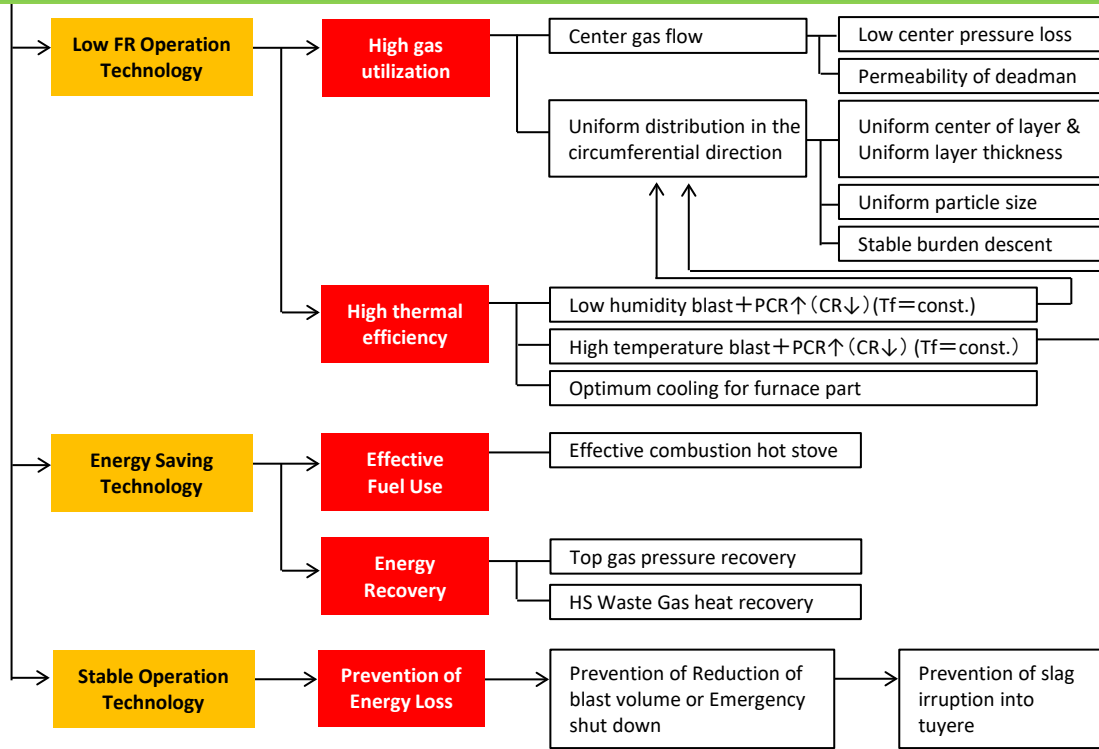


Nippon Steel & Sumikin Engineering's Blast Furnace



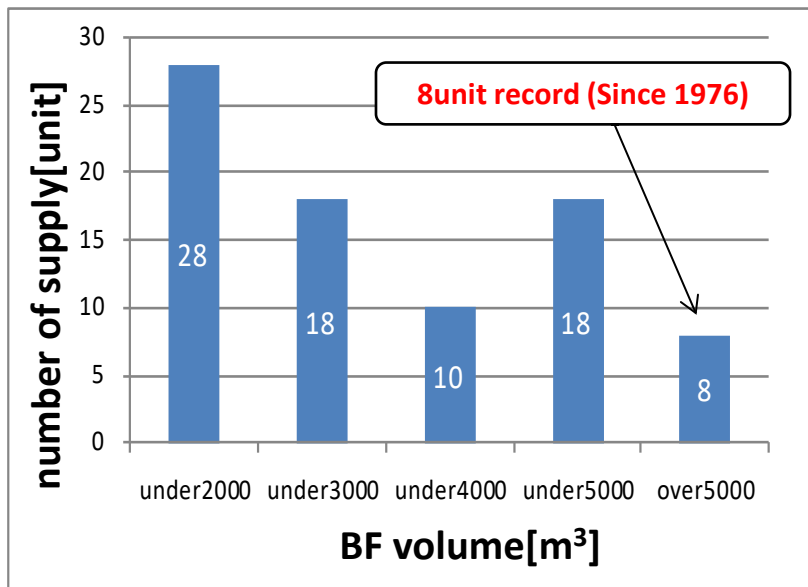
We are the total engineering company
from design to construction
 for ALL iron-making equipments of NSENGI's Blast Furnace.

