



FERROSER

**FLOW
CONTROL
REFRACTORIES**



**Ladle Flow Control
Mechanism & Refractories**



**Tundish Flow Control
Mechanism & Refractories**

LADLE FLOW CONTROL

- Interstop 1QC & 2QC slide gate refractories

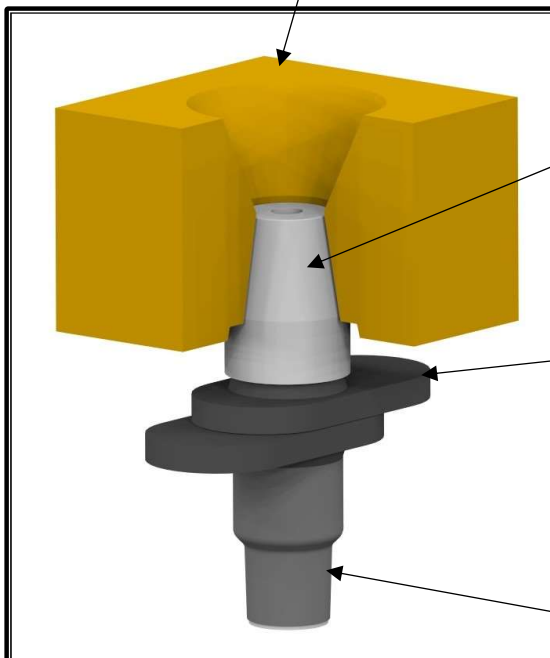
'Well block, inner nozzle&collector nozzle are available from our own production.
Slide gate plate is provided from our global partner'



Well block



Inner nozzle



Slide gate plate



Collector nozzle

LADLE FLOW CONTROL

- Interstop CS60 & CS80 slide gate refractories

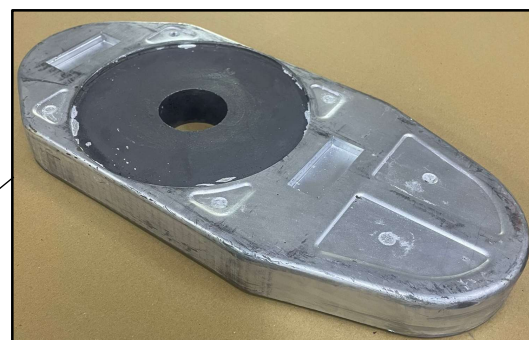
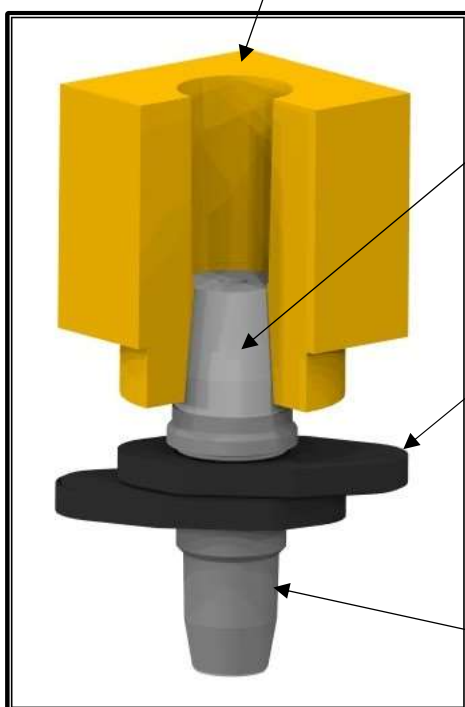
'Well block, inner nozzle&collector nozzle are available from our own production.
Slide gate plate is provided from our global partner'



