

SHIMSEN Laboratory Consumables

Chromatography & Spectroscopy Consumables



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■ Screw Neck ND9

- Wide opening 9-425 vial can be used on all common autosamplers, perfectly compatible with SHIMADZU, Aglient, Thermo Scientific, Waters, etc
- The screw cover gasket has excellent sealing and can be re-sealed. Cap pad meets RoHS, no heavy metals
- The bottle is made of imported type I borosilicate glass, and the cover pad is made of imported PTFE/ silicone cover pad, which guarantees the quality



Ref.No.	380-00451-11	380-00451-21	380-00451-31	380-00451-41
Description	1.5mL Screw Neck Vial, Clear glass with Lable	1.5mL Screw Neck Vial, Clear glass	1.5mL Screw Neck Vial, Amber glass with Lable	1.5mL Screw Neck Vial, Amber glass
100 pcs/pk.				

■ PP Screw Neck ND9



Ref.No.	380-00509	380-00510
Description	1.5mL PP Screw Neck Vial, 32*11.6mm	0.3mL PP Screw Neck Vial, 32*11.6mm
100 pcs/pk.		

Snap Neck ND11

- Snap ring caps are also available in a soft quality with transparent or blue caps, soft caps are more convenient in handling (pushing on/removal)
- The vials have two colours



380-00601



380-00602

Ref.No.	380-00601	380-00602
Description	1.5mL snap Neck Vial, Clear glass with Lable 32*11.6mm	1.5mL snap Neck Vial, Amber glass with Lable 32*11.6mm
100 pcs/pk.		

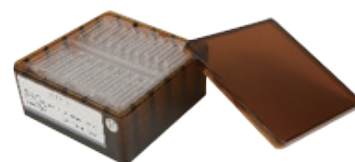


380-00505



380-00506

Ref.No.	380-00505	380-00506
Description	0.3ml 31*6mm Insert Clear Glass Flat Base	0.25ml 29*5.7mm Insert Clear Glass Conical Base with Polyspring
100 pcs/pk.		



Standard Screw Cap ND9



380-00504



380-00503

Ref.No.	380-00504	380-00503
Description	Blue 9-425 Open Top Ribbed Screw Cap with 9mm Red Teflon/White Silicone Septa 1mm Thick, 6mm centre hole	Blue 9-425 Open Top Ribbed Screw Cap with Pre-cut 9mm Red Teflon/White Silicone Septa 1mm Thick, 6mm centre hole
100 pcs/pk.		

Bonded Cap ND9

- Our bonding machines are fully automated to bond liners to caps using a mechanical bond without any adhesives or chemicals.
- No glue contamination.
- No additional assembly.
- Prevent liner fallout.
- Use with different polypropylene caps.
- Ideal for medical devices, diagnostics packaging and specialty chemicals.



380-00461-31



380-00461-32

Ref.No.	380-00461-31	380-00461-32
Description	Blue 9-425 Open Top Ribbed Screw Cap Bonded with 9mm Red PTFE/White Silicone Septa 1mm Thick	Blue 9-425 Open Top Ribbed Screw Cap Bonded with 9mm Red PTFE/White Silicone Septa 1mm Thick PRE-SLIT
100 pcs/pk.		

Snap Ring Cap ND11

- Easy way of closing the vial, cost- and energy-saving.
- Snap ring caps are also available in a soft quality with transparent or blue caps, soft caps are more convenient in handling (pushing on/removal).



380-00604



380-00603

Ref.No.	380-00604	380-00603
Description	11mm Clear Open Top Snap Cap with Red PTFE/White Silicone Septa 1mm Thick	11mm Clear Open Top Snap Cap with Red PTFE/White Silicone Septa, pre-cut 1mm Thick
100 pcs/pk.		

SHIMSEN Vial Optimized for PFAS Analysis

PFAS constitute a class of chemicals with extensive applications, known for their water-, oil- and stain-repellent properties. However, owing to their environmental persistence and bioaccumulative properties, PFAS are widely recognized as posing potential hazards to ecosystems and human health. Accuracy and reliability in PFAS sample testing are paramount. SGLC provides specialized PFAS testing kits to guarantee accurate test results.



