



Best performance for your lab.



## Professional Labware for Chemical and Pharmaceutical Sector, Industries and Research



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# BOLA Globe Stirrer Coupling - good to know.



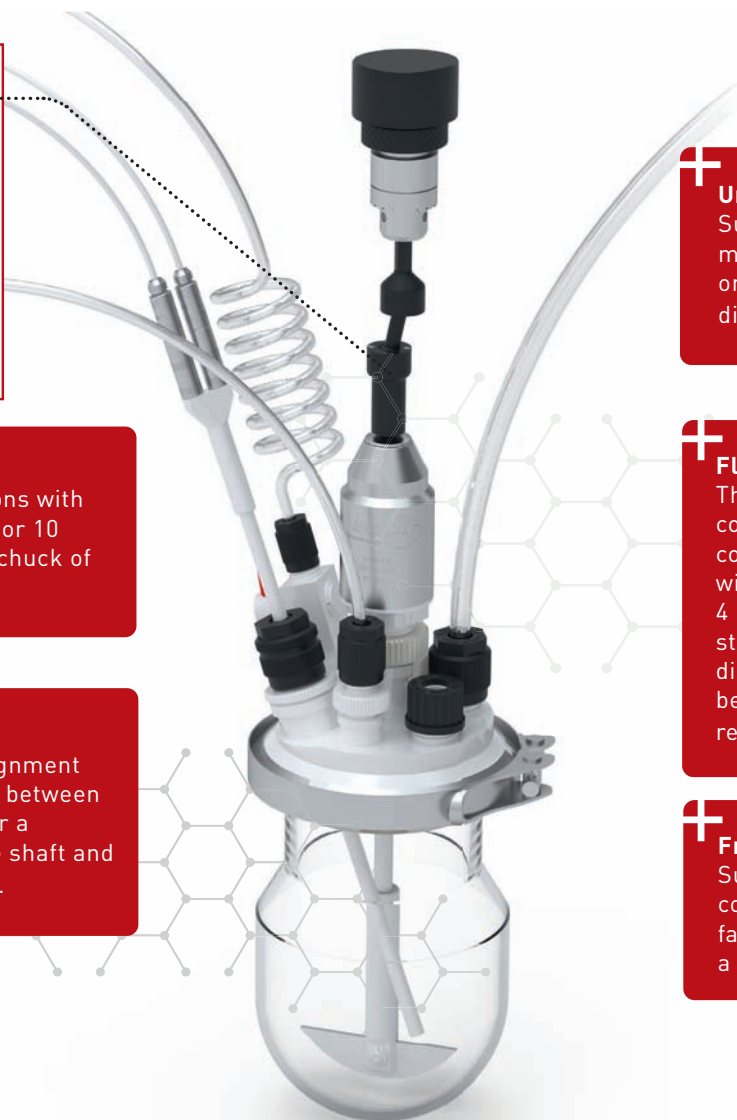
**+** **Collet chuck**  
Choose between versions with an outer diameter of 8 or 10 mm to match the drill chuck of your agitator.

**+** **Double ball joint**  
For balancing a misalignment of axes of up to 10 mm between agitator and stirrer. For a centric guidance of the shaft and reduction of vibrations.

**+** **Universally applicable**  
Suitable for stirrer shafts made of glass, stainless steel or jacketed with PTFE up to dia. 10 mm

**+** **Flexible use**  
The Globe Stirrer Coupling comes with a clamping screw connection for stirrer shafts with an outer diameter of either 4 mm or 10 mm. PTFE-jacketed stirrer shafts with chucking diameter 6,5 mm or 8 mm can be attached using a special reducing sleeve.

**+** **Free direction of rotation**  
Suitable for clockwise and counter-clockwise rotation by fastening the stirrer shaft with a clamping screw.



## BOLA Globe Stirrer Couplings

Material: POM      Temperature resistance: from -30 °C bis +100 °C      Chemical resistance: ++ sehr gut



**Product description:**  
Made of POM, a plastic material with a good mechanical strength, powerful transmission of up to 300 Ncm, suitable for a speed of up to 1.200 rounds per minute, maximum misalignment of axes 10 mm.