Well block



Inner nozzle



Plate



Collector nozzle

LADLE FLOW CONTROL

- Interstop LS70 slide gate refractories

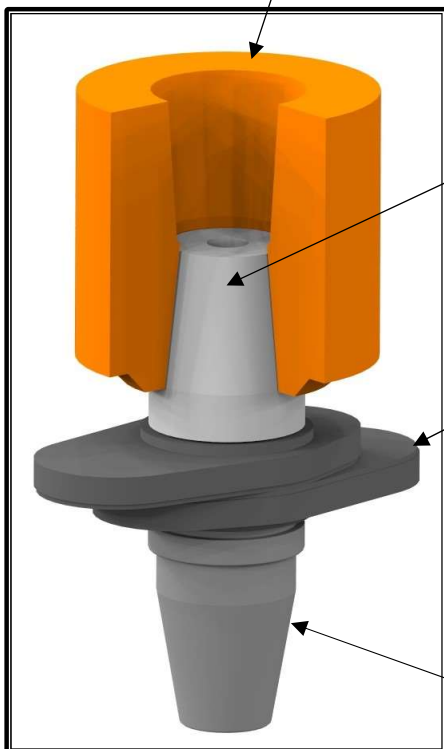
'Well block, inner nozzle&collector nozzle are available from our own production.
Slide gate plate is provided from our global partner'



Well block



Inner nozzle



Plate

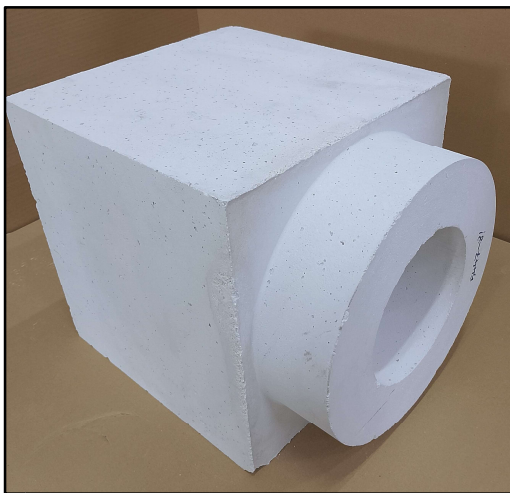


Collector nozzle

LADLE FLOW CONTROL

- LG21, LG22, LG24, LG31, LG34 slide gate refractories

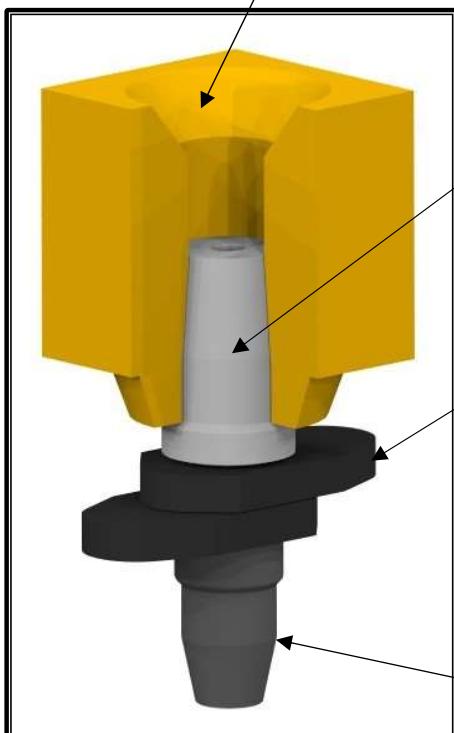
'Well block, inner nozzle&collector nozzle are available from our own production.
Slide gate plate is provided from our global partner'



Well block



Inner nozzle



Plate



Collector nozzle

LADLE FLOW CONTROL

- FLOCON 4200 & 6300 slide gate refractories

'Well block, top&lower nozzle are available from our own production. Slide gate plate is provided from our global partner'