Ref.No.	380-06110-01	380-06110-02	380-06110-07	380-06110-05
Description	1.5mL PFAS Vial Kit, (include PP Screw Vial, Screw Cap Bonded and Septa Polyimide/Red Silicone 1mm Thick PRE-SLIT)	0.7mL PFAS Vial Kit, (include PP Screw Vial, Screw Cap Bonded and Septa Polyimide/Red Silicone 1mm Thick PRE-SLIT)	0.3mL PFAS Vial Kit, (include PP Screw Vial, Screw Cap Bonded and Septa Polyimide/Red Silicone 1mm Thick PRE-SLIT)	20mL PFAS Vial Kit, (include PP Cap, Polyimide/White Silicone Septa;)
100 pcs				

There are a large number of silanol groups on the surface of glass. These silanol groups are like countless pairs of "little hands", which can adsorb the target molecules in the sample (especially basic, polar and metal-sensitive compounds) through hydrogen bonds, ion exchange or hydrophobic interaction, leading to poor results. Inertization treatment is to "cover" these silanol groups with a layer of inert substance through a chemical reaction, forming a barrier.

- Analyze substances that are prone to adsorption, such as proteins, polypeptides, alkaline drugs, amines, metal complexes, etc.
- For trace analysis, any adsorption will lead to serious deviations in the results.
- When non-polar solvents are used, the solvents cannot compete with silanol groups, and the adsorption will be more obvious.



380-00409-17



380-00409-21

Ref.No.	380-00409-17	380-00409-21
Description	1.5mL Screw Neck Vial, Clear glass with Lable Silanized vials	1.5mL Screw Neck Vial, Amber glass with Lable Silanized vials

It can be applied to the cover pads at the LCMS and GCMS ends to reduce the dissolution of siloxane.
It is recommended to use the matching cover pad.



Ref.No.	380-00504	380-00503
Description	Blue 9-425 Open Top Ribbed Screw Cap with 9mm Red Teflon/White Silicone Septa 1mm Thick, 6mm centre hole	Blue 9-425 Open Top Ribbed Screw Cap with Pre-cut 9mm Red Teflon/White Silicone Septa 1mm Thick, 6mm centre hole

SHIMSEN Mini-Filter Vial

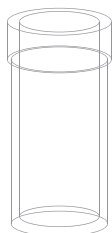
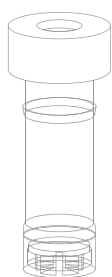
P05-P07

SHIMSEN Mini-Filter Vial simplify your workflow and reduce waste generated in the lab by replacing four different components with one Mini-Filter Vial.

- Replaces syringe, syringe filter, vial, and cap;
- Waste and cost reduction;
- Includes visual indication that the sample has been filtered;
- Minimizes instrument downtime due to unfiltered samples;

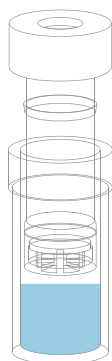


■ How to use?



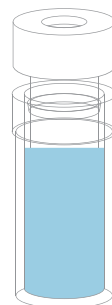
Fill

Use a pipette to add sample to the fill line.



Cover

Twist gently to ensure a secure seal.



Plunge

To filter the sample, press the plunger slowly.

SHIMSEN Mini-Filter Vial

P05-P07



380-06211-01



380-06211-02



380-06211-03



380-06211-04

Ref.No.	380-06211-01	380-06211-02	380-06211-03	380-06211-04
Description	Nylon 0.22 µm Clear Filter Vial,pp	Nylon 0.45 µm Clear Filter Vial,pp	PTFE 0.22 µm Clear Filter Vial,pp	PTFE 0.45 µm Clear Filter Vial,pp
100 pcs/pk.				



380-06211-05



380-06211-06



380-06211-07



380-06211-08

Ref.No.	380-06211-05	380-06211-06	380-06211-07	380-06211-08
Description	PES 0.22 µm Clear Filter Vial,pp	PES 0.45 µm Clear Filter Vial,pp	PVDF 0.22 µm Clear Filter Vial,pp	PVDF 0.45 µm Clear Filter Vial,pp
100 pcs/pk.				



380-06211-09



380-06211-10



380-06211-11



380-06211-12

Ref.No.	380-06211-09	380-06211-10	380-06211-11	380-06211-12
Description	Nylon 0.22 µm Amber Filter Vial,pp	Nylon 0.45 µm Amber Filter Vial,pp	PTFE 0.22 µm Amber Filter Vial,pp	PTFE 0.45 µm Amber Filter Vial,pp
100 pcs/pk.				

SHIMSEN Mini-Filter Vial

P05-P07



380-06211-13



380-06211-14



380-06211-15



380-06211-16

Ref.No.	380-06211-13	380-06211-14	380-06211-15	380-06211-16
Description	PES 0.22 µm Amber Filter Vial,pp	PES 0.45 µm Amber Filter Vial,pp	PVDF 0.22 µm Amber Filter Vial,pp	PVDF 0.45 µm Amber Filter Vial,pp
100 pcs/pk.				