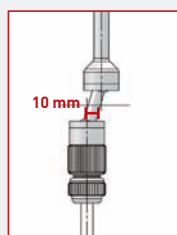
	Opening for stirrer shaft mm	Upper dia. mm	Total length mm	Cat. No.:	*recomm. price EUR
<b>NEW</b> A	Ø 4,0	8	190	C 394-01	137,24
A	Ø 4,0	10	190	C 398-04	134,46
<b>NEW</b> B	Ø 6,5 and 10,0	8	190	C 394-02	139,18
B	Ø 6,5 and 10,0	10	190	C 398-08	126,20
<b>NEW</b> B	Ø 8,0 and 10,0	8	190	C 394-03	129,11
B	Ø 8,0 and 10,0	10	190	C 398-12	129,17

**Benefits:**

- » very low centrifugal forces due to low weight
- » suitable for both left- and right-handed rotation (except for GL 10 thread: no left-handed rotation possible)
- » no resonance
- » simple assembly by means of screw joints with clamp rings
- » pivot (length 90 mm) can be shortened by the user

**Applications:**

Ideal for balancing misalignment of axes between agitator and stirrer shaft, suitable for glass, metal or BOLA stirrer shafts.



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## BOLA Stirrer Shafts – what you should know about.

BOLA Stirrer Shafts consist of stainless-steel shafts coated with PTFE and a solid PTFE stirrer unit. The stainless-steel stirrer ensures the required stability of the stirrer and enables a safe fixing in the stirrer.

+ Unbreakable – stirrer consisting of stainless-steel and solid PTFE stirrer unit

+ Non-sticky surface, therefore no attachment of diverse media

+ High temperature resistance up to 250°C



+ Safe fixing in the chuck due to stainless steel holder

+ Universal chemical resistance

+ Glass stirrer shafts can be exchanged against stirrer shafts made of PTFE so that stirrer shafts/drive units, couplings and guides can still be used

## BOLA Stirrer Shafts

Material: PTFE  
 Temperature resistance: from -200 °C to +250 °C  
 Chemical resistance: +++ universal

### A Typ: BOLA Propeller Stirrer Shafts

FDA conform

Length mm	Shaft dia. mm	Chucking dia. mm	Dimensions			Cat. No.:	*recomm. price Euro
			A	B	C mm		
350	8	6,5	75	18	3,0	C 378-12	228,89
450	8	6,5	75	18	3,0	C 378-14	230,59
600	8	6,5	75	18	3,0	C 378-16	246,42
450	10	8,0	50	18	3,0	C 378-17	215,87
450	10	8,0	75	18	3,0	C 378-18	253,17
600	10	8,0	75	18	3,0	C 378-20	254,55

#### Applications:

The product is sucked bottom-up, good axial flow with low shear force.



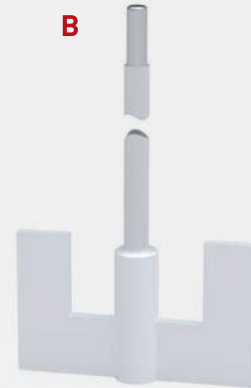
### B Typ: BOLA U-Shaped Stirrer Shafts

FDA conform

Length mm	Shaft dia. mm	Chucking dia. mm	Dimensions				Cat. No.:	*recomm. price Euro
			A	B	C	D mm		
350	8	6,5	60	40	25	30	C 384-02	200,86
450	8	6,5	80	50	30	44	C 384-06	203,54
600	8	6,5	80	50	30	44	C 384-08	224,39
600	8	6,5	100	60	35	56	C 384-10	235,97
350	10	8,0	80	50	30	44	C 384-16	218,78
450	10	8,0	80	50	30	44	C 384-17	212,48
450	10	8,0	100	60	35	56	C 384-07	223,43
600	10	8,0	100	60	35	56	C 384-24	241,00

#### Applications:

Strong, tangential flow with high shear rate in the margin area, little sediments on the wall of the vessel. Ideal for mixing viscous liquids.



