

Manufacturing Process of Cr-Alloyed Steel Powders by Vacuum Reduction

(Kazuo Higuchi) (Kazuo Akaoka) (Hiroyuki
Yamamoto) (Kouichi Komamura)

:

Cr
1991

2.67

200 /

Cr KIP 4100V

7.07 Mg/m³

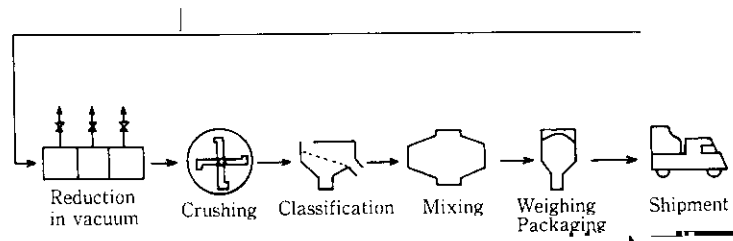
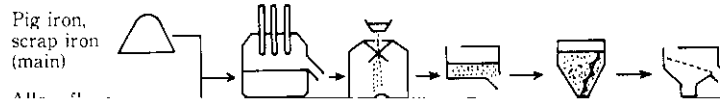
686 MPa

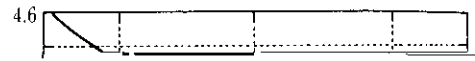
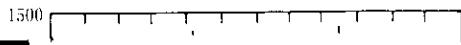
Synopsis :

Kawasaki Steel is producing 1 to 3 % Cr-alloyed steel powders, that are characteristic of high wear and heat resistance. For the purpose of responding to the increasing demand, No. 2 vacuum reduction furnace was newly constructed and its operation began in July 1991. The authors investigated the effects of the pre-heating temperature and thickness of packed Cr-alloyed steel powders on the reduction by the heat transfer analysis. No. 2 vacuum

Manufacturing Process of Cr-Alloyed Steel Powders

要旨





青の漢字の田田は極楽コンペア二が記号キム 細松も徳輪ノキ

Air

Table 2. Chemical composition and powder characteristics of Cr-alloyed steel powder.

Element	Content (%)
C	0.05
Cr	12.0
Fe	87.95
Mn	0.02
P	0.005
S	0.005
N	0.002
Si	0.01
Al	0.005
Mo	0.005
Co	0.005
Ni	0.005
W	0.005
V	0.005
Ti	0.005
Zr	0.005
Y	0.005
B	0.005
As	0.005
Sb	0.005
Bi	0.005
Pb	0.005
Sn	0.005
Cu	0.005
Zn	0.005
Ag	0.005
Au	0.005
Ca	0.005
Mg	0.005
Na	0.005
K	0.005
Li	0.005
Be	0.005
Ba	0.005
La	0.005
Ce	0.005
Pr	0.005
Nd	0.005
Pm	0.005
Sm	0.005
Eu	0.005
Gd	0.005
Tb	0.005
Dy	0.005
Ho	0.005
Er	0.005
Tm	0.005
Yb	0.005
Lu	0.005
Hf	0.005
Ta	0.005
Nb	0.005
Mo	0.005
Ru	0.005
Rh	0.005
Pd	0.005
Ag	0.005
Cd	0.005
In	0.005
Sn	0.005
Sb	0.005
Te	0.005
Bi	0.005
Po	0.005
At	0.005
Rn	0.005
Fr	0.005
Ra	0.005
Ac	0.005
Th	0.005
Pa	0.005
U	0.005
Np	0.005
Pu	0.005
Am	0.005
Cm	0.005
Bk	0.005
Cf	0.005
Es	0.005
Fm	0.005
Mn	0.005
Co	0.005
Ni	0.005
Cu	0.005
Zn	0.005
Ga	0.005
Ge	0.005
As	0.005
Se	0.005
Br	0.005
Kr	0.005
Rb	0.005
Sr	0.005
Zr	0.005
Nb	0.005
Mo	0.005
Tc	0.005
Ru	0.005
Rh	0.005
Pd	0.005
Ag	0.005
Cd	0.005
In	0.005
Sn	0.005
Sb	0.005
Te	0.005
Bi	0.005
Po	0.005
At	0.005
Rn	0.005
Fr	0.005
Ra	0.005
Ac	0.005
Th	0.005
Pa	0.005
U	0.005
Np	0.005
Pu	0.005
Am	0.005
Cm	0.005
Bk	0.005
Cf	0.005
Es	0.005
Fm	0.005
Mn	0.005
Co	0.005
Ni	0.005
Cu	0.005
Zn	0.005
Ga	0.005
Ge	0.005
As	0.005
Se	0.005
Br	0.005
Kr	0.005
Rb	0.005
Sr	0.005
Zr	0.005
Nb	0.005
Mo	0.005
Tc	0.005
Ru	0.005
Rh	0.005
Pd	0.005
Ag	0.005
Cd	0.005
In	0.005
Sn	0.005
Sb	0.005
Te	0.005
Bi	0.005
Po	0.005
At	0.005
Rn	0.005
Fr	0.005
Ra	0.005
Ac	0.005
Th	0.005
Pa	0.005
U	0.005
Np	0.005
Pu	0.005
Am	0.005
Cm	0.005
Bk	0.005
Cf	0.005
Es	0.005
Fm	0.005