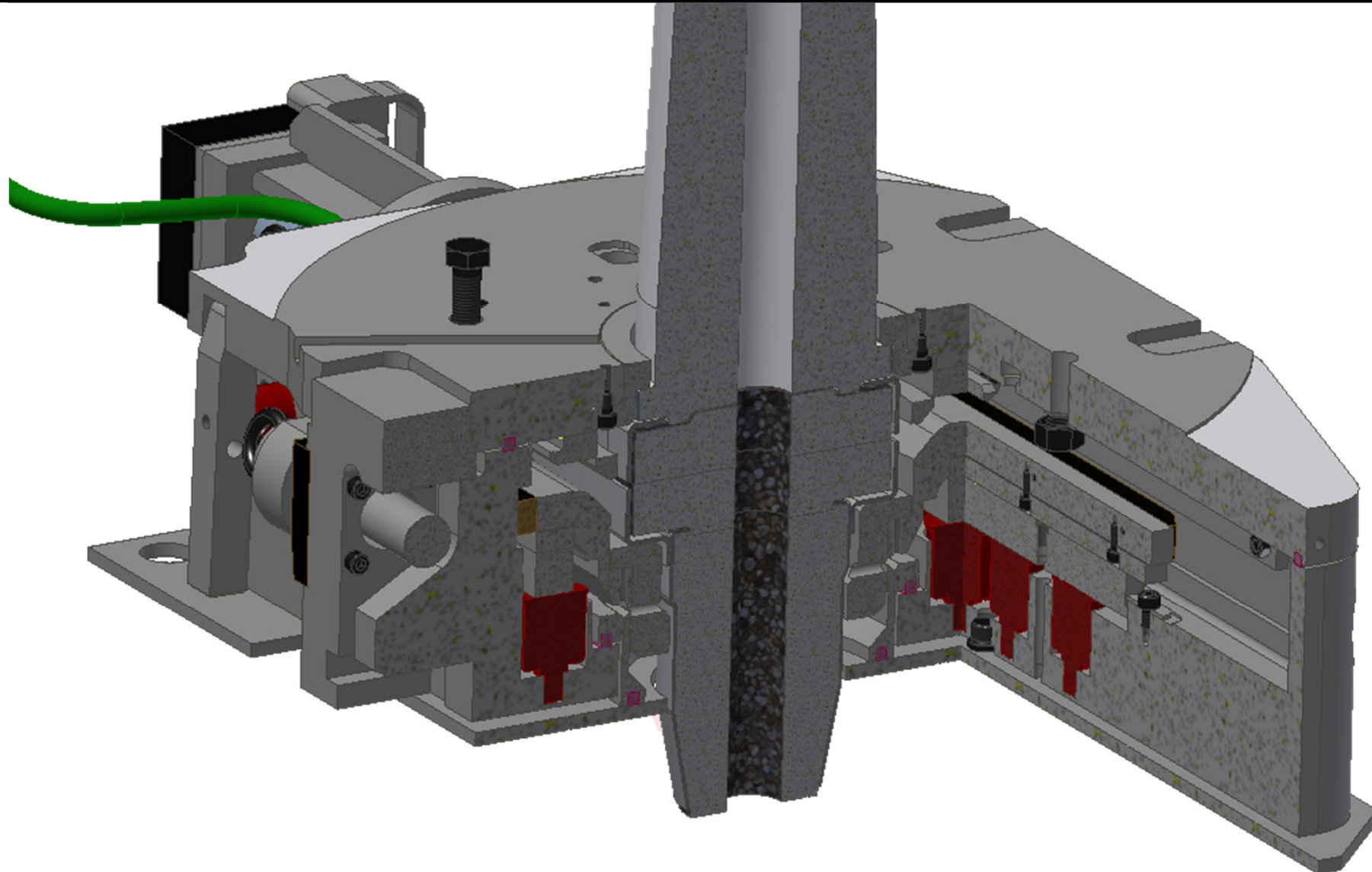




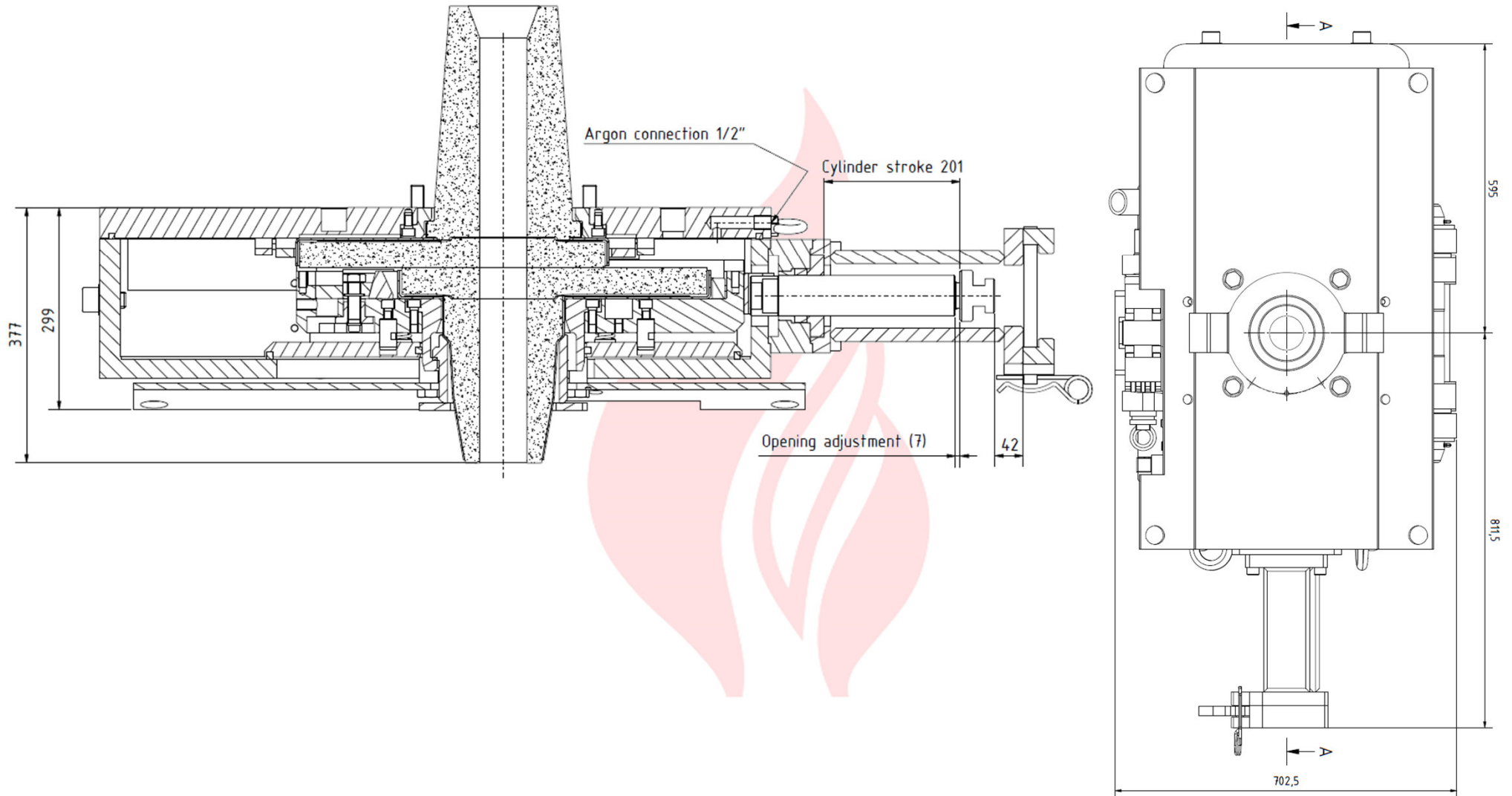
**PUMA REFRATTARI**<sup>S.r.l.</sup>  
refrattari per la siderurgia



