# **BROEN-LAB**

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# FITTINGS FOR SPECIAL WATER

**BASIC** range

99B0058 - 14.04.2025

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Ordering information

#### BROEN-LAB UNIFLEX™

#### THIS IS BROEN-LAB UNIFLEX™

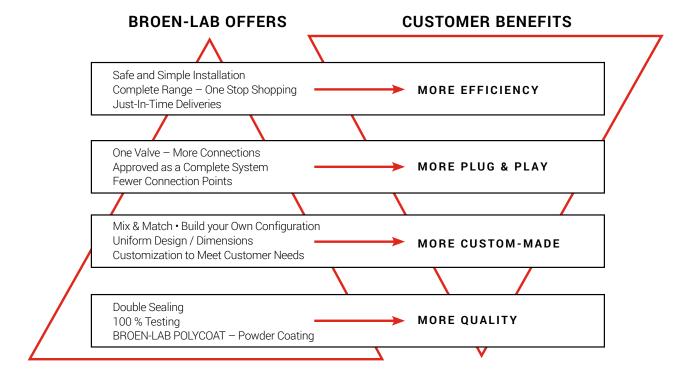
BROEN-LAB UniFlex<sup>TM</sup> line offers a high quality and durability combined with the complete programme, this adds up to low LCC (Life Cycle Costs).

BROEN-LAB UniFlex<sup>TM</sup> fittings for special water are designed for laboratory use. The operation and configuration of the fittings are highly adapted to the requirements of a modern laboratory. The fittings are surface treated with BROEN-LAB POLYCOAT powder coating, which is highly resistant to most chemicals, UV light and heat - Please refer to the "BROEN-LAB POLYCOAT" brochure for further information.

All special water fittings are as a standard delivered with a detachable hose nozzle with a loose union nut which offers quick and easy assembly and disassembly even when a hose is attached to the fitting. BROEN-LAB UniFlex<sup>TM</sup> fittings are as a standard delivered with a polypropylene handle. BROEN-LAB UniFlex<sup>TM</sup> plastic lined fittings are delivered with LLDPE (Linear Low-Density Polyethylene) inner pipe.

BROEN-LAB UniFlex<sup>TM</sup> fittings for special water are designed especially to eliminate corrosion problems in connection with use of purified water. Our fittings offer a number of advantages - A.O.:

- Complete line of Stainless Steel fittings
- Complete line of plastic lined fittings
- · Recirculating fittings
- Designed to secure maximum purity of the water
- Uniform design with the rest of the BROEN-LAB UniFlex™ programme



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#### **PRODUCT OVERVIEW**

#### WHAT IS SPECIAL WATER?

Special water is water that has been treated to ensure maximum purity of the water. This is important for certain tests in order to avoid contamination of the samples. The water can be cleaned in many different ways – A.O.:

- Demineralisation (Boiling)
- RO Reverse Osmosis
- UV light
- Ultra Filtration
- Desalination

#### WHY DO I NEED SPECIAL FITTINGS?

Special water or purified water becomes very aggressive when treated, as a consequence of this normal brass fittings will corrode very quickly if used in connection with these media. Our fittings for special water offer materials that are suitable and tested for use with treated water and all components are selected to ensure maximum corrosion resistance.

In order to secure maximum purity of water our fittings for special water have been designed with special components and technologies to ensure that test samples are not polluted.

#### **OUR SOLUTIONS**

Stainless Steel fittings

Fittings with plastic inner tube

Recirculating fittings

# **WALL MOUNTED FITTING - FULLY RECIRCULATING**

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Temperature range: 0-65°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

Weight: 1.6 kg

For more technical information and jointing methods please refer to page 21.

