

KAWASAKI STEEL TECHNICAL REPORT

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Steel Structure, and Continuous Casting of Steel

Separation of Inclusions from Molten Steel in a Tundish

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Synopsis:

A new process was devised for promoting inclusion

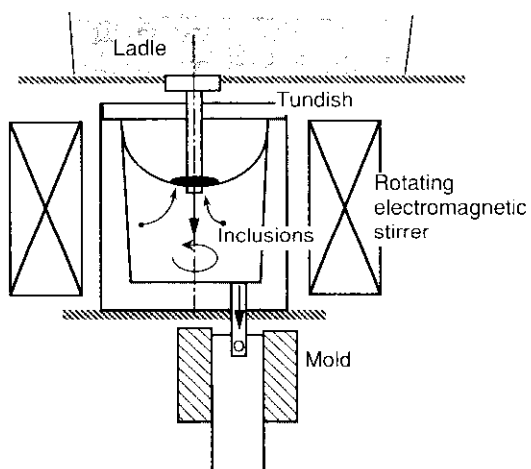


Fig. 1 Concept of centrifugal flow tundish

Table 1 Experimental conditions (No. 1 CC, Chiba Works)

Capacity of tundish	(t)	10
Ladle capacity	(t)	100
Feeding rate	(t/min)	1.5
Rotational speed	(rpm)	40~50

Table 2 Composition of molten steel

Steel	C	Si	Mn	Al	Cr
Low Al	0.05	0.4	0.6	0.02	16.3
High Al	0.05	0.4	0.6	0.07	16.3

[REDACTED]

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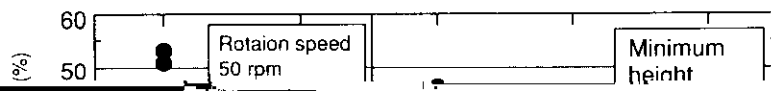
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Minimum height of molten steel (mm) Rotation speed (rpm)

molten steel (mm)

Fig. 8 Measurement of ratio of slag flowing out of rotation chamber during ladle exchange

where, k : the deoxidation rate constant, $[O]_0$: the oxygen

2.0	calculated		measured	
	n=1.2	n=0.6	50 rpm	0 rpm
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