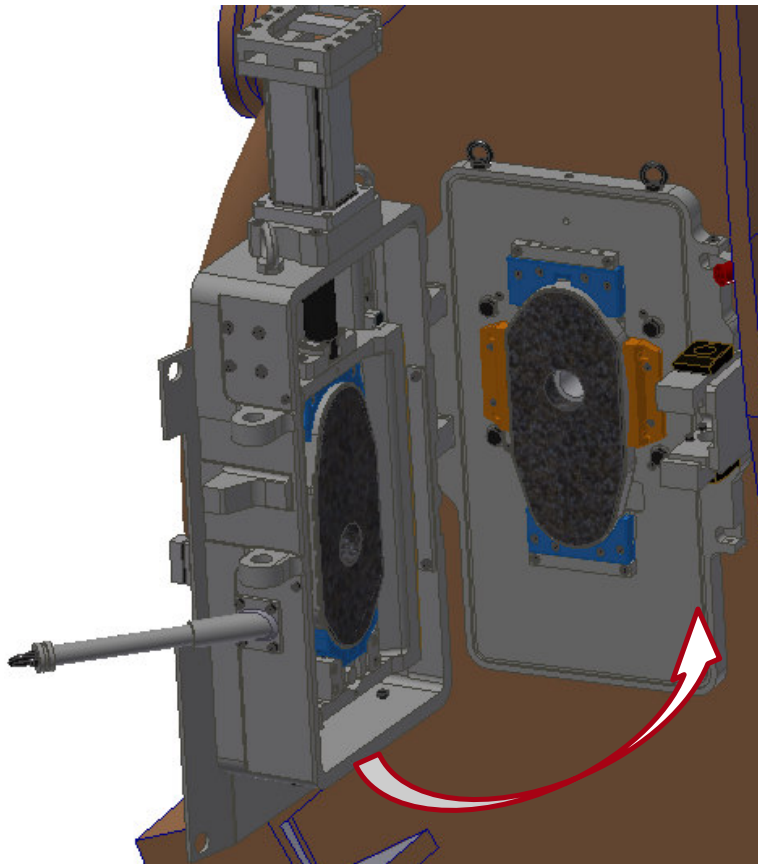
## Overview



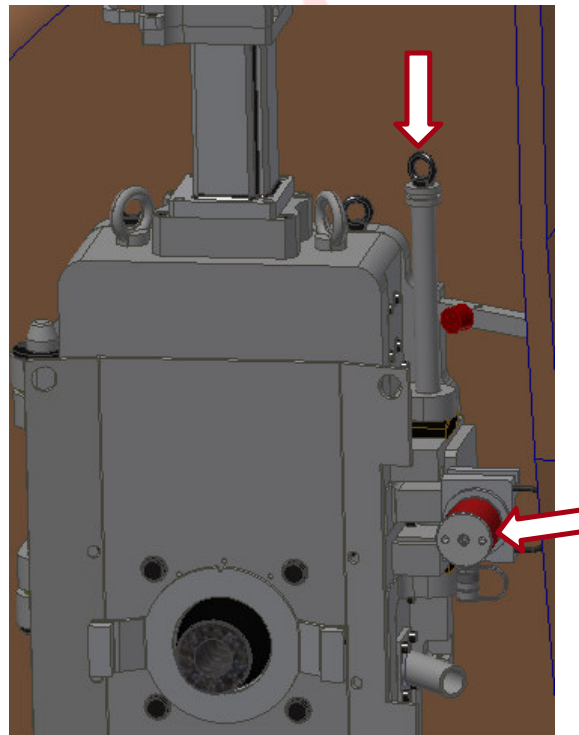
# Size FT2 200GT



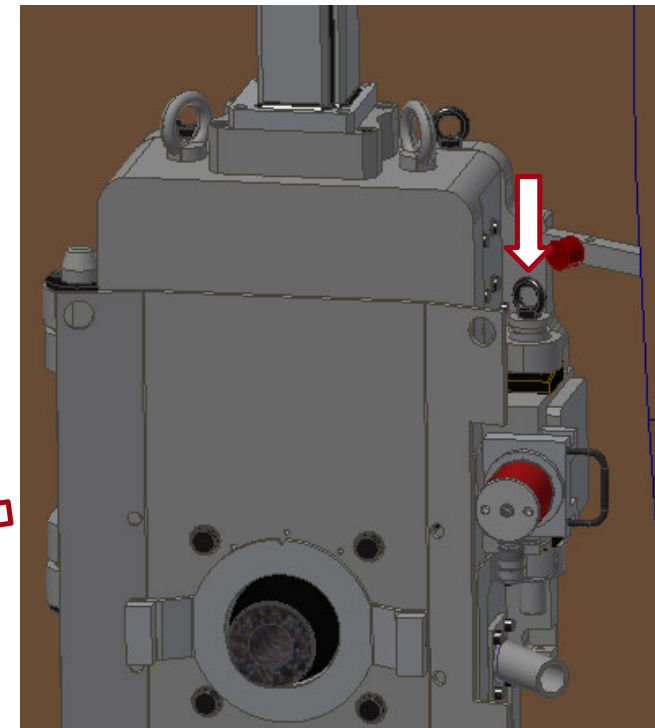
# Clamping of the Slide Gate Valve



Swiveling valve body using the locking pin

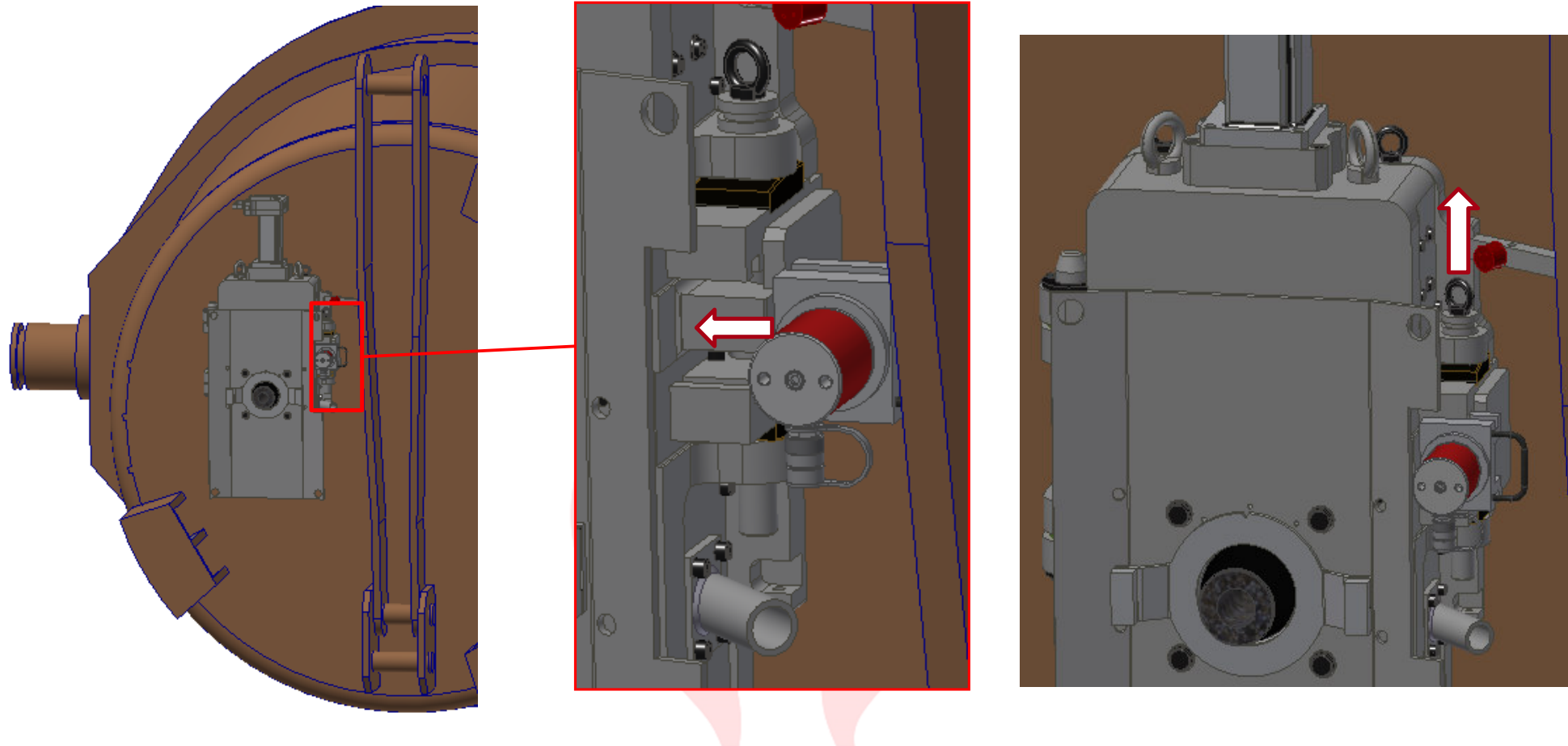