380-06211-17



380-06211-18



380-06211-19



380-06211-20

Ref.No.	380-06211-17	380-06211-18	380-06211-19	380-06211-20
Description	Ultra-clean PTFE 0.22 µm Clear Filter Vial,pp	Ultra-clean PTFE 0.45 µm Clear Filter Vial,pp	Ultra-clean PTFE 0.22 µm Amber Filter Vial,pp	Ultra-clean PTFE 0.45 µm Amber Filter Vial,pp
100 pcs/pk.				

Product size : Diameter 12 mm, Height : 34mm

Sterile: No

Filtration Area: 0.28cm²

Filling vol/Dead vol : 480ul/30ul

Max Pressure: 1.5 bar (21.6 psi)

Max operation temp: 121 °F (50 °C)

Standard particle retention efficiency ≥ 95%

SHIMSEN TOC Vial

P08

- Broad range of EPA Vials in clear and amber glass.



380-00465-31



380-00465-41

Ref.No.	380-00465-31	380-00465-41
Description	SHIMSEN 40mL TOC Glass Vial with Cap, EPA Quality and Dust Cover.	SHIMSEN 40mL TOC Amber Vial with Cap, EPA Quality and Dust Cover.
72 pcs/pk.		

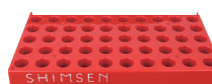
SHIMSEN Vial Rack

P09

- Easy handling and transportation of sample vials
- Stable standing position because of solid construction
- The color is bright and easy to distinguish



380-00467



380-00468



380-00469

Ref.No.	380-00467	380-00468	380-00469
Description	White PP Vial Rack 50 Positions 5*10 for 2mL Vials. 1pc/pk.	Red PP Vial Rack 50 Positions 5*10 for 2mL Vials. 1pc/pk.	Orange PP Vial Rack 50 Positions 5*10 for 2mL Vials. 1pc/pk.
Ref.No.	380-00467-01	380-00468-01	380-00469-01
Description	White PP Vial Rack 50 Positions 5*10 for 2mL Vials. 3pc/pk.	Red PP Vial Rack 50 Positions 5*10 for 2mL Vials. 3pc/pk.	Orange PP Vial Rack 50 Positions 5*10 for 2mL Vials. 3pc/pk.

SHIMSEN Syringe Filter

P10-P11

Nylon | PTFE Hydrophilic | PTFE Hydrophobic | PES | MCE | RC

- The Classic range is available in all of the major membranes including Nylon, PTFE, PES, and PVDF, which are supplied in 13mm, 25mm formats in PP housings.
- High-grade filter membrane material to ensure filtration effect.

Nylon



380-00321



380-00322



380-00323



380-00324

Ref.No.	380-00321	380-00322	380-00323	380-00324
Description	13mm 0.22µm Nylon HPLC Syringe Filter	13mm 0.45µm Nylon HPLC Syringe Filter	25mm 0.22µm Nylon HPLC Syringe Filter	25mm 0.45µm Nylon HPLC Syringe Filter
100 pcs/pk.				

PTFE Hydrophilic



380-00341



380-00342



380-00343



380-00344

Ref.No.	380-00341	380-00342	380-00343	380-00344
Description	13mm 0.22µm PTFE Hydrophilic HPLC Syringe Filter	13mm 0.45µm PTFE Hydrophilic HPLC Syringe Filter	25mm 0.22µm PTFE Hydrophilic HPLC Syringe Filter	25mm 0.45µm PTFE Hydrophilic HPLC Syringe Filter
100 pcs/pk.				

PTFE Hydrophobic



380-00331



380-00332



380-00333



380-00334

Ref.No.	380-00331	380-00332	380-00333	380-00334
Description	13mm 0.22µm PTFE Hydrophobic HPLC Syringe Filter	13mm 0.45µm PTFE Hydrophobic HPLC Syringe Filter	25mm 0.22µm PTFE Hydrophobic HPLC Syringe Filter	25mm 0.45µm PTFE Hydrophobic HPLC Syringe Filter

SHIMSEN Syringe Filter

P10-P11

Nylon | PTFE Hydrophilic | PTFE Hydrophobic | PES | MCE | RC

PES



380-00301



380-00302



380-00303



380-00304

Ref.No.	380-00301	380-00302	380-00303	380-00304
Description	13mm 0.22µm PES HPLC Syringe Filter	13mm 0.45µm PES HPLC Syringe Filter	25mm 0.22µm PES HPLC Syringe Filter	25mm 0.45µm PES HPLC Syringe Filter

