

## KAWASAKI STEEL TECHNICAL REPORT

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### Cr-Alloyed Steel Powders with Low Oxygen Content Manufactured by Vacuum Annealing Process

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#### Synopsis :

Kawasaki steel began to produce alloyed steel powders, KIP 4100V and KIP 4100VS, which are equivalent to AISI 4100. New facilities were constructed in Chiba Works in

# Cr-Alloyed Steel Powders with Low Oxygen Content Manufactured by Vacuum Annealing Process\*

100 t/month have been installed at Chiba Works, and

[redacted]

in vacuum CO  
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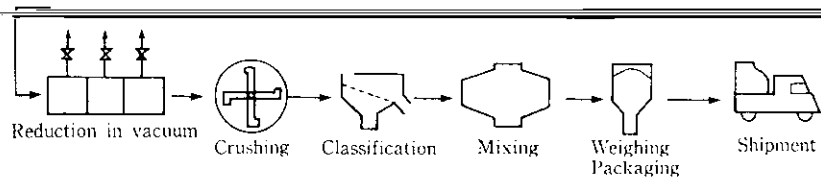
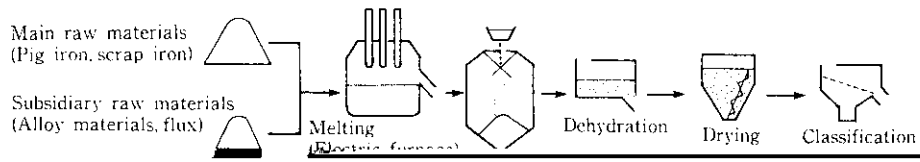


Fig. 2 Manufacturing process of KIP 4100 V

### 3 Manufacturing Process

An outline of the manufacturing process is shown in



Table 3 Typical properties of apparent density and flow rate



Process	Apparent density (g/cm <sup>3</sup> )	Flow rate (g/min)
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KIP  
4100 VS



KIP  
4100



Mn

Cr

O

Photo 3. Comparison of Mn, Cr and O distribution between KIP 4100 VS and KIP 4100.

Connecting pressure 71/cm<sup>2</sup> (686 MPa)

7.20