Put on the bolt and insert the clamping cylinder



Bolt falls automatically after actuation of the clamping cylinder

# Relaxation of the Slide Gate Valve

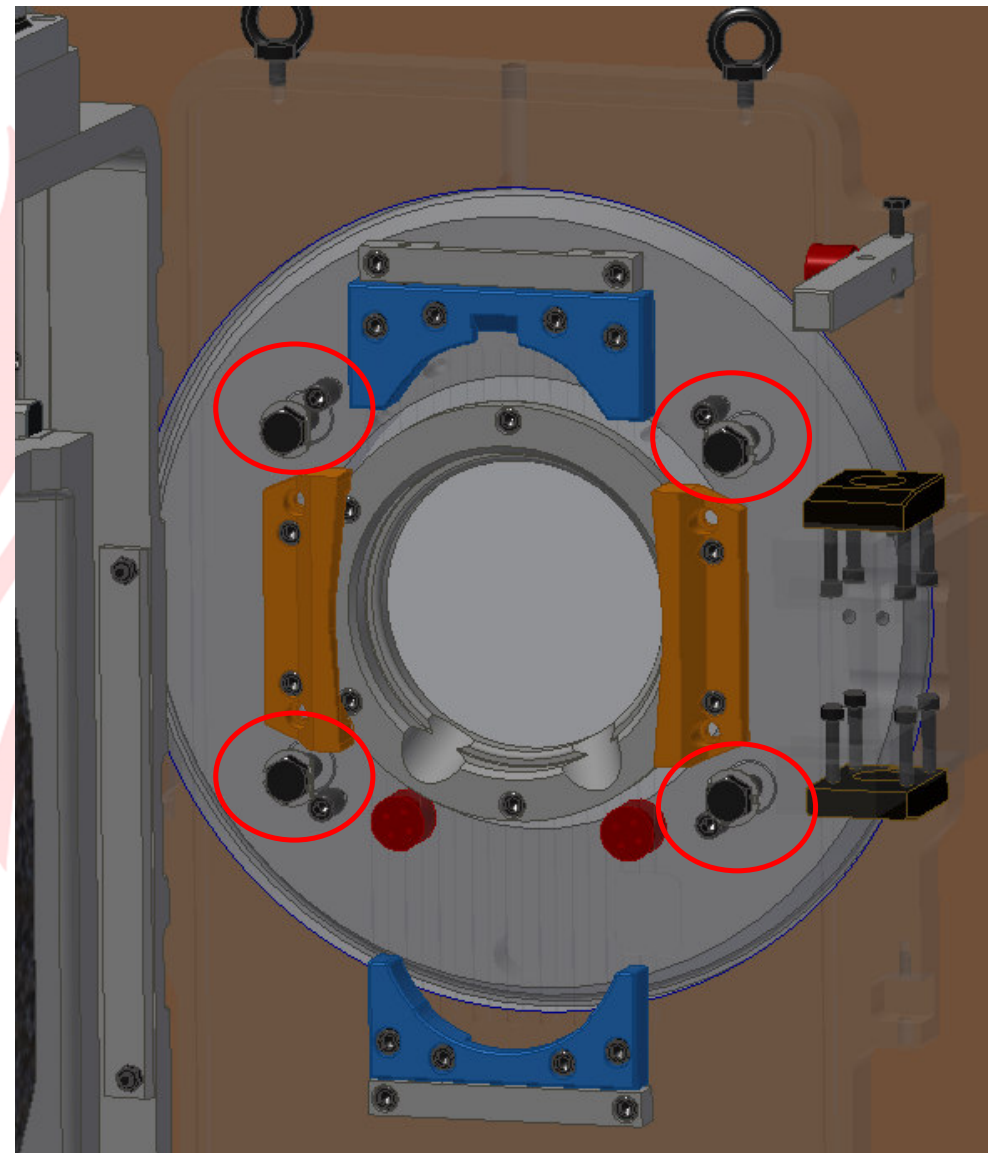
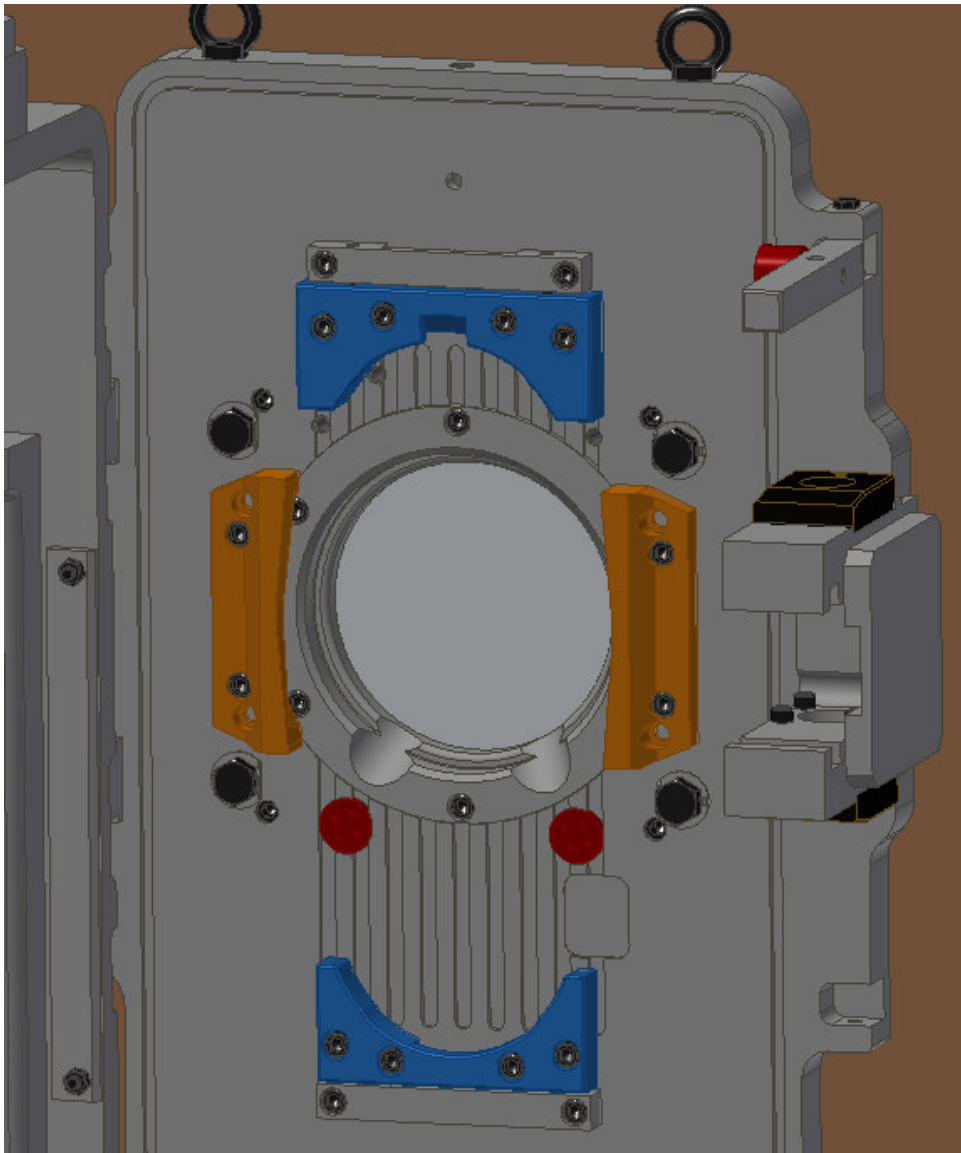