MCE



380-00311



380-00312



380-00313



380-00314

Ref.No.	380-00311	380-00312	380-00313	380-00314
Description	13mm 0.22µm MCE HPLC Syringe Filter	13mm 0.45µm MCE HPLC Syringe Filter	25mm 0.22µm MCE HPLC Syringe Filter	25mm 0.45µm MCE HPLC Syringe Filter

RC



380-06120-13



380-06120-15



380-06120-14



380-06120-16

Ref.No.	380-06120-13	380-06120-15	380-06120-14	380-06120-16
Description	13mm 0.22µm RC HPLC Syringe Filter	13mm 0.45µm RC HPLC Syringe Filter	25mm 0.22µm RC HPLC Syringe Filter	25mm 0.45µm RC HPLC Syringe Filter

SHIMSEN Sterile Filter

P12-P14

PES | PES+GF Double Filter | CA | CA+GF Double Filter | PVDF

Sterile filtration is one of the various sterilization methods for liquids and can reduce the impact of the sterilization process on living components. Sterile filters are widely used in every field of life sciences.

Features

- Bacterial Challenge: LRV>7 (ATCC 19146, ASTM bacterial challenge test) for each lot of 0.2µm and 0.45µm products.
- Bacterial Endotoxin: < 0.25 EU/mL or < 2.15EU/device (LAL) for each lot of devices.
- Biosafety: Meets USP<88>Biological Reactivity test for Class VI Plastics.
- Each syringe filter lot QC tested for: Burst Pressure, BP, Flow rate.
- Each lot of filter funnels are tested for seal and membrane integrity.

■ PES



Ref.No.	380-00305		380-00306		380-00307	
Description	0.1µm, 13mm Sterile PES Syringe Filter 50 pcs/pk		0.22µm, 13mm Sterile PES Syringe Filter 50 pcs/pk		0.45µm, 13mm Sterile PES Syringe Filter 50 pcs/pk	
Ref.No.	380-00308	380-00308-01		380-00309		380-00309-01
Description	0.1µm,25mm Sterile PES Syringe Filter 50 pcs/pk	0.1µm,25mm Sterile PES Syringe Filter 100 pcs/pk		0.22µm, 25mm Sterile PES Syringe Filter 50 pcs/pk		0.22µm, 25mm Sterile PES Syringe Filter 100 pcs/pk

SHIMSEN Sterile Filter

P12-P14

PES | PES+GF Double Filter | CA | CA+GF Double Filter | PVDF

Ref.No.	380-00310	380-00310-01	380-00315	380-00315-01
Description	0.45µm,33mm Sterile PES Syringe Filter 50 pcs/pk	0.45µm,33mm Sterile PES Syringe Filter 100 pcs/pk	0.1µm,33mm Sterile PES Syringe Filter 50 pcs/pk	0.1µm,33mm Sterile PES Syringe Filter 100 pcs/pk
Ref.No.	380-00316	380-00316-01	380-00317	380-00317-01
Description	0.22µm,33mm Sterile PES Syringe Filter 50 pcs/pk	0.25µm,33mm Sterile PES Syringe Filter 100 pcs/pk	0.45µm, 33mm Sterile PES Syringe Filter 50 pcs/pk	0.45µm, 33mm Sterile PES Syringe Filter 100 pcs/pk

■ PES+GF Double Filter

Ref.No.	380-00318	380-00318-01	380-00319	380-00319-01
Description	0.22µm, 33mm Sterile PES+GF double payer Syringe Filter 50 pcs/pk	0.22µm, 33mm Sterile PES+GF double payer Syringe Filter 100 pcs/pk	0.45µm, 33mm Sterile PES+GF double payer Syringe Filter 50 pcs/pk	0.45µm, 33mm Sterile PES+GF double payer Syringe Filter 100 pcs/pk



SHIMSEN Sterile Filter

P12-P14

PES | PES+GF Double Filter | CA | CA+GF Double Filter | PVDF

■ CA



Ref.No.	380-00327	380-00327-01	380-00328	380-00328-01
Description	0.22µm, 33mm Sterile CA Syringe Filter 50 pcs/pk	0.22µm, 33mm Sterile CA Syringe Filter 100 pcs/pk	0.45µm, 33mm Sterile CA Syringe Filter 50 pcs/pk	0.45µm, 33mm Sterile CA Syringe Filter 100 pcs/pk