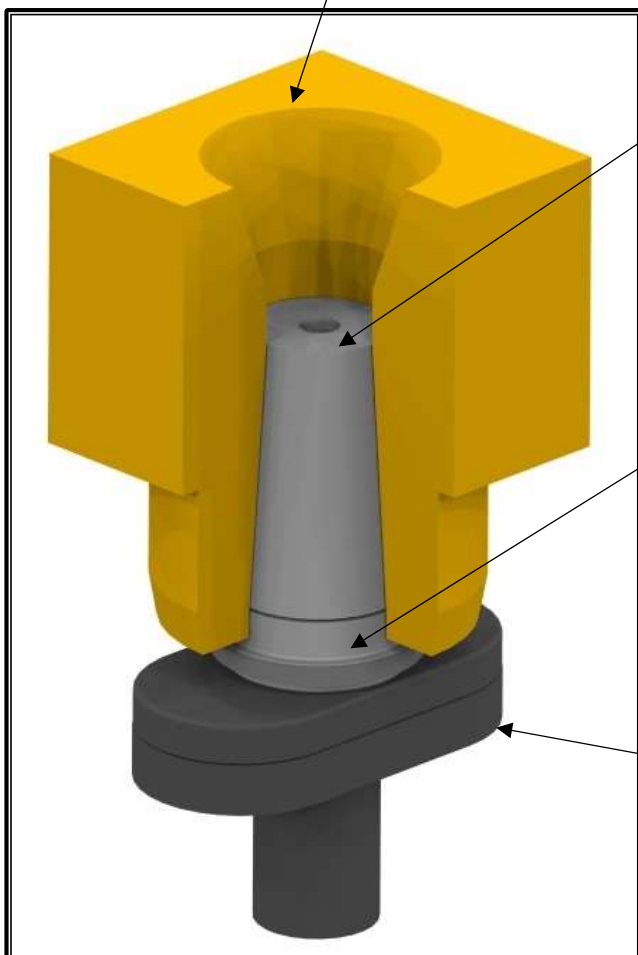
Well block



Top nozzle



Lower nozzle



Plate



LADLE FLOW CONTROL

- Qualities for ladle slide gate refractories

Well block

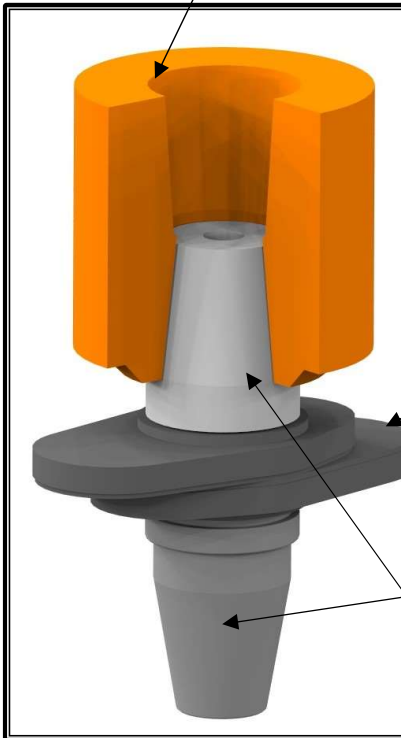
Brand name	Grain size	Chemical Analysis (%)			Explanation
		Al ₂ O ₃	CaO	MgO	
SERCAST-PCE38/97	(0-10mm)	97.0	2.0		Tabular alumina based, low cement castable mix
SERCAST-PCE38/97 SW	(0-10mm)	97.0	2.0		Tabular alumina based, low cement castable mix. Reinforced with stainless steel wire
SERCAST-PCE38/97 SS	(0-10mm)	94.0	2.0	4.0	Tabular alumina based, low cement castable mix. MgO.Al ₂ O ₃ sinter spinel is added to increase refractoriness

Slide gate plate

Brand name	Chemical Analysis (%)		
	Al ₂ O ₃	C	ZrO ₂
Al-Zr-C	75	6	5

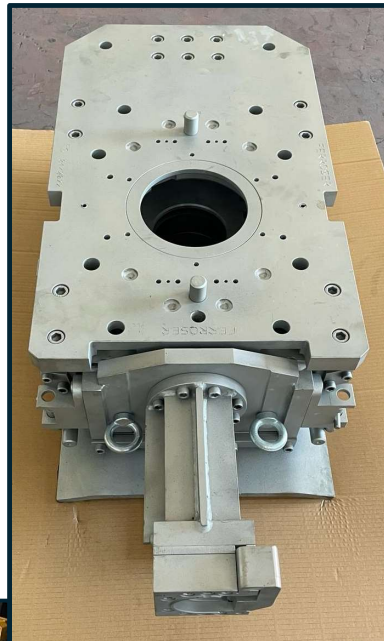
Inner&collector nozzle

Brand name	Grain size	Chemical Analysis (%)			Explanation
		Al ₂ O ₃	CaO	MgO	
SERFLOW-PCE38/97	(0-5mm)	97.0	2.0		Tabular alumina based, low cement, self-flow castable mix
SERCAST-PCE38/97	(0-6mm)	98.0	1.4		Tabular alumina based, low cement castable mix
SERCAST-PCE38/97 SS	(0-6mm)	94.0	1.6	4.0	Tabular alumina based, low cement castable mix. MgO.Al ₂ O ₃ sinter spinel is added to increase refractoriness

