

MAKE YOUR LAB
A SAFER PLACE!



Safe HPLC Solvent Supply SCAT Safety Caps



www.scat-europe.com

Do you Extract your Solvents Safely?

The consequences of **unsafe** extraction.

Eluent emissions

Non-hermetically sealed containers are a considerable safety risk as eluents / solvents can escape into the laboratory air.

Unstable mixtures

Solvents are volatile and evaporate already at room temperature. Solvent mixtures thus become unstable and change their mixing ratio - which in turn falsifies the result. Solvent filtration, accurately prepared eluents and a constant mixing ratio over the entire application time are a must, especially with UHPLC.

Contamination of the eluent

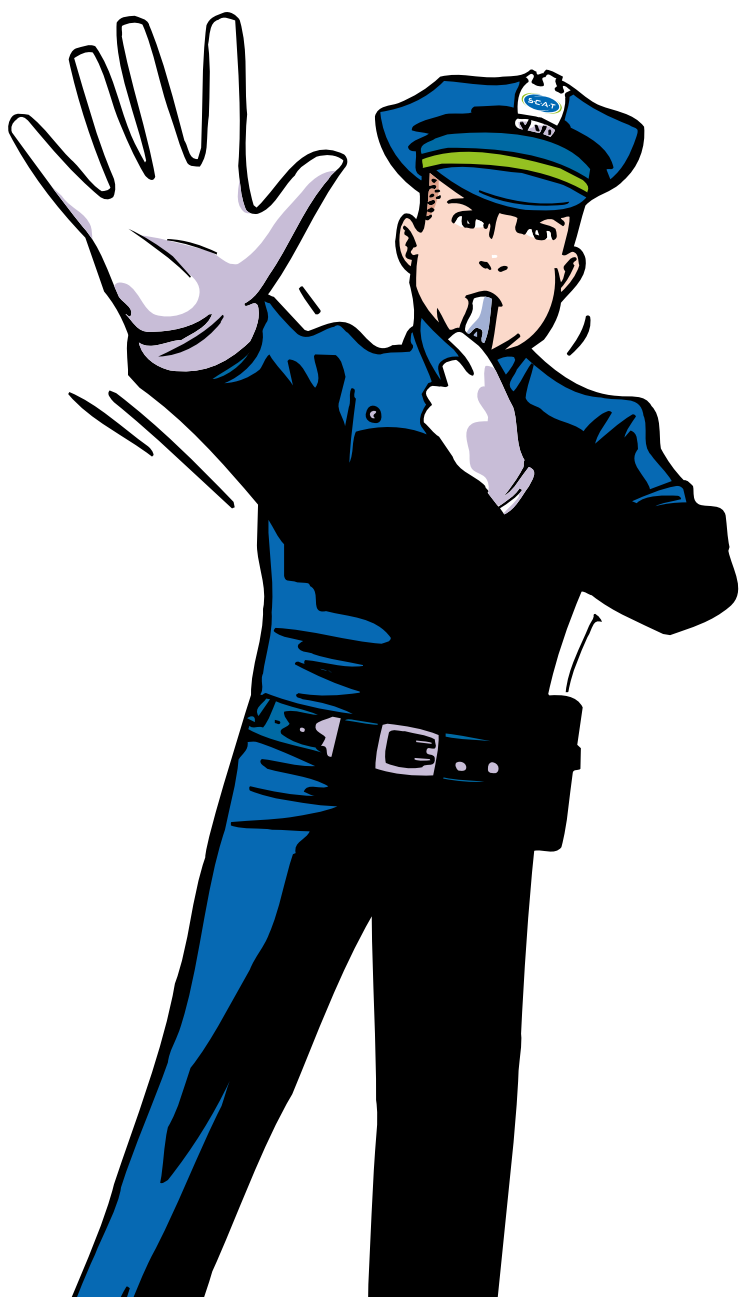
Dust, dirt and impurities from the ambient air can contaminate the mobile phase - and have a disturbing effect on the chromatogram. A lot is invested in developing the method for a clean separation. Contamination can create overlapping peaks, and make it difficult to detect the substance you are looking for.

Air in the HPLC

The results of your analyses are also affected by the handling of solvents. Tubes can slip out of the storage bottle if they are not screwed tightly. The consequence: aspirated air gets into the HPLC system and downtimes are pre-programmed.

Handling chaos

With ordinary screw caps, handling when changing solvents is often awkward. Twisted capillaries create the famous "hose tangle" when the storage bottles have to be changed.



