







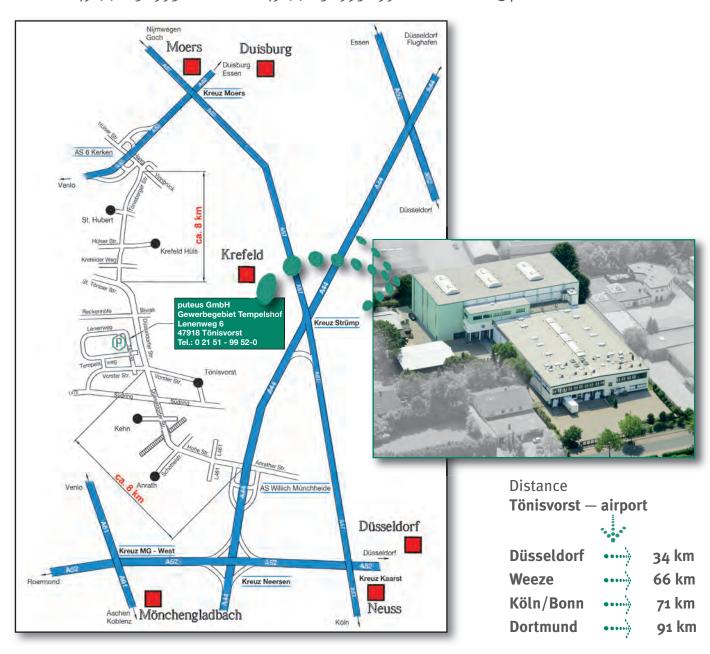


**Appliance**connection fittings

# puteus (P)

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**Duteus GmbH**, a manufacturing and distributing company, was founded in 1979 by the parents of the present share holders. Puteus experienced a rapid development - from a supplier for products of the gardening and irrigation sector to a large range of the heating, plumbing- and garden components.



The company is based in Tönisvorst

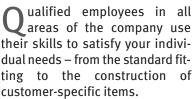


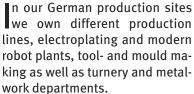
The high-bay warehouse

...we supply individually and promptly.

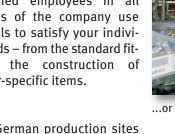
ur modern warehouse with a capacity of 10.000 pallets and a picking area for further 3.000 pallets allows short delivery times.

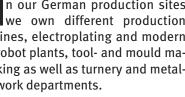
n addition to our standard product range we also design and manufacture lots of OEM products for the sanitary and heating industries in production sites spread all over the world. Many of our products meet the different requirements and regulations, e.g. DVGW, PA-certificates, KIWA, ACS or SVGW.













...or wishes smaller packing units ...

he owner-managed family company puteus GmbH was the starting point for a group of companies of, today, about 250 employees. It has set itself the target of combining optimal quality and service and -at the same time-responding flexibly and promptly to the changes in the market. We are distinguished both by continuous development of knowledge and quality improvements of our products that are in the interest of our customers as well as commitment and curiosity for what is new and feasible.



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#### These following companies also belong to the de Gruyter-Stach-Group



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Water and heating connection valves bib taps · appliance connection fittings heating fittings · water meters state-certified calibration unit for water meters



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CEO: Henning de Gruyter | Olaf Stach

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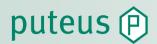












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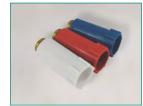


**Brass fittings + construction plugs** 

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Flexible hoses for drinking water







Reinforced hoses + washing machine hoses





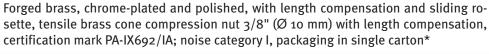




# Brass valves in accordance with the drinking water ordinance, seal with KTW/W270 certificates, without chrome plating inside; partly with PA/DVGW-certification

#### Bathroom angle-valve





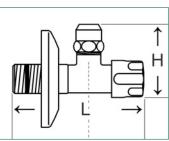
	$\longrightarrow$
<b>←  /</b>	_ →

Item-No.:	Connection:	Length:	Packing unit:
		L	
52268 0	3/8"	76 - 81	1/100
52269 7	1/2"	76 - 81	1/100

#### Bathroom angle-valve, self-sealing



Forged brass, chrome-plated and polished, with length compensation and sliding rosette, tensile brass cone compression nut 3/8" (Ø 10 mm) with length compensation, certification mark PA-IX692/IA; noise category I, self-sealing connection thread (PTFE), packaging in single carton\*