■ CA+GF Double Filter

Ref.No.	380-00329	380-00330
Description	0.22µm, 33mm Sterile CA+GF double payer Syringe Filter 50 pcs/pk	0.45µm, 33mm Sterile CA+GF double payer Syringe Filter 50 pcs/pk

■ PVDF



Ref.No.	380-00335	380-00336
Description	0.22µm, 33mm Sterile PVDF Syringe Filter 50 pcs/pk	0.45µm, 33mm Sterile PVDF Syringe Filter 50 pcs/pk

MCE

Ref.No.	380-06210-01	380-06210-02
Description	Pore size:0.22um, Diameter:50mm, 50/box	Pore size:0.45um, Diameter:50mm, 50/box

NY

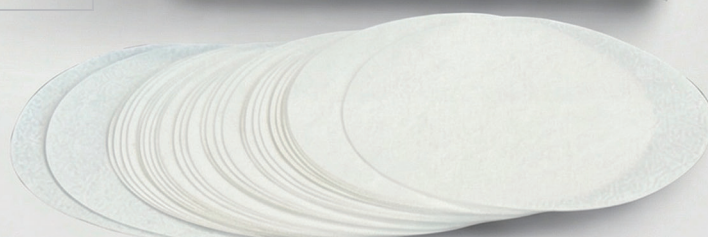
Ref.No.	380-06210-03	380-06210-04
Description	Pore size:0.22um, Diameter:50mm, 50/box	Pore size:0.45um, Diameter:50mm, 50/box

PTFE Hydrophobic

Ref.No.	380-06210-05	380-06210-06
Description	Pore size:0.22um, Diameter:50mm, 50/box	Pore size:0.45um, Diameter:50mm, 50/box

PTFE Hydrophilic

Ref.No.	380-06210-07	380-06210-08
Description	Pore size:0.22um, Diameter:50mm, 50/box	Pore size:0.45um, Diameter:50mm, 50/box



We can provide various types of quartz cuvettes that are perfectly matched with Shimadzu ultraviolet spectrophotometers.

Ref.No.	380-06150-02	380-06150-07
Description	SHIMSEN Quartz 10mm 45 12.5 12.5mm (single)	SHIMSEN Quartz (matches) 10mm 45 12.5 12.5mm

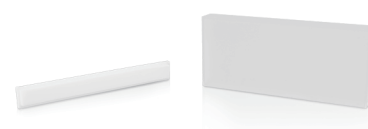
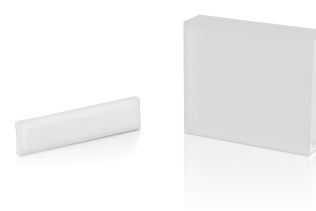
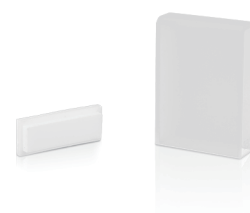
Ref.No.	380-06150-03	380-06150-08
Description	SHIMSEN Quartz (single) 20mm 45 12.5 22.5mm	SHIMSEN Quartz (matches) 20mm 45 12.5 22.5mm

Ref.No.	380-06150-04	380-06150-09
Description	SHIMSEN Quartz (single) 30mm 45 12.5 32.5mm	SHIMSEN Quartz (matches) 30mm 45 12.5 32.5mm

Ref.No.	380-06150-05	380-06150-10
Description	SHIMSEN Quartz (single) 50mm 45 12.5 52.5mm	SHIMSEN Quartz (matches) 50mm 45 12.5 52.5mm

Ref.No.	380-06150-06	380-06150-11
Description	SHIMSEN Quartz (single) 100mm 45 12.5 102.5mm	SHIMSEN Quartz (matches) 100mm 45 12.5 102.5mm

Ref.No.	380-06150-01	380-06150-12
Description	SHIMSEN Quartz 10mm 45 12.5 12.5mm, fluorescence tetrahedral light	SHIMSEN Quartz (single) 10mm 45 12.5 12.5mm (slit 4mm)



SHIMSEN Hollow Cathode Lamp

P17-P19

SHIMSEN OptiLamp | SHIMSEN Lamp

■ SHIMSEN OptiLamp



SHIMSEN OptiLamp is a new generation of hollow cathode lamps specifically designed for atomic absorption spectroscopy (AAS). It is manufactured against comprehensive factory standards with stable production processes, outstanding durability and competitive pricing. Fabricated from high-purity cathode materials via precision sealing technology, the lamp delivers stable luminous output, a high signal-to-noise ratio and long service life. It serves as a perfect alternative to imported brands and is compatible with mainstream domestic and international atomic absorption instruments, making it an ideal light source for routine analysis and quality control laboratories.