Clamp the slide gate with the clamping cylinder. When the actuating button is released, the slide gate relaxes and the bolt can be pulled.



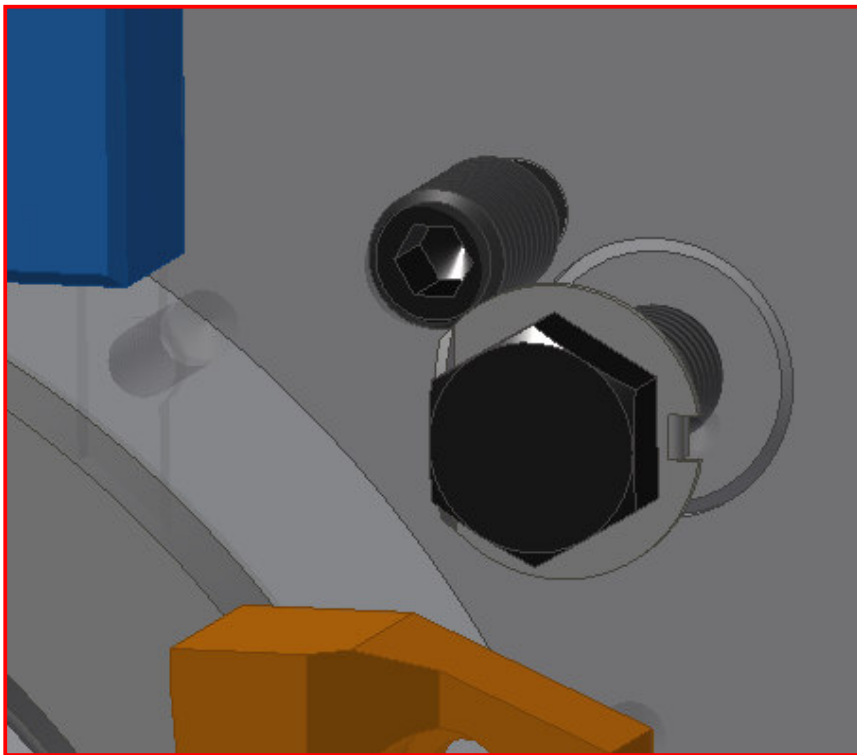


## The Supporter Bolts

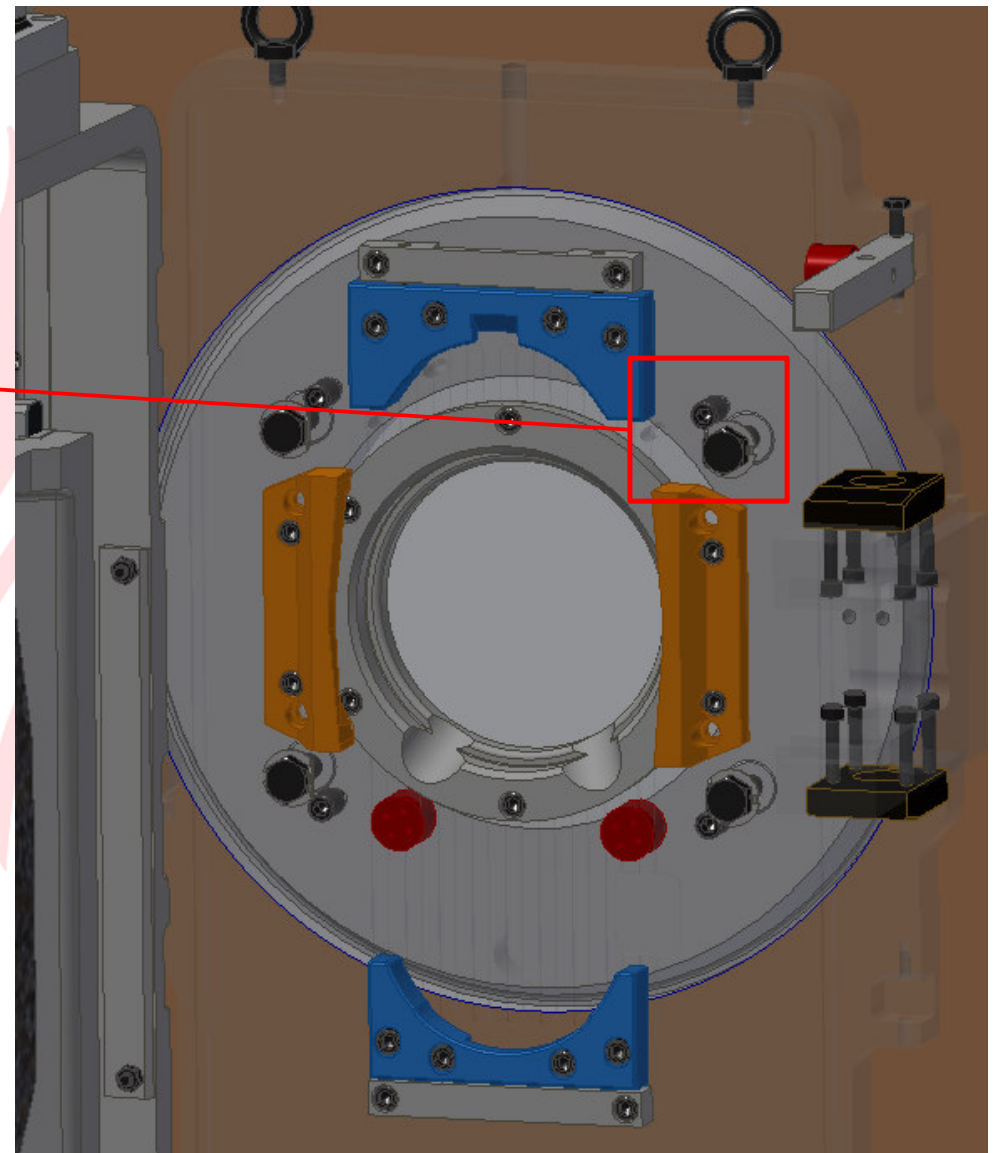




## The Supporter Bolts



The 4 supporter bolts are on the same bolt circle, right next to the attachment points. Therefore, small unevenness of the base plate can be compensated. The attachment points are also centrally located around the baseplate opening, so this attachment way is very proof against ladle movements due to temperature or load.



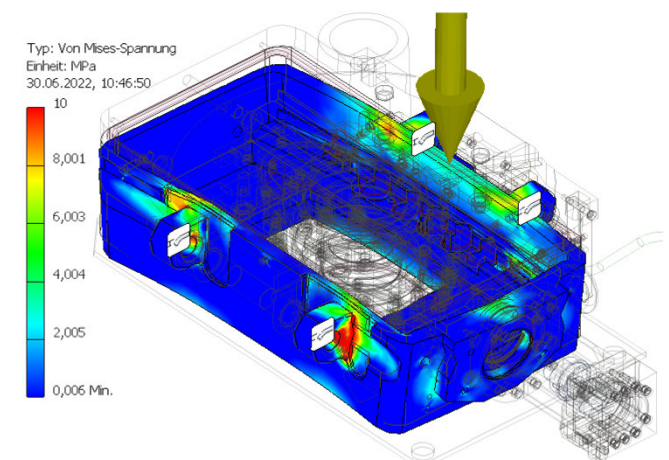
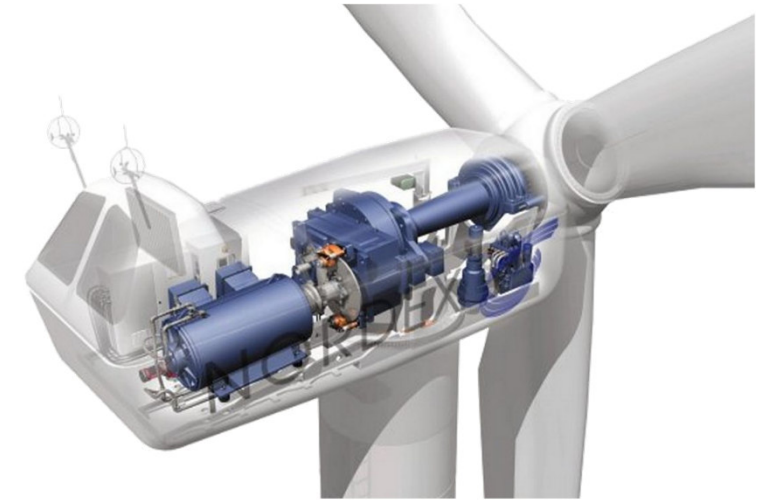
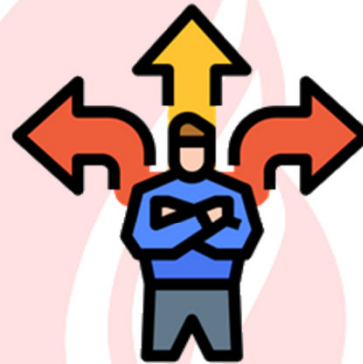