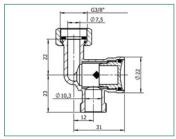
Item-No.:	Connection:	Length:	Packing unit:
		L	
52278 9	3/8"	76 - 81	1/100
52279 6	1/2"	76 - 81	1/100

#### Top mud flap for bathroom angle valve

Mud flap chrome-plated, union nut x M, with AFM-sealing, stainless steel filter, P-IX-7479/I

Item-No.:	Connection:	Execution:	Length:	Packing unit:
52244 4	G3/8" x G3/8"		45	10/200



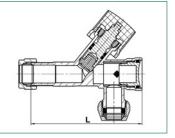


#### Bathroom angle valve with dirt filter

Angle valve with filter, brass, chrome-plated and polished, O-rings EPDM 70°A with KTW/W270 admission, seal PA6, filter and rosette stainless steel, packaging in single carton\*

Item-No.:	Connection:	Execution:	Length:	Packing unit:
52275 8	3/8" x 10 mm x 12 mm	Comfort grip	75	-/-
52276 5	1/2" X 10 mm X 15 mm	Comfort grip	75	-/-



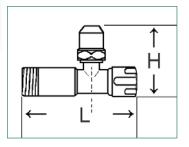


# Bathroom angle valve with dirt filter

Forged brass, with filter and non-return valve, chrome-plated and polished, tensile brass cone compression 3/8" (Ø 10 mm) with length compensation, packaging in single carton\*

Item-No.:	Connection:	Length:	Height:	Packing unit:
52277 2 (illustration) not self-sealing	1/2"	85	48,5	1/150
52277-sd-K1 (without illustration) self sealing	1/2"	85	48,5	1/150





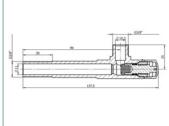


# Bathroom angle valve









Brass or nickel-plated, with or without rosette, with or without pinch screwing, 3/8", with DVGW-certification

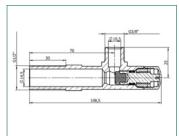
Item-No.:	Item-No.:	Con.:	Length:		Pack. unit:
with rosette without screw brass	without rosette without screw brass		L	Н	
52540 7	52540-OR	3/8"	137,5	25	1/100
with rosette with screw brass	without rosette with screw brass				
52542 1	52542-OR	3/8"	137,5	45	1/100
with rosette without screw nickel-plated	without rosette without screw nickel-plated				
52544 5	52544-OR	3/8"	137,5	25	1/100
with rosette with screw nickel-plated	without rosette with screw nickel-plated				
52546 9	52546-OR	3/8"	137,5	45	1/100



#### Bathroom angle valve







Brass or nickel-plated, with or without rosette, with or without pinch screwing 1/2", with DVGW- and SVGW-certification

Item-No.:	Item-No.:	Con.:	Length:		Pack. unit:
with rosette without screw brass	without rosette without screw brass		L	Н	
52541 4	52541-OR	1/2"	108,5	25	1/100
with rosette with screw brass	without rosette with screw brass				
52543 8	52543-OR	1/2"	108,5	45	1/100
with rosette without screw nickel-plated	without rosette without screw nickel-plated				
52545 2	52545-OR	1/2"	108,5	25	1/100
with rosette with screw nickel-plated	without rosette with screw nickel-plated				
52547 6	52547-OR	1/2"	108,5	45	1/100

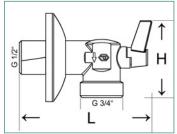




Appliance valve with **Neoperl**® non-return valve, chrome-plated, rosette stainless steel, lever PA 6, max. pressure range: PN10, max. temperature range: 65°C (shortly to 90°C)

Item-No.:	Connection:	Length:		Packing unit:
		L	Н	
52237 6	G1/2" x G3/4"	80,5	47	1/80



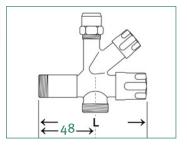


#### Washing machine valve

Forged brass, chrome-plated and polished, with length compensation, with non-return valve, tensile brass cone compression nut 3/8" (Ø 10 mm) with length compensation, certification mark PA-IX672/II; departure 3/4" male thread

Item-No.:	Connection:	Execution:	Length:	Packing unit:
52210 9	3/8"	Comfort grip	100	6/48
52211 6	1/2"	Comfort grip	100	6/48
52211-Haube	1/2"	3-cornered handle	100	6/72