#### MATERIALS WITH MEDIA CONTACT

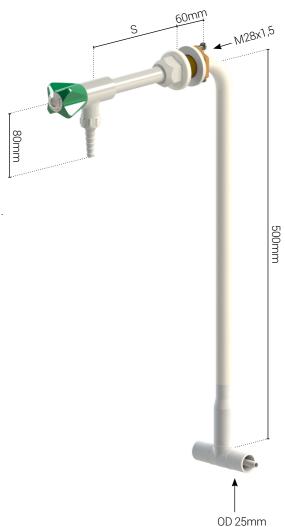
Diaphragm: PTFE Rubber: EPDM

Plastics: PP, PP-n, PVDF

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

- also available in PVDF OD 20mm



OD 32mm

#### **Configuration options**

Choose standout length and connection OD

	S = 150 mm	S = 200 mm
OD 25 mm	2533 022 10 <b>XX</b>	2533 118 10 <b>XX</b>
OD 32 mm	2533 119 10 <b>XX</b>	2533 120 10 <b>XX</b>

Replace XX with one of these media types:



03 •Distilled water



36 • Deionized water, cold

# BENCH MOUNTED FITTING ON A COLUMN - FULLY RECIRCULATING

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Temperature range: 0-65°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

Weight: 1.8 kg

For more technical information and jointing methods please refer to page 21.

#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

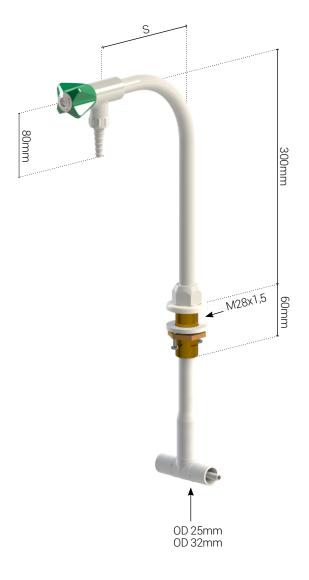
Plastics: PP, PP-n, PVDF

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- also available in ABS (1",  $1^{1/4}$ ",  $1^{1/2}$ ") and PVDF OD 20mm



#### **Configuration options**

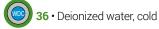
Choose standout length and connection OD

	S = 150 mm	S = 200 mm
OD 25 mm	2533 121 10 <b>XX</b>	2533 021 10 <b>XX</b>
OD 32 mm	2533 122 10 <b>XX</b>	2533 123 10 <b>XX</b>

Replace XX with one of these media types:



03 •Distilled water



# WALL MOUNTED FITTING WITH PLASTIC INNER TUBE

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Max. working pressure: 10 bar / 147 psi at 20°C 6 bar / 87 psi at 65°C

Test pressure: 1 x working pressure

Weight: 0.7 kg

#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

Plastics: LLDPE, POM, PP, PVDF

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different sizes of push-in fittings
- different inlet lengths



Can be delivered without 3/8" BSPT push fitting

#### **Configuration options**

Choose standout length and connection OD

	S = 150 mm	S = 200 mm
With 3/8" BSPT fitting	2533 184 10 <b>XX-YY</b>	2533 181 10 <b>XX-YY</b>
OD10 hose	2533 018 10 <b>XX-YY</b>	2533 020 10 <b>XX-YY</b>

Replace XX with one of these media types:



03 •Distilled water



# BENCH MOUNTED FITTING ON A COLUMN WITH PLASTIC INNER TUBE

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Max. working pressure: 10 bar / 147 psi at 20°C 6 bar / 87 psi at 65°C

Test pressure: 1 x working pressure

Weight: 0.7 kg

#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

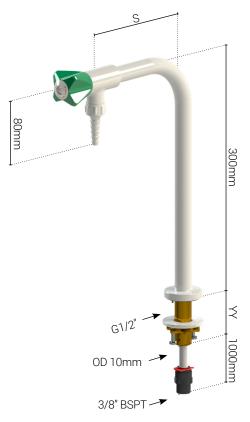
Plastics: LLDPE, POM, PP, PVDF

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different sizes of push-in fittings
- different inlet lengths



Can be delivered without 3/8" BSPT push fitting

#### **Configuration options**

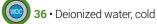
Choose standout length and connection OD

	S = 150 mm	S = 200 mm
With 3/8" BSPT fitting	2533 170 10 <b>XX-YY</b>	2533 159 10 <b>XX-YY</b>
OD10 hose	2533 009 10 <b>XX-YY</b>	2533 011 10 <b>XX-YY</b>