99.99% High-Purity Cathode,
Made by Special Processes

High-quality Optical Window Material

Mica Sheet for Isolation

Larger Gas Volume for
Longer Service Life



SHIMSEN Hollow Cathode Lamp

P17-P19

SHIMSEN OptiLamp | SHIMSEN Lamp

Product information:

P/N	Description
380-06141-23	SHIMSEN OptiLamp Ag
380-06141-15	SHIMSEN OptiLamp Al
380-06141-26	SHIMSEN OptiLamp As
380-06141-09	SHIMSEN OptiLamp Au
380-06141-39	SHIMSEN OptiLamp B
380-06141-57	SHIMSEN OptiLamp Ba
380-06141-52	SHIMSEN OptiLamp Be
380-06141-35	SHIMSEN OptiLamp Bi
380-06141-51	SHIMSEN OptiLamp Ca
380-06141-65	SHIMSEN OptiLamp Cd
380-06141-54	SHIMSEN OptiLamp Ce
380-06141-40	SHIMSEN OptiLamp Co
380-06141-50	SHIMSEN OptiLamp Cr
380-06141-53	SHIMSEN OptiLamp Cs
380-06141-59	SHIMSEN OptiLamp Cu
380-06141-04	SHIMSEN OptiLamp Dy
380-06141-02	SHIMSEN OptiLamp Er
380-06141-11	SHIMSEN OptiLamp Eu
380-06141-45	SHIMSEN OptiLamp Fe
380-06141-58	SHIMSEN OptiLamp Ga
380-06141-36	SHIMSEN OptiLamp Gd
380-06141-64	SHIMSEN OptiLamp Ge
380-06141-13	SHIMSEN OptiLamp Hf
380-06141-01	SHIMSEN OptiLamp Ho
380-06141-19	SHIMSEN OptiLamp Hg
380-06141-14	SHIMSEN OptiLamp In
380-06141-18	SHIMSEN OptiLamp Ir
380-06141-43	SHIMSEN OptiLamp K
380-06141-48	SHIMSEN OptiLamp La
380-06141-49	SHIMSEN OptiLamp Li
380-06141-38	SHIMSEN OptiLamp Lu
380-06141-42	SHIMSEN OptiLamp Mg
380-06141-41	SHIMSEN OptiLamp Mn

P/N	Description
380-06141-08	SHIMSEN OptiLamp Mo
380-06141-55	SHIMSEN OptiLamp Na
380-06141-16	SHIMSEN OptiLamp Nb
380-06141-60	SHIMSEN OptiLamp Nd
380-06141-44	SHIMSEN OptiLamp Ni
380-06141-67	SHIMSEN OptiLamp Os
380-06141-56	SHIMSEN OptiLamp Pb
380-06141-62	SHIMSEN OptiLamp Pd
380-06141-31	SHIMSEN OptiLamp Pr
380-06141-17	SHIMSEN OptiLamp Pt
380-06141-46	SHIMSEN OptiLamp Rb
380-06141-37	SHIMSEN OptiLamp Re
380-06141-68	SHIMSEN OptiLamp Rh
380-06141-12	SHIMSEN OptiLamp Ru
380-06141-22	SHIMSEN OptiLamp Sb
380-06141-25	SHIMSEN OptiLamp Sc
380-06141-33	SHIMSEN OptiLamp Se
380-06141-66	SHIMSEN OptiLamp Si
380-06141-05	SHIMSEN OptiLamp Sm
380-06141-10	SHIMSEN OptiLamp Sn
380-06141-47	SHIMSEN OptiLamp Sr
380-06141-34	SHIMSEN OptiLamp Ta
380-06141-61	SHIMSEN OptiLamp Tb
380-06141-32	SHIMSEN OptiLamp Te
380-06141-20	SHIMSEN OptiLamp Ti
380-06141-28	SHIMSEN OptiLamp Tl
380-06141-63	SHIMSEN OptiLamp Tm
380-06141-06	SHIMSEN OptiLamp W
380-06141-30	SHIMSEN OptiLamp V
380-06141-07	SHIMSEN OptiLamp Y
380-06141-03	SHIMSEN OptiLamp Yb
380-06141-29	SHIMSEN OptiLamp Zn
380-06141-27	SHIMSEN OptiLamp Zr

Please consult SGLC for specific product information.
TEL:021-62800202 800-820-7730

SHIMSEN Hollow Cathode Lamp

P17-P19

SHIMSEN OptiLamp | SHIMSEN Lamp

■ SHIMSEN Lamp

Features:

- High cost performance choice of Hollow Cathode Lamp.
- The lamp can provide reliable and stable light sources with long life.
- The lamp can match Shimadzu Atomic Absorption Spectrometer perfectly.