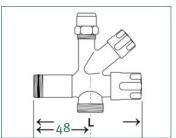


# Washing machine valve

Forged brass, chrome-plated and polished, with length compensation, with non-return valve, tensile brass cone compression nut 3/8" (Ø 10 mm) with length compensation, certification mark PA-IX672/II; departure 3/4" male thread, with self-sealing connection thread

Item-No.:	Connection:	Execution:	Length:	Packing unit:
52212 3	3/8"	Comfort grip	100	6/48
52213 0	1/2"	Comfort grip	100	6/48







### Washing machine valve





As described above, but in single box packing*, with sliding rosette, 1/2" plastic hose fit-
ting and comfort grip

Item-No.:	Connection:	Execution:	Length:	Packing unit:
52210-K	3/8"	Comfort grip	100	1/54
52211-K	1/2"	Comfort grip	100	1/54

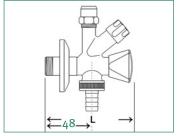
As described above, but in single box packing\*, with sliding rosette, 1/2" plastic hose fitting and comfort grip, self sealing

52212-K	3/8"	Comfort grip	100	1/54
52213-K	1/2"	Comfort grip	100	1/54

#### Washing machine valve





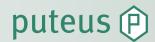


As described above, but in single box packing\*, with sliding rosette, 1/2" plastic hose fitting and 3-cornered handle

Item-No.:	Connection:	Execution:	Length:	Packing unit:
52211-K-Haube	1/2"	3-cornered handle	100	1/54

As described above, but in single box packing\*, with sliding rosette, 1/2" plastic hose fitting and 3-cornered handle, self sealing

52212-K-Haube	3/8"	3-cornered handle	100	1/54
52213-K-Haube	1/2"	3-cornered handle	100	1/54



# Washing machine valve

Description as washing machine valve 52210/52211, but with aerator according to DIN DVGW and backflow preventer

Item-No.:	Connection:	Execution:	Length:	Packing unit:		
52215 4	3/8"	Comfort grip	100	6/48		
52214 7	1/2"	Comfort grip	100	6/48		
52214-Haube	1/2"	3-cornered handle	100	1/ 54		
Packaging in individu	ual box * with	sliding rosette and <sub>l</sub>	<b>plastic</b> hose connec	ction		
52215-K	3/8"	Comfort grip	100	1/ 54		
52214-K	1/2"	Comfort grip	100	1/ 36		
52214-K-Haube	1/2"	3-cornered handle	100	1/ 36		
Description as washinection thread, with	_			- 1		
52217 8	3/8"	Comfort grip	100	6/48		
52216 1	1/2"	Comfort grip	100	6/48		
52216-K-Haube	1/2"	3-cornered handle	100	1/ 36		
Packaging in individual box * with sliding rosette and <b>plastic</b> hose connection, self sealing						

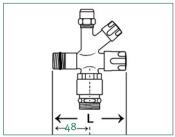
Comfort grip

Comfort grip

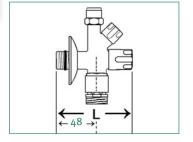
100

100











1/54

1/36



3/8"

1/2"

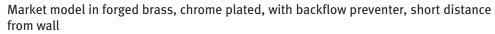
52217-K

52216-K

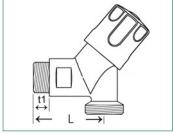


#### **Inclined-seat valve**





Item-No.:	Connection:	Discontinued:	Execution:	Length:	Thread- length: t1	Packing unit:
52218 5	1/2"	3/4"	Comfort grip	49	11	6/48
52218-Haube	1/2"	3/4"	3-corn. handle	49	11	6/72

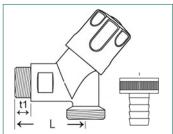


#### **Inclined-seat valve**



Market model in forged brass, chrome plated, with backflow preventer, short distance from wall, packaging in individual box\* with 1/2" **plastic** hose connection

Item-No.:	Connection:	Discontinued:	Execution:	Length:	Thread- length: t1	Packing unit:
52218-K	1/2"	3/4"	Comfort grip	49	11	1/50

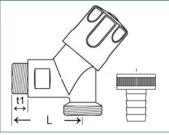


#### **Inclined-seat valve**



Market model in forged brass, chrome plated, with backflow preventer, short distance from wall, packaging in individual box\* with 1/2" **sheet** hose connection