Replace XX with one of these media types:



03 •Distilled water



# SUSPENDED FITTING WITH PLASTIC INNER TUBE

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Max. working pressure: 10 bar / 147 psi at 20°C 6 bar / 87 psi at 65°C

Test pressure: 1 x working pressure

Weight: 0.7 kg

#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

Plastics: LLDPE, POM, PP, PVDF

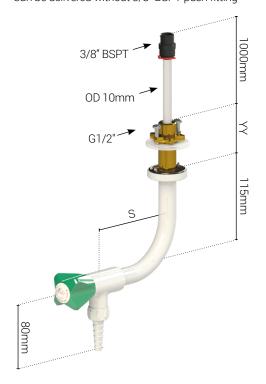
#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- different sizes of push-in fittings
- different inlet lengths
- straight valve

Can be delivered without 3/8" BSPT push fitting



#### **Configuration options**

Choose standout length and connection OD

With 3/8" BSPT fitting	2533 256 10 <b>XX-YY</b>
OD10 hose	2533 257 10 <b>XX-YY</b>

Replace XX with one of these media types:



03 •Distilled water



**36** • Deionized water, cold

# WALL MOUNTED FITTING IN STAINLESS STEEL

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Temperature range: 0-90°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

Weight: 0.9 kg

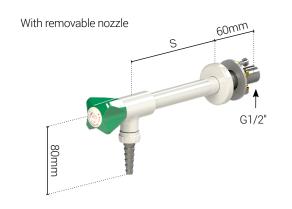
#### MATERIALS WITH MEDIA CONTACT

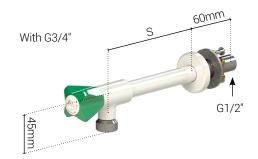
Diaphragm: PTFE Rubber: EPDM

Metals: Stainless Steel, AISI 316

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.





#### **Configuration options**

Choose standout length and connection OD

	S = 150 mm	S = 200 mm
With removable nozzle	2533 030 10 <b>XX</b>	2533 124 10 <b>XX</b>
With G3/4"	2533 029 10 <b>XX</b>	2533 125 10 <b>XX</b>

Replace XX with one of these media types:



03 •Distilled water



**36** • Deionized water, cold

# BENCH MOUNTED FITTING ON A COLUMN IN STAINLESS STEEL

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Temperature range: 0-90°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

Weight: 1.4 kg

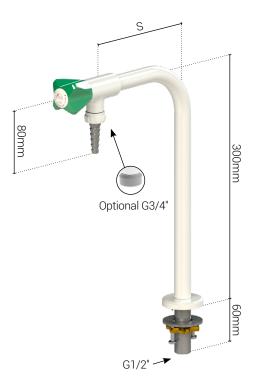
#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

Metals: Stainless Steel, AISI 316

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.



#### **Configuration options**

Choose standout length and connection OD

	S = 150 mm	S = 200 mm
With removable nozzle	2533 093 10 <b>XX</b>	2533 007 10 <b>XX</b>
With G3/4"	2533 126 10 <b>XX</b>	2533 028 10 <b>XX</b>

Replace XX with one of these media types:





#### BENCH MOUNTED FITTING WITH SWIVEL SPOUT WITH PLASTIC INNER TUBE

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Spout: Full swivel action Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Max. working pressure: 10 bar / 147 psi at 20°C 6 bar / 87 psi at 65°C

Test pressure: 1 x working pressure

Weight: 1.0 kg

#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

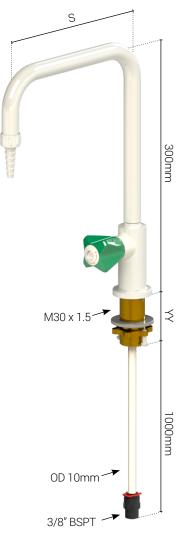
Plastics: LLDPE, POM, PP, PVDF

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- diffferent sizes of push-in fittings
- other inlet options



Can be delivered without 3/8" BSPT push fitting

#### **Configuration options**

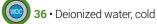
Choose standout length and connection OD