NSENGI's Blast Furnace

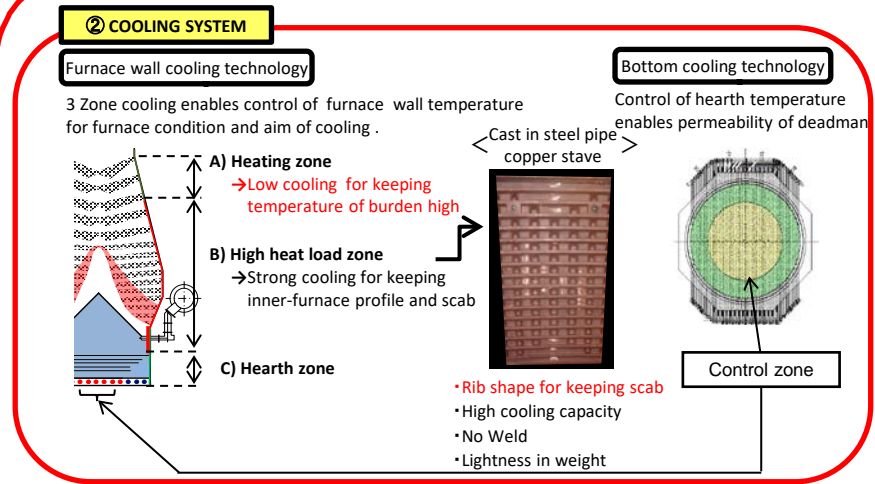
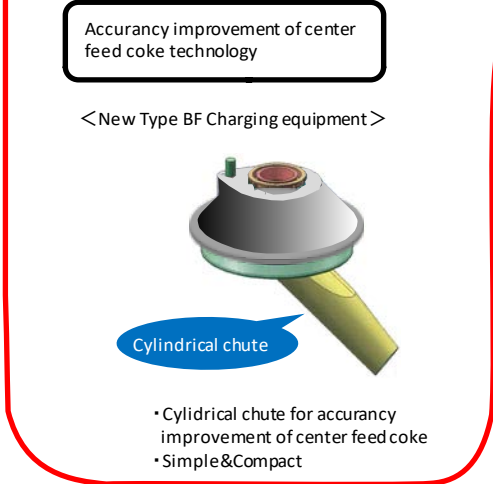
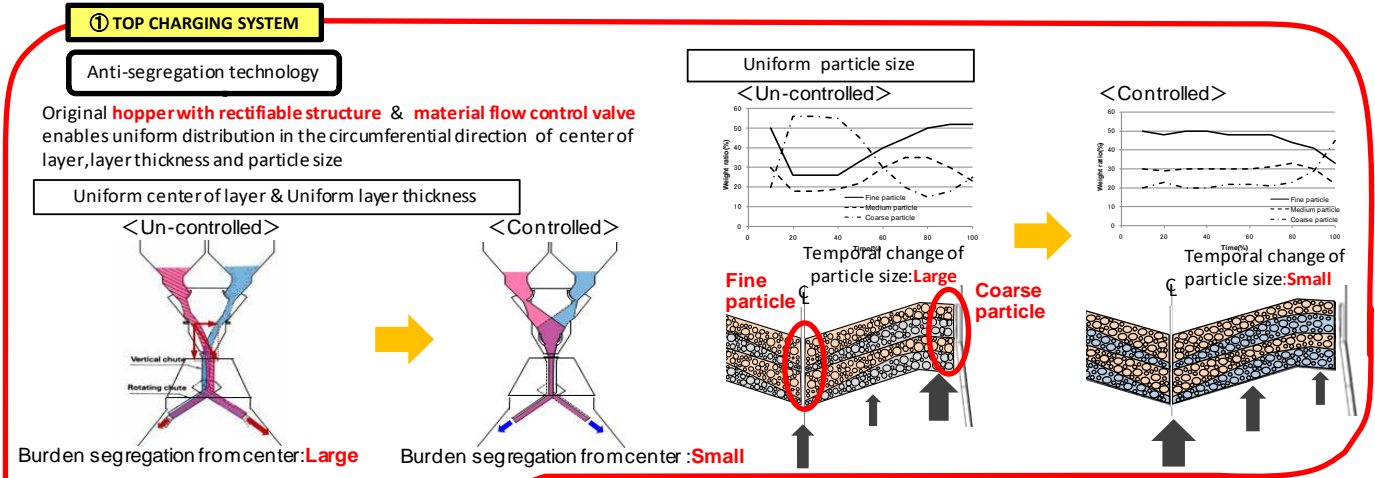
