



SCIENTIFIC SUPPORT

Fluoropolymer Labware

PFA • FEP • PTFE • TFM*Vessels and instruments for trace analysis, ICP-MS, semiconductor and ultra-trace work***Designed and quality-assured in Singapore. Manufactured to LabStory specification.**

Brand owner: LabStory Pte Ltd, Singapore (UEN 202424720M) • Country of origin: China
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About the Range

The LabStory Fluoropolymer Labware line is a complete family of vessels and instruments for element analysis, engineered from PFA, FEP and PTFE. These materials offer extraordinary corrosion resistance, high temperature stability and extremely low trace-metal background, which makes them the standard for the cleanest sample preparation.

- A complete solution for the entire element-analysis workflow, from digestion and evaporation to storage and acid purification.
- Ultra-low trace-metal background, with lead and uranium levels typically below 10 ppt, ideal for ultra-trace elemental analysis.
- Widely used in geochemistry, isotope analysis, biomedical research, environmental monitoring, semiconductor and microelectronics.
- Made to order across a wide range of sizes; custom moulding, welding and machining available.

Designed in Singapore, manufactured to specification

This range is brand-owned by **LabStory Pte Ltd, Singapore**, and produced by an established fluoropolymer manufacturer under an OEM agreement to LabStory quality specifications. Products are designed and quality-assured in Singapore and manufactured in China.

Material Guide

Choosing the right fluoropolymer for the job:

Property	PFA	FEP	PTFE / TFM
Full name	Perfluoroalkoxy Alkane	Fluorinated Ethylene propylene	Polytetrafluoroethylene / modified PTFE
Temperature	-200 to +260 C	-200 to +205 C	-200 to +250 C
Transparency	Translucent	Transparent	Opaque pure white
Acid resistance	Highly resistant to strong acids, strong bases, aqua regia, hydrofluoric acid (HF), and virtually all organic solvents.		
Trace-metal and other impurity background	Ultra-low trace metal background, with lead (Pb) and uranium (U) levels below 10ppt, making it ideal labware for ultra-trace elemental analysis.		
Best for	Ultra-trace vessels, CRM storage	Transparent vessels, sampling	Digestion, crucibles, heavy-duty
	Ultra-trace analytical laboratories, isotope analysis laboratories, semiconductor wafer fabrication, and microelectronics manufacturing facilities.		

PFA Products

High-purity PFA, translucent, resistant to strong acids and bases, with an ultra-low trace-metal background. Compatible with PFA or PTFE lids and hot-plate use.

PFA Bottle, Narrow-mouth

Capacity (ml)	Opening ID (mm)	Body OD (mm)	H (mm)
30	14	32	69
60	14	39	88
100	16	49	100
125	18	50	118
250	25	63	132
500	25	77	170
1000	25	100	250



PFA Bottle, Wide-mouth

Capacity (ml)	Opening ID (mm)	Body OD (mm)	H (mm)
60	16	39	89
100	33	48	96
250	35	64	141
500	35	77	170
1000	35	97	209
2000	35	130	240



PFA Beaker

High-purity PFA, ultra-low trace-metal contamination, hot-plate safe, compatible with PFA or PTFE lids.

Capacity (ml) **OD (mm)**



		H (mm)
10	26	41
30	39	50
50	46	60
100	61	70
250	75	97
500	94	121

PFA Volumetric Flask (Class A)

Manufactured to Class A volumetric accuracy. Third-party calibration certificates available on request.

Capacity (ml)	Class A tolerance (ml)	H (mm)
10	±0.02	93
25	±0.03	102
50	±0.05	144
100	±0.10	224
250	±0.15	173
500	±0.25	266
1000	±0.40	317
2000	±0.50	505



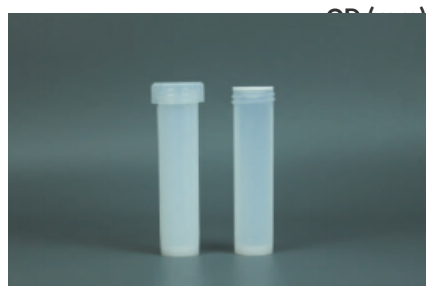
PFA Crucible

Heat resistant up to 260 C with a flat bottom for hot-plate use. Compatible with PFA or PTFE lids.