	S = 150 mm	S = 200 mm	S = 250 mm	S = 300 mm
With 3/8" BSPT fitting	2534 100 10 <b>XX-YY</b>	2534 101 10 <b>XX-YY</b>	2534 102 10 <b>XX-YY</b>	2534 103 10 <b>XX-YY</b>
OD10 hose	2534 034 10 <b>XX-YY</b>	2534 035 10 <b>XX-YY</b>	2534 055 10 <b>XX-YY</b>	2534 099 10 <b>XX-YY</b>

Replace XX with one of these media types:



03 • Distilled water



#### WALL MOUNTED FITTING WITH SWIVEL SPOUT WITH PLASTIC INNER TUBE

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Spout: Full swivel action Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Max. working pressure: 10 bar / 147 psi at 20°C 6 bar / 87 psi at 65°C

Test pressure: 1 x working pressure

Weight: 1.2 kg

#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

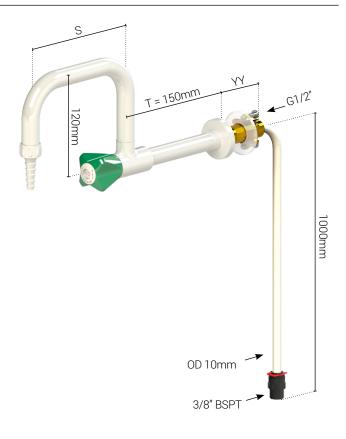
Plastics: LLDPE, POM, PP, PVDF

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

#### Other options:

- different sizes of push-in fittings
- different inlet lengths
- S-shaped spout
- -T = 50/75/200mm



Can be delivered without 3/8" BSPT push fitting

#### **Configuration options**

Choose standout length and connection OD

	S = 150 mm	S = 200 mm	S = 250 mm	S = 300 mm
With 3/8" BSPT fitting	2533 051 10 <b>XX-YY</b>	2533 052 10 <b>XX-YY</b>	2533 053 10 <b>XX-YY</b>	2533 054 10 <b>XX-YY</b>
OD10 hose	2533 050 10 <b>XX-YY</b>	2533 012 10 <b>XX-YY</b>	2533 013 10 <b>XX-YY</b>	2533 014 10 <b>XX-YY</b>

Replace XX with one of these media types:



03 •Distilled water



# BENCH MOUNTED FITTING ON A COLUMN WITH SWIVEL SPOUT WITH PLASTIC INNER TUBE

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

Spout: Full swivel action Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Max. working pressure: 10 bar / 147 psi at 20°C 6 bar / 87 psi at 65°C

Test pressure: 1 x working pressure

Weight: 1.4 kg

#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

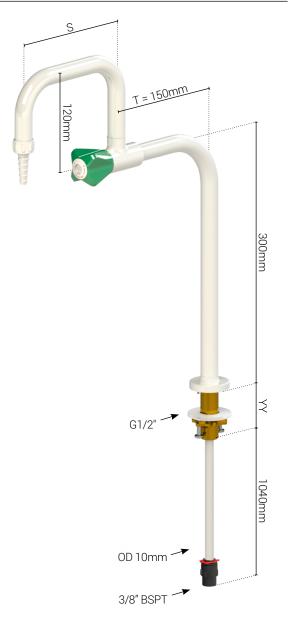
Plastics: LLDPE, POM, PP, PVDF

# ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

#### Other options:

- different sizes of push-in fittings
- different inlet lengths
- S-shaped spout
- T = 200mm



Can be delivered without 3/8" BSPT push fitting

#### **Configuration options**

Choose standout length and connection OD

	S = 150 mm	S = 200 mm	S = 250 mm	S = 300 mm
With 3/8" BSPT fitting	2533 055 10 <b>XX-YY</b>	2533 057 10 <b>XX-YY</b>	2533 058 10 <b>XX-YY</b>	2533 060 10 <b>XX-YY</b>
OD10 hose	2533 056 10 <b>XX-YY</b>	2533 027 10 <b>XX-YY</b>	2533 059 10 <b>XX-YY</b>	2533 061 10 <b>XX-YY</b>

Replace XX with one of these media types:



03 •Distilled water



# WALL MOUNTED FITTING WITH SWIVEL SPOUT IN STAINLESS STEEL

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792 Hose nozzle: Removable polypropylene

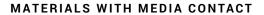
Spout: Full swivel action Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Temperature range: 0-65°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

Weight: 1.2 kg



Diaphragm: PTFE Rubber: EPDM Plastics: PVDF, PP

Metals: Stainless Steel, AISI 316



For standard configuration please refer to the item numbers below.