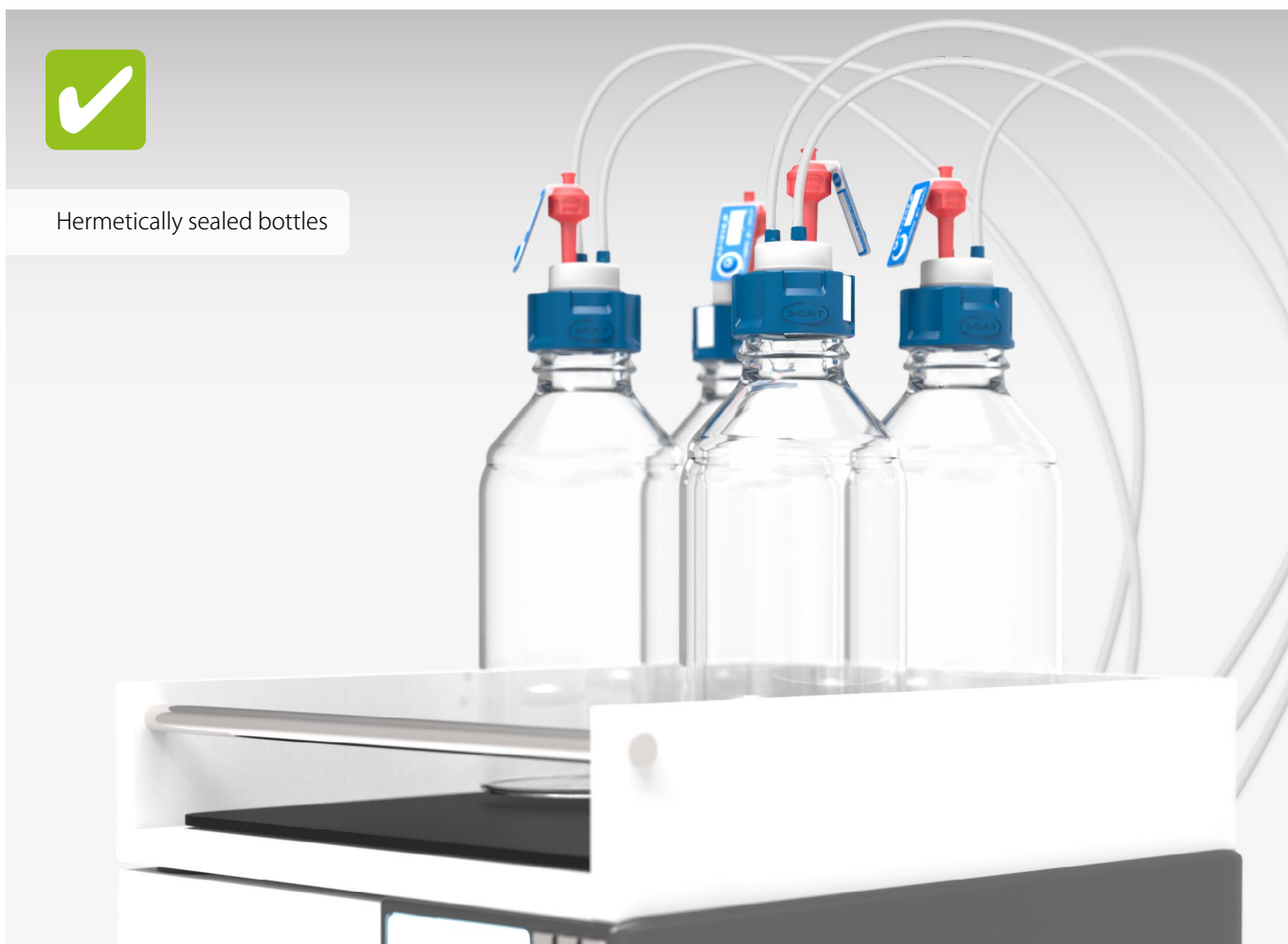
You know This? Comparison



Open, unsealed bottles

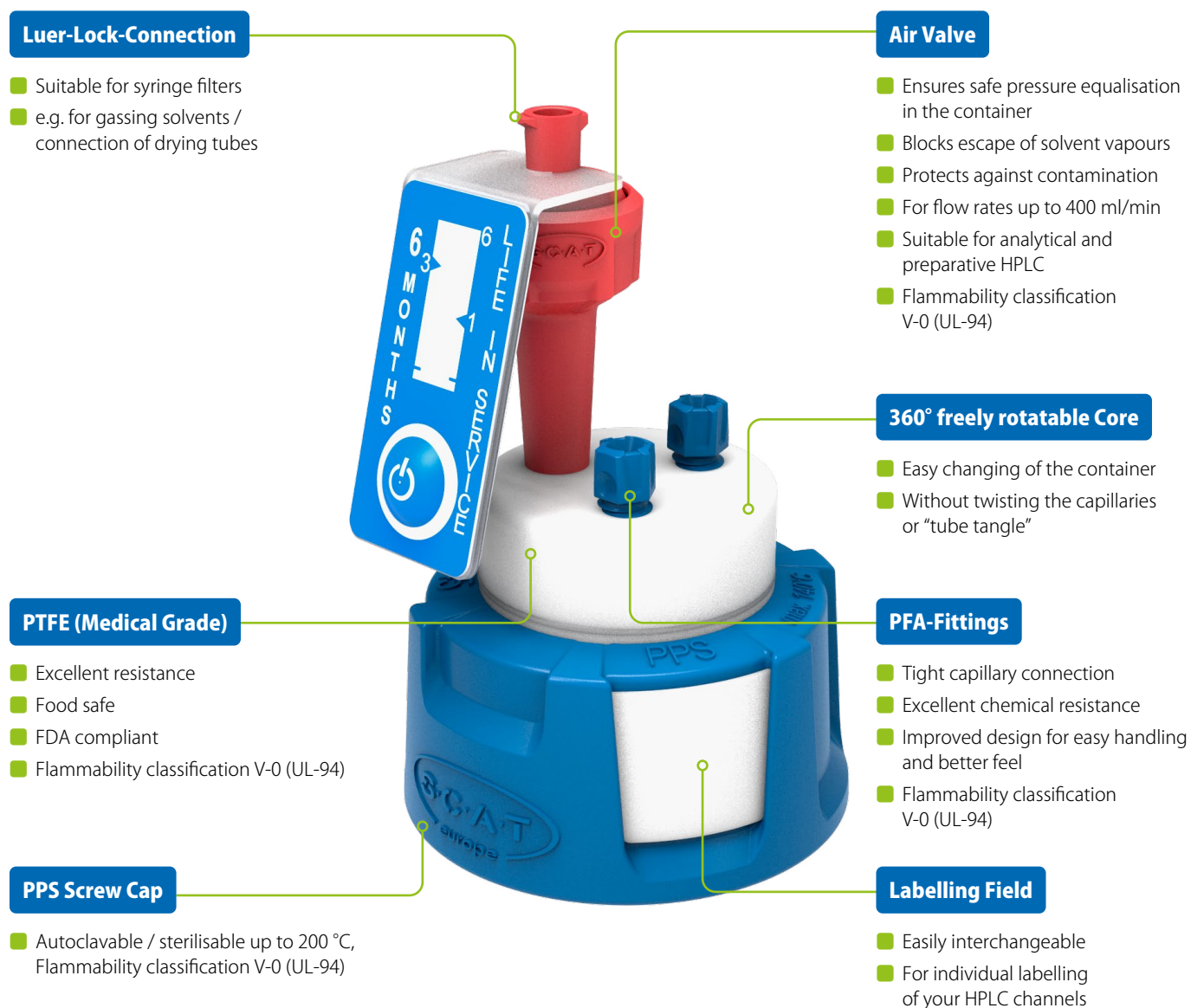


Hermetically sealed bottles



Safety Caps

Functional Principle



See Main Catalogue:

Various thread sizes

Safety Caps are available in many thread sizes to fit your storage container. Bottles with thread GL 45 are the most common in the HPLC laboratory. Caps in other sizes can be found here:

