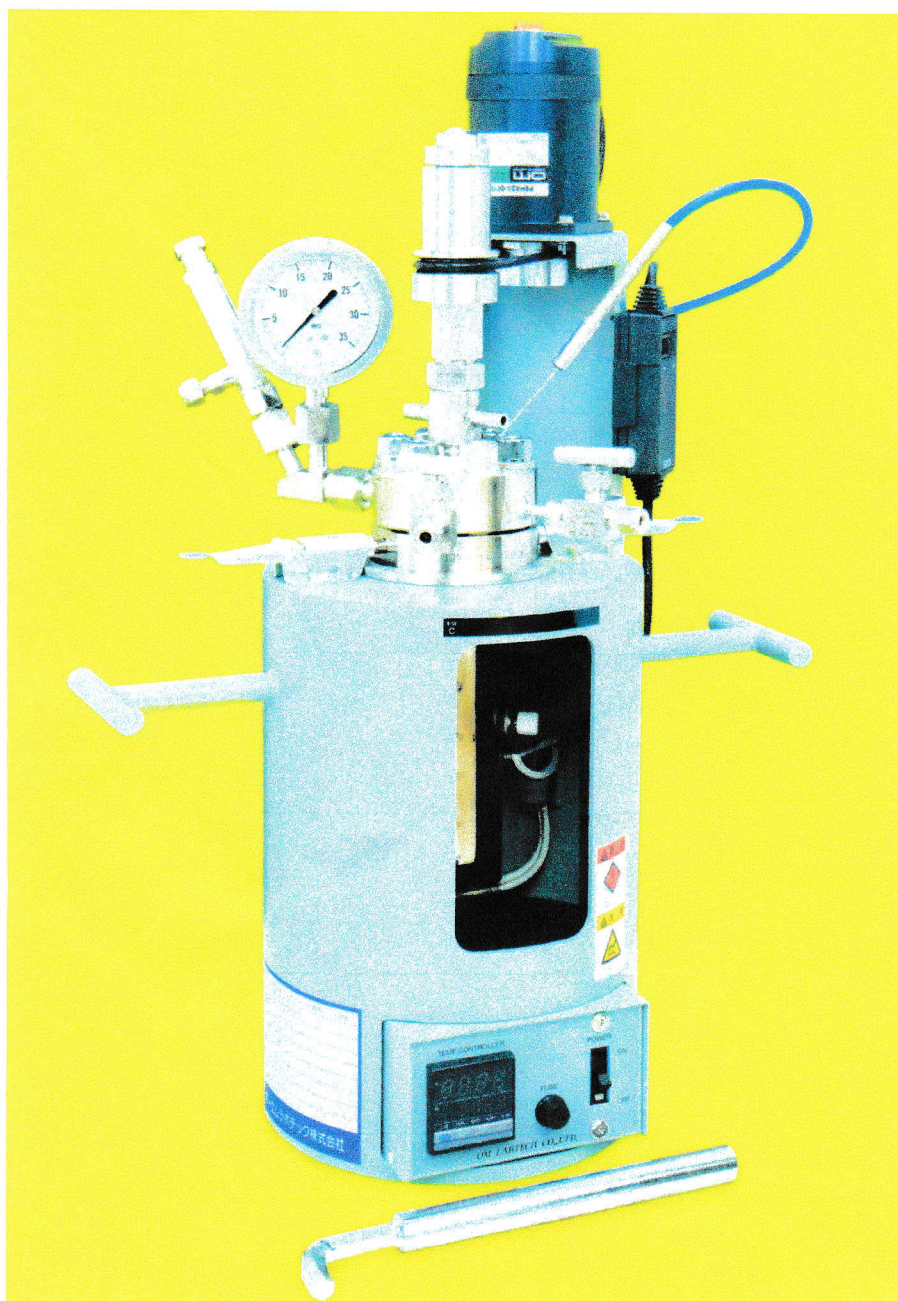


OM MICRO HIGH PRESSURE REACTOR

MMJ-300 (300mL/20MPa/300°C)

MMJ-500 (500mL/20MPa/300°C)



INTRODUCTION

Pressure reactors were extensively used in the past for the basic research and development in chemical, petrochemical, resin, pharmaceutical, food and related process industries. Modern remarkable technical innovations have brought about a wide variety of demands with the progress of electronics/semiconductor technologies and research of biotechnologies.

