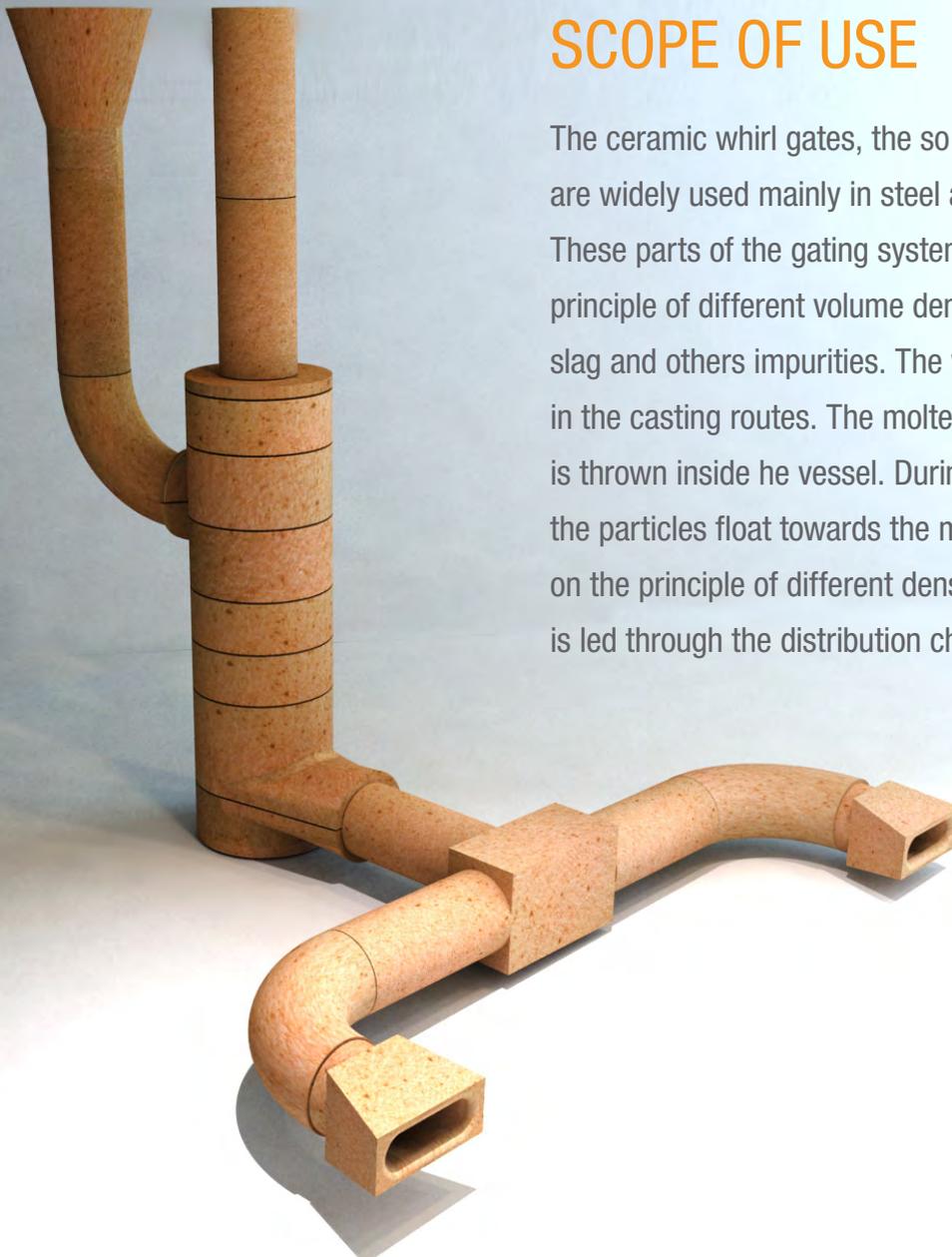


OD60-120

CERAMIC WHIRL GATE FOR FOUNDRIES

BASIC INFORMATIONS



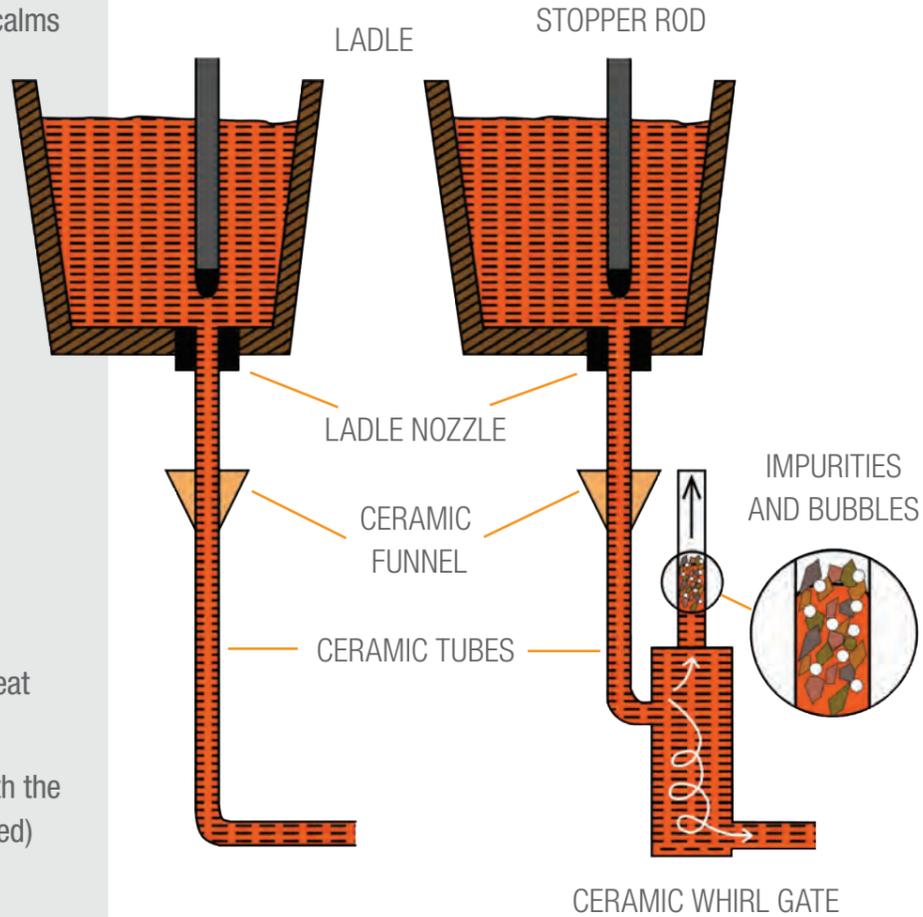
SCOPE OF USE

The ceramic whirl gates, the so called slag traps, are widely used mainly in steel and ductile cast iron foundries. These parts of the gating systems are operated on the principle of different volume density of melt, slag and others impurities. The whirl gates are installed in the casting routes. The molten metal from the casting route is thrown inside the vessel. During this rotational motion the particles float towards the melt surface on the principle of different densities. Calm and cleaned metal is led through the distribution channels into the mould.

ADVANTAGES

- absorbs the primary melt shock and calms the flow by converting the turbulent flow into the laminar one
- filters small and large impurities and the major part of drawn air
- eliminates defects caused by human error in case of low technological discipline
- is large enough to catch even higher volumes of impurities
- in case of ladles with sliding closures catches filler particles
- does not create secondary inclusions
- metal does not “freeze” due to bad heat capacity
- guarantees stable flow (compared with the filters, the whirl gate cannot be clogged)
- does not slow metal flow rate

WORKFLOW



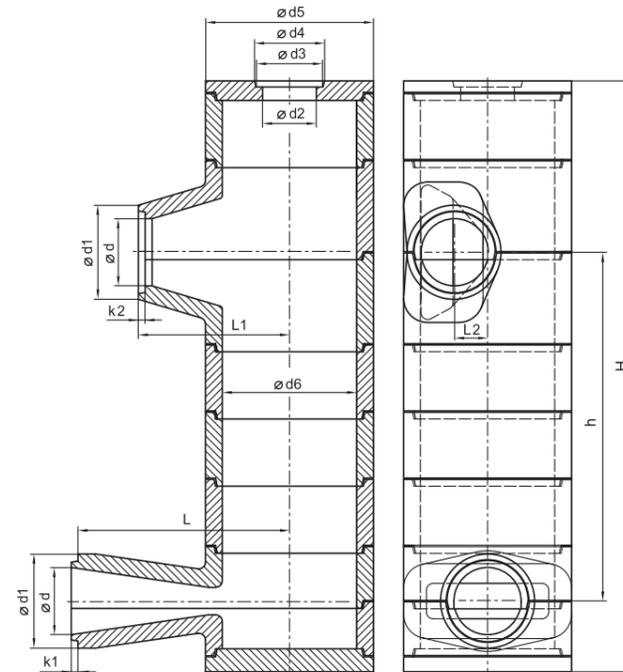
BASIC PARAMETERS

Content of Al_2O_3	min. 35 %
Content of Fe_2O_3	2,5 %
Bulk density	2,05 g/cm ³
Apparent porosity [%]	max. 25 %

Type	flow rate (kg/sec)	weight	