### C Typ: BOLA Moon Shaped Stirrer Shafts

FDA conform

Length mm	Shaft dia. mm	Chucking dia. mm	For ground joint NS	Dimensions			Cat. No.:	*recomm. price Euro
				A	B	C mm		
350	8	6,5	24/29	65	18	3	C 376-02	158,02
450	8	6,5	24/29	65	18	3	C 376-04	156,70
350	8	6,5	29/32	90	24	3	C 376-06	175,18
450	8	6,5	29/32	90	24	3	C 376-08	153,35
600	8	6,5	29/32	90	24	3	C 376-10	178,91
350	10	8,0	29/32	90	24	3	C 376-12	173,56
450	10	8,0	29/32	90	24	3	C 376-14	165,18
510	10	8,0	29/32	90	24	3	C 376-16	176,20
600	10	8,0	29/32	90	24	3	C 376-18	192,02

#### Applications:

Tangential flow with little turbulence. The tilting half-moon blade is ideal for stirring in round-bottom flasks with ground joint necks.



## BOLA Stirrer Bearings

Material: PTFE, PPS    Temperature resistance: from -15 °C bis +200 °C    Chemical resistance: +++ universal



FDA conform

Product description:

Ground joint cone made of PTFE with sealing rings on the outside to prevent sticking of the connection and to reduce danger of breaking glass. A special gasket made of PTFE and an FPM o-ring which is compressed by a GL screw cap provide a good sealing of the stirrer shaft. This gasket can be exchanged after wearing.

Cone NS European standard	For stirrer shaft dia. mm	Total length mm	Thread of screw cap GL	Cat. No.:	*recomm. price EUR
NS 19/26	6	63	18	C 424-04	41,39
NS 19/26	8	65	25	C 424-05	38,79
NS 24/29	8	69	25	C 424-08	47,42
NS 24/29	10	70	25	C 424-09	56,26
NS 29/32	6	72	18	C 424-12	45,22
NS 29/32	8	74	25	C 424-13	44,09
NS 29/32	10	72	25	C 424-14	41,85
NS 45/40	10	80	25	C 424-16	54,78
NS 45/40	16	86	32	C 424-18	61,60

**Applications:**

Suitable for vacuum, perfect bearing for stainless steel, glass and BOLA Stirrer Shafts



## BOLA Glass Stirrer Bearings

Material: PTFE, PPS    Temperature resistance: from -15 °C to +200 °C    Chemical resistance: +++ universal



FDA conform

Product description:

Combination of a borosilicate glass piece with ground joint, an interior PTFE shaft guide with integrated special gasket and a GL screw cap made of PPS. The special gasket made of PTFE and an FPM o-ring which is compressed by a GL screw cap provide a good sealing of the stirrer shaft. This gasket can be exchanged after wearing.

Cone NS European standard	For stirrer shaft dia. mm	Total length mm	Thread of screw cap GL	Cat. No.:	*recomm. price EUR
NS 29/32	6	90	25	C 425-06	102,09
NS 29/32	8	90	25	C 425-08	92,18
NS 29/32	10	90	25	C 425-09	91,63
NS 45/40	10	110	25	C 425-12	64,59
NS 45/40	16	118	32	C 425-14	91,61

**Applications:**

Suitable for vacuum, perfect bearing for stirrer shafts made of stainless steel, glass and for BOLA Stirrer Shafts.



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- » What is the article name?
- » In which application should the article be used?
- » What dimensions should the article have?
- » Are there any specific material specifications?
- » In which temperature range should the article be used?
- » What chemical stresses is the article exposed to?
- » In which quantities is the article required?
- » What cost per piece should the article not exceed?

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Or just send us a drawing (a rough sketch is sufficient) and some information to [info@bola.de](mailto:info@bola.de). We will then contact you to discuss further details and establish an offer for you free of charge.



## BOLA Stirrer Blades - good to know.

+ Clamp screw ensures torsion-proof fastening on the stirrer shaft

+ Suitable for stirrer shafts made of glass, stainless steel or jacketed with PTFE

+ Blades can be fixed at requested height and independent from the direction of rotation

+ Stirrer blade made of PTFE and clamp screws made of PEEK-Compound offer an excellent chemical and thermal resistance.

+ Stirrer shafts can be enlarged for several stages by means of our stirrer blades for a better mixing in high and slim vessels.