Item-No.:	Connection:	Discontinued:	Execution:	Length:	Thread- length: t1	Packing unit:
52218-K-B	1/2"	3/4"	Comfort grip	49	11	1/75

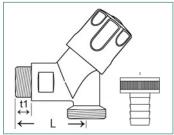


### Inclined-seat valve, sanitary model

Heavy version in forged brass, chrome plated, with backflow preventer, short distance from wall

Item-No.:	Connection:	Discontinued:	Execution:	Length:	Thread- length: t1	Packing unit:
52220 8	1/2"	3/4"	Comfort grip	51	13,5	6/72
Packaging in individual box* with 1/2" <b>sheet</b> hose connection, <b>without</b> rosette						
52220-K	1/2"	3/4"	Comfort grip	51	13,5	1/50





#### **Inclined-seat valve**

Forged brass, polished chrome, with backflow preventer and pipe aerator according to DIN DVGW, certification mark PA IX9341/I, short distance from wall

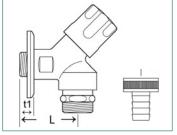
Item-No.:	Connection:	Discontinued:	Execution:	Length:	Thread- length:	Packing unit:
				L	t1	
52219 2	1/2"	3/4"	Comfort grip	49	11	6/48
52219-Haube	1/2"	3/4"	3-corn. handle	49	11	6/48
Packaging in inc	dividual box*	with rosette	and 1/2" <b>plast</b>	<b>ic</b> hose conr	ection	
52219-K	1/2"	3/4"	Comfort grip	49	11	1/40
52219-K-Haube	1/2"	3/4"	3-corn. handle	49	11	1/40
Packaging in individual box* with rosette and 1/2" <b>sheet</b> hose connection						
52219-K-B	1/2"	3/4"	Comfort grip	49	11	1/60





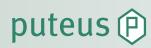








<sup>\*</sup> Pictures of carton packaging see inside cover

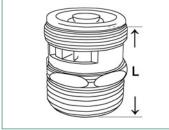


# Aerator, chrome-plated

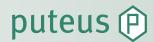


Without housing, shape C, DIN DVGW, suitable for washing machine valves (for example 52219)

Item-No.:	Connection:	Execution:	Length:	Packing unit:
	various inserts (Illu. plastic)		L	
52262-M28	M 28 x 1 x 3/4" (m.th.) <b>brass</b>	loose	30,5	-/360
52262-M27	M 27 X 1 X 3/4" (m.th.) <b>plastic</b>	loose	30,5	-/360







# For wall-mounted valves, forged brass, polished and chrome-plated, with non-return valve and spacer

Item-No.:	Leaving:	Connection:	Execution:	Length:	Packing unit:	
				_		
52251 2	3/4" left	1/2"	Comfort grip		5/60	
52252 9	3/4" left	3/4"	Comfort grip	39,5	5/60	
52253 6	3/4" right	1/2"	Comfort grip		5/60	
52254 3	3/4" right	3/4"	Comfort grip	39,5	5/60	
Device battery	valve like 52254, l	out with aera	tor (DIN DVGW)			
52255 3	3/4" right	3/4"	Comfort grip	39,5	5/60	
Device battery	valve like 52254, l	out with unio	n nut			
52258 1	3/4" right	3/4"	3-corn. handle	39,5	5/60	
Device battery	Device battery valve like 52258, but with aerator (DIN DVGW)					
52259 8	3/4" right	3/4"	Comfort grip	39,5	5/60	

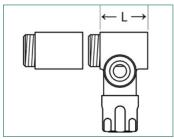
# **Device battery valve**











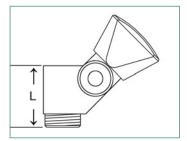
<sup>\*</sup> Pictures of carton packaging see inside cover











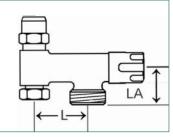
Forged brass, polished and chrome-plated, with non-return valve