Ordering Information:

P/N	Description	P/N	Description
380-06140-01	SHIMSEN Lamp Ho	380-06140-16	SHIMSEN Lamp Nb
380-06140-02	SHIMSEN Lamp Er	380-06140-17	SHIMSEN Lamp Pt
380-06140-03	SHIMSEN Lamp Yb	380-06140-18	SHIMSEN Lamp Ir
380-06140-04	SHIMSEN Lamp Dy	380-06140-19	SHIMSEN Lamp Hg
380-06140-05	SHIMSEN Lamp Sm	380-06140-20	SHIMSEN Lamp Ti
380-06140-06	SHIMSEN Lamp W	380-06140-22	SHIMSEN Lamp Sb
380-06140-07	SHIMSEN Lamp Y	380-06140-23	SHIMSEN Lamp Ag
380-06140-08	SHIMSEN Lamp Mo	380-06140-25	SHIMSEN Lamp Sc
380-06140-09	SHIMSEN Lamp Au	380-06140-26	SHIMSEN Lamp As
380-06140-10	SHIMSEN Lamp Sn	380-06140-27	SHIMSEN Lamp Zr
380-06140-11	SHIMSEN Lamp Eu	380-06140-28	SHIMSEN Lamp Tl
380-06140-12	SHIMSEN Lamp Ru	380-06140-29	SHIMSEN Lamp Zn
380-06140-13	SHIMSEN Lamp Hf	380-06140-30	SHIMSEN Lamp V
380-06140-14	SHIMSEN Lamp In	380-06140-31	SHIMSEN Lamp Pr
380-06140-15	SHIMSEN Lamp Al	380-06140-32	SHIMSEN Lamp Te

Please consult SGLC for specific product information.

TEL:021-62800202 800-820-7730

Thermal Desorption

■ Thermal Desorption(short for TD)

A process in which a substance is heated to a certain temperature to release the adsorbed compounds. TD is commonly used as a preconcentration technique in gas chromatography(GC) to enable the analysis of low concentration compounds.

■ The working principle of Thermal Desorption

Firstly, volatile organic compounds(VOCs) or semi-volatile organic compounds(SVOCs) are collected on the adsorbent in the Thermal Desorption tube(TD tube). Then, the adsorbent is heated under a certain airflow to release these compounds, concentrating them into a smaller volume.

Main Application Areas

- Indoor air quality monitoring
- Detection of fragrances and flavors
- VOCs detection in the environment
- Automobile interior air pollutants
- Emission testing from stationary pollution sources
- Gas detection from components and materials

Thermal Desorption Injection System

■ The thermal desorption injection system utilizes the heating of the TD tube to automatically desorb the target compounds that have been adsorbed inside the tube. The desorbed target compounds are then re-adsorbed onto a secondary trap, which is rapidly heated to desorb the target compounds and introduce them into GC/GCMS for analysis.

- Early thermal desorption instruments only used one-stage desorption, where the adsorbent tube is heated under a flow of gas to release the adsorbed analytes directly into the GC.
- The Shimadzu TD-30 Thermal Desorption instrument incorporates a second-stage desorption process. With the second-stage desorption, the concentration of the analytes is higher, the sensitivity is increased, and the GC peak shape is improved.



Shimadzu TD-30 series Thermal Desorption Injection System

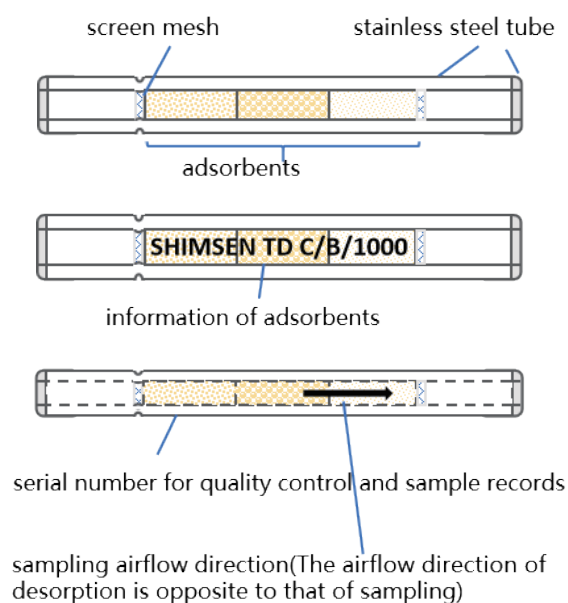


Thermal Desorption tube (TD tube)

High sample processing capacity, capable of accommodating up to 120 TD tubes.