## The Main Advantages of the FT Ladle Slide Gate Valves

Purity Level

Flexibility

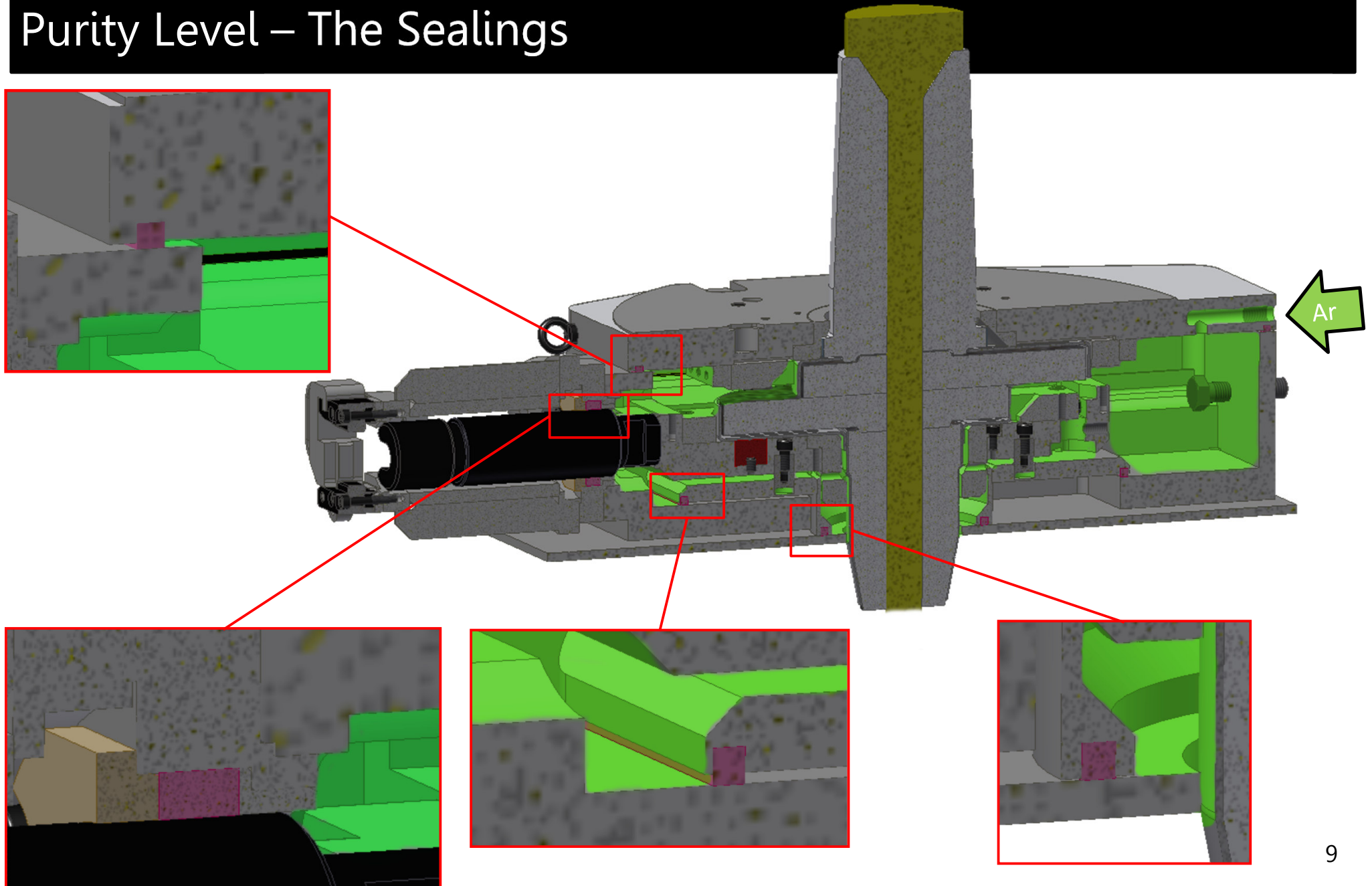
Stability





# Presentation of the GT Series

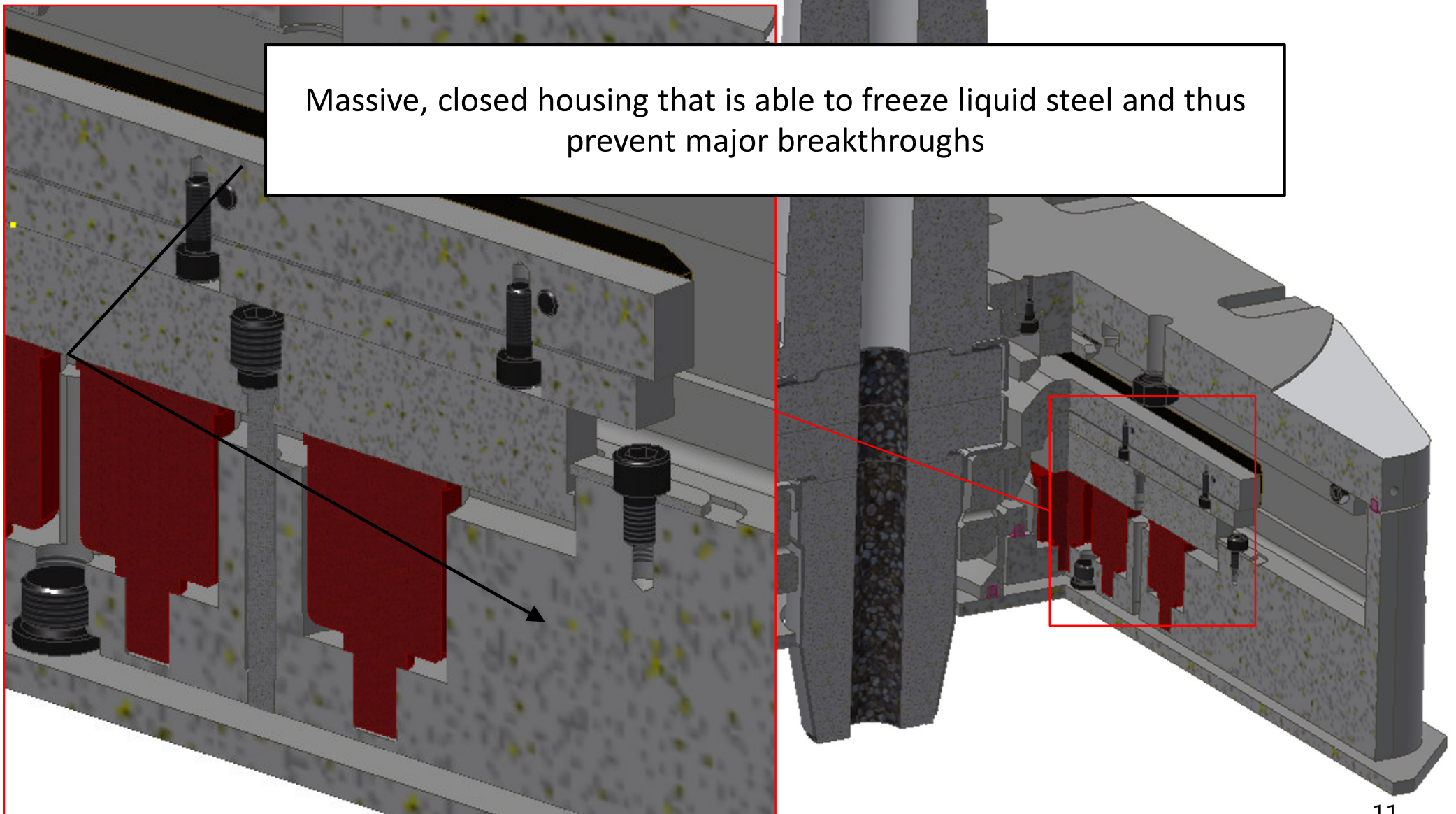
## Purity Level – The Sealings





## Stability

Massive, closed housing that is able to freeze liquid steel and thus prevent major breakthroughs

