OM COMPACT VESSEL
with PTFE CLOSED CYLINDER

MR Series : MR28 (28mℓ) · MR98 (98mℓ)
MD Series : MD226 (226mℓ) · MD508 (508mℓ) · MD790 (790mℓ)

OM LAB-TECH CO., LTD.

INTRODUCTION

The 5kinds of capacity (28mℓ, 98mℓ, 226mℓ, 508mℓ, & 790mℓ) is prepared, and Compact vessel can choose by an experimental purpose. PTFE inner cylinder is embedded in Stainless outer vessel like a two-layer structure. Compact vessel is protected by tough stainless steel outside, so it is possible to heat the temperature up to 250℃, also possible maintain the pressure to 5MPa. A valve isn't attached in this compact vessel, so pressurization from outside can't be done. Therefore PTFE inner cylinder is pressurized by the saturated vapor pressure which occurs by heating.
An experiment by 250℃ became possible by adoption of this stainless outer vessel. However please use it by less than 200℃ in case of continuous operation for more than 1 week. A contents is tightly sealed in PTFE inner cylinder, so it is most suitable for strong acid and alkaline dissolution experiment. And also a metallic iron does not occur at the time of heating decomposition for PTFE made.
The handling is very easy. O-Ring for sealing isn't being used at all, so it is possible to prevent mixing with impurities in a cylinder. When experimenting, please tighten a setting cap by a hand according as the predetermined procedure after putting a test sample in cylinder. When tightening up by a wrench of torque 50～70N·m at the end, it is completion.

Important Notice

1) Please don't use for the experiment of the combustible test sample or toxic gas generates.
2) To avoid the liquid seal state by the liquid expansion, please set the amount of charge of test sample into PTFE inner cylinder to less than 50%.
3) Please use an oven or thermostat chamber for physical and chemical appliances which can control exactly the temperature when heating this compact vessel.

Features

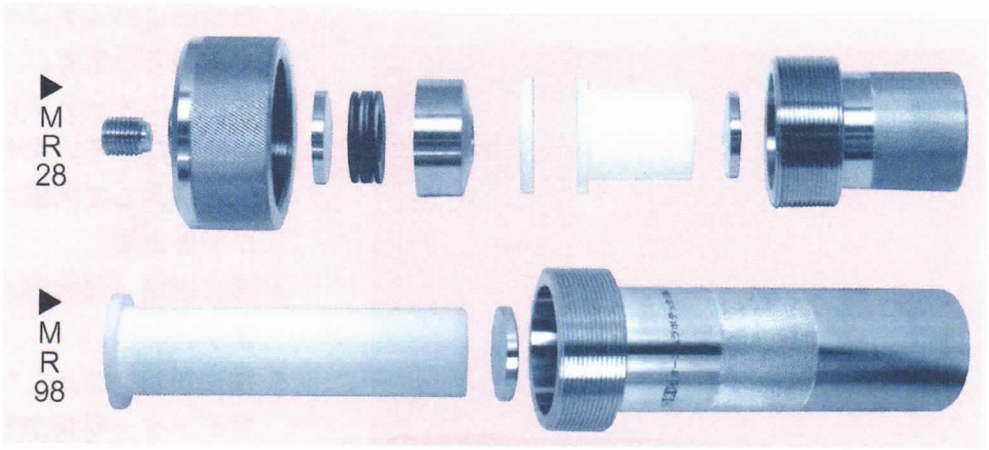
★ Closed type by PTFE inner cylinder !
★ Non O-Ring type !
★ Easy operation !
★ Continuous operation for more than 1 week !