Item-No.:	Leaving:	Connection:	Execution:	Length:	Packing unit:
522413	3/8"	3/8" x 3/4" m x f	Comfort grip	43,5	5/80
52242 0	1/2"	1/2" x 3/4" m x f	Comfort grip	45	5/80
52241-Haube	3/8"	3/8" x 3/4" m x f	3-corn. handle	43,5	5/80
52242-Haube	1/2"	1/2" x 3/4" m x f	3-corn. handle	45	5/60
As 52242, but pa	ckaging ir	n individual box*			
52242-K	1/2"	1/2" x 3/4" m x f	Comfort grip	45	1/72
52242-K-Haube	1/2"	1/2" x 3/4" m x f	3-corn. handle	45	1/72
Same as before, but with aerator (DIN DVGW) and packaging in individual box*					
52243-K	1/2"	1/2" x 3/4" m x f	Comfort grip	45	-/-
52243-K-Haube	1/2"	1/2" x 3/4" m x f	3-corn. handle	45	-/-

Washing machine valve, for subsequent installation to an already mounted angle valve, forged brass, polished and chrome-plated, with non-return valve, tensile brass cone compression nut 3/8" (Ø 10 mm) with length compensation

Item-No.:	Leaving:	Connection:	Execution:	Length- Leaving: LA	Length:	Packing unit:
Appliance valv	e short version	1 (31,5 mm)				
52240 6	3/4" m	3/8" f	Comfort grip	27,5	31,5	7/84
Packaging in ir	ndividual box*	with hose cor	nector			
52240-K	3/4" m	3/8" f	Comfort grip	27,5	31,5	1/90
52240-K-Haube	3/4" m	3/8" f	3-corn. handle	27,5	31,5	1/90
Appliance valv	e long version					
Description as	item 52240, b	ut extended d	imension (53/6	so mm)		
52239 0	3/4" m	3/8" f	Comfort grip	27,5	53 mm	7/56
As 52239, how	ever, packagin	g in individua	l box* with pla	stic hose	connector	•
52239-K	3/4" m	3/8" f	Comfort grip	27,5	53 mm	1/54
52239-K-Haube	3/4" m	3/8" f	3-corn. handle	27,5	53 mm	1/54
52239-60-K	3/4" m	3/8" f	Comfort grip	33	60 mm	1/20
Description as item 52239, but extended dimension (39,5 mm)						
52239-39,5mm	3/4" m	3/8" f	Comfort grip	39,5	53	6/72
52239-39,5mm- Haube	3/4" m	3/8" f	3-corn. handle	39,5	53	6/72

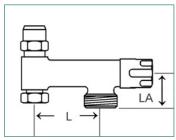








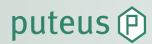




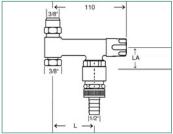
#### Replacement seal for 52239/40, red

Item-No.:	Connection:	Packing unit:
52240-Dichtung	10 X 15 X 1,5 mm	

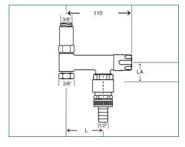
<sup>\*</sup> Pictures of carton packaging see inside cover











Washing machine valve, for subsequent installation to an already mounted angle valve, forged brass, polished and chrome-plated, with non-return valve, pipe aerator and hose connection, tensile brass cone compression nut 3/8" ( $\varnothing$  10 mm) with length compensation, packaging in individual box

Item-No.:	Leaving:	Connection:	Execution:	Length leaving: LA	Length:	P. unit:
52246-60-K3	3/4" M	3/8" F	Comfort grip	33	60	1/80
as 52246-60-K	3, but with <b>con</b>	npensation pi	ece			
52247-60-K3	3/4" M	3/8" F	Comfort grip	33	60	1/80
Spare-compensation piece for 52247-60-K3						
52247-60-03		3/8" F				

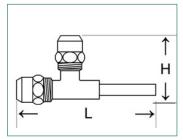
### **T-branch fitting**

For angle valve: T-fitting with extension and two tensile brass cone compression nuts, chrome-plated, copper pipe connection  $\varnothing$  10 mm

Item-No.:	Connection:	Leaving:	Length:	Height:	Packing unit:
			L	Н	
52267 3	3/8"	3/8" x 10 mm	123,5	56	25/100





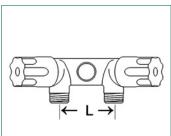


#### **Double connection valve**

Forged brass, polished and chrome-plated, with non-return valve

Item-No.:	Connection:	Execution:	Length:	Height:	P. unit:
			L	Н	
52232 1	2 x 3/4" m, 1/2" f, 1/2" m	Comfort grip	61	50	4/24
52233 8	2 x 3/4" m, without 1/2" f	Comfort grip	61	50	4/40