GL 45 Thread..... starting from **page 44**

Further Thread Sizes..... starting from **page 50**

For Ground Neck Bottles..... **page 52**

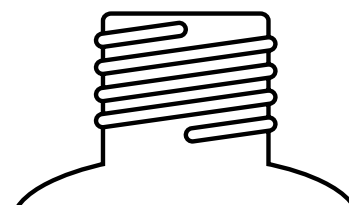
Thread Adapters for further Threads .. starting from **page 164**



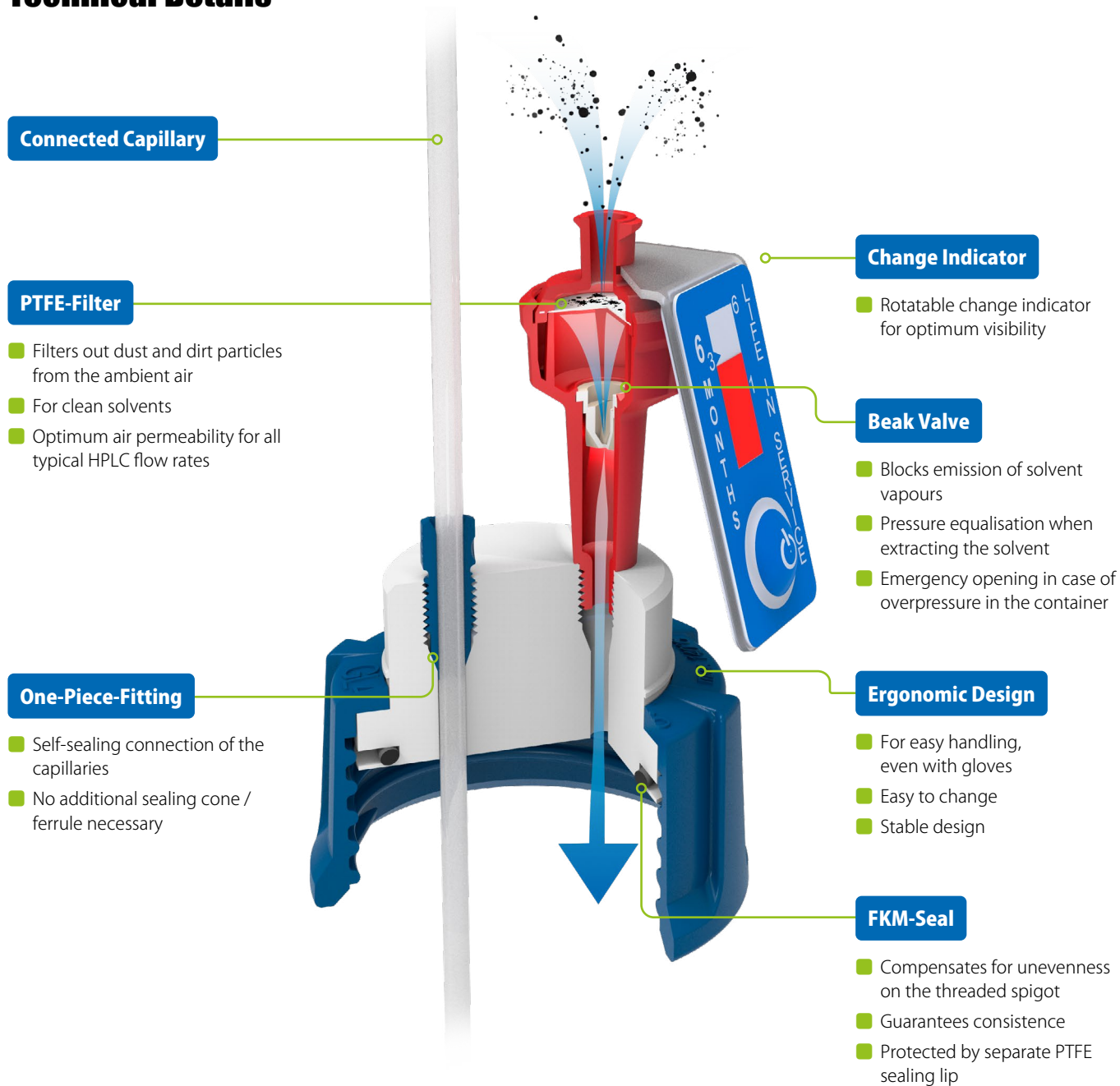
See Main Catalogue:

Which thread is the right one?