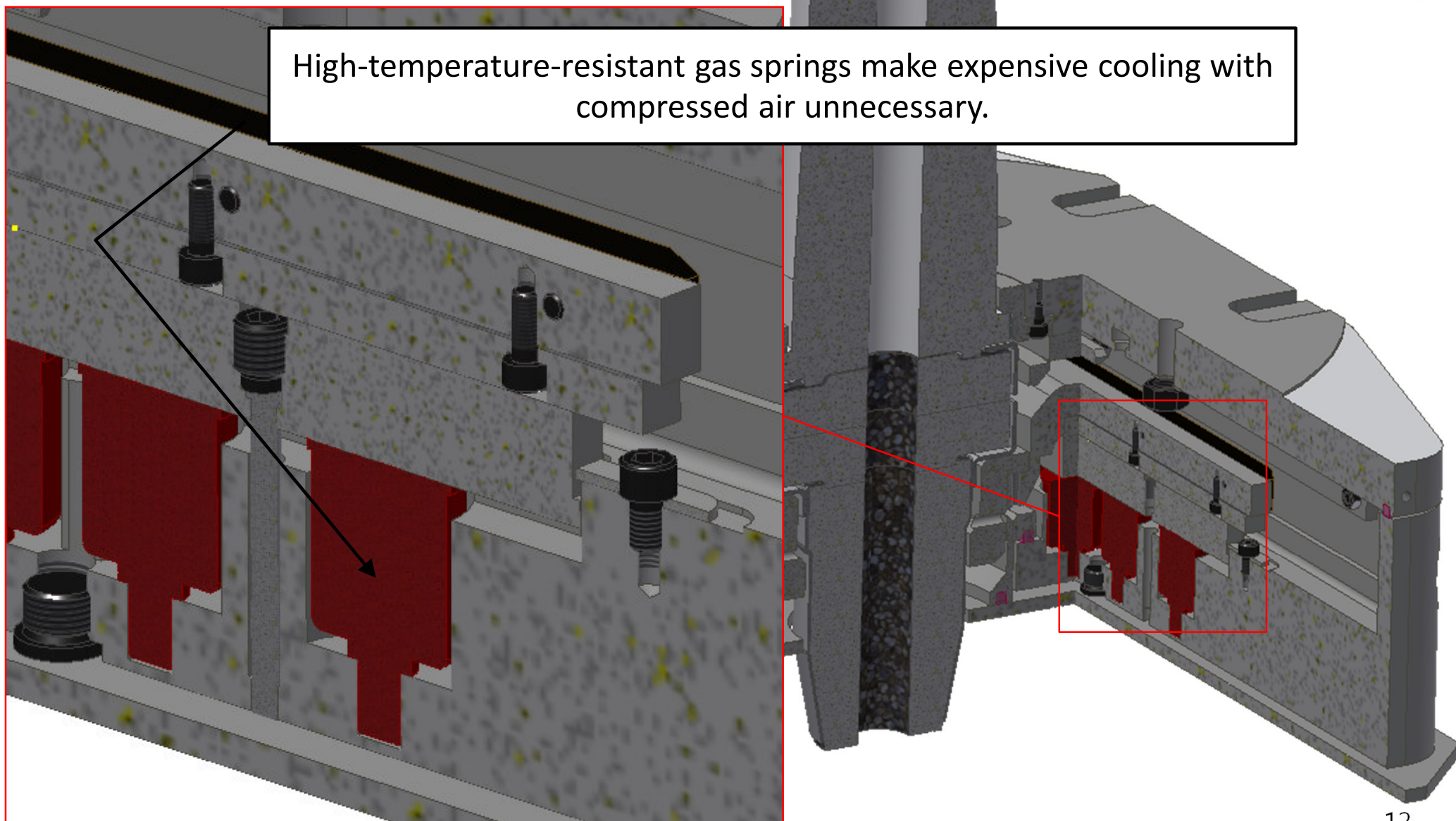






## Stability

High-temperature-resistant gas springs make expensive cooling with compressed air unnecessary.



