

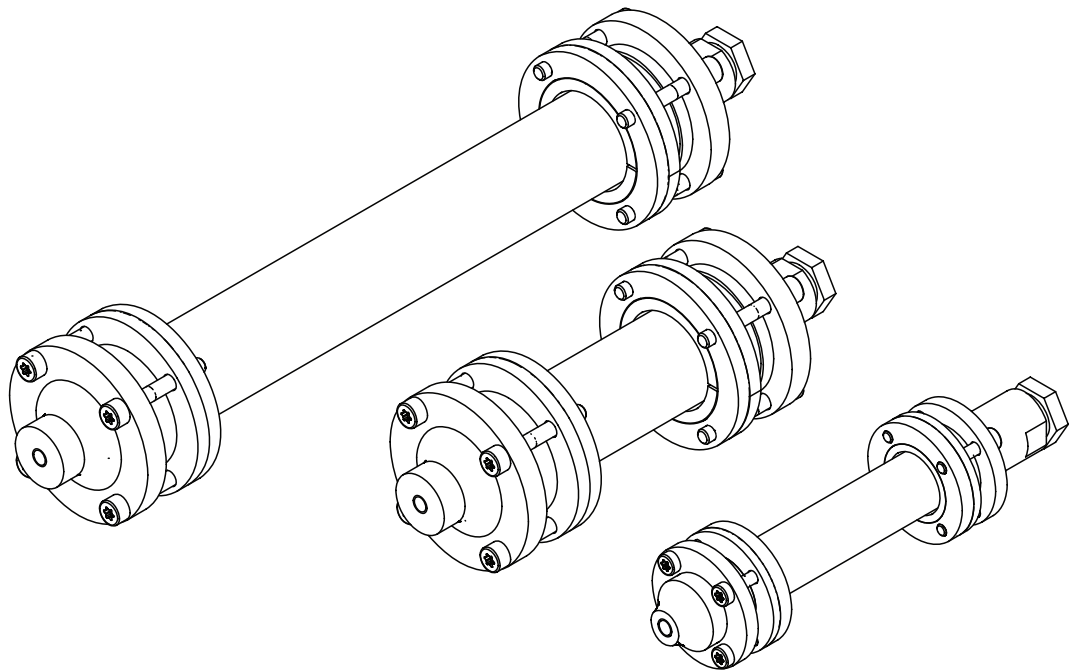


GlasPure columns

Quick guide

When purification has to be scaled up, GlasPure offers maximum flexibility in terms of scale and separation requirements. The glass columns are supplied empty and can be easily filled by the user. They are designed for sample amounts over 300 g and pressure up to 50 bar.

GlasPure is compatible with pre columns which enhance the life time of the main glass column by trapping contaminants.



GlasPure columns

Empty glass columns, which can be filled by the user; the column packaging can be discarded at any time and the column repacked; all GlasPure columns are delivered as single pieces

Inner Diameter (mm)	Column length 100 mm	Column length 230 mm	Column length 460 mm	Column length 920 mm	Pressure range (bar / psi)
ID 15	044030	044031	044032	044033	0 – 50 / 725
ID 26	044035	044036	044037	044038	0 – 40 / 580
ID 36	-	044040	044041	044042	0 – 30 / 435
ID 49	-	044044	044045	044046	0 – 20 / 290
ID 70	-	044048	044049	044050	0 – 15 / 218
ID 100	-	044052	044053	044054	0 – 10 / 145

Pre columns

Empty glass columns, which can be filled by the user; protected by a steel sleeve; delivered as single pieces

	Order no.
Pre column small for GlasPure with ID 15, 26, 36 and 49 mm (1 pc.)	044026
Pre column large for GlasPure with ID 70 and 100 mm (1 pc.)	044028

Technical data

Pressure range

Straight tubes of borosilicate glass with sealing flanges have a relatively high resistance to internal pressures.

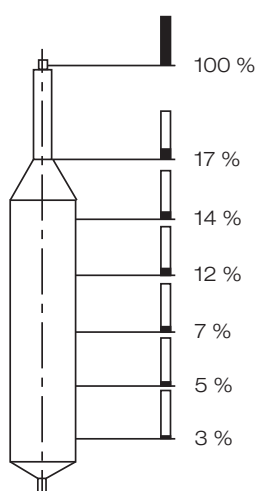
However, minor damage of the surface or stresses in the glass can considerably reduce this property.

Inner Diameter (mm)	without pre column	with pre column
ID 15	50 bar	–
ID 26	40 bar	50 bar
ID 36	30 bar	50 bar
ID 49	20 bar	50 bar
ID 70	15 bar	20 bar
ID 100	10 bar	20 bar

Important:

- Never pressurize columns when closed, i.e. the lower outlet must always be open.
- When operating the column with the liquid pump, the column must be completely filled with liquid. Since liquids have a very low compressibility, glass splinter will not be ejected away if a column should break.

Pressure reduction within a column in operating condition (reference values for 40...63 μm silica gel).