If you do not know the exact thread of your container, our chapter "Addendum" from "Thread Determination" onwards will help, on **page 172**.



Safety Caps Technical Details



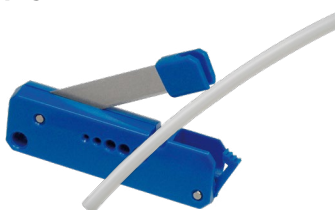
See Main Catalogue:

Install your capillaries easily! The appropriate installation wrench you will find on **page 169**.



See Main Catalogue:

Cut capillaries neatly! You will find the appropriate tool on **page 169**.



See Main Catalogue:

Accessories included!

Fittings and blind plugs in every size are included in the scope of delivery.

ID 1.6 mm 2.3 mm 3.2 mm X



Accessories in detail from **page 150**

Safety Caps

GL 45 Thread

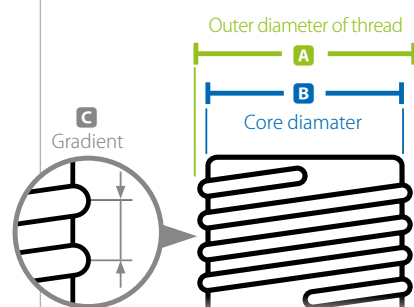
GL 45 is the most widely used thread for HPLC storage bottles. In most cases, bottles with a capacity of 500 or 1,000 ml are used. Solvents are often already supplied in bottles with this thread, or transferred to GL 45 bottles for HPLC supply.



See Main Catalogue:

Thread information: GL 45

Informations to determinate threads starting from **page 172**.



Thread	A Ø (mm)	B Ø (mm)	C (mm)
GL 45	45.00	42.30	4.00



Your benefits

- Great flexibility due to the maximum scope of delivery
- Fittings are colour coded according to inner diameter
- No annoying measuring of capillary sizes
- Unused connections can be closed with blind plugs

A 307 019



B 307 019-PP



See Main Catalogue:

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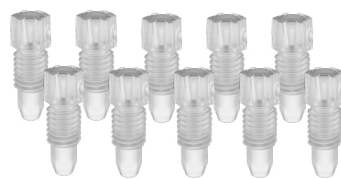
ID 1.6 mm 2.3 mm 3.2 mm X



Accessories in detail from **page 150**



D 160 501



Unused connections must be sealed with blind plugs!



PP-Core

Our Safety Caps are available with a PP core on request. Here in the example: **B D**

Safety Caps with PP core are suitable for the analysis of polyfluorinated chemicals (PFC) according to DIN 38407-42 or 38414-14.

Safety Caps State of the Art - Supply



HPLC Solvent Supply



Fig.	Part No.	Description	Thread	Material	Capillary Connections	Unit
A	307 019	Safety Cap I	GL 45	PTFE	1x	1
B	307 019-PP	Safety Cap I	GL 45	PP	1x	1
C	307 410	Safety Cap IV	GL 45	PTFE	4x	1
D	307 410-PP	Safety Cap IV	GL 45	PP	4x	1
E	307 909	Safety Cap II	GL 45	PTFE	2x	1
F	307 910	Safety Cap III	GL 45	PTFE	3x	1
G	307 520	Safety Cap VI	GL 45	PTFE	6x	1
H	317 010	Air valve for Safety Caps	UNF 1/4" 28G	-	-	1
	397 010	Air valves for Safety Caps	UNF 1/4" 28G	-	-	10
I	160 501	Blind plugs for Safety Caps	UNF 1/4" 28G	PFA	-	10

Safety Caps The High-End-Model

 **GL 45**

✓ Quickly Ready for Use Again

Closing the shut-off ensures that no air gets into the capillaries or solvent runs out or drips when changing the container. After an interruption or repair, quick and easy flushing is possible.

✓ No Air Inclusions

After changing the storage reservoirs, the running analysis can be continued without interruption.

PFA Fitting

- One-Piece-Fitting
- Self-sealing connection of the capillaries
- No additional sealing cone / ferrule necessary

Shut-Off Valve (open)

- Trouble-free flow when open
- Quickly ready for use again after changing the container

PTFE Fitting

- Best chemical resistance

Eluent Flow Direction

- Towards the HPLC

Shut-Off Valve (sealed)

- Easy exchange of the container
- No air intakes in capillaries after changing storage containers
- Stops flow without coming into contact with capillaries

💡 See Main Catalogue:

The Luer-adapter.

Easily add or remove liquids with the Luer adapter.
More on **page 161**.



➤ See Main Catalogue:

Looking for the right container?

Bottles, canisters and other containers, suitable with the SCAT Safety Caps starting from **page 130**.



Safety Caps The High-End-Model

GL 45

HPLC Solvent Supply



Accessories included!

Fittings in every size are included in the scope of delivery.

ID 1.6 mm 2.3 mm 3.2 mm



See Main Catalogue:

Accessories in detail from **page 150**.



