

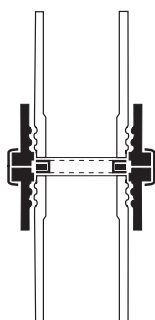


SVL® Glassware

- SVL® glassware has screwthread joints which are easily connected together using purpose made couplings
- Only glass and PTFE come into contact with the chemicals being used to provide a grease-free and corrosion-resistant pathway
- Manufactured from Pyrex® borosilicate glass for maximum resistance to chemical attack and thermal shock
- Screwcaps and couplings in phenolic plastic for heat resistance up to 200°C
- Inserts and sealing rings with PTFE facings for maximum chemical resistance
- Can be assembled to provide sliding and rigid joints. Also positive closures
- No lubrication of joints required, hence no contaminating greases
- Joints and seals can be used under dynamic vacuum conditions. Typical performance 10^{-3} mbar

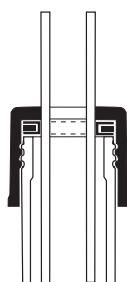
SVL® connections

Versatile SVL® glassware allows three different types of joints and seals to be made quickly and easily.



Butt Joint

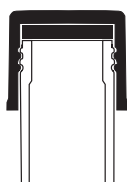
A rigid butt joint can be made using two threaded tubes of the same diameter. They are connected via a special plastic coupling fitted with a sealing ring. The coupling is independently threaded on both sides to allow desired alignment of apparatus.



Sliding Joint

Utilises a plastic screwcap having an aperture in the top for fittings to pass through. The latter is secured in position by compression of a sealing ring inside the cap.

All fittings are readily adjustable and the depth of immersion can be altered quickly by slackening the screwcap.



Closure Seal

Utilises a plastic screwcap with a PTFE faced rubber insert. When screwed down onto the glass thread, it provides a closure which is highly resistant to chemical attack.



SVL® glass screwthreads

SVL®

- For use by Glassblowers to construct apparatus with SVL® joints
- Borosilicate glass for highest resistance to thermal shock and chemical corrosion

Product Code	SVL® joint size	Overall length mm	O.D. (mm)	Wall thickness mm	Pack qty.
703-01	15	165	16.0	1.8	10
703-02	22	165	22.5	1.8	10
703-03	30	165	32.0	2.0	10
703-04	42	165	44.1	3.2	10

i SVL® glass screwthreads are designed specifically for use with SVL® screwcaps and couplings. They are not compatible with the Quickfit® range of screwcap fittings.



SVL® couplings for butt joints

SVL®

- Plastic coupling and sealing ring designed to secure two SVL® glass screwthreads of the same diameter in a butt joint
- Coupling is manufactured from phenolic plastic and consists of two separately threaded sections
- Sealing ring is manufactured from silicone rubber and sheathed with PTFE for protection against chemical attack. Internal diameter of the ring corresponds to the bore of the SVL® glass screwthread so that flow is not restricted
- Heat resistant up to 200°C

Product Code	SVL® joint size	Ring I.D. mm	Pack qty.
701-11	15	10	10
701-12	22	17	10
701-13	30	23	10
701-14	42	34	10



SVL® sealing rings for butt joints

SVL®

Product Code	SVL® joint size	Ring I.D. mm	Pack qty.
701-01	15	10	10
701-02	22	17	10
701-03	30	23	10
701-04	42	34	10



SVL® screwcaps, for sliding joints

SVL®

- Phenolic screwcaps (with hole) and sealing rings designed to provide a sliding joint
- Ideal for inserting thermometers and glass tubing etc. into an SVL® system
- Sealing rings manufactured from silicone rubber and sheathed with PTFE for protection against chemical attack
- Wide range of sizes for use with tubing from 4.0 to 32.8mm

Product Code	SVL® joint size	Pack qty.
701-41	15	10
701-42	22	10
701-43	30	10
701-44	42	10



Screwcaps and rings should be ordered separately.