Thermal Desorption Tube(TD tube)

- The selection of an appropriate TD tube is crucial for thermal desorption analysis.
- The adsorption performance of TD tube is determined by adsorbents. Different adsorbents show different physical and chemical properties, resulting in diverse adsorption and desorption capabilities for compounds with different volatility.
- Stainless steel TD tubes are the most widely used in industries like environmental for better durability and easier transportation.
- The inner wall of TD tube has undergone inertization treatment.
- Standard 1/4 "OD * 3.5" L TD tubes are compatible with standard Thermal Desorption Instruments like Shimadzu, Markes, PE, ULTRA-UNITY, etc.



Tips

Before choosing the Thermal Desorption tube(TD tube), please confirm the model of thermal desorption instrument, the chamfering of compatible TD tubes may slightly vary from different instruments.



Introduction to Adsorbents

Adsorbent	Composition	BET	Mesh	Aging Temp	Desorption Temp	Applied range (Number of carbon atoms and boiling point)
Tenax TA	2,6-Diphenylfuran porous polymer	35 m ² /g	60/80	320°C	300°C	C7~C26 100°C ~ 400°C
AC 130	activated carbon	130 m ² /g	60/80	350°C	320°C	C4~C12
Tenax GR	Tenax TA + 23% graphitized carbon	24 m ² /g	60/80	320°C	300°C	C7~C30 / 100°C ~ 450°C
Carbopack B	graphitized carbon	100 m ² /g	60/80	350°C	320°C	C5 ~ C12 / >75°C
Carbopack C	graphitized carbon	10 m ² /g	60/80	350°C	320°C	C12 ~ C20
Carbopack X	graphitized carbon	240 m ² /g	60/80	350°C	320°C	C3 ~ C9 / 80°C ~ 145°C
Carboxen 1000	carbon molecular sieve	1200 m ² /g	60/80	350°C	320°C	C2 ~ C5 / -60°C ~ 80°C

Ordering Information

Thermal Desorption tube(TD tube)

Combined filling	P/N of stainless TD tube for Shimadzu	P/N of stainless TD tube with brass cap for Shimadzu	P/N of stainless TD tube with brass cap for Perkin Elmer
Tenax TA	380-00251-01	380-00251-08	380-00255-01
Tenax GR/Carbopack B	380-00251-02	380-00251-09	380-00255-02
CarbopackB/Carboxen1000	380-00251-03	380-00251-10	380-00255-03
CarbopackC/CarbopackB/Carboxen1000	380-00251-04	380-00251-11	380-00255-04
Tenax GR/AC Carbon	380-00251-05	380-00251-12	380-00255-05
Tenax TA/Carbopack X	380-00251-06	380-00251-13	380-00255-06
AC130	380-00251-07	380-00251-14	380-00255-07
Empty	380-00253-01	-	-

Analysis and sealing cap for TD tube

P/N	Product description	Note	Product image
223-54617-41	Tube cap for TD-20, 20pcs	Shimadzu TD-20/30R special analysis cap	
380-00253-03	SHIMSEN TD Caps , brass, 20pcs	Universal sealing cap for TD Tubes	
380-00255-08	Analysis TD tube cap for PE, 20pcs	Perkin Elmer TD special analysis cap	

Reference conditions for the use of TD tube

Combined filling	Applied range Number of carbon atoms/boiling point	Aging conditions	Desorption temperature
Tenax TA	C7 ~ C26 / 100°C ~ 400°C	N2, 100mL/min, >120min, 320°C	<290°C
AC 130	C4 ~ C12	N2, 100mL/min, >120min, 320°C	<330°C
Tenax GR / Carbopack B	C5 ~ C30 / 75°C ~ 450°C	N2, 100mL/min, >120min, 320°C	<290°C
Carbopack B / Carboxen 1000	C2 ~ C12 / > - 60°C	N2, 100mL/min, >120min, 350°C	<330°C
Carbopack C / Carbopack B / Carboxen 1000	C2 ~ C20 / > - 60°C	N2, 100mL/min, >120min, 350°C	<330°C
Tenax GR / AC Carbon	C3 ~ C30 / 75°C ~ 450°C	N2, 100mL/min, >120min, 320°C	<290°C
Tenax TA / Carbopack X	C3 ~ C26 / 80°C ~ 400°C	N2, 100mL/min, >120min, 320°C	<290°C



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