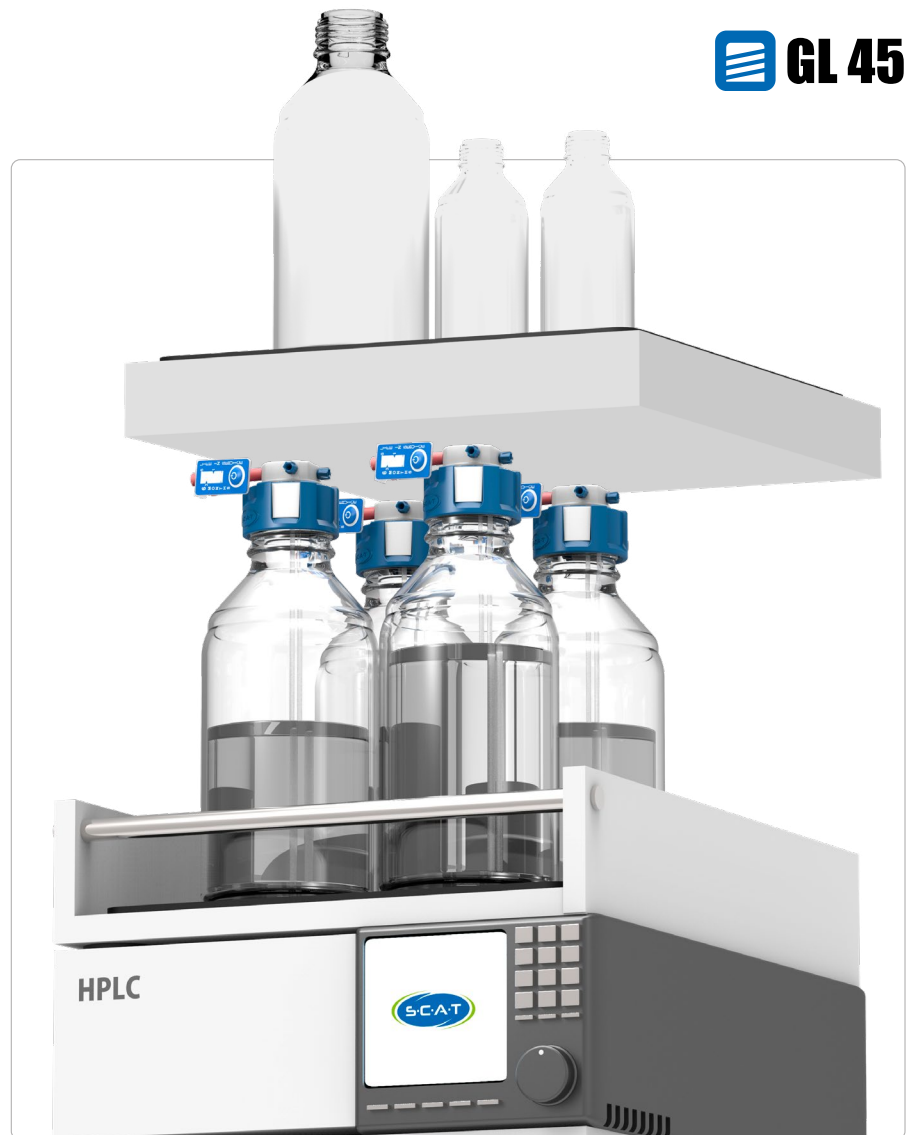
Fig.	Part No.	Description	Thread	Capillary Connections	from which with Shut-Off Valve
A	307 919	Safety Cap II with shut-off valves	GL 45	2x	2x
B	307 920	Safety Cap III with shut-off valves	GL 45	3x	3x
C	307 419	Safety Cap IV with shut-off valves	GL 45	4x	4x
D	307 519	Safety Cap VI with shut-off valves	GL 45	6x	6x

Safety Caps Space-saving



At a squeeze!

Especially where laboratory space is limited, you gain a major advantage with our angled Safety Caps. Even when extraction bottles are stored above the HPLC system, you can easily reach all the connectors because they are attached on the side.



A 399 019



B 399 909



Fig.	Part No.	Description	Thread	Capillary Connections
A	399 019	Safety Cap I 90° angled	GL 45	1x
B	399 909	Safety Cap II 90° angled	GL 45	2x

Safety Caps For the Preparative HPLC

GL 45

HPLC Solvent Supply



Safety Caps for larger capillary outer diameters (4.76 and 6.35 mm).



See Main Catalogue:

Fittings for other capillary sizes can be found from **page 156**.

Fig.	Part No.	Description	Thread	Connections for Ø 1.6 / 2.3 / 3.2 mm OD (1/8 Inch)	Connections for Ø 4.76 mm OD (3/16 Inch)	Connections for Ø 6.35 mm OD (1/4 Inch)
	307 003	Safety Cap II preparative	GL 45	1x	1x	-
A	307 007	Safety Cap I preparative	GL 45	-	-	1x
B	307 008	Safety Cap II preparative	GL 45	-	-	2x
C	307 009	Safety Cap II preparative	GL 45	1x	-	1x
D	308 032	Safety Cap I preparative	GL 45	-	1x	-
E	309 032	Safety Cap II preparative	GL 45	-	2x	-
F	310 032	Safety Cap III preparative	GL 45	-	3x	-

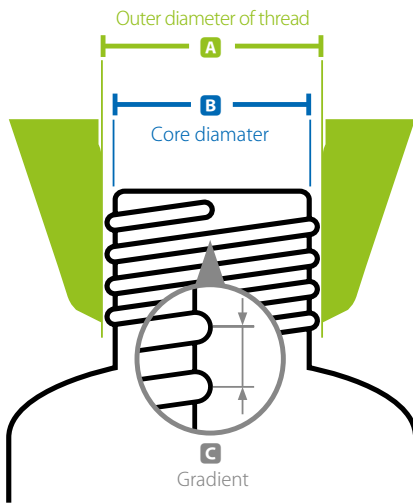
Safety Caps Further Thread Sizes



See Main Catalogue:

Thread informations

Container threads can be roughly determined based on their diameter. Information on the exact determination of the thread can be found under "Thread determination" from **page 172**.