Other options:

- S-shaped spout
- T = 75/90/110/150/200mm
- Inlet: female G1/2

# 120mm ← Inlet

#### **Configuration options**

Choose standout length

	S = 150 mm	S = 200 mm	S = 250 mm	S = 300 mm
Inlet: male G3/8	2530 048 10 <b>XX</b>	2530 013 10 <b>XX</b>	2530 011 10 <b>XX</b>	2530 012 10 <b>XX</b>
Inlet: male G1/2	2530 049 10 <b>XX</b>	2530 004 10 <b>XX</b>	2530 007 10 <b>XX</b>	2530 008 10 <b>XX</b>

Replace XX with one of these media types:



03 •Distilled water



# WALL MOUNTED FITTING IN STAINLESS STEEL

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Temperature range: 0-90°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

Weight: 0.5 kg



Diaphragm: PTFE Rubber: EPDM

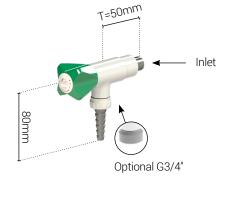
Metals: Stainless Steel, AISI 316

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.

Other options:

- T = 75/90/110mm



#### **Configuration options**

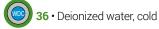
Choose inlet and outlet connection

	Removable nozzle	G3/4"
Inlet: male G3/8"	2530 001 10 <b>XX</b>	2530 033 10 <b>XX</b>
Inlet: male G1/2"	2530 002 10 <b>XX</b>	2530 003 10 <b>XX</b>

Replace XX with one of these media types:



03 •Distilled water



# WALL MOUNTED FITTING IN STAINLESS STEEL

#### **SPECIFICATIONS**

Handle: Polypropylene

Media indication: according to EN13792

Headwork: Diaphragm type

Opening/closing function: 1,5 x 360°

Temperature range: 0-90°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

Weight: 0.5 kg

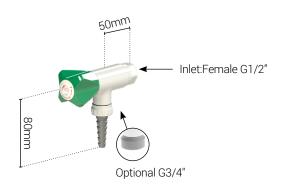
#### MATERIALS WITH MEDIA CONTACT

Diaphragm: PTFE Rubber: EPDM

Metals: Stainless Steel, AISI 316

#### ORDERING INFORMATION

For standard configuration please refer to the item numbers below.



# Configuration options

Choose outlet connection

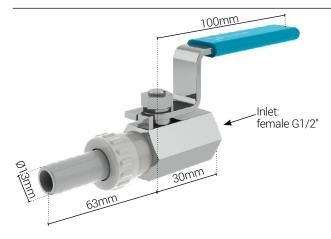
With removable nozzle	2530 050 10 <b>XX</b>
With G3/4"	2530 051 10 <b>XX</b>

Replace XX with one of these media types:





#### **FULL FLOW VALVE**



#### MATERIALS WITH MEDIA CONTACT

Body: Stainless Steel, AISI 316 Sealing: PTFE

#### ORDERING INFORMATION

Full flow valve in stainless steel based on a ball valve.

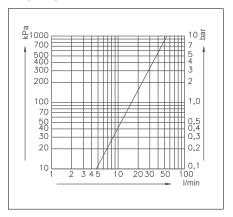
No. 15382509

#### **SPECIFICATIONS**

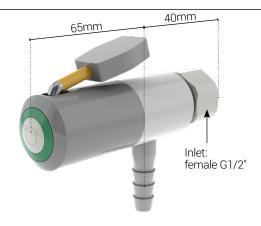
A full flow valve is an alternative to the models showed in this catalogue. Please contact your BROEN-LAB representative for further information.