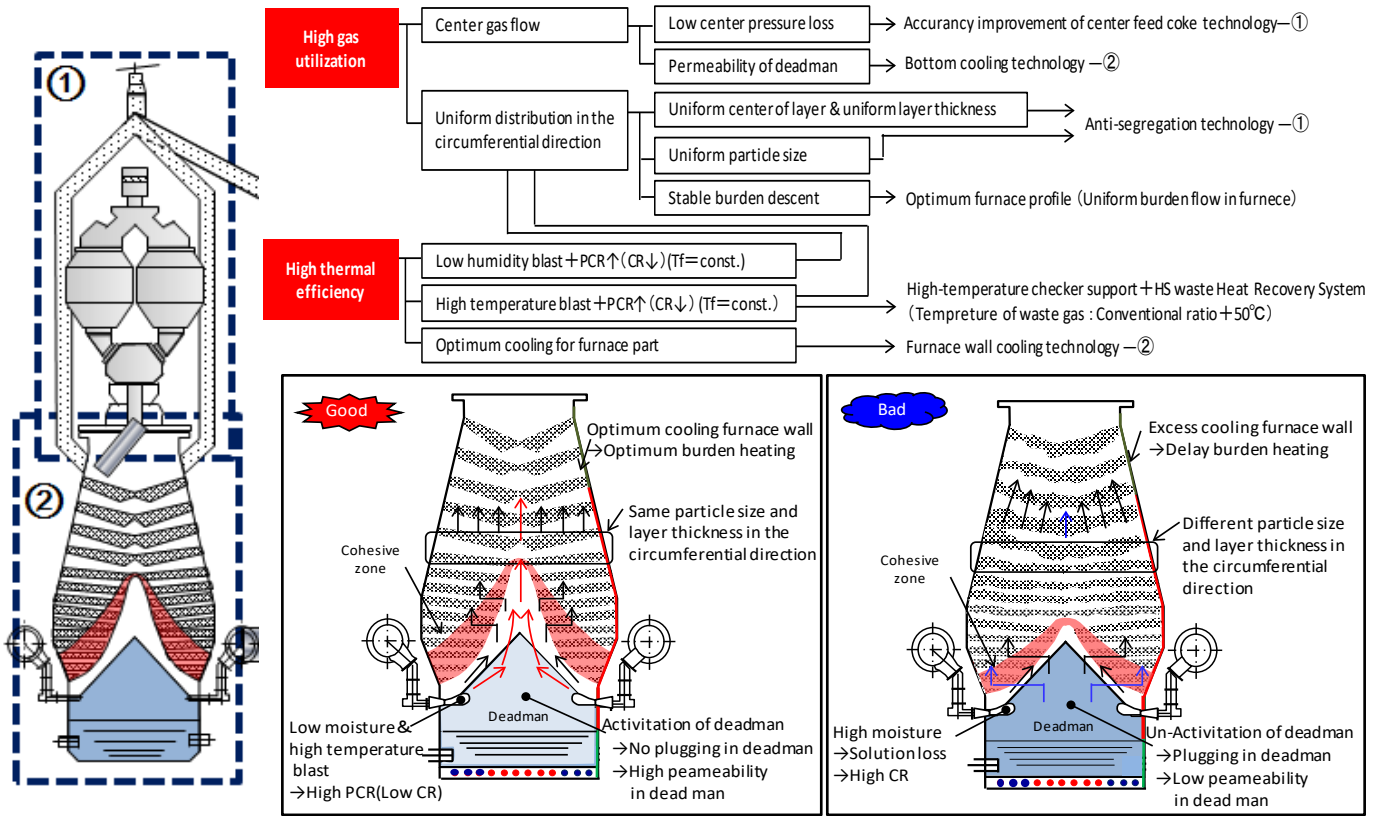


Nippon Steel & Sumikin Engineering have a lot of iron-making equipments supply record.
 We can accept your request widely.