Thread	A Ø (mm)	B Ø (mm)	C (mm)
GL 28	28.00	25.98	3.00
GL 32	32.00	29.30	4.00
GL 38	38.00	35.00	3.00
38 / 430	37.49	35.10	4.23
GL / S 40	40.00	37.30	4.00
B 53	54.00	47.50	6.35
B 63	62.51	60.12	4.23
GLS 80	80.00	77.00	15P5
B 83	89.18	79.00	12.70

A 307 006

GL 28



B 107 511

GL 32



C 107 512

GL 38



D 107 636

38 / 430



E 107 637

38 / 430



F 107 105

GL / S 40



G 107 742

GL / S 40



H 307 100

GL / S 40



Safety Caps Further Thread Sizes



See Main Catalogue:

Accessories included!
Fittings and blind plugs in every size are included in the scope of delivery.

ID 1.6 mm 2.3 mm 3.2 mm X

Accessories in detail from **page 150**

HPLC Solvent Supply

Fig.	Part No.	Description	Thread	Capillary Connections
A	307 006	Safety Cap II	GL 28	2x
B	107 511	Safety Cap II	GL 32	2x
C	107 512	Safety Cap III	GL 38	3x
D	107 636	Safety Cap I	38 / 430	1x
E	107 637	Safety Cap II	38 / 430	2x
F	107 105	Safety Cap I, with shut-off valve	GL / S 40	1x
G	107 742	Safety Cap III	GL / S 40	3x
H	307 100	Safety Cap I	GL / S 40	1x
I	307 101	Safety Cap II	GL / S 40	2x
J	107 058	Safety Cap II	B 53	2x
K	107 039	Safety Cap I	B 63	1x
	107 030	Safety Cap I	GLS 80	1x
	107 031	Safety Cap II	GLS 80	2x
L	107 032	Safety Cap III	GLS 80	3x
M	107 035	Safety Cap IV	B 83	4x

Safety Caps For Bottles with Ground Neck

 **NS 29/32**


✓ Easy Opening

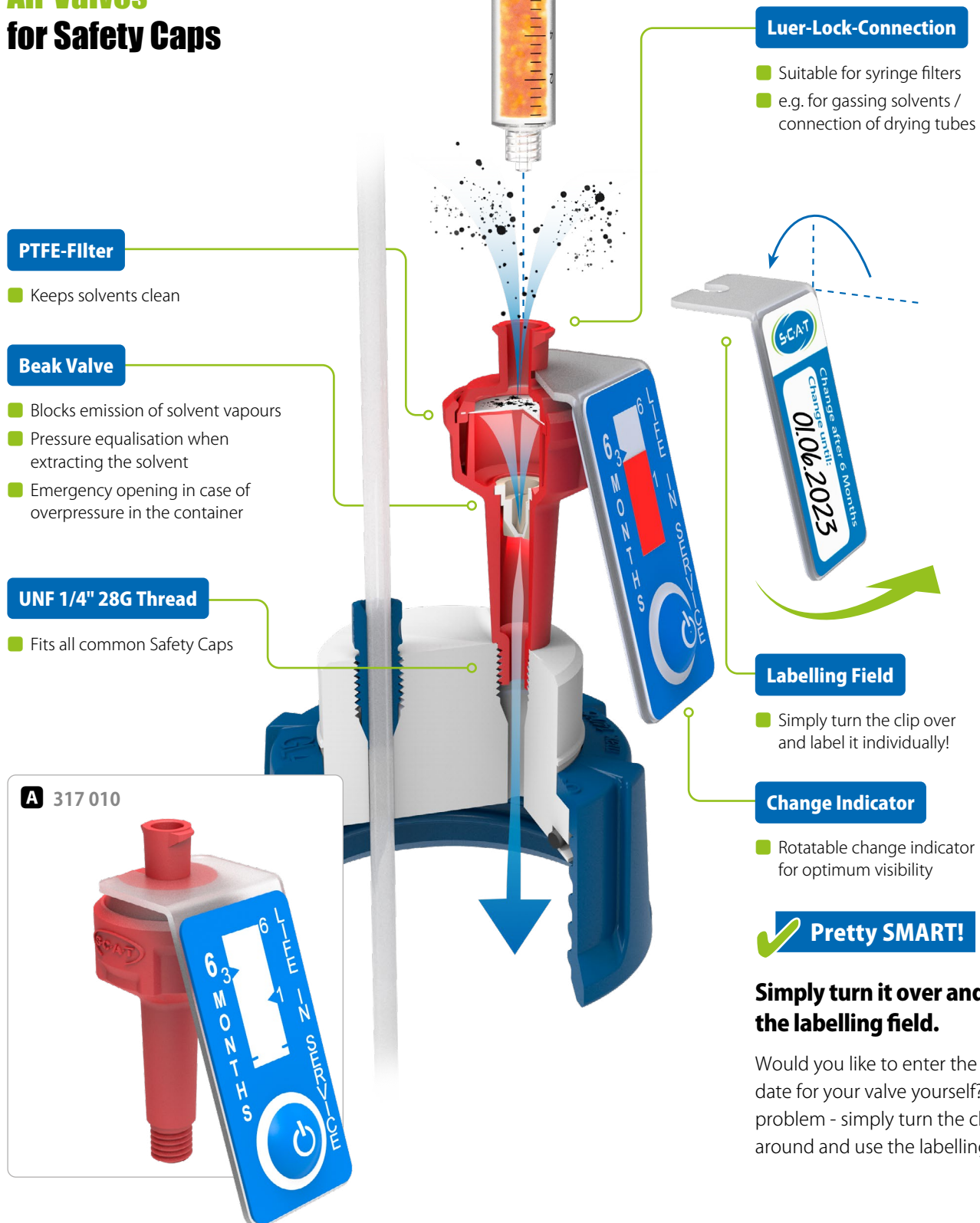
Everyone is familiar with stuck ground neck stoppers: dried liquids and sticky substances settle on the ground glass, the stopper does not budge. SCAT stoppers with lock nut allow easy loosening and removal of the stopper even after a long standing time.