Opening/closing function: 90° turn Temperature range: Maximum 90°C Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

#### FLOW CHART



#### SELF-CLOSING VALVE



#### MATERIALS WITH MEDIA CONTACT

Valve house: Stainless Steel, AISI 316

Sealing: EPDM Plastics: POM, PA Lubricant: Silicone based

#### ORDERING INFORMATION

Valve based on self-closing principle with a stainless steel valve house. Filter on inlet side.

No. 15389009

#### SPECIFICATIONS

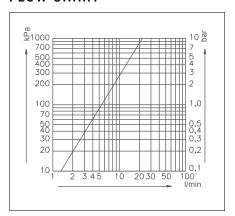
A self-closing valve is an alternative to the models shown in this catalogue. Please contact your BROEN-LAB representative for further information.

Opening/closing function: Self-closing

Temperature range: 0-65°C

Max. working pressure: 10 bar / 147 psi Test pressure: 1 x working pressure

#### FLOW CHART



#### 93D - BROEN-LAB UNIFLEX™ SPX HOSES FOR SPECIAL WATER

# **INLET CONNECTIONS**

93 D **XX** XX XXXX

50	Female G1/2" union nut connection	EPDM rubber
20	Straight BROEN-LAB UniFlex™ connection with EPDM 0-ring	*

# **OUTLET CONNECTIONS**

93 D XX **XX** XXXX

50	Female G1/2" union nut connection	EPDM rubber
20	Straight BROEN- LAB UniFlex™ con- nection with EPDM O-ring	*

\*All O-rings are lubricated with silicone based lubricant

# LENGTH

93 D XX XX **XXXX** 

SPX hose with braiding in Stainless Steel



Marking for special water with Part no. and Media indication

#### **HOSE LENGTHS**

Definition of length (L)



If 45° and 90° elbows occur on the same hose, it will as default be mounted in U-form

\*\*Standard lengths of hoses (L):

**0500** = 500 mm

**0700** = 700 mm

**1000** = 1000 mm

**1200** = 1200 mm

**1500** = 1500 mm

**2000** = 2000 mm

**2500** = 2500 mm **3000** = 3000 mm

Length tolerance of hoses: L =  $\leq$ 400 mm (- 0, +10 mm)

L = 401 mm to 1000 mm (-0, +20 mm) L = >1000 mm (-0, +30 mm)

\*\* Other lengths are available on request

#### **SPECIFICATIONS**

Inner hose material: SPX (soft pex)

Braiding: Stainless steel with one green stripe

Materials with media contact: SPX, Stainless Steel AISI 316, EPDM

Inside diameter: 8.2 mm

Outside diameter: 12 mm

Max. working pressure: 10 bar

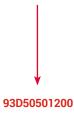
Max. working temperature: 90°C

Bending radius (inner): ≥ 40 mm

Min. length with connections: 160 mm

### **EXAMPLE OF HOSE CONFIGURATION**

1200 mm hose with 1/2" union inlet connection and 1/2" union outlet connection



# **HEADWORK FOR SPECIAL WATER FITTINGS**

#### ORDERING INFORMATION





Headwork sparepart kit: No. 19 152 480

Complete set with  ${\rm G1/2}^{\shortparallel}$  diaphragm headwork, plastic handle and media indication:

No. 2575 021 10**XX** (replace **XX** with media code on page 22)

Complete set with plastic handle and media indication No. 19 150 140 10**XX** (replace **XX** with media code on page 22)

#### **SPECIFICATIONS**

Manual valve based on diaphragm headwork.

The diaphragm is the only part of the headwork that has media contact (no lubrication or other materials have media contact).