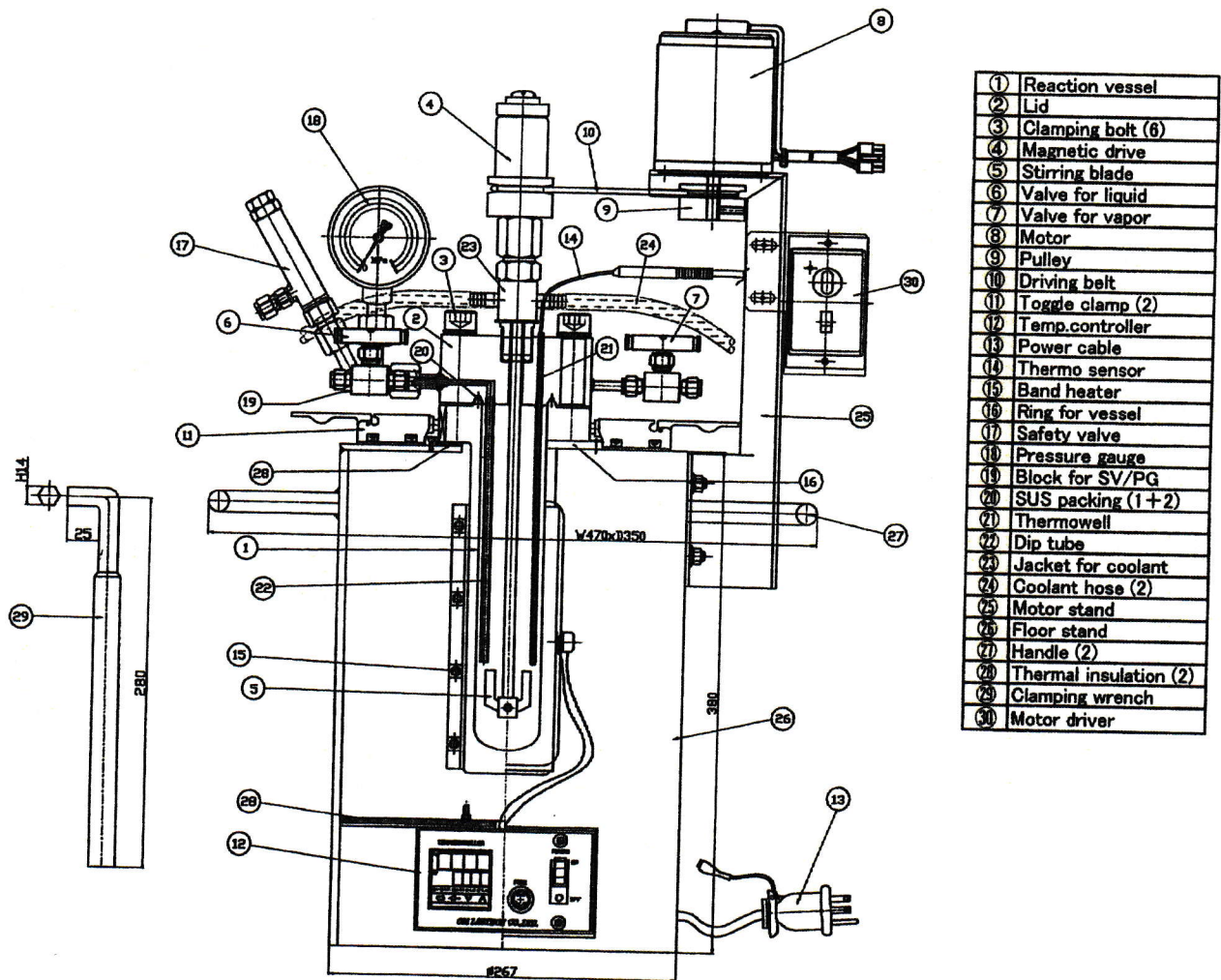
MMJ-300 and MMJ-500 illustrated this catalog is a compact size Micro High Pressure Reactor integrated our own designing and know-how to fulfill such users' needs. MMJ-300 (Capacity 300mL) and MMJ-500 (Capacity 500mL) are series for experiment requiring conditions for use in high pressure (20MPa) and at high temperature (300°C). The rotary agitation and heating functions are also equipped with standards in this pressure reactor, so a basic experiment in a wide area is possible by this one.

MATERIALS

This micro high pressure reactors are basically made of 316 stainless steel that is superior in corrosion resistance. However, other special materials can be provided for them.

- Stainless steel 316L
- Hastelloy alloy C-22

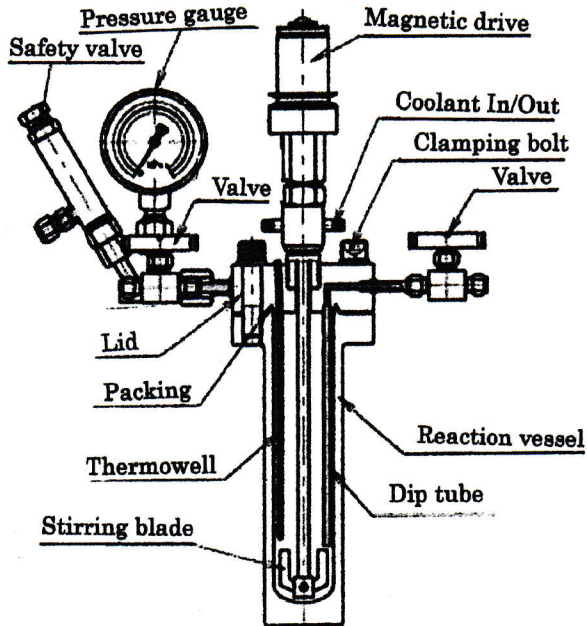
OVERALL STRUCTURE



STRUCTURE OF MAIN UNIT

- COMPACT & EASY OPERATION !
- FOR HIGH PRESSURE & HIGH TEMPERATURE !