Locknut

- The locknut presses against the bottle when it is turned, thus releasing the cap without much effort

Fig.	Part No.	Description	Thread Size Ground Neck Size	Capillary Connection
A	107 607	Safety Cap II for ground neck bottles, with locknut	29/32 mm	2x
B	107 507	Blind plug for ground neck bottles, with locknut	29/32 mm	-
C	307 508	Ground neck adapter for GL 45 threaded bottles	GL 45 - 29/32 mm	-
D	107 509	GL 45 adapter for ground neck bottles, with locknut	29/32 mm - GL 45	-
E	107 506	Replacement locknut for Safety Cap	29/32 mm	-

Air Valves for Safety Caps



PTFE-Filter

- Keeps solvents clean

Beak Valve

- Blocks emission of solvent vapours
- Pressure equalisation when extracting the solvent
- Emergency opening in case of overpressure in the container

UNF 1/4" 28G Thread

- Fits all common Safety Caps



Luer-Lock-Connection

- Suitable for syringe filters
- e.g. for gassing solvents / connection of drying tubes

Labelling Field

- Simply turn the clip over and label it individually!

Change Indicator

- Rotatable change indicator for optimum visibility

✓ Pretty SMART!

Simply turn it over and use the labelling field.

Would you like to enter the expiry date for your valve yourself? No problem - simply turn the clip around and use the labelling field.

Fig.	Part No.	Description	Thread Size	Unit
A	317 010	Air valve	UNF 1/4" 28G	1
	397 008	Air valves	UNF 1/4" 28G	8
	397 010	Air valves	UNF 1/4" 28G	10
	397 050	Air valves	UNF 1/4" 28G	50
	397 100	Air valves	UNF 1/4" 28G	100

HPLC Starter Kits

Savings: up to 30%

✓ Plug & Play for 4 Storage Bottles

Save yourself the trouble of putting together a configuration! The Starter Kits are available in 3 versions, suitable for most HPLC applications.

✓ Suitable for all common HPLC Systems

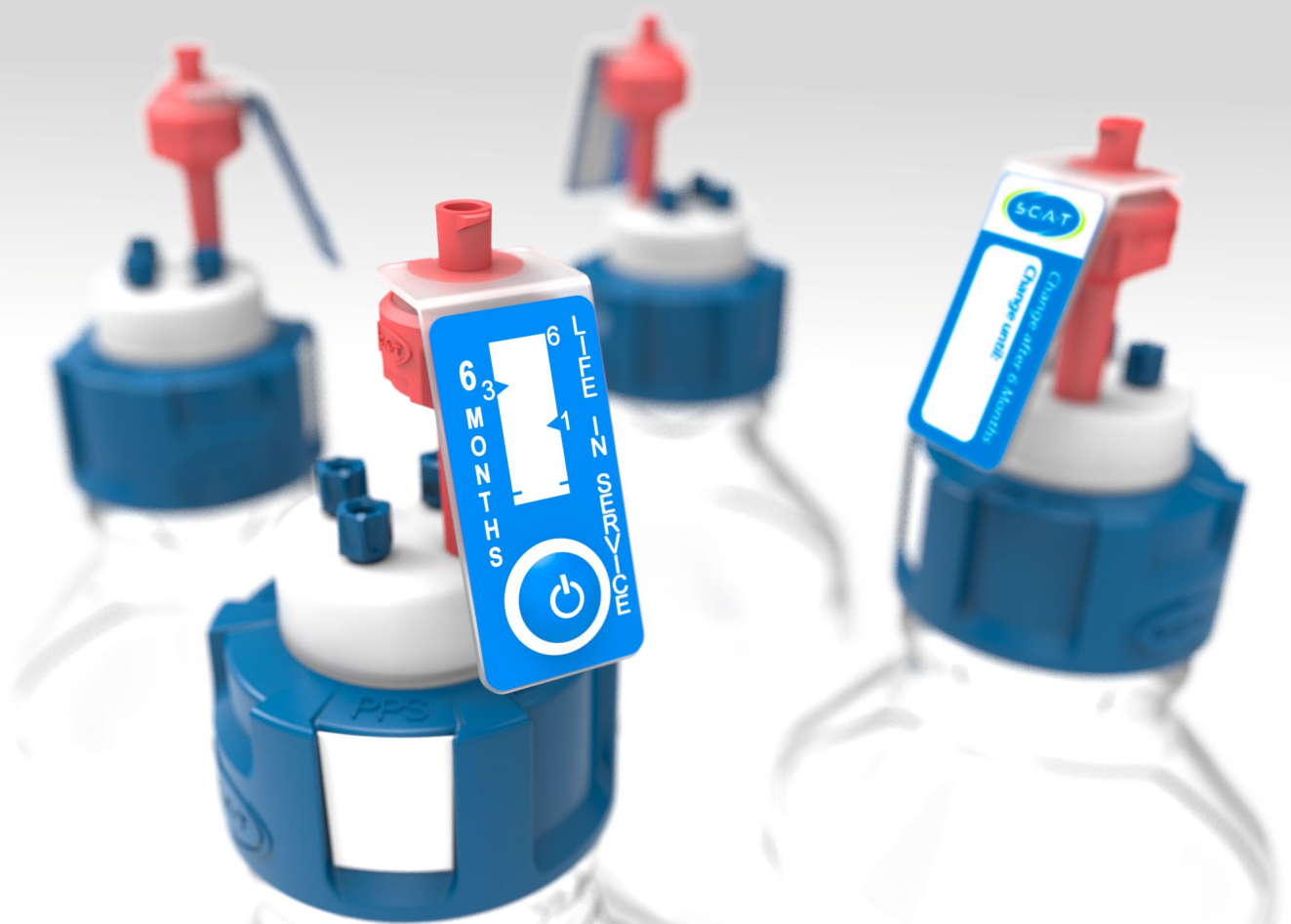
The starter kits work independently of the manufacturer of your HPLC. The connections are designed for capillaries with 1.6, 2.3 and 3.2 mm outer diameter.