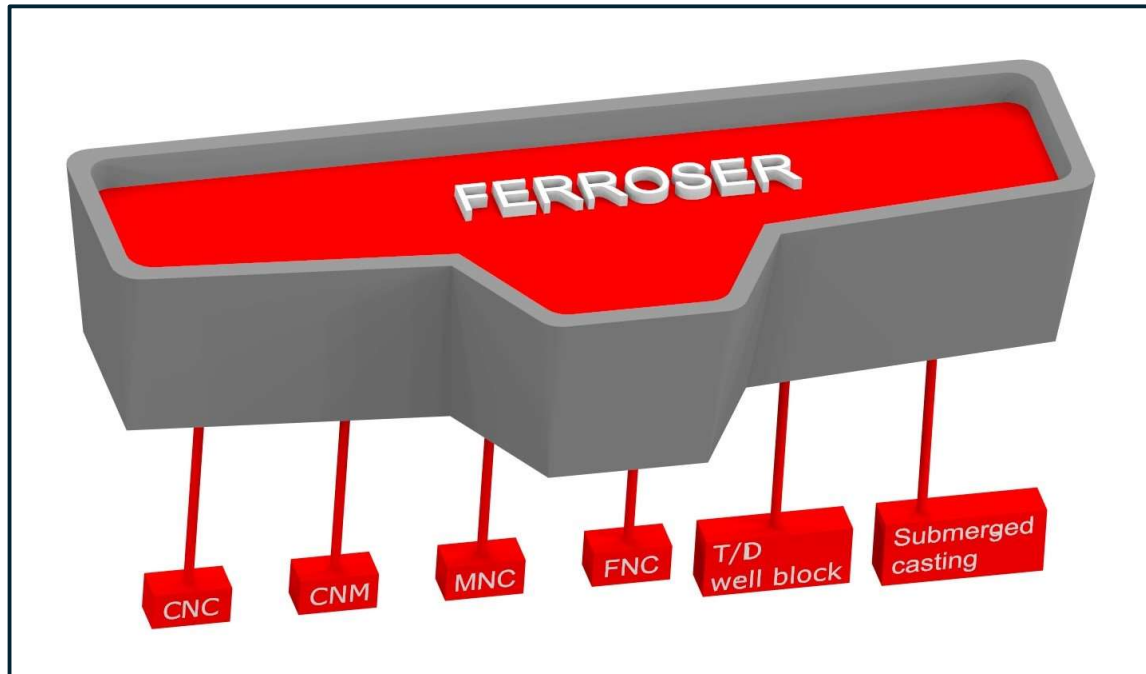


LADLE FLOW CONTROL

- LG21 slide gate mechanism and its spare parts are available from our own production
- FL4200 slide gate mechanism and its spare parts are available from our own production