Capacity (ml)	Opening OD (mm)	H (mm)
20	40	38
30	40	42
50	50	52
100	61	64
250	85	70
500	101	95



PFA Digestion Tube



Capacity (ml)	H (mm)
60	130

More PFA products (full sizes available on request)

Product	Description and sizes
Graduated cylinder	Clear graduations, smooth inner surface. 5 to 2000 ml.
Beaker with handle	Welded PTFE handles below 1 L; integral handles at 1 L and above. 100 to 5000 ml.
Vial and jar	Rounded, conical or flat interior; leak-tight threaded caps. 3 ml to 30 L.
Wash bottle	Narrow and wide-mouth; integrated one-piece nozzle. 125 to 500 ml.
Centrifuge and sample tube	Conical-bottom, ICP-MS grade sample tubes. 3 to 50 ml.
Flask range	Erlenmeyer, flat-bottom, pear-shaped and multi-neck flasks with B14 to B29 joints.
Funnel range	Standard, Buchner and separator funnels; constant-pressure dropping funnel.
Pipette and column	Bulb pipette, burette, chromatography and filtration columns, micro column, pipette tips.
Tubing, valve, connector	PFA tubing 2 to 14 mm; two and three-way valves and connectors, 1/8 to 1/2 inch.
Sampling tools	Spoon, shovel, scoop, sampling beaker, tweezers and tongs.
Reaction and gas washing	Reaction vessels 250 to 6000 ml; gas-washing bottles and impingers.
Wafer cassette and container	Y-type and M-type handles; wafer containers with matching lids.
Cleaning tank and tray	Acid-vapor cleaning systems, trays and cleaning tanks.

We offer custom molding, welding, and machining services for PFA materials.

FEP Products

Transparent FEP for excellent chemical resistance and visual monitoring, with ultra-low metal background values.

FEP Bottle



Sizes (ml)

Type

Narrow-mouth	25/30, 60, 100, 125, 250, 300, 500
Wide-mouth	300, 500, 1000, 2000, 3000, 4000, 5000

FEP Beaker



Notes

Capacity (ml)

10, 30, 100	Transparent body, thin wall for efficient heat transfer
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More FEP products



Construction and sizes

Product

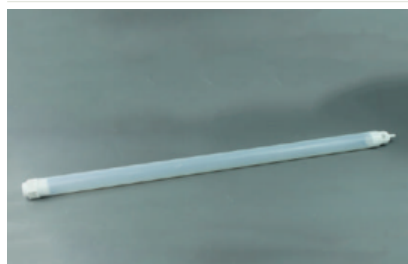
Volumetric flask	Class B accuracy, optional calibration certificate. 10 to 2000 ml.
Gas washing bottle	Standard 3 mm x 6 mm tubing; narrow and wide-mouth. 100 to 5000 ml.



on and sizes

Product

Wash and dropper bottle	Squeeze dispensing, one-piece nozzle. 30 to 1000 ml.
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ity FEP with PTFE stopcock.
000 ml.**Separatory funnel**

Centrifuge tube and pipette	Transparent, corrosive-sample handling. 1 to 50 ml.
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Bailer and film	Groundwater bailer 500 to 1000 ml; FEP film for sealing and lining.
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Tubing	Multiple sizes 2 mm x 3 mm to 22 mm x 25 mm.
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PTFE Products

Opaque pure-white PTFE for high-temperature and corrosive work. Non-stick, easy to clean, excellent sealing.

PTFE Bottle

Capacity (ml)	Mouth ID (mm)	Body OD (mm)	H (mm)
50	22	50	71
100	26	60	92
250	34	70	121
500	46	90	149
1000	58	108	188
2000	64	140	219
5000	86	180	272

PTFE Barrel

Capacity (L)	OD (mm)	H (mm)
5	190	270
10	247	282
25	280	410
50	414	437



PTFE Beaker

Ideal for high-temperature and corrosive sample preparation. Non-stick surface, custom dimensions supported.

Capacity (ml)	Body OD (mm)	H (mm)
10	25	36
50	37	54
100	44	75



Capacity (ml) Body OD (mm) H (mm)



250	67	93
500	83	107
1000	94	153
2000	143	164
5000	180	223

PTFE Crucible



Sizes available

Capacity (ml)

20 to 500	20, 30, 50, 100, 250, 500
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PTFE Digestion Vessel

For acid digestion and high-temperature sample preparation, with excellent sealing to prevent sample loss. Hot-plate compatible.