✓ Flexible Connections with Blind Plugs

If you do not need some connections, close them with the corresponding blind plugs. This way, there are no open spots.

✓ Price Advantage

Price advantage compared to single order. Compared to single Safety Caps, the set is significantly cheaper. Request your individual offer: www.scat-europe.com



HPLC Starter Kits



A 399 202

HPLC Solvent Supply



See Main Catalogue:

Accessories included!

Fittings and blind plugs in every size are included in the scope of delivery.

ID 1.6 mm 2.3 mm 3.2 mm X



Accessories in detail from [page 150](#)

Abb.	Part No.	Description	Contents	Quantity	Thread	Capillary Connections
	399 200	HPLC Starter Kit Supply 1	Safety Cap I Safety Cap II Air valve Fitting (of each colour) Blind plug for capillary connection	3x 1x 4x 5x 1x	GL 45 GL 45 UNF 1/4" 28G UNF 1/4" 28G UNF 1/4" 28G	1x 2x - - -
	399 201	HPLC Starter Kit Supply 2	Safety Cap II Air valve Fitting (of each colour) Blind plug for capillary connection	4x 4x 8x 4x	GL 45 UNF 1/4" 28G UNF 1/4" 28G UNF 1/4" 28G	2x - - -
A	399 202	HPLC Starter Kit Supply 3	Safety Cap III Air valve Fitting (of each colour) Blind plug for capillary connection	4x 4x 12x 8x	GL 45 UNF 1/4" 28G UNF 1/4" 28G UNF 1/4" 28G	3x - - -

HPLC Supply and Waste Set Scope of Delivery (307 337)

Storage bottle

- GL 45 Thread
- Clear glass, round
- 1 Litre



4x

Safety Cap III

- GL 45 Thread
- 3 Connections for \varnothing 1.6, 2.3 and 3.2 mm OD capillaries



4x

Air valve

- Lifetime: 6 months



4x

Waste canister

- GL 45 Thread
- 5 Litre
- PE-HD



1x

Safety Waste Cap

- GL 45 Thread
- 4 Connections for \varnothing 1.6, 2.3, 3.2 mm OD capillaries
- 1 Connection for \varnothing 5 - 11.5 mm ID tube



1x

Exhaust filter

- Size M
- Lifetime: 6 months



1x

Fitting for capillary

- \varnothing 1.6 mm ID
- PFA, green



5x

Fitting for capillary

- \varnothing 2.3 mm ID
- PFA, violet



5x

Fitting for capillary

- \varnothing 3.2 mm ID
- PFA, blue



10x

Blind plug for capillary connection

- PFA, colourless



10x

Tube connector, stepped, curved

- \varnothing 5 - 11.5 mm OD
- PP, blue



1x

Tube connector, straight

- \varnothing 6 - 8 mm OD
- PP, colourless



2x

Tube connector, angled

- \varnothing 9.5 - 10 mm OD
- PP, colourless



1x

Blind plug for tube connection

- PTFE, white



1x

HPLC Supply and Waste Set

Ordering Information

A 307 337



Fig.	Part No.	Description	Contents		See pages in our main catalogue:
A	307 337	HPLC Supply and Waste Set	Quantity	Description	
			4x	Safety Cap III, GL 45	► Page 44
			1x	Safety Waste Cap, GL45	► Page 73
			4x	Air valve	► Page 53
			1x	Exhaust filter M, V3.0, with splash protection and change indicator	► Page 71
			4x	Laboratory bottle DURAN, GL 45, 1000 ml, clear glass, round	► Page 132
			1x	Canister, 5 Litres, PE-HD, GL 45	► Page 136
			5x	PFA Fitting, 1.6 mm ID, green	► Page 156
			5x	PFA Fitting, 2.3 mm ID, violet	► Page 156
			10x	PFA Fitting, 3.2 mm ID, blue	► Page 156
			1x	Tube connector, stepped, curved, 5.0 - 11.5 mm OD	► Page 158
			2x	Tube connector, straight, 6 - 8 mm OD	► Page 158
			1x	Tube connector, angled, 9.5 - 10 mm OD	► Page 158
			10x	Blind plug for capillary connection, PFA, colourless	► Page 156
			1x	Blind plug for tube connection, PTFE, white	► Page 159



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