Overview of Development of Explosion-proof Electric-powered Reactor

1. Development framework

Chubu Electric Power Co., Inc.
Location: 1 Higashi-Shincho, Higashi-ku, Nagoya City, Aichi Prefecture
President: Toshio Mita
ITO KOKI CO., LTD.
Location: 14-20 Mitsuya-cho, Yokkaichi City, Mie Prefecture
President: Taizo Ito
Nihon Dennetsu, Co. Ltd.
Location: 500 Toyoshina, Azumino City, Nagano Prefecture
President: Shigeaki Yamamoto

2. Specifications of newly developed product

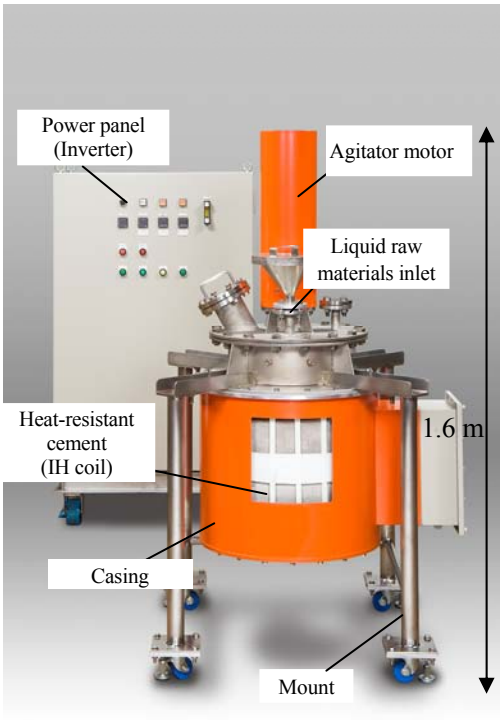


Fig. 1: Appearance of developed product

Table 1 Specifications of developed product

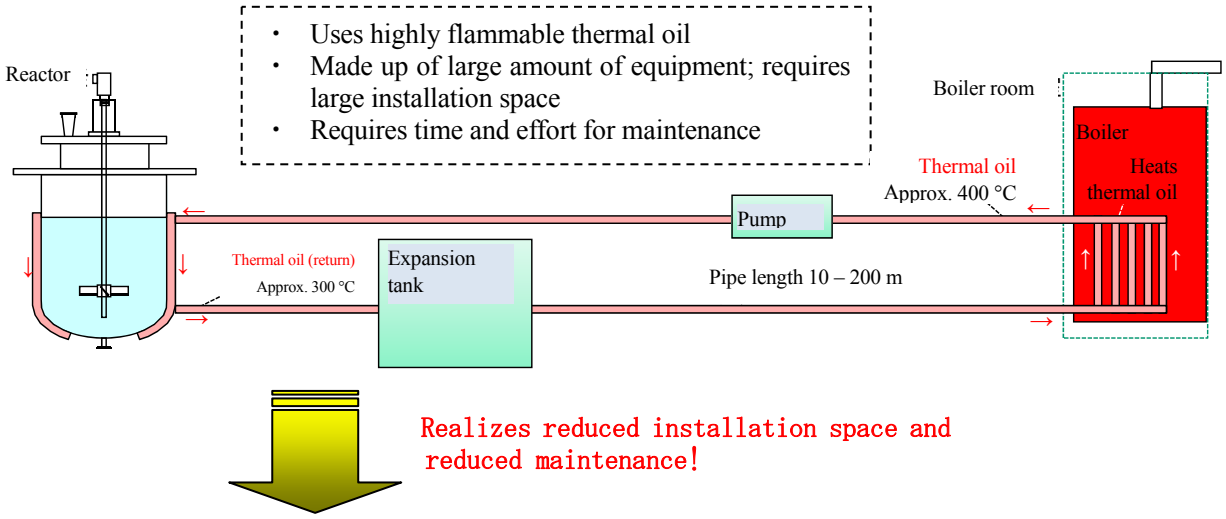
Item		Units	Developed product	Available by special order
Internal capacity		L	100	100 – 3,000
Power source capacity		kW	25	25 – 750
Thermal capability		kW	20	20 – 600
Dimensions	Reactor	Ext. diameter × Height (mm)	740 × 1,600	740 × 1,600 – 1,900 × 4,000
	Control panel	W × D × H (mm)	800 × 200 × 1,500	800 × 200 × 1,500 – 1,200 × 300 × 1,800
Price (not including tax and construction fee)		10,000 yen	600	600 – 7,200
Power specs		–	AC200V three-phase	
Temperature		°C	200 – 400	

Note 1 Specifications and price are indications only, and will differ depending on type of contents and thermal capability.
Note 2 The developed product has been certified as an “explosion-protected electrical apparatus” by the Technology Institution of Industrial Safety, and can be used in Zone2 of Constructional Requirement for Electrical Equipment for Explosive Atmospheres (places in which there is a possibility that flammable gases will be produced, and there is a danger that occasional sparks, etc., may cause an explosion). However, separate certification is required for high-capacity reactors.

3. Aspects of Development

<1> Conventional (thermal oil-heated) reactor

… Heats reactor by supply of high-temperature oil from oil- or gas-fired boiler



<2> Developed product … Reactor itself produces heat using electricity