Capacities and volumes

Glass column capacity (estimation for silica 40 - 63 μm)

Inner Diameter (mm)	Column length	Column length	Column length	Column length
	100 mm	230 mm	460 mm	920 mm
ID 15	9 g	20 g	40 g	80 g
ID 26	25 g	65 g	130 g	260 g
ID 36	-	115 g	235 g	470 g
ID 49	-	230 g	460 g	920 g
ID 70	-	470 g	940 g	1800 g
ID 100	-	935 g	1850 g	3700 g

Pre column capacity (estimation for silica 40-63 μm)

Description

Small size	5 g
Large size	22 g

Glass column volume

Inner Diameter (mm)	Column length	Column length	Column length	Column length
	100 mm	230 mm	460 mm	920 mm
ID 15	18 mL	42 mL	84 mL	168 mL
ID 26	53 mL	130 mL	260 mL	520 mL
ID 36	-	235 mL	470 mL	940 mL
ID 49	-	460 mL	920 mL	1840 mL
ID 70	-	940 mL	1880 mL	3760 mL
ID 100	-	1875 mL	3750 mL	7500 mL

Pre column volume

Description

Small size	11 mL
Large size	44 mL

Installation

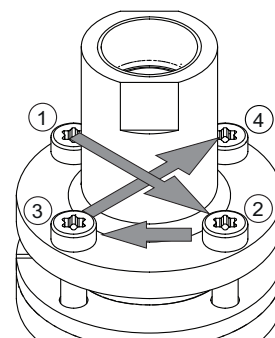


NOTE

Should a leak develop at any point of the column during operation, tighten the screws and inlet nipples, or the pretreatment column slightly more.

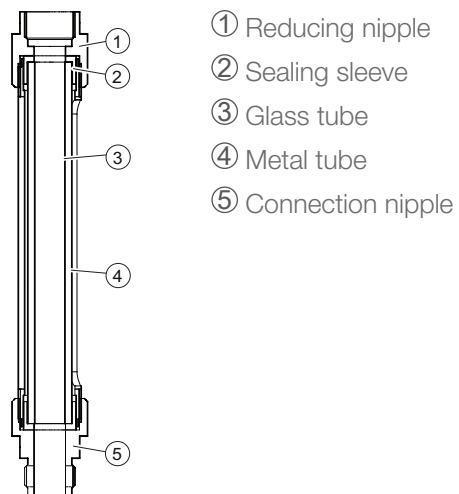
Damaged glass parts must not be used; they must be replaced by parts in proper condition.

- ▶ Examine glass section for signs of damage such as scratches, small pieces of glass chipped off, stars etc.
- ▶ Tighten the screws of the metal flanges crosswise with the tool enclosed.
- ▶ Fill the column with the desired packing material.
- ▶ Connect column to chromatography system and condition with the specified eluent.



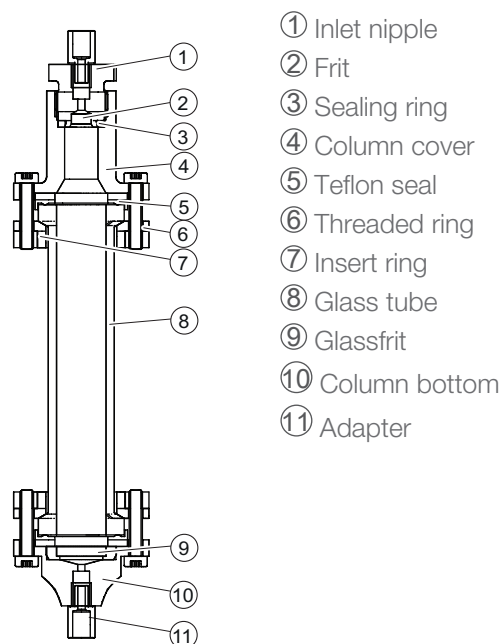
Spare parts

Pre columns



	11 ml	44 ml
Reducing nipple D 24x24	017985	022952
Sealing sleeve D 16.7 x 7 / 27.8 x 7	017989	022944
Glass tube D 14 / 9.6 x 115	017988	022941
Metal tube D 20 / 16x117	017987	022943
Connection nipple D 24x31	017986	022949

Main columns



- ① Inlet nipple
- ② Frit
- ③ Sealing ring
- ④ Column cover
- ⑤ Teflon seal
- ⑥ Threaded ring
- ⑦ Insert ring
- ⑧ Glass tube
- ⑨ Glassfrit
- ⑩ Column bottom
- ⑪ Adapter

	15*	26**	36**	49**	70***	100***
Inlet nipple SV ... SW 19x19	017984	017984	017984	017984	022953	022953
Sealing ring D 14x2 / 26x2	044022	044022	044022	044022	022951	022951
Frit PVD 2D 6x3 / 16x3	017991	017991	017991	017991	022954	022954
Column cover	028140	019590	019591	019592	044070	022947
Insert ring	028145	017966	017965	017964	017963	022945
Threaded ring	028146	017974	017973	017972	017971	022946
Teflon seal	028142	017978	017977	017976	017975	022950
Glass tube	025559	025560	054016	054015	054014	–
L = 100 mm						
Glass tube	028139	019674	019675	019676	019677	022971
L = 230 mm						
Glass tube	028147	017982	017981	017980	017979	022955
L = 460 mm						
Glass tube	11067978	11067979	11067980	11067981	11067982	11067983
L = 920 mm						
Column bottom	028141	019594	019595	019596	019597	022948
Glassfrit, 3 pieces	028168	022802	022802	022802	022802	022802
10 x Adapter M6-1/4" UNF-18 (enclosed 2 pcs / spare parts 10 pcs)	044303	044303	044303	044303	044303	044303