TUNDISH FLOW CONTROL



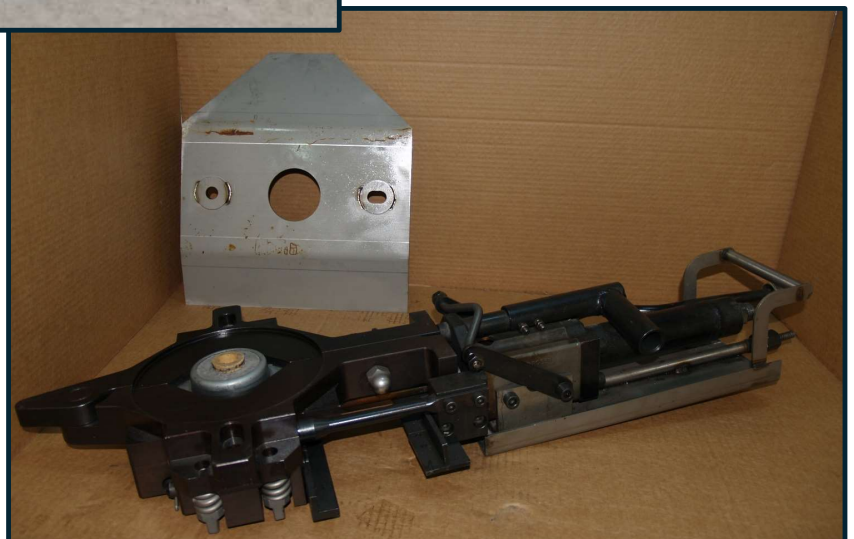
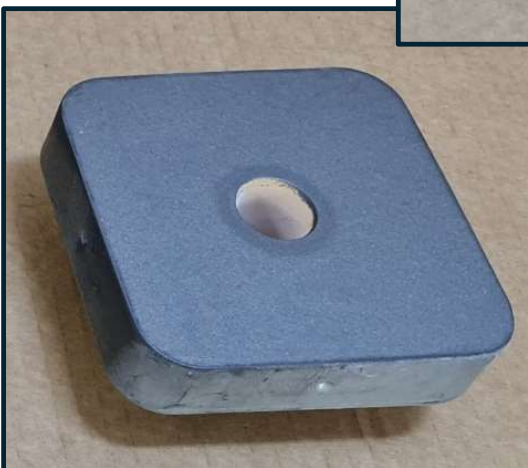
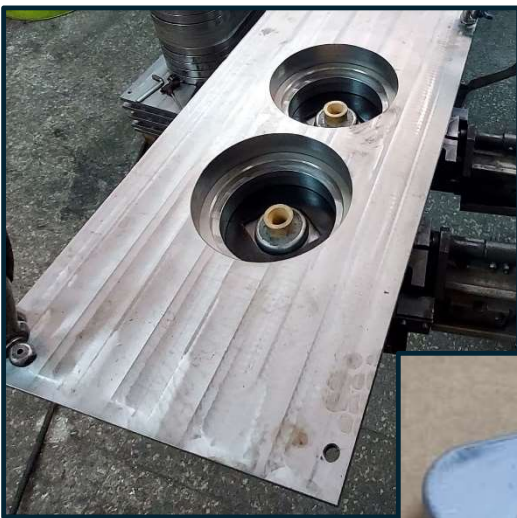
- Refractories of CNC, CNM, MNC, FNC are available from our own production programme
- T/D well block with zirconia insert and submerged casting refractories are provided from our global partners.



TUNDISH FLOW CONTROL

- CNC nozzle changer system

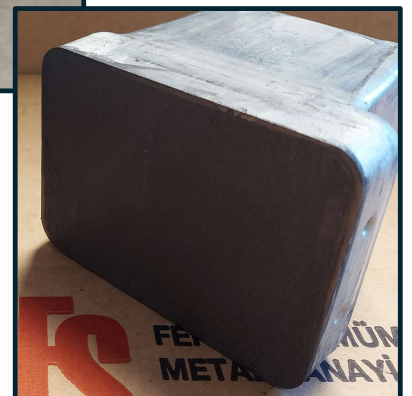
'CNC upper, flying, blank nozzle and mechanism are provided from our own production programme'



TUNDISH FLOW CONTROL

- CNM nozzle changer system

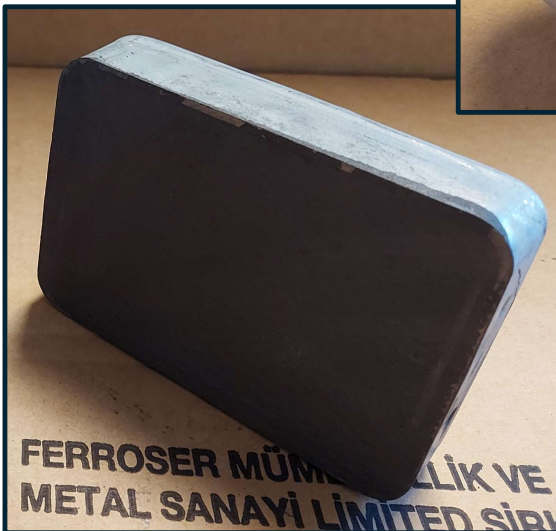
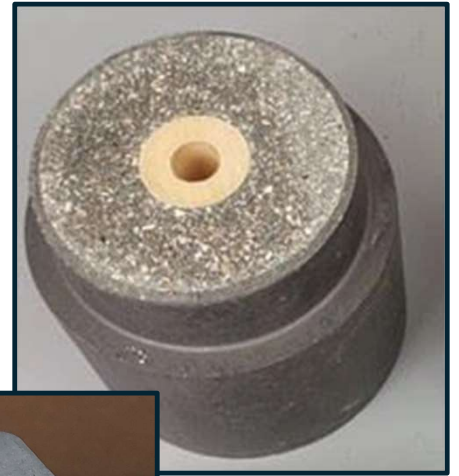
‘CNM flying & blank nozzles are provided from our own production programme. CNM stationary nozzle is offered from our global partner’