SVL® sealing rings, for sliding joints

SVL®

Product Code	SVL® joint size	To accept tubing O.D. mm	Pack qty.
701-19	15	4.0 - 4.4	10
701-21	15	5.6 - 6.4	10
701-22	15	6.6 - 7.4	10
701-23	15	7.6 - 8.4	10
701-51	22	9.6 - 10.4	10
701-52	22	11.6 - 12.4	10
701-24	22	13.6 - 14.4	10
701-25	22	15.6 - 16.4	10
701-56	30	17.6 - 18.4	10
701-26	30	19.5 - 20.5	10
701-27	30	21.5 - 22.5	10
701-28	42	29.2 - 30.8	10
701-29	42	31.2 - 32.8	10



SVL® screwcaps, for positive closure

SVL®

- Designed to act as a positive closure when used with SVL® glass screwthreads
- Manufactured from phenolic plastic with a PTFE faced rubber insert
- Can be autoclaved at 121°C
- Spare rubber/PTFE inserts available

Product Code	Description	Thread size mm	Pack qty.
4503/15	Complete cap	15	20
4503/22	Complete cap	22	20
4503/30	Cap with insert	30	20
4503/42	Cap with insert	42	10
4513/15M	Spare insert	15	20
4513/22M	Spare insert	22	20
4513/30M	Spare insert	30	20
4513/42M	Spare insert	42	10



SVL® adapter, cone/screwthread

SVL®

- Facilitates connection between SVL® and Quickfit® glassware
- Features an SVL® screwthread and Quickfit® ground glass cone
- Thread accepts SVL® screwcaps and couplings. Cone accepts Quickfit® sockets
- Manufactured from temperature and chemical resistant borosilicate glass

Product Code	SVL® joint size	Cone size	Pack qty.
670-70	15	14/23	2
670-77	22	24/29	2
670-83	30	29/32	2



i Screwcap is not provided. Screwcap and adapter should be ordered separately.

SVL®, adapter, socket/screwthread

SVL®

- Facilitates connection between SVL® and Quickfit® glassware
- Features an SVL® screwthread and Quickfit® ground glass socket
- Thread accepts SVL® screwcaps and couplings. Socket accepts Quickfit® cones
- Manufactured from temperature and chemical resistant borosilicate glass

Product Code	SVL® joint size	Socket size	Pack qty.
670-00	15	14/23	2
670-03	22	24/29	2
670-05	30	29/32	2



i Screwcap not provided. Screwcap and adapter should be ordered separately.



SVL®, Torion joints, glass bodies

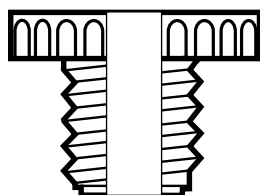
SVL®

- Alternative jointing system for glassblowers to make connections between tubing and glassware
- Only glass and PTFE come into contact with the liquid being used to provide a chemical resistant pathway
- Complete joint comprises borosilicate glass body, glass filled polypropylene fitting and rubber/PTFE sealing ring
- Glass body has an internal screwthread into which is fitted the rubber sealing ring sheathed with PTFE. Tubing is pushed through the screwthread fitting, which is then threaded onto the glass body. As the fitting is tightened, the sealing ring is compressed to form a seal between the tubing and the body

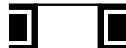
Product Code	Body height mm	Body max O.D. mm	Shank O.D. mm	Shank length mm	Pack qty.
721-01	27	21	14	8	10
721-02	32	26	17	9	10
721-03	42	37	25	15	10



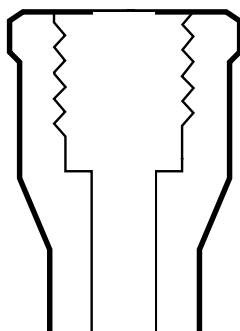
721-01 supplied with 720-01 fitting and 701-20 sealing ring.
721-02 supplied with 720-02 fitting and 701-23 sealing ring.
721-03 supplied with 720-03 fitting and 701-24 sealing ring.



720:



701:



721:

SVL®, Torion joints, spare sealing rings

SVL®

- Spare sealing rings for use with Torion joints to allow tubing of different diameters to be accommodated
- Manufactured from silicone rubber faced with PTFE to protect against chemical attack

Product Code	To suit glass body	To accept tubing O.D. mm	Pack qty.
701-19	721-02	4.0 - 4.4	10
701-20	721-01	4.8 - 5.2	10
701-21	721-02	5.6 - 6.4	10
701-22	721-02	6.6 - 7.4	10
701-23	721-02	7.6 - 8.4	10
701-24	721-03	13.6 - 14.4	10
701-25	721-03	15.6 - 16.4	10
701-51	721-03	9.6 - 10.4	10
701-52	721-03	11.6 - 12.4	10



SVL®, Torion joints, spare fittings

SVL®

- For use with Torion glass bodies and rubber/PTFE sealing rings
- Fittings available in choice of materials
 - Glass filled polypropylene for use at temperatures up to 180°C
 - PTFE for use at temperatures up to 250°C

