



CHANEL INDUCTOR FURNACE

1 Inductor trough & Vat hotface

- ALKON® CAST LB 85 ALKON® SOL CAST HT & ALKON® CAST 204: reference solutions
- ALKON® CAST BL 80 B3: for maximum abrasion & charge impact resistance
- ALKON® SOL CAST B 85: for quick dry solution

Balance between abrasion resistance and corrosion resistance to be found.

Can be supplied in large precast shapes.

2 Vat insulation

- ALKON® CAST F 35 C/G: reference solution with installation versatility
- ALKON® CAST MW 14 C/G: for extra insulation

Aluminium infiltration barriers.

Ceramic fiber or microporous insulating layer on shell.

A compromise is to be found between low shell temperature (thermal efficiency), alloy freeze point position (safety), and furnace capacity (total thickness).

3 Cover

- CALDE® CAST M 28 D HR: reference solution
- CALDE® CAST LX 58: for extra thermal cycling resistance
- CALDE® CAST XL 106 C/G and insulating board: insulating layers

4 Inductors

4 installation techniques possible depending on the need in speed and cost/performance ratio.

Wet-ramming installation: cost-effective but difficult and long to install.

- ALKON® RAM PB 70: wet ramming reference solution
- ALKON® RAM PF 45: cost-effective solution

Dry-ramming installation: installation is key to performance.

- ALKON® DRY BC 90: dry ramming reference solution

In house cast in-situ solution for high performance and maximum convenience: damaged inductor pick-up, demolition of old lining, relining, dry-out, and delivery ready-to-use.

- ALKON® CAST 204: reference solution
- ALKON® CAST LC 95: high power inductor

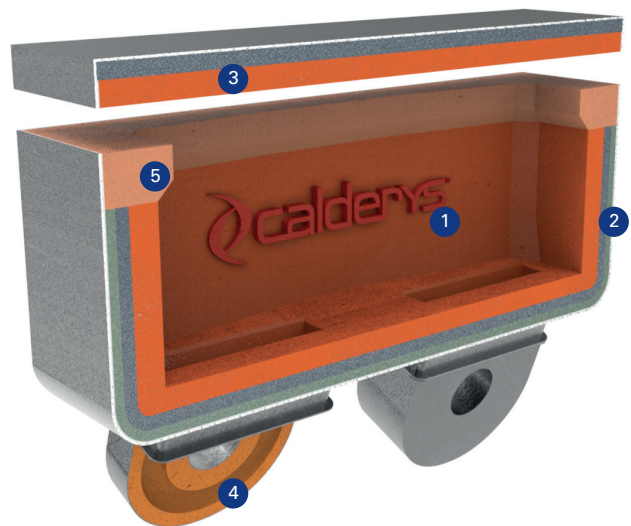
Precast solution: Inductor can be delivered in large precast shape with dry safety layer, for quick exchange at customer site.

5 Rim

- ALKON® CAST LB 85 ALKON® SOL CAST HT & ALKON® CAST 204: reference solutions
- ALKON® CAST BL 80 B3: for maximum abrasion & charge impact resistance
- ALKON® CAST LX 58: for greater resistance to thermal shock
- ALKON® SOL CAST B 85: for quick dry solution

Material can be reinforced with steel fibers to increase resistance to mechanical impacts.

Can be supplied in large precast shapes.



Cold Repairs

- ALKON® SOL CAST B 85: fast repair reference solution in sill, ramps and hearth
- ALKON® CHEM PB 85: fast repair reference in belly-band for extra resistance to dross & corrosion
- ALKON® GUN P and ALKON® GUN C 75: fast repair solutions in all walls and roof

Specific patch or plastic solutions for small/finer repairs are also available.

Hot Repairs

- ALKON® GUN C 75: emergency hot repair solution in bath area
- ALKON® GUN F 50: emergency hot repair solution in upper area



REFRACTORY SPECIFICATIONS

Selection of products shall be done in accordance with furnace process conditions. Calderys invites you to fill in a dedicated questionnaire to confirm product selection regarding temperature level, cycling, alloys, salt/flux usage, and charging/skimming practices.

Selection of product/design shall be done in accordance with shut-down duration requirements; solutions can differ based on the importance of speed.

Tailor-made solutions such as pumping/gunning, easy dry-out materials, up to full precast can be supplied to lower cost of ownership when production loss per day is of high value.

The performance of the final solution is sensitive to the installation quality, from the equipment performance to the manpower skills/respect of refractory placement procedures. Calderys invites customers to engage its supervision of the installation work, up to full turnkey solutions to control the overall quality of the project: shutdown schedule, installation, dry-out and furnace commissioning.

Please ensure any product selection and/or design is validated by your Calderys sales representative.

Product name	Main component	Binding System	Max. Recomm. temp.(°C)	Density (g/cm ³)	Ease of Dry Out	Chemical analysis (avg %)			
						Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	SiC
ALKON® CAST 204	Bauxite	Hydraulic	1200	2.80	(-)	81	8.8	0.7	2.9
ALKON® CAST BL 80 B3	Bauxite	Hydraulic	1400	3.02	(-)	83.0	7.7	0.8	-
ALKON® CAST F 35 C/G	Chamotte	Hydraulic	1280	1.90		36.0	49.0	3.0	-
ALKON® CAST LB 85 ALKON® SOL CAST HT	Bauxite	Hydraulic	1300	2.90		84.0	8.0	0.7	-
ALKON® CAST LC 95	Corundum	Hydraulic	1300	3.18		92.5	2.8	0.1	-
ALKON® CAST LX 58	Andalusite	Hydraulic	1200	2.48		55.5	38.5	0.8	-
ALKON® CAST MW 14 C/G	Lightweight chamotte	Hydraulic	1200	1.38		40.0	37.0	3.0	-
ALKON® CHEM PB 85	Bauxite	Chemical	1400	2.90	+	85.0	2.4	0.8	-
ALKON® DRY BC 90	Corundum	Chemical	1400	3.00		92.5	1.1	0.2	-
ALKON® GUN C 75	Corundum	Hydraulic	1420	2.60	++	78.5	1.8	0.2	-
ALKON® GUN F 50	Chamotte	Hydraulic	1400	2.10		50.0	34.0	1.0	-
ALKON® GUN P	Bauxite	Chemical	1600	2.62	++	83.0	8.2	0.9	-
ALKON® RAM PB 70	Bauxite	Chemical	1420	2.87	++	70.0	11.0	1.0	-
ALKON® RAM PF 45	Chamotte	Chemical	1420	2.45	++	43.0	35.0	0.8	-
ALKON® SOL CAST B 85	Bauxite	Mineral Reaction	1200	2.95	++	85.0	8.4	0.5	2.8
CALDE® CAST LX 58	Andalusite	Hydraulic	1650	2.45		57.0	38.0	1.1	-
CALDE® CAST M 28 D HR	Chamotte	Hydraulic	1550	2.25		45.5	47.8	1.3	-
CALDE® CAST XL 106 C/G	Vermiculite	Hydraulic	1060	0.50		30.0	32.0	9.5	-

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