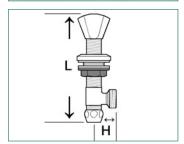


# **Undersink appliance valve**

Forged brass, chrome-plated, with non-return valve, top with plastic triangular hood handle

Item-No.:	Connection:	Length:		Packing unit:
		L	Н	
52272 7	male 3/4" laterally, 10 mm below	155	32	7/56





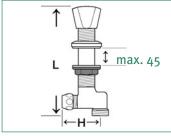


### Undersink appliance valve



Forged brass, chrome-plated, with non-return valve, top with plastic triangular hood handle

Item-No.:	Connection:	Length:	Height:	Packing unit:
52273 4	male 3/4" below, 10 mm laterally	124	49	4/32

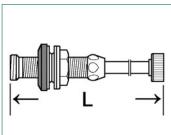


#### Sink set



Chrome-plated, with copper pipe

Item-No.:	Connection:	Length:	Packing unit:
		L	
52274 1	12 mm x G 3/4"	500	8/64

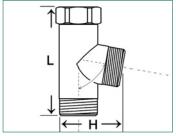


#### **Accessories**



Double hose connection, brass chrome-plated, for washing machine valves and sink-feedthrough, T-form, with 2 seals

Item-No.:	Connection:	Length:	Height:	Packing unit:
52207 9	3/4"	61	31,9	8/48

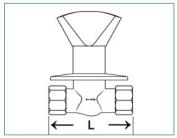


#### **Concealed valve**

Forged brass, cone with rubber seal, female thread on both sides, with sliding rosette (with rubber seal) and triangular hood handle, installation protection, pin in red and blue

Item-No.:	Connection:	Length:	Packing unit:
52381 6	1/2"	52	6/36
52382 3	3/4"	60	5/30
52383 0	1"	72	3/18



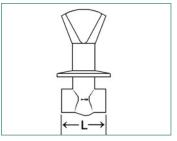


#### **Concealed valve**

Forged brass, cone with rubber seal, solder terminal both sides, with sliding rosette (with rubber seal) and triangular hood handle, installation protection, pin in red and blue

Item-No.:	Connection:	Length:	Packing unit:
52391 5	15 mm	54	6/36
52392 2	18 mm	57,5	6/36
52393 9	22 mm	65	6/30

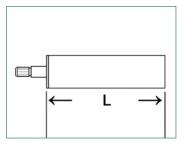


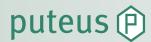


# **Extension especially for puteus concealed valves**

Item-No.:	For item-No.:	Connection:	Length:	Pack. unit:
			L	
52397 7	52381/52382	M 24 X 1	95	20/100



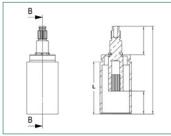




# **Extension for concealed valves with short spindle**



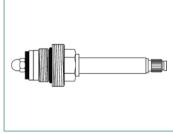
Item-No.:	Connection:	Length:	Packing unit:
		L	
S-2588-43	M 24 X 1	40	-/ 160
S-2588-60	M 24 X 1	60	-/ 120



### Upper valve part for concealed valve



Item-No.:	for item-No.:	Connection:	Packing unit:
52385 4	52381, -91, -92	1/2"	10/100
52386 1	52382, -93	3/4"	10/100
523878	52383	1"	10/100
Accessories: wall	rose for concealed valve (witho	ut illu.)	
52388 5	26 mm x 69 mm		-/800

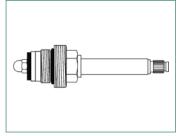


# Valve tops for concealed valve, complete



Forged brass, cone with rubber seal, female thread on both sides, with sliding rosette (with rubber seal) and triangular hood handle, installation protection, pin in red and blue

Item-No.:	Connection:	Packing unit:
52386-11469	3/4"	1/40
52387-11469	1"	1/40

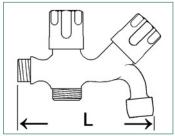


#### **Combination valve**

Polished chrome-plated, tops with comfort grips, spout with aerator, for cold water

Item-No.:	Connection:	Leaving:	Length:	Packing unit:
		male thread	L	
52231 4	1/2"	3/4"	125	4/32



