



- Year/Month : 2003/02
- Client/Owner : NANOLAB
- Engineer : ILSHINAUTOCLAVE
- Location : GUNPO, REPUBLIC OF KOREA

#### TITLE

**YSZ Hydrothermal Synthesis System**  
 – Nano Ceramic Powder Production  
 (Ultrafine particle ceramic powder synthesis)

#### PROCESS

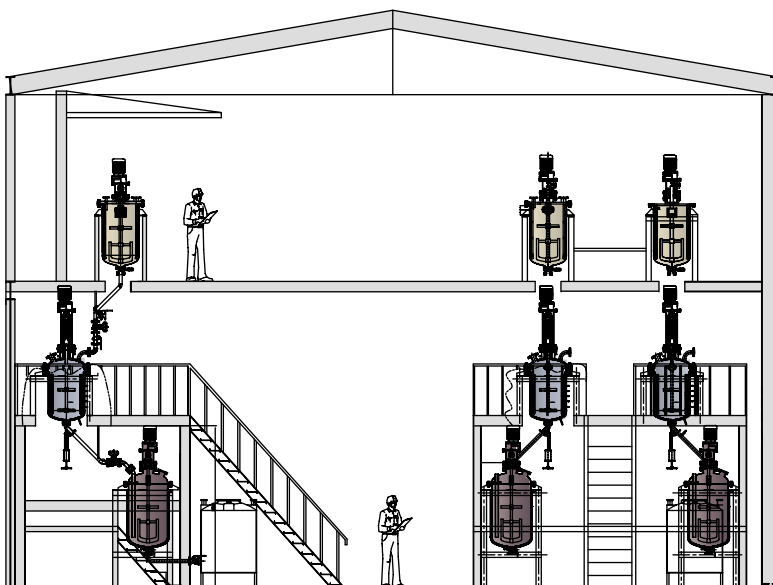
Synthesis Condition	40kg/cm <sup>2</sup> at 200°C
Total Output	33 ton/day
Production Time	8hr/day x 2set

#### MAJOR APPLIANCES

Reactor Vessel	300ℓ x 2 units
Multilayer Vessel	Ni Cladding
Agitator Assy	
Mixing Vessel	400ℓ x 2 units
DI Water Tank	1000ℓ x 2 units
Receiver Tank	500ℓ x 2 units
HP Feed Pump 2 units	
Max. Working Pressure	40kg/cm <sup>2</sup>
Max. Flow Rate	70ℓ/min
Material Moving Pump 2 units	
* Max. Flow rate	96ℓ/min
Pre-Heater	Double Pipe Type x 2 units
Condenser	Shell & Tube type x 2 units

(Certificate of Korean Gas Safety inspection)

#### STRUCTURE



#### FEATURE

- Continuous powder hydrothermal synthesis
- Many years' experience
- Automatic system
- Conform with High-pressure Gas Safety Regulation
- Certificate of Korean Gas Safety inspection