+ Individual blade shapes for optimized mixing can be manufactured on request





## BOLA Stirrer Blades

Material: PTFE    Temperature resistance: from -100 °C bis +240 °C    Chemical resistance: +++ universal

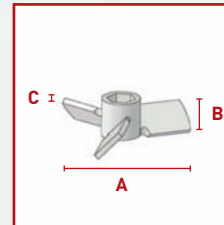
### Typ: BOLA Propeller Blades

FDA conform

Shaft dia. mm	Wrench size	Dimensions according to drawing mm			Cat. No.:	*recomm. price EUR
		A	B	C		
8	15	75	18	3	C 440-08	87,14
10	19	75	18	3	C 440-10	86,61

#### Applications:

The product is sucked bottom-up, good axial flow with low shear force.



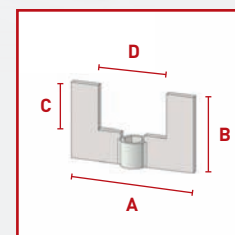
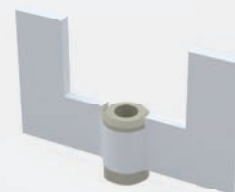
### Typ: BOLA U-Shaped Blades

FDA conform

Shaft dia. mm	Wrench size	Dimensions according to drawing mm				Cat. No.:	*recomm. price EUR
		A	B	C	D		
8	15	60	40	22	30	C 445-08	90,51
8	15	100	60	35	56	C 445-12	122,81
10	19	80	50	30	44	C 445-16	89,94
10	19	100	60	35	56	C 445-20	118,46
10	19	130	80	55	80	C 445-30	152,93
10	19	150	120	90	90	C 445-34	189,31
16	32	130	80	55	80	C 445-40	234,53
16	32	150	120	90	90	C 445-44	284,42

#### Applications:

Strong, tangential flow with high shear rate in the margin area, little sediments on the wall of the vessel. Ideal for mixing viscous liquids..



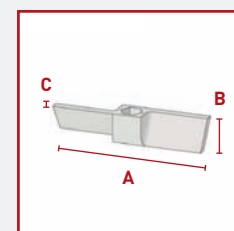
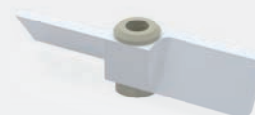
### Typ: BOLA Paddle Blades

FDA conform

Shaft dia. mm	Wrench size	Dimensions according to drawing mm			Cat. No.:	*recomm. price EUR
		A	B	C		
8	15	80	18	4	C 446-08	77,99
10	19	80	20	5	C 446-10	75,44
10	19	110	20	5	C 446-12	76,12
10	19	140	20	5	C 446-14	100,34
16	32	140	25	12	C 446-16	138,13

#### Applications:

The product is sucked bottom-up, very good axial flow with shear force.



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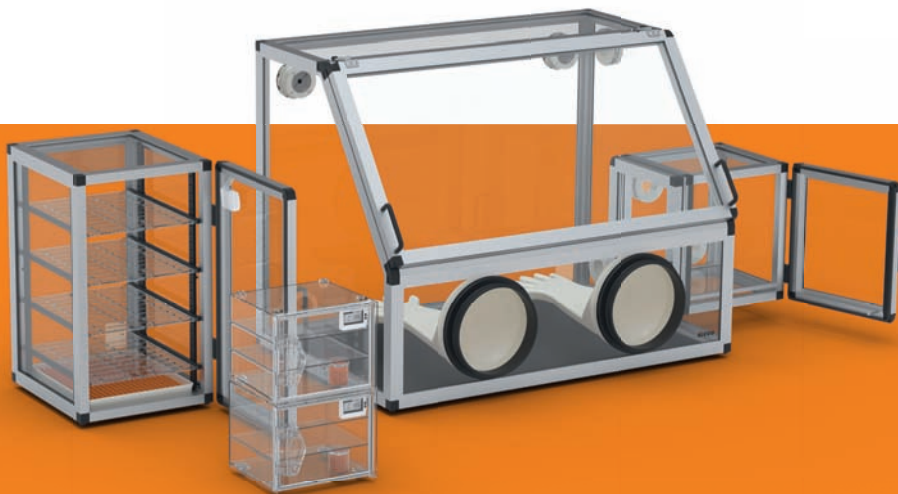
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## BOLA Tubing Rolls

Product description:

Fluoroplastic tubing made of PTFE, FEP and PFA. Cut to rolls with 5 m and 10 m length, individual packed in PE-bag.