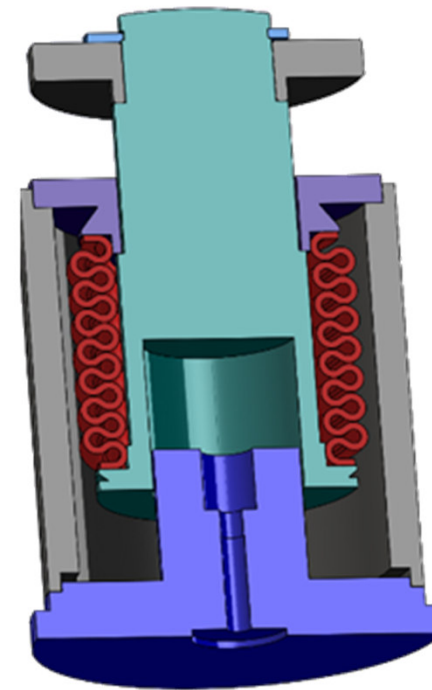
# Presentation of the GT Series

## The Thermodynamic Elements (TDE)

Hybrid



Standard

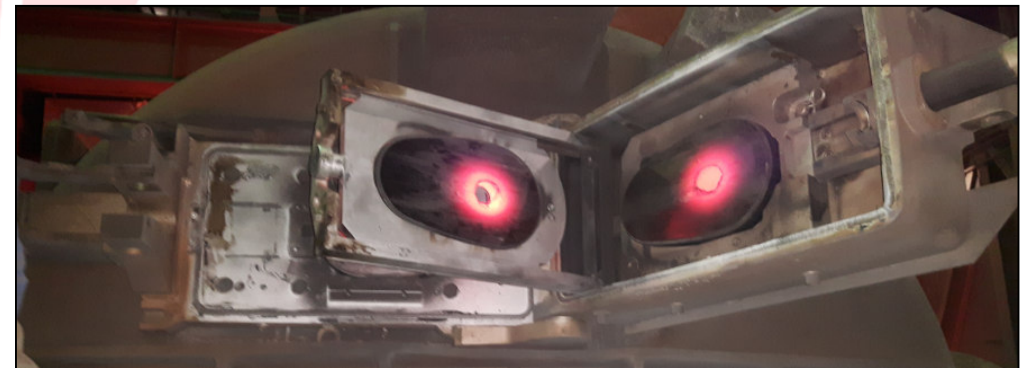
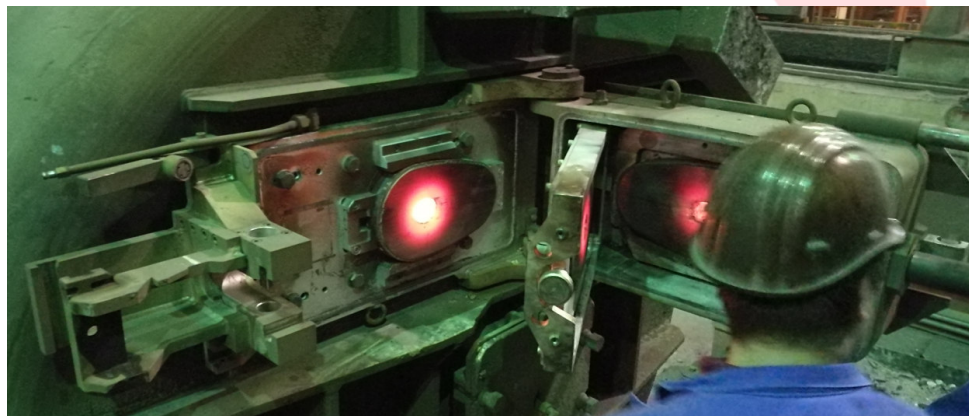
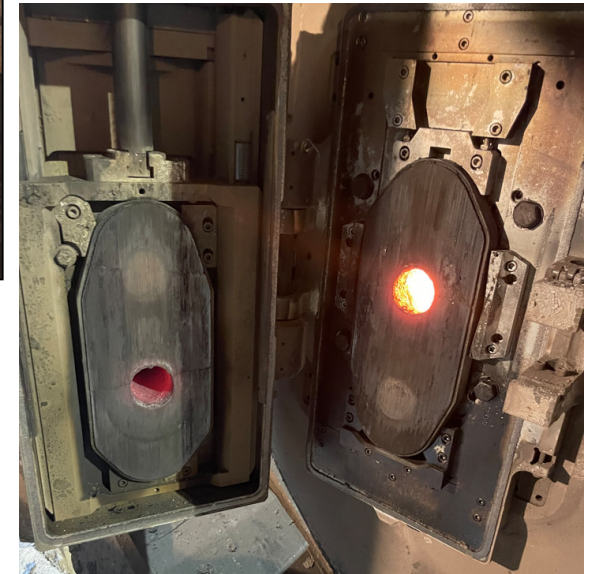
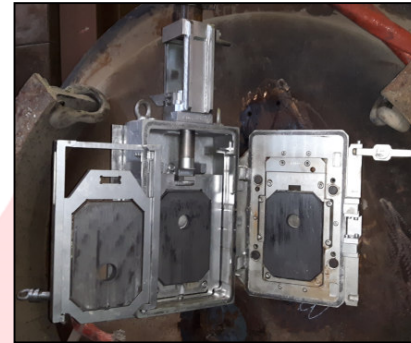
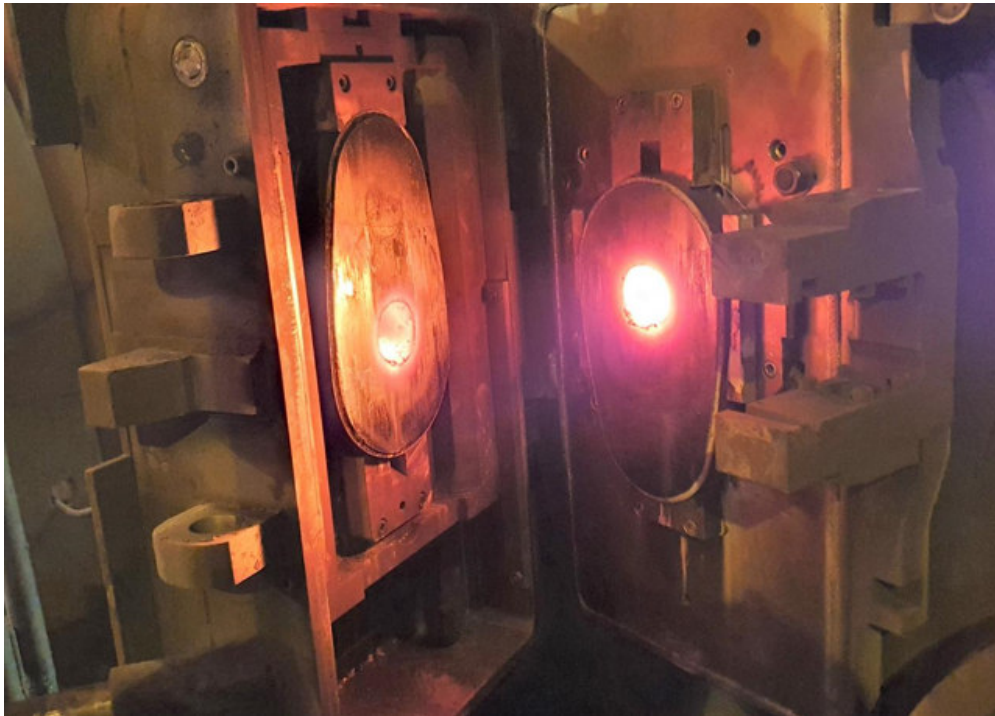




# Presentation of the GT Series



## Practical Examples – Gas-Carrying Slide Gate Valves





# Reference List



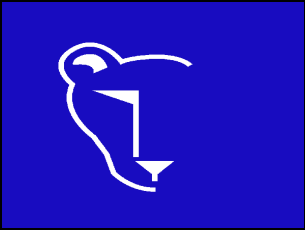
COUNTRY	CUSTOMER	QTY.	MODEL
GERMANY	Dillinger Hütte	20	FT
	Saarschmiede, Völklingen	5	FT3-GT
	ArcelorMittal - Ruhrort	24	FT
	ArcelorMittal - Hamburg	10	FT
	Stahlwerk Bous	8	Type 17
		3	FT2 GT
	Buderus Edelstahl	12	FT3-GT
	BGH Siegen	12	FT3-GT
	BGH Freital	12	FT3-GT
	Gröditz	12	FT3-GT
	DEW - Witten	6	Type 17
		6	FT2 GT
	Lechstahlwerke	20	FT
	Dörrenberg Edelstahl	4	FT3-GT
	Lohmann Edelstahl	3	FT3 100GT
AUSTRIA	Marienhütte Graz	8	FT
	Breitenfeld Edelstahl	12	FT3K 160GT
	INTECO Projekt	8	FT2 GT
SWEDEN	OvakoSteel Hofors AB	8	FT3-GT

