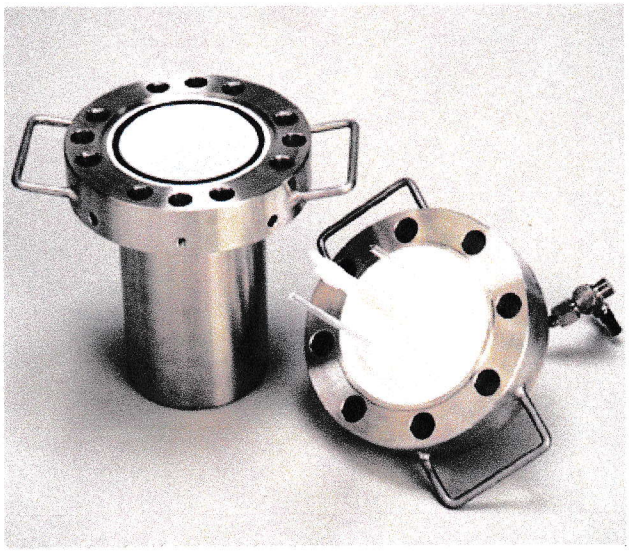
TAIATSU PRESSURE VESSEL
with TEFLON INNER CYLINDER

TAF-SR-50/100/300 (50mℓ/100mℓ/300mℓ)

TAF-R1500 (1500mℓ)

TAF-R1500 Custom Made Reactor

TAF-SR-300



TAF-R1500

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■Introduction

A corrosive fluid is often used during an experiment by corrosion/protection against corrosion of a metal material, aluminum alloy-plating or research of the hydrogen energy field. Elution of metallic ion is not liked extremely by such experiment, so it is not possible to use metal vessel.

TAF-SR Pressure Vessel inserts excellent Teflon Cylinder in corrosion resistance inside stainless vessel which holds the pressure, attaches a Teflon cover inside lid and makes use of Viton made O-ring as seal material. Exposure of metal surface inside the vessel disappears by this method, and corrosive fluid does not contact vessel metal surface directly. As a result, it is possible to stop elution of metallic ion, and it can also be used for difficult experiments by metal vessel. Moreover it is available for durability test of a sample by corrosive solvent, etc.

TAF-SR closed Pressure Vessel can also use for chemical pretreatment of various analysis with a solvent easily because it is able to just tighten a cap with a hand and seal it up.

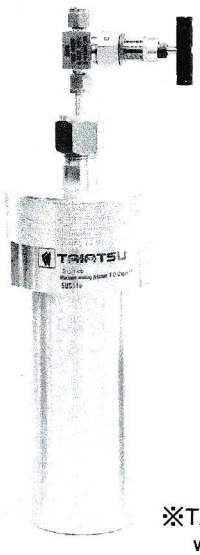
■Main Specifications

3 kinds of models in TAF-SR series by the capacity as follows.

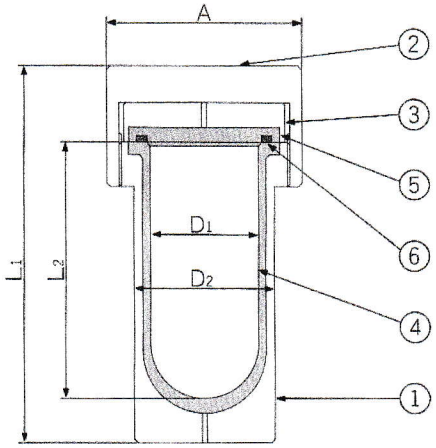
Model	TAF-SR-50	TAF-SR-100	TAF-SR-300
Capacity	50mℓ	100mℓ	300mℓ
Max.working pressure	10MPa		
Max.working temperature	180℃		
Inner cylinder	Teflon (PTFE)		
Outer vessel	SUS316		
Packing	Viton		

※There is time when a lid does not open while the pressure is left inside the vessel. When you try to open the cap by force, the jammed screw is caused. Please cool the vessel at that time and open after it will be the normal pressure.

■Configuration & Components



※TAF-SR-300
with Valve (Option)



Size	ϕA	L1	L2	ϕD1	ϕD2
50mℓ	68	125	74.5	34.3	47
100mℓ	80	153	98.5	44.1	57.4
300mℓ	100	228	157.5	53.4	70

unit : mm

No.	Part Name	Material	Part No.
①	Vessel main body	SUS316	
②	Cap	SUS316	
③	Lid	SUS316	
④	Inner cylinder	Teflon	
⑤	Lid cover	Teflon	
⑥	O-Ring		
	50mℓ	Viton (Standard)	P-40
	100mℓ		P-50
	300mℓ		P-60

※A vessel with a valve is also manufactured in option. The pressurization by gas and extraction of a sample (fluid) become possible through a valve, and they feel a vessel with valve is used for various purpose. But, nozzle and valve are SUS316 made, and the gas which experimenting contacts the SUS material, so when it is choice, please be careful.