* Pretreatment column not necessary

** fits to Pretreatment column 11 ml

*** fits to Pretreatment column 44 ml

Materials

Glass Tube	Borosilicate glass 3.3.
Sealings	PTFE (white)
Frits	Borosilicate glass 3.3. - porosity 3
Metal parts	Stainless Steel 1.4301
Adapter	PEEK

BUCHI Affiliates:

Europe

Switzerland/Austria

BÜCHI Labortechnik AG
CH – 9230 Flawil
T +41 71 394 63 63
F +41 71 394 64 64
buchi@buchi.com
www.buchi.com

Italy

BUCHI Italia s.r.l.
IT – 20010 Cornaredo (MI)
T +39 02 824 50 11
F +39 02 575 12 855
italia@buchi.com
www.buchi.com/it-it

Benelux

BÜCHI Labortechnik GmbH
Branch Office Benelux
NL – 3342 GT Hendrik-Ido-Ambacht
T +31 78 684 94 29
F +31 78 684 94 30
benelux@buchi.com
www.buchi.com/bx-en

Russia

BUCHI Russia/CIS
Russia 127287 Moscow
T +7 495 36 36 495
russia@buchi.com
www.buchi.com/ru-ru

France

BUCHI Sarl
FR – 94656 Rungis Cedex
T +33 1 56 70 62 50
F +33 1 46 86 00 31
france@buchi.com
www.buchi.com/fr-fr

United Kingdom

BUCHI UK Ltd.
GB – Oldham OL9 9QL
T +44 161 633 1000
F +44 161 633 1007
uk@buchi.com
www.buchi.com/gb-en

Germany

BÜCHI Labortechnik GmbH
DE – 45127 Essen
T +800 414 0 414 0 (Toll Free)
T +49 201 747 49 0
F +49 201 747 49 20
deutschland@buchi.com
www.buchi.com/de-de

Germany

BÜCHI NIR-Online
DE – 69190 Walldorf
T +49 6227 73 26 60
F +49 6227 73 26 70
nir-online@buchi.com
www.nir-online.de

America

Brazil

BUCHI Brasil Ltda.
BR – Valinhos SP 13271-200
T +55 19 3849 1201
F +55 19 3849 2907
brasil@buchi.com
www.buchi.com/br-pt

USA/Canada

BUCHI Corporation
US – New Castle, DE 19720
T +1 877 692 8244 (Toll Free)
T +1 302 652 3000
F +1 302 652 8777
us-sales@buchi.com
www.buchi.com/us-en

Asia

China

BUCHI China
CN – 200233 Shanghai
T +86 21 6280 3366
F +86 21 5230 8821
china@buchi.com
www.buchi.com/cn-zh

India

BUCHI India Private Ltd.
IN – Mumbai 400 055
T +91 22 667 75400
F +91 22 667 18986
india@buchi.com
www.buchi.com/in-en

Indonesia

PT. BUCHI Indonesia
ID – Tangerang 15321
T +62 21 537 62 16
F +62 21 537 62 17
indonesia@buchi.com
www.buchi.com/id-in

Japan

Nihon BUCHI K.K.
JP – Tokyo 110-0008
T +81 3 3821 4777
F +81 3 3821 4555
nihon@buchi.com
www.buchi.com/jp-ja

Korea

BUCHI Korea Inc.
KR – Seoul 153-782
T +82 2 6718 7500
F +82 2 6718 7599
korea@buchi.com
www.buchi.com/kr-ko

Malaysia

BUCHI Malaysia Sdn. Bhd.
MY – 47301 Petaling Jaya,
Selangor
T +60 3 7832 0310
F +60 3 7832 0309
malaysia@buchi.com
www.buchi.com/my-en

Singapore

BUCHI Singapore Pte. Ltd.
SG – Singapore 609919
T +65 6565 1175
F +65 6566 7047
singapore@buchi.com
www.buchi.com/sg-en

Thailand

BUCHI (Thailand) Ltd.
TH – Bangkok 10600
T +66 2 862 08 51
F +66 2 862 08 54
thailand@buchi.com
www.buchi.com/th-th

BUCHI Support Centers:

South East Asia

BUCHI (Thailand) Ltd.
TH-Bangkok 10600
T +66 2 862 08 51
F +66 2 862 08 54
bacc@buchi.com
www.buchi.com/th-th

Middle East

BÜCHI Labortechnik AG
UAE – Dubai
T +971 4 313 2860
F +971 4 313 2861
middleeast@buchi.com
www.buchi.com

Latin America

BUCHI Latinoamérica S. de R.L. de C.V.
MX – Mexico City
T +52 55 9001 5386
latinoamerica@buchi.com
www.buchi.com/es-es

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