ITALY	Acciaieria di Rubiera	6	Type 17.3
		3	FT
	ASO Siderurgica S.r.l.	12	Type 17
	Metalcam	3	Type 17
	Lucchini, Lovere	10	Type 17
		4	Type FC 6500LP
	S.A.F.A.S.	2	FT3-GT
	Italfond	5	Type 17
	Foroni	4	Type 17
NEW CALEDONIA	Le Nickel, Nouméa	12	Type 17
UKRAINE	Enakievo Steel Works	14	FT
RUSSIA	ZSMK	23 x 2	FT
FINLAND	Outokumpu Stainless OY	12	FT
NORWAY	Scana Steel Stavanger	7	Type 17.3
HUNGARY	ÓAM ÓZDER Stahlwerke	8	FT

	CUSTOMER	QTY.	MODEL
SWEDEN	Erasteel Klosters AB	4	4200
AUSTRIA	Voest Giesserei Linz	8	6300

## The Conclusion

- ❖ Small amounts of argon can prevent contamination with oxygen in the slide gate area. Furthermore, the contact point of collector nozzle and ladle shroud is flooded with argon by the escaping gas.
- ❖ No turbulences or Venturi-Effect from attached extern argon nozzles
- ❖ Due to the closed design, the slide gate is even more robust and resistant to boiled over slag in the VD or VOD.
- ❖ Massive damages to the casting system can be avoided by the construction of the Slide Gate.



Thank You  
For Your Attention!