Main Specifications

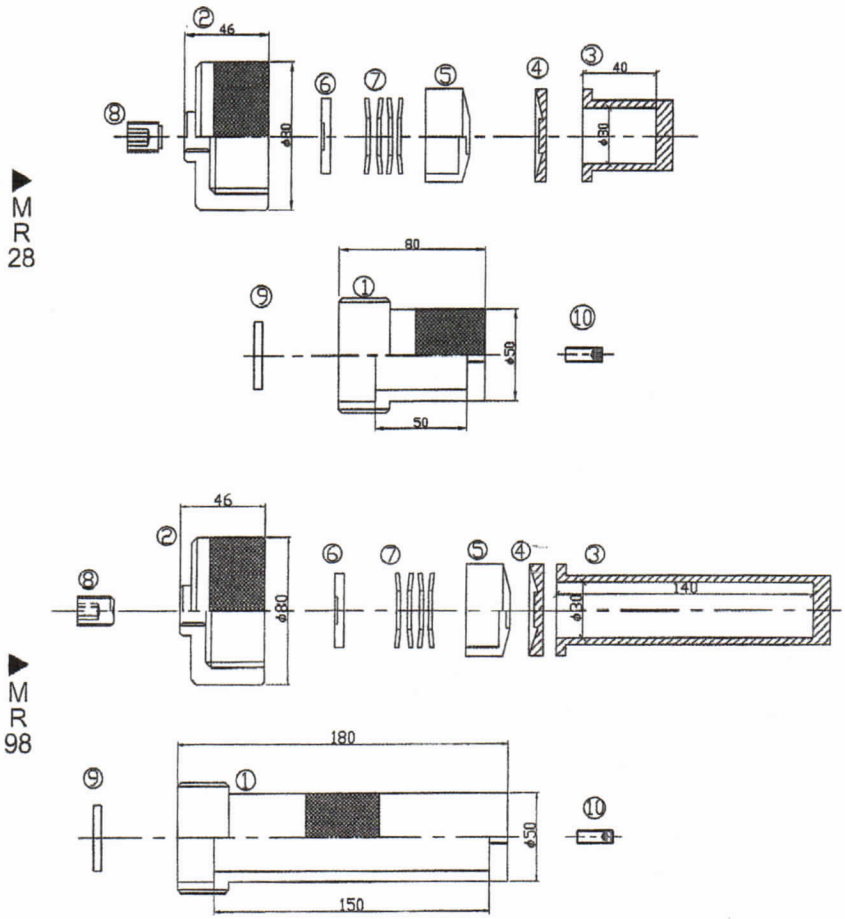
No.	Model	MR28	MR98	MD226	MD508	MD790
1	Actual Capacity	28mℓ	98mℓ	226mℓ	508mℓ	790mℓ
2	Max. Fluid Volume	14mℓ	49mℓ	113mℓ	254mℓ	395mℓ
3	Max. Working Temperature	250℃				
4	Max. Working Pressure	5MPa (※ at saturated vapor)				
5	Material	Inner cylinder PTFE/Outer vessel SUS304				
6	Sealing Method	Non O-Ring				
7	Inner Cylinder Size, ID × Depth(mm)	30 × 40	30 × 140	60 × 80	60 × 180	60 × 280
8	Outer Vessel Size, OD × Length(mm)	80 × 120	80 × 220	100 × 225	100 × 325	100 × 425
9	Weight	2kg	2.7kg	6.2kg	7.8kg	9.7kg

Note: To use by less than 200℃ when a continuous operation time is more than one week.

Configuration



<MR Series>
MR28(28mℓ) & MR98(98mℓ)
Max. working temp. : 250℃
Max. working press. : 5MPa



Components

No.	Part Name	Material
①	Stainless outer vessel ・MR28(28mℓ) ・MR98(98mℓ)	SUS304
②	Setting cap	SUS304
③	PTFE inner cylinder ・MR28(28mℓ) ・MR98(98mℓ)	PTFE
④	Inner cap	PTFE
⑤	Spring weight	SUS304
⑥	Spring presser	SUS304
⑦	Spring	S60CM
⑧	Screw	SCM435
⑨	Put out plate	SUS304
⑩	Press bolt	SUS304