FDA conform

BOLA Tubing rolls:

Transparent to milky-white

Roll length m	I.D. mm	O.D. mm	Material					
			PTFE		FEP		PFA	
			Cat. No.:	*recomm. price Euro	Cat. No.:	*recomm. price Euro	Cat. No.:	*recomm. price Euro
5	(5/32") 3,96	(1/4") 6,35	S 2010-41	133,93	S 2020-24	129,01	S 2030-12	164,71
5	(11/64") 4,35	(1/4") 6,35	S 2010-42	84,37	S 2020-28	114,46	S 2030-14	179,10
5	6,0	8,00	S 2010-50	94,22	S 2020-36	129,41	S 2030-18	197,28
5	8,00	10,00	S 2010-60	134,12	S 2020-48	210,50	S 2030-24	186,08
5	(3/8") 9,52	(1/2") 12,7	S 2010-65	224,10	S 2020-56	348,83	S 2030-28	393,09
5	10,00	12,00	S 2010-64	164,92	S 2020-60	220,20	S 2030-30	283,87
10	(1/32") 0,8	(1/16") 1,6	S 2012-10	26,82	S 2022-04	41,26	S 2032-02	100,48
10	(1/16") 1,6	(1/8") 3,2	S 2012-26	66,88	S 2022-08	87,73	S 2032-04	160,66
10	2,00	3,00	S 2012-30	54,91	S 2022-07	80,60	S 2032-05	130,10
10	2,00	4,00	S 2012-32	102,01	S 2022-12	134,24	S 2032-06	164,68
10	4,00	6,00	S 2012-40	86,40	S 2022-20	120,08	S 2032-10	158,44

Applications:

See cat. no. S 1810-.. PTFE / S 1811-.. PFA / S 1815-.. FEP for further sizes.

## BOLA Antistatic Explosion-Proof Tubing Rolls

BOLA Tubing rolls:

Very good electric conductivity due to a special "antistatic compound" made of pure PTFE and finest, highly pure carbon dust (less than 2,5%). Colour: black

Roll length m	I.D. mm	O.D. mm	Cat. No.:	*recomm. price Euro
5	2,0	4,0	S 2040-32	44,79
5	4,0	6,0	S 2040-40	71,16
5	6,0	8,0	S 2040-50	90,37
5	8,0	10,0	S 2040-60	111,91



Applications:

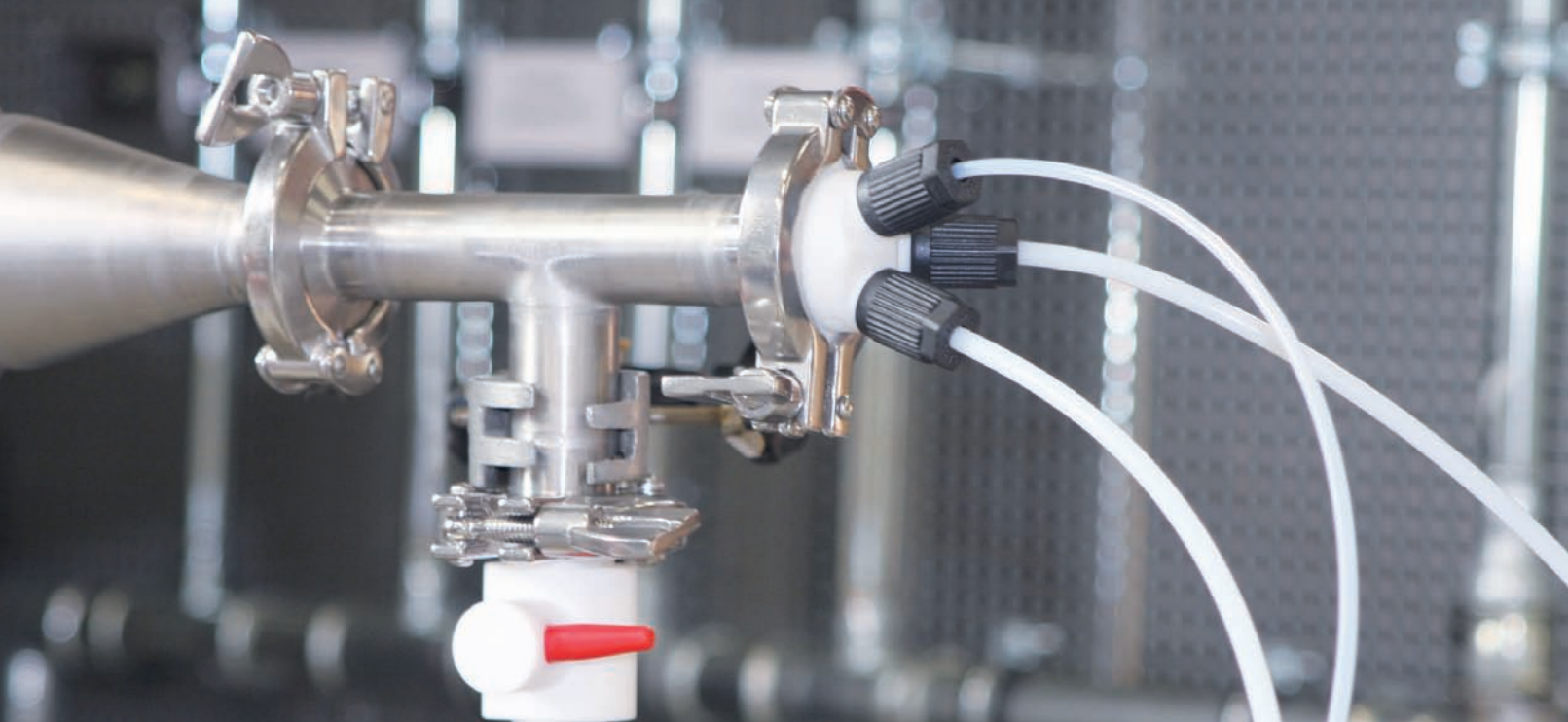
See cat. no. S 1827-.. for further sizes.



**No specification of fixed rolls – available per metre**

Free choice of requested length between minimum length and maximum production length.





## BOLA Tri-Clamp Fittings - what you should know about.

Tri-Clamp is a standardized screwing system which is used in chemical, pharmaceutical and food industry everywhere where great importance on cleanliness and reliability is attached and thus components that can be cleaned easily and assembled safely are required.

All BOLA components with Tri-Clamp are produced in accordance with the relevant standard DIN 32 676. Other dimensions and further adaptors for the transition to other threads are always available on demand.

+ All Tri-Clamp Fittings are produced in accordance with DIN 32 676 and thus are compatible to all components of the same standard.

+ The flange-like fittings are pressed together and connected by means of a locking clamp in suitable size.

+ The seal is made on the flat flange and, in addition, the inside diameter of the pipe is the same throughout, so that the dead volume is reduced.

+ With BOLA Tri-Clamp Fittings and laboratory fittings, PTFE tubes can be connected directly to the GL socket and thus with the existing Tri-Clamp tubing, for example, you can extract or fill in medium.

+ BOLA Tri-Clamp Fittings produced of PTFE are chemically and thermally high resistant. At the same time the surfaces are non-adhesive and thus can be cleaned easily.

+ BOLA Tri-Clamp fittings can be manufactured to any known standard and the number and design of the connections can be adapted to your requirements.



## BOLA Tri-Clamp GL-Adaptor

Material: PTFE  
 Temperature resistance: from -200 °C to + 250 °C  
 Chemical resistance: +++ universal

FDA conform

Product description:

Fitting made of PTFE for transition of Tri-Clamp as per DIN 32 676 to a GL-threaded neck. Universal chemical resistance, the flowing product is only exposed to PTFE.