		STEEL (kg)	CAST IRON (kg)
OD60	max. 30	47	43
OD80	max. 50	102	94
OD100	max. 150	200	185
OD120	max. 200	210	192



DIMENSIONS



Type	d (mm)	d1 (mm)	k1 (mm)	k2 (mm)	d2 (mm)	d3 (mm)	d4 (mm)	d5 (mm)	d6 (mm)	L (mm)	L1 (mm)	L2 (mm)	h (mm)	H (mm)
OD60	60	110	9	8	60	73	77	170	120	179	131	34	356	580
OD80	80	120	11	10	70	86	89	210	160	239	175	45	417	710
OD100	100	140	10	9	80	100	104	250	200	315	225	50	519	879
OD120	120	165	10	9	80	100	104	250	200	315	250	42,5	537	919

PRACTICAL EXAMPLE

The following photograph, showing one of more whirl gates used in parallel for press ram casting, weight of 140 tons, is a good example of use of the whirl gate and its impact on quality.

Casting of this press ram cast resulted in problems with slag leak. When the whirl gate residues were examined, a high quantity of slag and impurities was found in exhausts. Taking in view the problems during casting, employees of the foundry were surprised pleasantly that the cast is “sound” absolutely.



About us

SEEIF Ceramic, a.s. produces and supplies traditional refractory products and ceramic materials, incl. services and consultancy concerning their use in the customers' plants.



Product line:

Ceramic gating system

Fireclay, high-alumina and special refractory ceramic bricks for ingot castings

Graphite and corundum stoppers and nozzles for ladle closing systems

Thermal insulating shapes

Refractory masses

TECHNICAL CERAMICS OF THE 3rd MILLENNIUM

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OD60-120



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