payback
- › Main purpose: Operator safety

Requirements for implementation

- Hydraulic drive** Double actuator for 120° swing, 110 l/min flow at nominally 150 bar hydraulic fluid pressure (higher pressure can be used to fit to the overall EAF system pressure). Available torque – up to 67 000 Nm
- Cooling Water** 0.5 m³/min minimum cooling water flow rate at 2 bar(g) min. Δp



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