TUNDISH FLOW CONTROL

- MNC nozzle changer system

‘MNC flying & blank nozzles are provided from our own production programme. MNC stationary nozzle is offered from our global partner’



TUNDISH FLOW CONTROL

- FNC nozzle changer system

'FNC stationary nozzle & zirconia insert for metallic flying nozzle are offered from our global partner'

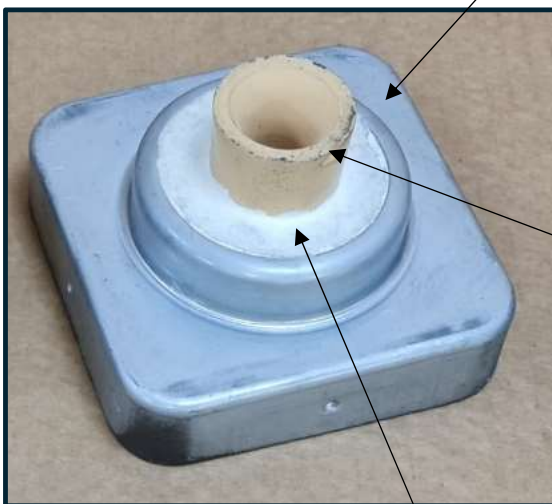


TUNDISH FLOW CONTROL

- Qualities for tundish nozzles



Manufactured from
galvanized sheet metal



Zirconia insert:
ZrO₂ : 95.5 %
MgO: 2.5-3 %
Density : 5.35 gr/cm³
Porosity: 4-6 %

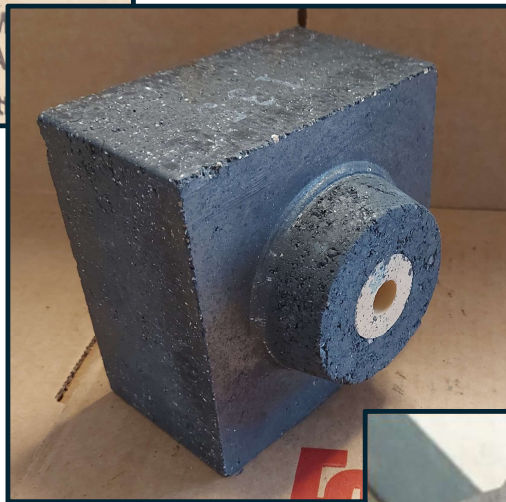
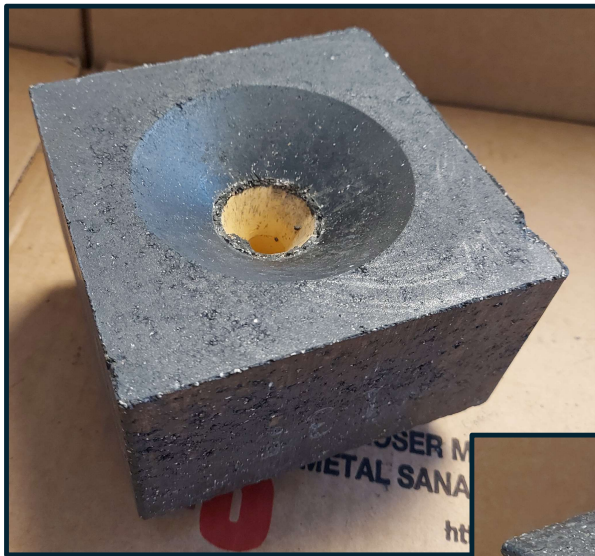
Brand name	Grain size	Chemical Analysis (%)			Explanation
		Al ₂ O ₃	CaO	MgO	
SERFLOW-PCE38/97	(0-5mm)	97.0	2.0		Tabular alumina based, low cement, self-flow castable mix