Product Code	Material	Bore (mm)	Pack qty.
720-01	Polypropylene	5.7	10
720-02	Polypropylene	8.7	10
720-03	Polypropylene	14.7	10
720-04	PTFE	5.7	10
720-05	PTFE	8.7	10
720-06	PTFE	14.7	10

SVL®, stirrer shafts

SVL®

- Designed for use with SVL® stirrer heads and stirrer bearings
- Manufactured from borosilicate glass
 - Lower end with internal screwthread to accept choice of stirrer heads
 - Upper section of shaft is ground to fit choice of stirrer bearings

Product Code	To fit SVL® reaction vessels cap. ml	Shaft length mm	Pack qty.
588-32	500, 1000, 2000	315	1
588-33	1000, 2000, 4000	405	1
588-34	2000, 4000, 6000, 10,000	490	1
588-35	20,000	580	1



Diameter is approximately 10mm on the ground part of the shaft.





SVL®, stirrer heads

SVL®

- Designed for use with SVL® stirrer shafts
- Head simply screws into the end of the shaft
- Manufactured from a PTFE based polymer with the Anchor and Helix types stiffened by a metal core

Product Code	Type	Application	Diameter swept mm	Pack qty.
588-93	Collapsible blades	Vessels with SVL 30 joint or 29/32 socket	70	1
588-94	Paddle	SVL thermostatic reactors	70	1
588-95	Anchor	SVL reaction vessels	90	1
588-97	Helix-6 blades	SVL reaction vessels	80	1
588-98	Anchor	SVL reaction vessels	54	1



Stirrers must be rotated in a clockwise direction to prevent unscrewing of the thread.



SVL®, stirrer Bearings

SVL®

- Designed to accept SVL® stirrer shafts with ground glass surfaces
- Borosilicate glass complete with fittings
- Glands made from a PTFE based polymer which is self lubricating and corrosion-resistant
- Two types available:
 - With SVL® screwthread to allow connection to SVL® flasks
 - With Quickfit® ground glass cone to allow connection to Quickfit® flasks

Product Code	Cone size	SVL thread size	Pack qty.
588-03	-	30	1
588-07	19/26	-	1
588-08	24/29	-	1
588-09	29/32	-	1
588-12	45/40	-	1



Bearings having an SVL® screwthread can be connected to SVL® reaction flasks via SVL® butt joints.

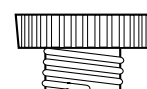
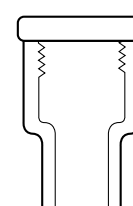


SVL®, spare parts for stirrer bearing

SVL®

- Range of spare parts enabling the user to replace worn components easily and economically

Product Code	Description	Pack qty.
588-00	Torion glass body (without glands)	1
588-92	Spare glands - complete set includes 3 bearings, 2 bushes, 1 spring, 1 washer, 1 screwhead fitting	2
588-99	Spare bearings	10


588-92

588-00


SVL®, reaction vessels

SVL®

- Manufactured from borosilicate glass for high resistance to chemical attack and thermal shock
- With 100mm wide neck to accept SVL® lids and sealing ring

Product Code	Capacity (ml)	Body O.D. mm	Overall height mm	Shape	Pack qty.
296-54	500	115	120	Cylindrical	1
296-60	1000	115	200	Cylindrical	1
296-72	4000	206	245	Spherical	1
296-75	6000	235	280	Spherical	1
296-80	10000	279	325	Spherical	1
296-84	20000	345	410	Spherical	1



 Lids and sealing rings for use with these reaction vessels are detailed on page 259.



SVL®, jacketed reaction vessel

SVL®

- Ideal for temperature controlled reactions
- With outer jacket through which a temperature controlling medium can be circulated (maximum temperature of 200°C)
- Contents of inner chamber can be run off via a Torion PTFE stopcock
- When used with an SVL® lid and PTFE covered sealing ring, the assembly is grease free and resistant to chemical attack

Product Code	Capacity (ml)	I.D. mm	Total depth mm	Depth of liner mm	Stopcock bore mm	Pack qty.
295-01	1000	100	245	195	8.0	1

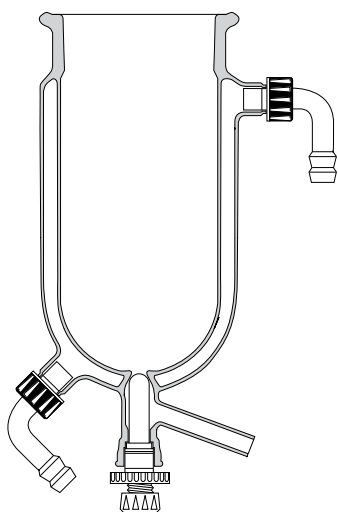


The thermostatic reaction vessel is supplied with the following components:

Two olive bends 14mm diameter	X134000695
Two bored caps	701-42
Three sealing rings	701-24
One PTFE stopcock plug	295-00
One screw threaded fitting	720-03

The following parts are required to assemble a complete reaction vessel:

One clamping system	296-91
One pair of support rods	296-92
One sealing ring	296-90
One SVL® lid	296-00/01/02/03



LIPSOL® LABWARE DETERGENT

- Excellent cleaning performance - ideal for use with laboratory glassware and plasticware
- Great value for money
- Totally biodegradable

For full details see page 89





SVL® lids for reaction vessels

SVL®

- For use with SVL® reaction vessels
- Borosilicate glass construction available in 3 styles:
 - Plain with knob (no necks) to act as a cover - 296-00
 - With two necks (one vertical central neck and one vertical side neck)
 - With five necks as shown in the table below

Product Code	SVL joint size central	SVL joint size vertical	SVL joint size vertical 2	SVL joint size angled	Overall height mm	Pack qty.
296-00	-	-	-	-	66	1
296-01	1 x 30	1 x 15	-	-	75	1
296-02	1 x 30	1 x 22	1 x 22	2 x 22	100	1
296-03	1 x 30	1 x 30	1 x 30	2 x 30	100	1



Any SVL® neck will accept SVL® accessories via the use of either butt or sliding joints. Unused necks may be closed with screwcaps. Lids require the use of sealing ring item code 296-90 and clamping system item code 296-91 to effect good fit to reaction vessels. All SVL® reaction vessel lids have an internal diameter of 100mm.



SVL® sealing ring, for reaction vessels

SVL®

- For fitting between the flanges of SVL® reaction vessels and lids
- Silicone rubber sheathed with PTFE to provide a chemically resistant and grease free seal

Product Code	Description	Pack qty.
296-90	Sealing ring	1





SVL® clamping system, for reaction vessels and lids

SVL®

- For securing SVL® lids to reaction vessels
- Manufactured from heat resistant phenolic plastic complete with 6 swivel clamps (296-93) and two milled screws (296-94)

Product Code	Description	Pack qty.
296-91	1 clamping system for 100mm flange (complete)	1
296-93	Pack containing 6 wing nuts, 6 springs and 6 clamps	1
296-94	Pack of 2 milled screws	2



SVL® support rods

SVL®

- Accessory for use with 296-91 clamping system
- Useful for supporting SVL® reaction vessels
- Comprises two metal support rods which are attached to the clamping system via the two milled screws
- Rods can be connected by bossheads to a retort stand or scaffold

Product Code	Description	Diam. mm	Length (mm)	Pack qty.
296-92	2 rods	16	250	1



Always use both of the rods when supporting glassware.



SVL Torion stopcocks, straight pattern

SVL®

- Manufactured from borosilicate glass
- Utilises a Torion joint consisting of a Torion connector, silicone rubber sealing faced with PTFE and a PTFE key
- Vacuum capability to 10^{-2} Torr
- Sidearms are 70 mm in length

Product Code	Key bore mm	Sidearm bore mm	Sidearm O.D. mm	Pack qty.
722-51	5.0	3	8	1
722-52	8.7	5	8	1
722-53	14.7	10	14	1

i 722-51 supplied with 701-01 fitting, 701-20 sealing ring and 720-51 PTFE key.
722-52 supplied with 701-02 fitting, 701-22 sealing ring and 720-52 PTFE key.
722-53 supplied with 701-03 fitting, 701-24 sealing ring and 720-53 PTFE key.



SVL Torion stopcocks, right angle pattern

SVL®

- Manufactured from borosilicate glass
- PTFE key is screwed into the threaded Torion connector, to open and close the stopcock
- No lubrication required - no seizure and no contamination
- Vacuum capability to 10^{-2} Torr
- Sidearms are 70 mm in length

Product Code	Key bore mm	Sidearm bore mm	Sidearm O.D. mm	Pack qty.
722-41	5.0	3	8	1
722-42	8.7	5	8	1
722-43	14.7	10	14	1

i 722-41 supplied with 720-01 fitting, 701-20 sealing ring and 720-51 PTFE key.
722-42 supplied with 720-02 fitting, 701-22 sealing ring and 720-52 PTFE key.
722-43 supplied with 720-03 fitting, 701-24 sealing ring and 720-53 PTFE key.