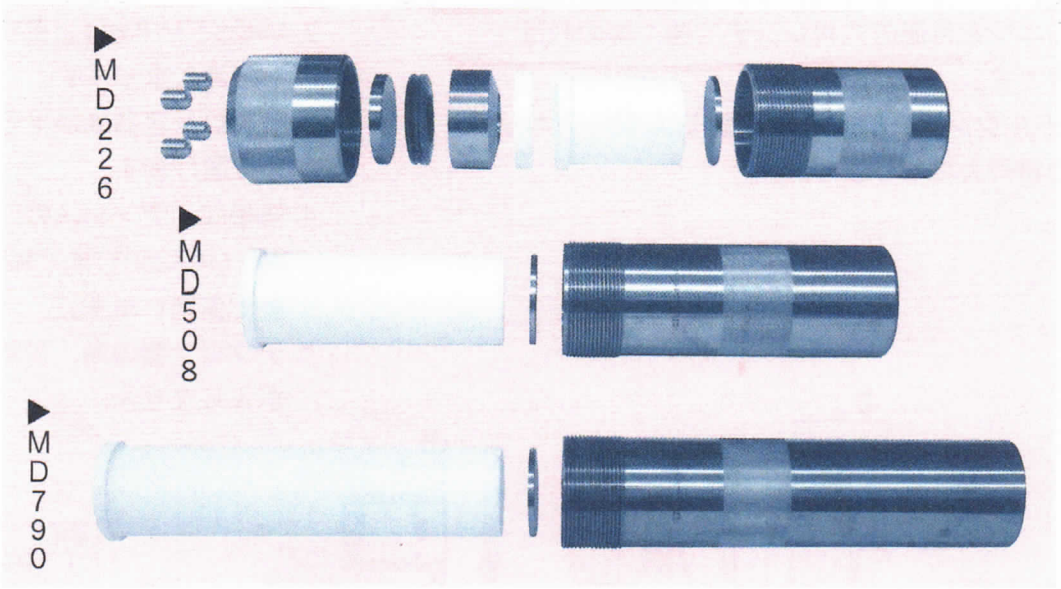
Options :

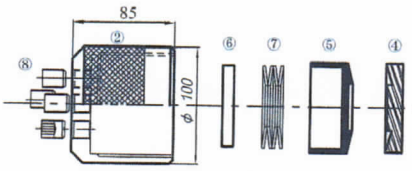
・③PTFE inner cylinder and ④Inner cap

These parts ③·④ are contacted the contents (fluid) directly under high temperature and high pressure, so it is necessary to exchange periodically. Before using, please check whether there is a degradation such as deformation or not.

When purchasing, we recommend to be bought sparely as consumables.

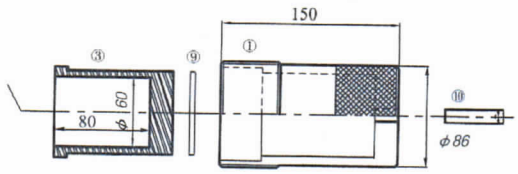
Configuration



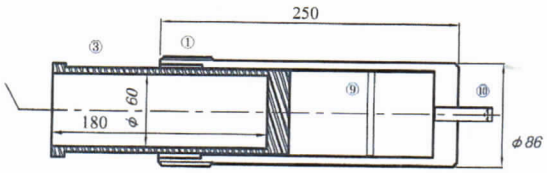


Common upper portion of
MD226, MD508 & MD790

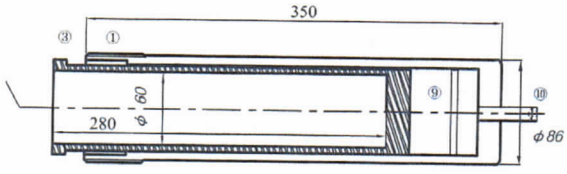
<MR Series>
MR226(226mℓ)
MR508(508mℓ)
MR790(790mℓ)
Max. working temp. : 250℃
Max. working press. : 5MPa



MD226



MD508



MD790

Components

No.	Part Name	Material
①	Stainless outer vessel ・MD226(226mℓ) ・MD508(508mℓ) ・MD790(790mℓ)	SUS304
②	Setting cap	SUS304
③	PTFE inner cylinder ・MD226(226mℓ) ・MD508(508mℓ) ・MD790(790mℓ)	PTFE
④	Inner cap	PTFE
⑤	Spring weight	SUS304
⑥	Spring presser	SUS304
⑦	Spring	S60CM
⑧	Screw	SCM435
⑨	Put out plate	SUS304
⑩	Press bolt	SUS304

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