Max.working pressure to 20MPa
temperature to 300°C



- Sealing
SUS packing is sandwiched between the vessel and lid, and it's tightened gradually and diagonally by the clamping bolts.
- Heating
A band heater is installed in the outside of reaction vessel. Temperature controller is push-set type in easy operation. When it is set the operation temperature after turning on the power, the temperature of vessel is increased smoothly and displayed digitally on the temp. controller.
- Agitation
The anchor type is installed as a stirring blade. It is able to agitate by the stirring blade and variable speed 90~1,200rpm.

SPECIFICATIONS

Model	MMJ-300	MMJ-500
Vessel capacity	300mL	500mL
Vessel size (ID × Depth)	44.5 × 216mm	51.0 × 260mm
Material	SUS316	
Max.working pressure	20MPa	
Max.working temperature	300°C	
Seal material	SUS316L	
Band heater	AC220V 1,000W	AC220V 1,200W
Motor	AC220V-40W Reversible, Variable speed 90~1,200rpm with thermal protector function	
Magnetic drive	Torque power max. 0.3N-m (MT50-4-φ8)	
Stirring blade	Anchor type	
Pressure gauge	Bourdon tube type, 0~35MPa (AT3/8-75)	
Safety valve	Spring type, 20MPa setted	
Temperature controller	Digital display, Indication accuracy ±0.5% PID control with auto-tuning function	
Thermo sensor	Thermocouple K, φ 1.6 (NICROBELL N)	
Valve	Flow control type orifice φ 3.2-1/4, 200°C-29.4MPa	
Floor stand	Baking finish	
Power requirement	AC220V 1φ 50/60Hz 15A	
Dimensions	500(W) × 350(D) × 750(H)mm	
Net weight	approx.29kgs	approx.32kgs

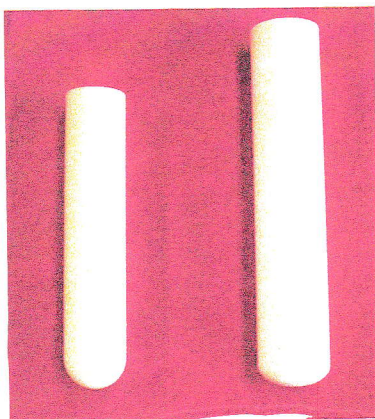
STANDARD ACCESSORIES

Following spare packing attaches to our MMJ-300/500 as standard accessories.

Parts	Material	Q'ty
Packing for vessel-lid	SUS316L	2 pcs
Packing for magnetic drive-lid	SUS316L	1 pce
Packing for pressure gauge	SUS316L	1 pce

OPTIONAL ACCESSORIES

To adapt for the corrosive contents (fluid), e.g., sulfuric acid, it is prepared for the following accessories.



●Teflon Inner Cylinder – See left photo –

It is inserted into the reaction vessel to protect from corrosion, so that the fluid does not contacts with a metallic surface of vessel inside directly.

●Teflon Coating (PFA)

It's possible to increase its corrosion resistance by the coating with teflon (PFA) to stirring blade/shaft, thermowell and dip tube which contacts with the fluid directly. And also possible to get the excellent corrosion resistance by use together with above teflon inner cylinder.

NOTICE : Do not use by more than 180°C temperature when using Teflon Inner Cylinder and Teflon Coating (PFA), since it will be generated the gas of small amount by a chemical reaction and softening starts as the characteristic of teflon (PFA). In the reason above-mentioned, we recommend to be purchased the separated type temperature control box with a built-in over-heating prevention function (option).

CONSUMPTION PARTS (OPTIONS)

We recommend to be purchased the following parts rather much as consumable if there are lot of experimental times.

Parts	Material	M/M Q'ty
Packing for vessel-lid	SUS316L	3 pcs
Packing for magnetic drive-lid	SUS316L	2 pcs
Packing for pressure gauge	SUS316L	2 pcs
Bearing unit for magnetic drive	Carbon teflon	4 pcs/set + Delt seal

OM LAB-TECH CO., LTD.

522-2 Shizuwa Iwafunemachi, Tochigi-City,

Tochigi-Pref. 329-4304 Japan.

Tel 0282-55-1666 Fax 0282-55-1664

URL <http://www.omlabo.com>

E-mail : omlabo0@olive.ocn.ne.jp

Contact to

S.T.CORPORATION.

Toshinao Ishizu

6-76-9 Hirai, Edogawa-Ku,

Tokyo 132-0035, Japan.

Tel 03-6657-5878 Fax 03-6657-5829

E-mail ishizu@hb.tp1.jp