BF SUPPLY RECORD(Since1964,Total:over80unit)



Low FR operation technology (FR is 5~10% down!! Production increase drastically!!)

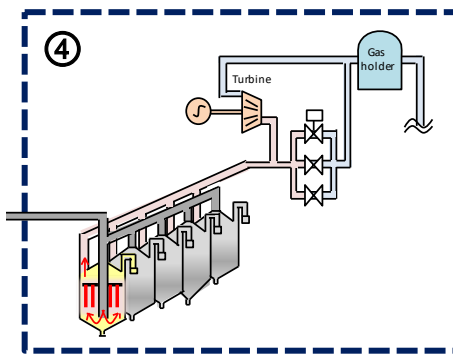


※1 FR:Fuel Ratio(=RAR)

※2 Above FR reduce rate is 550~560kg/thm condition.

Energy saving technology (Saving Energy is 2.5×10^5 bbl/year!!)

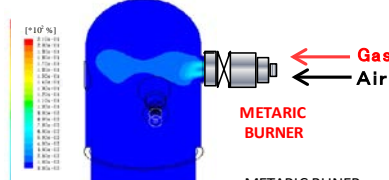
※equivalent in oil



③ HOT STOVE

Top combustion HS with MB

CO concentration

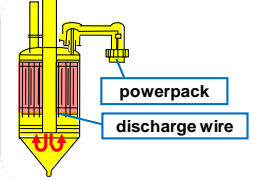


Low unburnt CO :
conventional HS ratio is 1/10

METARIC BURNER enables drastic improvement of mixing efficiency.

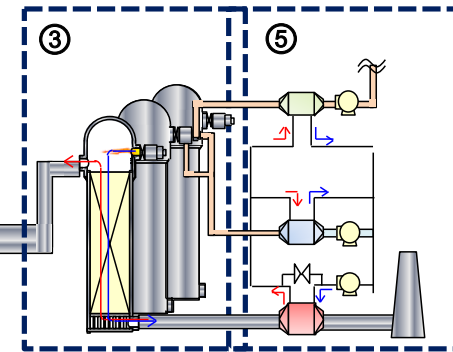
④ GAS CLEANING SYSTEM

Multi-vessel Electrostatic Precipitator



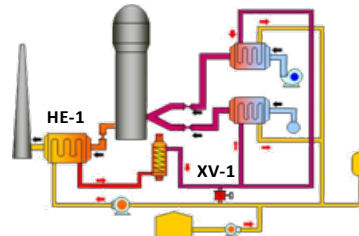
Low energy loss of furnace -Top gas (temperature & pressure)

TRT output:
wet type ratio 30%UP



⑤ HEAT RECOVERY SYSTEM

HS Heat Transfer Medium System



- Temperature of HE-1 outlet is controlled by heat transfer medium flow control valve(XV-1), for over acid dew-point at any time.
⇒ High-efficiency recovery of waste gas energy
- Additional heater enables mono-combustion of BFG.

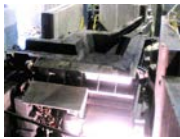
Fuel :
40%DOWN by installation

※ Above energy saving is based on 5000m³ class Blast Furnace.

Stable operation technology (Prevention of energy loss)

CAST HOUSE EQUIPMENT

HOT METAL POT



Prevention of Pig interfusion into slag

Low risk of hydrovolcanic explosion at granulation

cover travercer

TAPHOLE OPNER

Anti-jamming control



MUD GUN



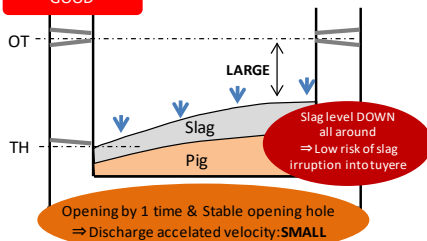
Adapting hard mud

Tapping time is 70%UP

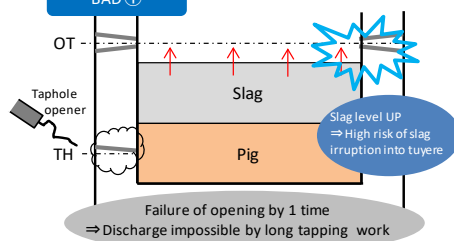
Low risk of slag irruption into tuyere

Stable Tapping

GOOD



BAD ①



BAD ②