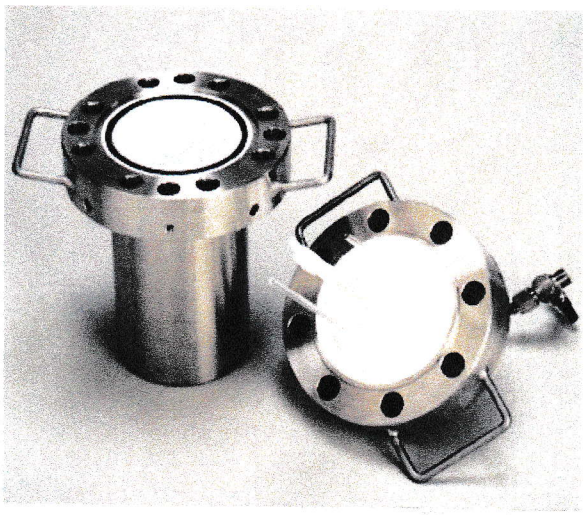
■Introduction

TAF-R1500 is the pressure vessel which be hermetically sealed by Teflon cylinder and Teflon lid cover like TAF-SR series. It is most suitable for various reaction experiments which does not like corrosion of metal vessel and pollution by a corrosive solvent.

An outer vessel made in SUS316, and it has excellent corrosion resistance by using of inner cylinder and lid cover made in Teflon.

TAF-R1500 body is a pressure reactor of capacity 1500mℓ, and it is possible to seal up in slight tightening torque because of using O-ring between the body and lid.

■Main Specifications



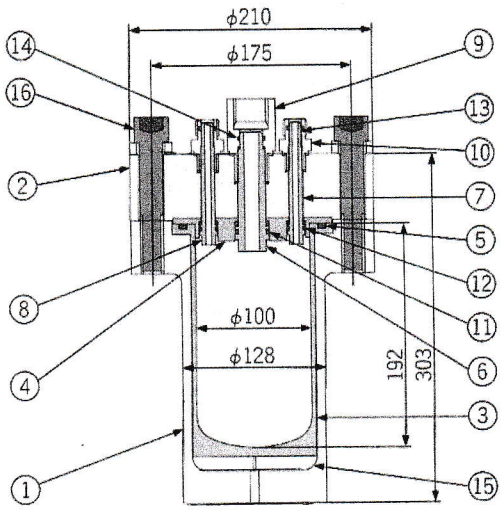
TAF-R1500

TAF-R1500 is a single item of pressure vessel, and it is possible to expand the functions by additional unit (magnetic drive, thermowell, dip tube, etc.) as the next page.

In that case, the magnetic drive and thermowell are treaded with teflon coating, and dip tube can adopt pyrex tube. An experiment of a corrosion sample (fluid) becomes possible by installation of such additional units.

Model	TAF-R1500
Capacity	1500mℓ
Max.working pressure	10MPa
Max.working temperature	180℃
Inner cylinder	Teflon (PTFE)
Outer vessel	SUS316
Packing	Viton