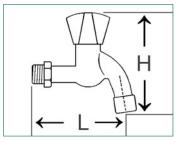


#### Bib tap with aerator

Brass, polished and chrome-plated, for cold water

Item-No.:	Connection:	Length:	Height:	Packing unit:
with chrome-pla	ated <b>plastic bonnet handle</b>	L	Н	
520815	1/2"	103	95	4/40
with chrome-				
52085 3	1/2"	103	95	4/40



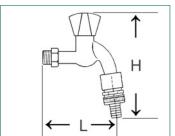


# Bib tap with aerator and non-return valve

Aerator according to DIN DVGW (1/2"), polished and chrome-plated, with hood handle and plastic hose coupling, for cold water

Item-No.:	Connection:	Length:	Height:	Packing unit:
		L	Н	
52065 5	1/2"	100	141	5/60
Packaging in inc	dividual box*			
52065-K	1/2"	100	141	1/48



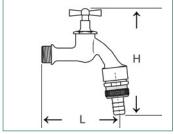


<sup>\*</sup> Pictures of carton packaging see inside cover



#### Bib tap





With T-handle and hose connection optionally made of plastic or metal sheet. With aerator according to DIN DVGW (size 1/2") and backflow preventer

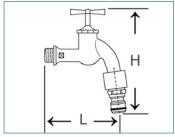
Item-No.:	Spout:	Conn.:	Execution:	Length:	Height:	Packing unit:
Plasticspout	Sheetspout			L	Н	
520419		1/2"	matt chrome-plat.	92	140	5/ 60
52042 6		3/4"	matt chrome-plat.	93	145	4/ 28
520617		1/2"	poli. chrome-plat.	92	140	5/ 60
52062 4		3/4"	poli. chrome-plat.	93	145	4/ 28
Packaging i	n individual b	юх*:				
52041-K	52041-K-B	1/2"	matt chrome-plat.	92	140	1/ 60
52042-K	52042-K-B	3/4"	matt chrome-plat.	93	145	1/ 28
52061-K	52061-K-B	1/2"	poli. chrome-plat.	92	140	1/ 60
52062-K	52062-K-B	3/4"	poli. chrome-plat.	93	145	1/ 28

#### Bib tap with brass coupling



Like 52061, but with aerator DIN DVGW (1/2") and hose connection for brass coupling, with integrated drain plug to drain before the frost period

Item-No.:	Conn.:	Execution:	Length:	Height:	Packing unit:
520648	1/2"	poli. chrome-plat.	92	150	5/60

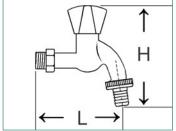


#### Bib tap



Brass, polished and chrome-plated, with triangular hood handle and and plastic hose coupling, pin in red and blue

Item-No.:	Connection:	Length:	Height:	Packing unit:
52007 5	1/2"	9,5	10,5	5/60



<sup>\*</sup> Pictures of carton packaging see inside cover

#### Garden bib tap with handwheel

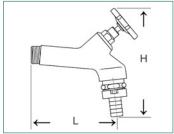
Brass bib tap, matt chrome-plated, with aerator, hose coupling, top with handwheel

Item-No.:	Connection:	Leaving:	Length:	Height:	Packing unit:
			L	Н	
52049 5	1/2"	3/4"	110	139	6/24



Item-No.:	Conn.:	Execution:	Length: L	Packing unit:
52291-52049	1/2"	matt-chrome	75	10/250



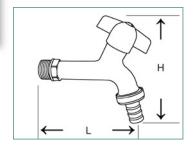


#### Bib tap

Valve body/handle made of PA6, RoHs- (Kat.2) / REACH-compliant, o-ring made of EPDM with KTW/W270 certification, upper part brass in accordance with DIN 50930-6, brass union nut, stainless steel spout

Item-No.:	Connec.:	Length:		Packing unit:		
		L	Н			
52024-Blau	1/2"	103	110	-/180		
as above, but without stainless steel spout						
52024-B-OT	1/2"	103		-/180		



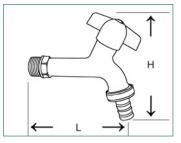


#### Bib tap

Valve body/handle made of PA6, RoHs- (Kat.2) / REACH-compliant, o-ring made of EPDM with KTW/W270 certification, upper part brass in accordance with DIN 50930-6, brass union nut, stainless steel spout

Item-No.:	Connec.:	Length:		Packing unit:		
		L	Н			
52024-Grün	1/2"	103	110	-/180		
as above, but without stainless steel spout						
52024-G-OT	1/2"	103		-/180		