TUNDISH FLOW CONTROL

- Tundish well block with zirconia insert

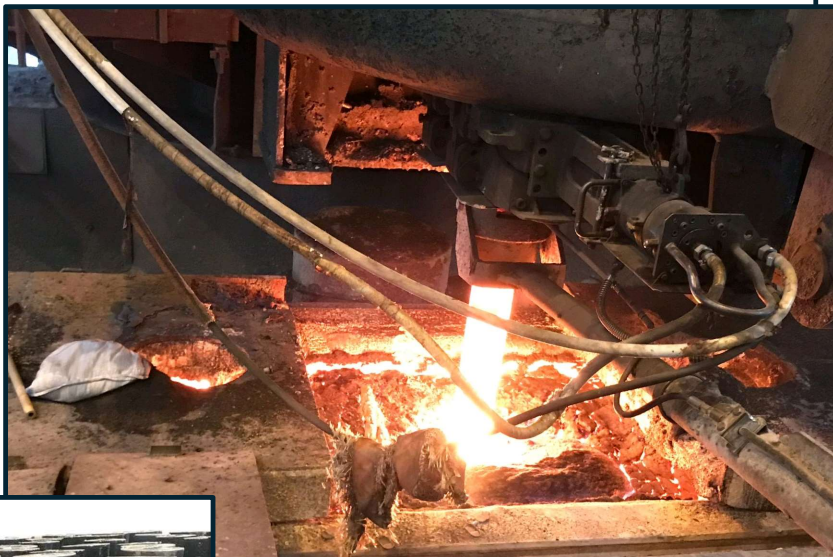
‘Tundish well block with zirconia insert is offered from our global partner’



TUNDISH FLOW CONTROL

- Submerged nozzles

‘Isostatic pressed nozzles are offered from our global partners’



PRODUCTION CAPACITY

'1000 tons/year of ladle slide gate system refractories and 250,000 pc.s/year tundish nozzles are provided from our own production.



REFERENCES

Customer	Item
Çebitaş / Aliğa	Ladle flow mechanism and spare parts
Ege Çelik / Aliğa	Ladle & tundish flow control refractories
Habaş / Aliğa	Tundish flow control mechanism and its spare parts&refractories
İzmir D. Ç. / Aliğa	Tundish flow control mechanism and its spare parts&refractories
Kılıçlar D. Ç. / Aliğa	Tundish & ladle flow control refractories
Özkan D. Ç. / Aliğa	Tundish & ladle flow control refractories
Kroman / Çayırova	Tundish flow control refractories
Çolakoğlu / Dilovası	Tundish flow control refractories
Diler / Dilovası	Tundish flow control refractories
Sıddık Kardeşler / Dilovası	Tundish flow control mechanism and its spare parts & refractories. Spare part of ladle flow control mechanism
Ekinciler / İskenderun	Tundish flow control mechanism and its spare parts & refractories. Ladle flow control refractories
İsdemir / İskenderun	Tundish flow control refractories
Kardemir / Karabük	Tundish flow control mechanism and its spare parts & refractories. Ladle flow control refractories
Kaptan D.Ç. / Marmara Ereğlisi	Tundish & ladle flow control refractories
Tosyalı Metalurji / Osmaniye	Tundish & ladle flow control refractories
Koç Metalurji / Osmaniye	Tundish flow control mechanism and its spare parts & refractories. Ladle flow control refractories
Tosçelik / Osmaniye	Tundish flow control mechanism and its spare parts & refractories. Ladle flow control refractories
Yeşilyurt DÇ. / Samsun	Tundish flow control mechanism and its spare parts & refractories. Ladle flow control refractories
Kürüm/Arnavutluk	Tundish flow control refractories. Ladle flow mechanism and spare parts
Baku Steel/Azerbaijan	Tundish flow control mechanism and its spare parts & refractories.
Özmert / Algeria	Tundish flow control mechanism and its spare parts & refractories. Ladle flow control refractories
Van Steel / Iraq	Ladle & tundish flow control refractories