Plate-Ø	Nominal size as per DIN	For tube I.D. mm	Threaded Neck GL	Cat. No.:	*recomm. price Euro
25,5	DN 08	8,0	14	D 901-02	29,20
25,5	DN 10	10,0	18	D 901-04	41,45
25,5	DN 10	10,0	25	D 901-06	41,79
34,0	DN 10	10,0	14	D 901-22	41,67
34,0	DN 15	16,0	18	D 901-24	41,05
34,0	DN 20	20,0	25	D 901-26	42,25
50,5	DN 25	26,0	14	D 901-42	67,02
50,5	DN 25	26,0	18	D 901-44	66,24
50,5	DN 32	32,0	25	D 901-46	65,44
50,5	DN 40	38,0	45	D 901-48	57,83

**Applications:**

For connection of hard-walled tubing (such as glass, stainless steel) or fluoroplastic tubes (such as PTFE, PFA, FEP) with BOLA Laboratory Screw Joints to Tri-Clamp components as per DIN 32 676.



## BOLA Tri-Clamp Multiple Distributor

Material: PTFE  
 Temperature resistance: from -200 °C to +250 °C  
 Chemical resistance: +++ universal

FDA conform

Product description:

Fitting made of PTFE for transition of Tri-Clamp as per DIN 32 676 to two or three GL-threaded necks. Universal chemical resistance, the flowing product is only exposed to PTFE.

Plate-Ø	Nominal size as per DIN	For tube I.D. mm	Threaded Neck GL	Bore diam. mm	Cat. No.:	*recomm. price Euro
34,0	DN 20	20,0	2 x 14	2 x 8,5	D 911-22	64,16
50,5	DN 40	38,0	3 x 14	3 x 8,5	D 911-42	86,52
50,5	DN 40	38,0	3 x 18	3 x 10,5	D 911-44	86,90

**Applications:**

For connection of hard-walled tubing (such as glass, stainless steel) or fluoroplastic tubes (such as PTFE, PFA, FEP) with BOLA Laboratory Screw Joints to Tri-Clamp components as per DIN 32 676.



## BOLA Tri-Clamp GL-Stopcocks

Material: PTFE, PP  
 Temperature resistance: from 0 °C to +110 °C  
 Chemical resistance: +++ universal

FDA conform

Product description:

2-Way stopcock made of PTFE with straight bore, one Tri-Clamp neck as per DIN 32 676 and one GL-threaded neck. Cylindrical stopcock made of PTFE for reliable tightness and grip made of PP for marking the flow direction. Universal chemical resistance, the flowing product is only exposed to PTFE.

Plate-Ø	Nominal size as per DIN	For tube I.D. mm	connecting thread GL	bore dia. mm	Cat. No.:	*recomm. price Euro
25,0	DN 08	8,0	18	6	D 917-02	104,19
34,0	DN 15	16,0	25	8	D 917-24	127,72
50,5	DN 25	26,0	25	8	D 917-42	174,70

Applications:

Quick and easy disconnection of flow. For connection of hard-walled tubing (such as glass, stainless steel) or fluoroplastic tubes (such as PTFE, PFA and FEP) with BOLA Laboratory Screw Joints to Tri-Clamp components as per DIN 32 676.



## BOLA Tri-Clamp Gaskets

Material: PTFE, Silikon  
 Temperature resistance: from -60 °C to +230 °C  
 Chemical resistance: +++ universal

FDA conform

Product description:

Silicone ring with double-sided, elastic washer made of PTFE. Suitable for Tri-Clamp connections as per DIN 32 676. Universal chemical resistance, the flowing product is only exposed to PTFE.

Plate-Ø	Nominal size as per DIN	For tube I.D. mm	Cat. No.:	*recomm. price Euro
25,5	DN 08	8,0	D 930-02	19,17
25,5	DN 10	10,0	D 930-04	18,72
34,0	DN 10	10,0	D 930-22	22,31
34,0	DN 15	16,0	D 930-24	21,73
34,0	DN 20	20,0	D 930-26	21,37
50,5	DN 25	26,0	D 930-42	24,67
50,5	DN 32	32,0	D 930-44	24,67
50,5	DN 40	38,0	D 930-46	24,06
64,0	DN 50	50,0	D 930-62	41,73

Applications:

Chemical inert, reusable gasket for Tri-Clamp connections as per DIN 32 676.