Capacity (ml) Range

50 to 50 L	50, 100, 150, 200, 250, 500, 1000, 1500, 2000, 3000, 4000, 5000, 10 L, 20 L, 50 L
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PTFE Evaporating Dish

Capacity (ml) Sizes

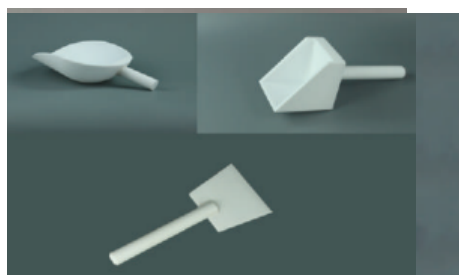
50 to 500	50, 100, 150, 250, 500
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More PTFE products (full sizes available on request)

Product	Description and sizes
Bottle with fitting	Reagent storage with customizable fitting types. 100 to 5000 ml.
Petri dish and tray	High-purity handling and drying. OD 20 to 210 mm; trays to 900 mm.
Cleaning tank	Seamless design for acid etching and soaking. Custom dimensions.
Sampling beaker and scoop	Welded handle designs for collecting liquids and powders.

Product	Description and sizes
Bucket and acid sampler	Handled buckets; acid samplers for HCl, sulfuric and nitric acid.
Deep-water and dispenser	Deep-water samplers with rope; solvent dispensers 500 to 1000 ml.
Flask and reactor	Flat and round-bottom flasks; TR-series reactor systems 5 to 50 L; flange reactors.
Condenser and stirring	Condensers; serrated stirring blades and stirring paddles.
Funnels and sieves	Funnel, Buchner funnel, sieve, constant-pressure dropping funnel.
Filter holders	Standard and reinforced filter holders; multi-layer filter holder.
Wafer cassette and carrier	Single and multi-wafer cassettes 1 to 12 inch for semiconductor.
Handling tools	Valves, tweezers, tongs, scraper, shovel, strainer, spoon, scissors, perforated basket.
Tubes and syringe	Centrifuge and digestion tubes; PTFE syringe 10 to 5000 ml.
Columns and absorption	Fractionating column; bubble absorption bottle.



Systems and Instruments

Distillation System

Three-part heating, condensation and collection system in PFA and PTFE for separation and purification in electronic chemicals, pharmaceuticals and the nuclear industry. All components can be freely configured.

Microwave Digestion Vessels

Inner and outer vessels compatible with major international microwave digestion brands. Custom PEEK outer vessels, vessel racks and cleaning tanks available. A wide range of body diameters and heights.

High-Pressure Digestion Vessel

Rapid dissolution of difficult samples through elevated temperature and pressure, for ICP-MS, ICP-OES, AAS and AFS preparation. Stainless steel 304 or 316 outer vessel; PTFE or TFM liner; pressure resistance 3 to 6 MPa.

Capacity (ml)	Liner OD (mm)	Liner H (mm)
5	29	50
30	39	59
100	50	87
250	78	105
500	83	118
1000	113	160

Hotplates and Digestion Systems

Product	Description and sizes
Inert hotplate (DBF)	PFA-coated non-stick surface, PID control. 400 mm x 300 mm and 600 mm x 400 mm, to 220 C.
High-temperature hotplate (GW)	Non-coated surface to 350 C. 400 mm x 300 mm and 600 mm x 400 mm.
Hotblock digestion (XJ)	Graphite heating, 12 to 72 wells, PFA-coated or uncoated, to 350 C.
Acid evaporation (GS)	Graphite, 12 to 48 wells, for acid removal after microwave digestion.
PFA rotary evaporator (RES)	500 to 2000 ml, dual PTFE and fluororubber sealing, to 200 C, 1500 W.

Acid Purification Systems

Sub-boiling distillation systems producing high-purity acids, ultra pure water and organic solvents, ideal for ICP-MS, trace and ultra-trace analysis.

Model	Wetted material	Capacity	Production rate
SCH (PFA)	PFA	1 to 6 L	50 to 130 ml/hr
CH (PTFE)	PTFE	500 to 4000 ml	35 to 100 ml/hr

Typical Purification Data (HF, by ICP-MS)

After purification, impurity content for representative elements, measured by ICP-MS:

Element	Purified acid (ng/g)	Element	Purified acid (ng/g)
Be	< 0.01	Ba	< 0.01

Element	Purified acid (ng/g)	Element	Purified acid (ng/g)
Mg	< 0.02	Ce	< 0.01
Cr	< 0.03	Nd	< 0.01
Zn	< 0.02	Pb	< 0.01
Cd	< 0.01	Th	< 0.01
Sn	< 0.01	U	< 0.01

Values shown are representative; a full certified element list is available on request.

Industries and Applications

- Geochemistry and isotope analysis, including ultra-trace elemental work.
- Semiconductor and microelectronics, wafer cleaning, etching and handling.
- Environmental monitoring and water testing.
- New energy, new materials and non-ferrous metals.
- Pharmaceutical, biomedical and food-safety laboratories.

How to Order

This catalogue is a working master. All sizes are made to order, and custom moulding, welding and machining are available. To request a quotation, tell us the product, material (PFA, FEP or PTFE), sizes and quantities.

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