■Configuration & Components

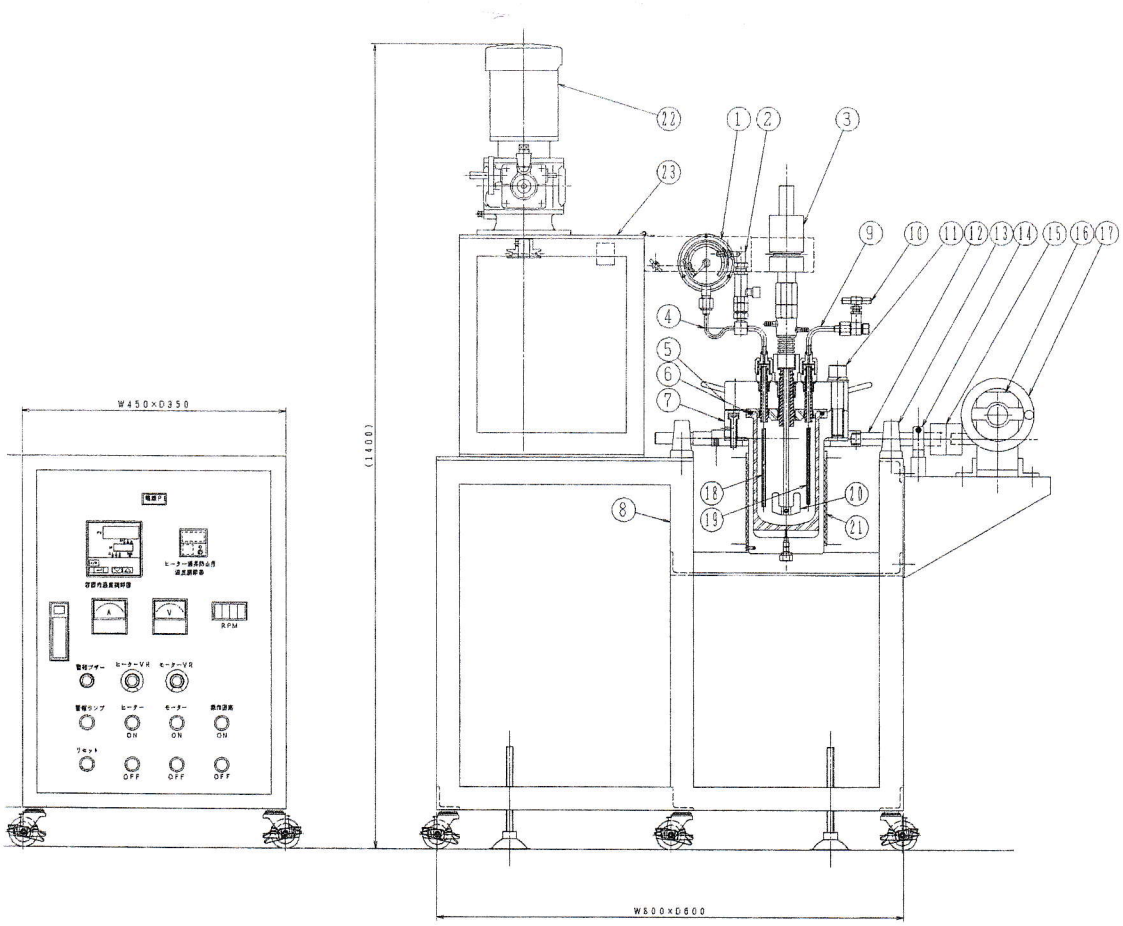


No.	Part Name	Material	Q'ty	Remarks
①	Outer vessel	SUS316	1	
②	Lid	SUS316	1	
③	Inner cyclinder	Teflon	1	1650mℓ
④	Lid cover	Teflon	1	
⑤	O-Ring	Viton	1	P-120
⑥	Agitator shaft orifice for inner cylinder	Teflon	1	
⑦	Connection orifice for inner cylinder	Teflon	2	Inner dia. ϕ3
⑧	Thermowell orifice for inner cylinder	Teflon	1	Inner dia. ϕ6.5
⑨	Joint for agitator shaft orifice	SUS316	1	
⑩	Joint for connection orifice	SUS316	4	
⑪	O-Ring	Viton	2	P-24
⑫	O-Ring	Viton	8	P-12
⑬	O-Ring	Viton	4	P-10A
⑭	O-Ring	Viton	1	P-20
⑮	Bottom plate	SUS316	1	
⑯	Hexagon socket head cap bolt	SUS316	8	M20×P1.5

■Custom Made Reactor

This equipment is the product by which the function was expanded using pressure vessel TAF-R1500. A magnetic drive(agitator), heater, valves and safety valve are installed in the pressure vessel additionally, and also the temperature and motor are controlled by the control box. The corrosion-resistance is taking the measures for agitator shaft/stirring blade, thermowell and dip tube inside the teflon inner cylinder. For that reason it is most suitable for various reaction experiments which do not like corrosion of metal vessel and pollution by a corrosive solvent.

It is installed the vessel revolution mechanism at stand, and capable the taking of sample.



No.	Part Name	Material	Q'ty	Remarks
①	Pressure gauge	SUS316	1	15MPa
②	Safety valve	SUS316	1	8MPa set
③	Magnetic drive	SUS316	1	M-16
④	Nozzle for PG/SV	SUS316	1	
⑤	Lid	SUS316	1	
⑥	O-Ring	Viton	1	P-120
⑦	Reaction vessel	SUS316	1	
⑧	Stand	SS400	1	
⑨	Nozzle for valve	SUS316	2	
⑩	Valve	SUS316	2	NBS-01
⑪	Bolt	SUS304	8	M20×P2.5
⑫	Revolution shaft	SUS304	1	

No.	Part Name	Material	Q'ty	Remarks
⑬	Pillow block		2	UCP204
⑭	Stopper		1	SB20
⑮	Coupling		1	
⑯	Case		1	
⑰	Handdle		1	
⑱	Dip tube	Pyrex	1	
⑲	Thermowell	SUS316	1	Teflon coated
⑳	Stirring blade	HC-22	1	
㉑	Heater(Micro-Ring)		1	200V 1φ1.5KV
㉒	Motor		1	200V 3φ200W
㉓	Motor stand		1	
㉔	Control box		1	200V 3φ15A

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