## BOLA HT Laboratory Screw Joints

Material: PTFE, PPS    Temperature resistance: from -50 °C to +150 °C    Chemical resistance: +++ universal    Pressure: 10 bar    Vacuum: suitable

FDA conform

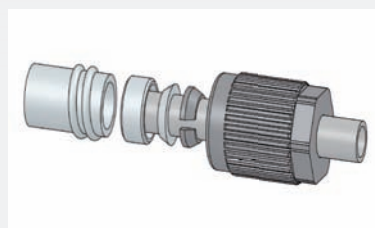
Product description:

Black screw cap made of PPS, inner parts consisting of a v-ring (PPS), a tapered ring and a sealing ring (both PTFE) as well as an o-ring for tubing diameters under 3 mm (not exposed to the medium). Good chemical resistance, suitable for temperatures from -20°C to +250°C.

For tubing O.D. mm	Cat. No.: Thread GL 14	*recomm. price Euro	Cat. No.: Thread GL 18	*recomm. price Euro	Cat. No.: Thread GL 25	*recomm. price Euro
(1/16") 1,6	D 628-26	26,37	D 629-18	51,42	D 630-18	48,64
(1/8") 3,2	D 628-58	19,20	D 629-42	26,39	D 630-42	60,48
4,0	D 628-66	21,89	D 629-46	25,46	D 630-46	38,21
6,0	D 628-74	21,07	D 629-54	19,09	D 630-54	31,09
(1/4") 6,35	D 628-78	32,54	D 629-56	72,84	D 630-58	60,47
8,0	D 628-82	31,22	D 629-62	22,00	D 630-62	31,77
10,0			D 629-74	23,12	D 630-74	31,21
12,0					D 630-80	34,68
14,0					D 630-90	38,58

### Applications:

Connecting equipment and fittings with GL threads with hard-walled tubing or tubes made of glass, plastic or metal. Fixing probes, thermometers, dip tubes or cables in reaction vessels.



\* Recommended prices valid until 31.12.2024

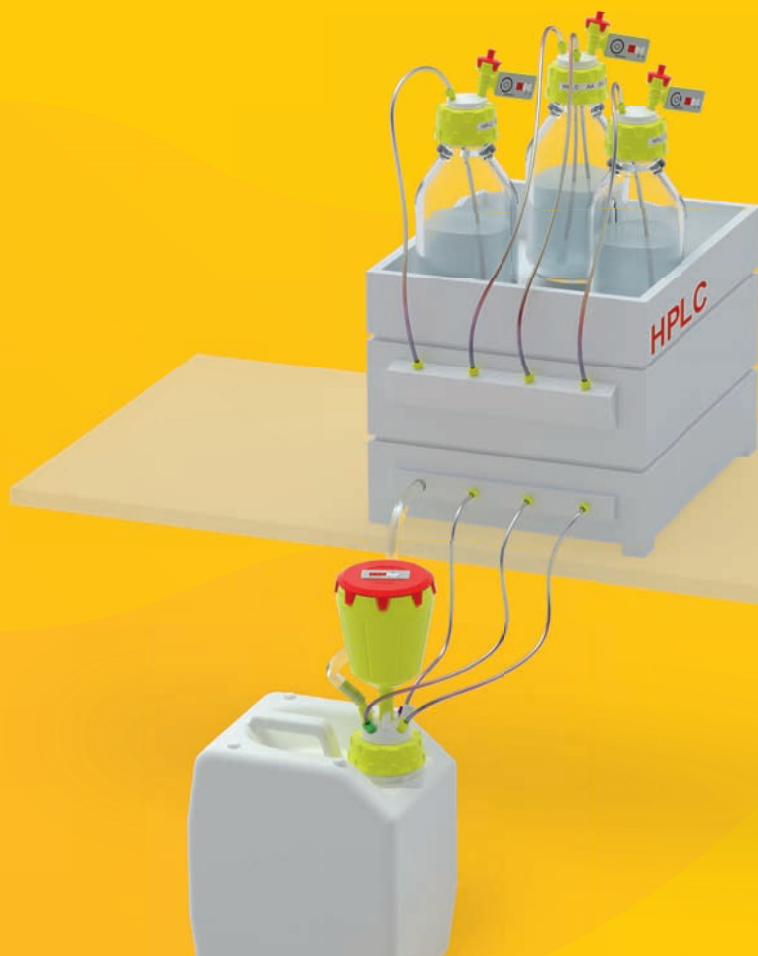
Also made by Bohlender.

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