Opening/closing function: 1 1/2 x 360° turn

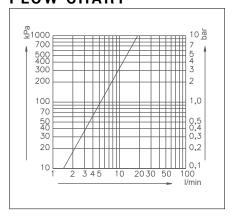
Media: Special water

#### MATERIALS WITH MEDIA CONTACT

Metals: No metals with media contact

Diaphragm: PTFE

# **FLOW CHART**



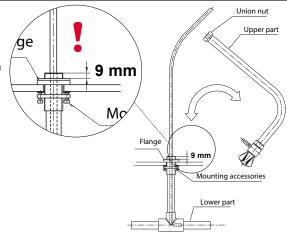
#### **ACCESSORIES**

Illustration	Description	BROEN-LAB item no.
	Removable Stainless Steel nozzle (G1/2") Removable Stainless Steel nozzle (G3/4")	2539 020 1003 2539 047 1003
	Removable polypropylene nozzle (G1/2")	2539 004 1001
	Push-in fittings: Ø10 x G3/8" Ø10 x G1/2"	13 710 750 13 710 760
	Support bush for LLDPE tube Ø10/Ø7	91J0057

#### **TECHNICAL INFORMATION - FULLY RECIRCULATING FITTINGS**

#### INSTALLATION

Unscrew the union nut and lift off the upper part of the valve. Unscrew the flange and mount the lower part from under the table and up into a ø30 mm hole. Remount the flange leaving **9 mm** free thread above the flange for the union nut. Use the mounting accessories to fix the lower part. Remount the upper part by sticking the inner tube into the upper part. Place the upper part in the correct position and mount the union nut to the 9 mm M28x1.5 thread with a torque of 20-30 Nm. Connect the valve to the recirculating special water system.



300

200 mm

#### **WORKING TEMPERATURE AND PRESSURES**

Circulating flow rate:

The flow rate in the main water flow has to be so high, that the water velocity passing the bent inner tube in the main stream is more than 0,6 m/s.

 $Q = (\pi/4) \times d^2 \times v$ 

Q = Flow rate [m3/s]

d = Inside diameter of main tubing [m]

(standard: d = ø20.4mm = ø0.024m)

v = Water velocity (> 0.6 m/s) [m/s]

Example:

standard; d=ø20.4mm

 $Q = (\pi/4) \times 0.024^2 \times 0.6 = 2.71 \times 10^{-4} \text{ m}^3/\text{s} = 16.3 \text{ l/min}$ 

Please note that Q = 16.3 l/min should be obtained even with open point of use valves in other parts of the system.



PP-n:

- The wetted components below the table top are made of PP-n-parts from G+F, Progef Natural.
- The BCF-welding (Bead and Crevice Free Fusion) is applied during the manufacturing process in order to achieve the highest possible quality of the connection. We recommend also that the material used on site is PP-n and furthermore that BCF-welding is used as well.

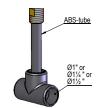
If the PP-n material is welded to other types of PP on site, then the following precautions are important to follow:

- The welding of PP-n to PP-h is possible only with conventional butt fusion (DVS 2207-11) or socket fusion.
- IR-welding (Infra Red) is officially not allowed because of the different melting range temperatures and BCF-welding is not allowed for the same reason.

ABS (bench mounted fittings only):

- The wetted components below the table top are made of ABS parts.
- ABS parts are glued together and if ABS material is also used on site, then the same jointing method should be applied

For other possible jointing methods please contact your BROEN-LAB sales representative.



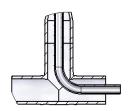
# **KV - VALUES FOR T-PIECE**

PP-n, OD 25 mm:

- flow in same direction as inner tubing: Kv=15,7 m<sup>3</sup>/hbar
- flow against direction of inner tubing: Kv=14,0 m<sup>3</sup>/hbar

PP-n, OD 32 mm:

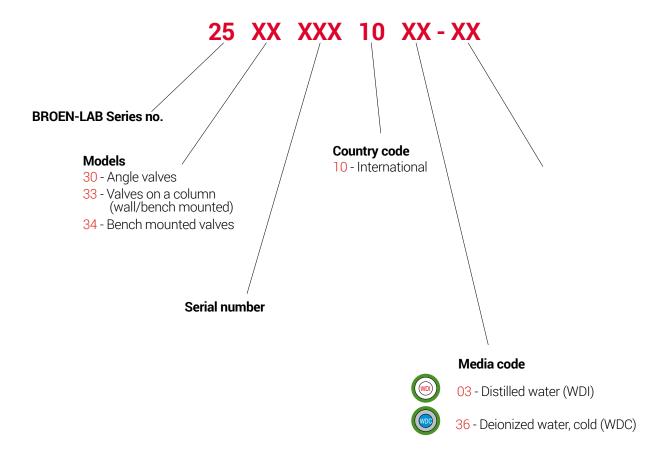
- flow in same direction as inner tubing: Kv=33,6 m<sup>3</sup>/hbar
- flow against direction of inner tubing: Kv =29,0 m<sup>3</sup>/hbar



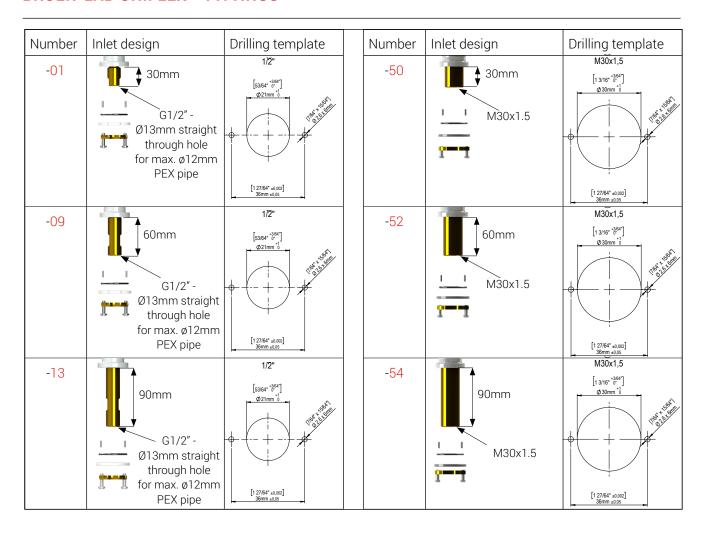
Cross section of the T-piece with inner tubing

# ORDERING INFORMATION BROEN-LAB UNIFLEX™ FITTINGS

Generally, item number for BROEN-LAB UniFlex™ fittings has the following structure:



# **ORDERING INFORMATION** BROEN-LAB UNIFLEX™ FITTINGS



broen-lab.com

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lab@broen-lab.com broen-lab.com BROEN-LAB develops, manufactures and sells Laboratory Fittings, Emergency Shower Systems and Eye Wash Systems into a broad spectrum of laboratories and industrial locations; sectors include Pharmaceutical, Food&Beverage and Academia. Our expertise and product quality ensure optimal solutions compliant to all relevant international norms setting new standards in risk mitigation in modern research and development facilities.

BROEN-LAB offers solutions that ensure the functionality, compliance, hygiene, durability and safety are of the highest priority. For more than 50 years our products have been integrated into a wide variety of workplaces, laboratories, hospitals and industrial locations, with features that are assessed and designed to be flexible, durable and compliant offering a broad range of options tailored to each location. This inherent design integrity provides confidence in the solution adopted wherever in the world these are applied.

BROEN-LAB is a collaboration partner in the design and layout of your next laboratory and it's integrated safety



#### **BROEN-LAB A/S ISO 9001 certification**

In September 1991 BROEN-LAB A/S was certified according to ISO 9001 as one of the first Danish companies. The certification was carried out by Bureau Veritas, Denmark, for our Danish site in Assens. The quality management system of BROEN-LAB A/S now complies with detailed specifications laid down by the internationally acknowledged EN ISO 9001:2015. This certification will further contribute to reputation for quality and reliability of BROEN-LAB A/S.

#### BROEN-LAB A/S ISO 14001:2015 certification

In December 2022 we got certified according to ISO 14001 in Environmental certification. The new certification was carried out by Bureau Veritas, Denmark, for Danish site in Assens.

The Environment ISO14001 management system of BROEN-LAB A/S is included in internationally acknowledged EN ISO 9001:2015. Both certifications furthermore contribute to reputation for quality and reliability of BROEN-LAB A/S.