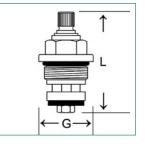






#### **Inner top part**



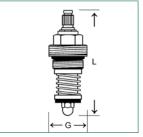


#### Forged brass, without grease chamber

Item-No.:	Connec.:	Thread:		Packing unit:
suitable for 52024		L	G	
52028 0		43	20	-/-

#### **Inner top part**





Forged brass, with backflow preventer, for washing machine valves

Item-No.:	Connec.:	Thread:		Packing unit:
		L	G	
52263 5	3/8"			40/480
52264 2	1/2"			30/360

# Upper valve part with grease chamber/sanitary upper part

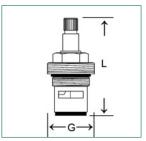




Item-No.:	Connec.:	Thread:		Packing unit:
		L	G	
52418 9	3/8"	50	M 21 X 1	30/300
52419 6	1/2"	54	M 24 X 1	20/200
52419-M 19 x 1,5 mm	M 19 X 1,5	55		50/400
52417-11783	3/4"	55	M 24 X 1	25/100

# **Ceramic top part**

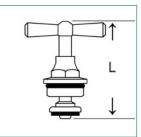




Item-No.:	Conn.:	Execution:	Threa	ıd:	Pack. unit:
			L	G	
80915-K	1/2"	cold water, right closing	51	23	25/250
80915-W	1/2"	warm water, left closing	51	23	25/250

# Upper valve part with toggle





Made of brass with a double O-ring and backflow preventer

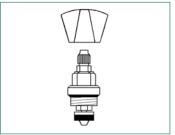
Item-No.:	Conn.:	Execution:	Length:	Packing unit:
52046 4	1/2"	matt chrome-plated	60	10/300
52046-3/4	3/4"	matt chrome-plated	69	10/250
52066 2	1/2"	poli. chrome-plat.	60	10/300

# Triangular handle

#### Made of Zamak, including sanitary upper part

Item-No.:	Connection:	Marking:	Length:	Packing unit:
52410 3	3/8"	blue	54	1/160
52411 0	3/8"	red	54	1/160
52412 7	1/2"	blue	52	10/80
52413 4	1/2"	red	52	10/80





#### With inner top part including sanitary upper part

Item-No.: Brass grip	Connection:	Marking:	Lenght:	Packing unit:
52400 4	3/8"	blue	58	10/80
524011	3/8"	red	58	10/80
52402 8	1/2"	blue	56	10/80
52403 5	1/2"	red	56	10/80
52402-M19 x 1,5	M 19 x 1,5 mm	blue		10/160
52403-M19 X 1,5	M 19 x 1,5 mm	red		10/160
Item-No.: Zamak grip				
52405 9	3/8"	blue	58	10/80
52406 6	3/8"	red	58	10/80
524073	1/2"	blue	56	10/80
52408 0	1/2"	red	56	10/80
52407-M19 x 1,5	M 19 x 1,5 mm	blue		10/160
52408-M19 x 1,5	M 19 x 1,5 mm	red		10/160

# 3-Star-handle



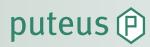


# Crystal handle incl. upper part with grease chamber

Item-No.:	Connection:	Marking:	Length:	Packing unit:
80270 6	3/8"	blue	62	10/160
80271 3	3/8"	red	62	10/160
80272 0	1/2"	blue	77	10/100
802737	1/2"	red	77	10/100

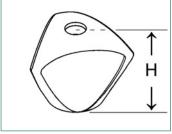






# Triangular handle





#### Plastic, chrome-plated, for cold water

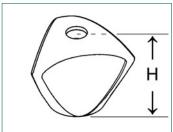
Item-No.:	Con.:	Execution:	Length:	Packing unit:		
loose handle			Н			
52208-Haube	3/8"	3-corn. handle	36	-/-		
52209-Haube	1/2"	3-corn. handle	36	-/-		
Set 1 with integrated grid socket						
52203-Haube-Set1	3/8"	3-corn. handle	36	-/-		
52204-Haube-Set1	1/2"	3-corn. handle	36	-/-		
Set 2 with integrated grid socket and upper part (52263 or 52264)						
52203-Haube-Set2	3/8"	3-corn. handle	36	-/-		
52204-Haube-Set2	1/2"	3-corn. handle	36	-/-		

### Triangular handle



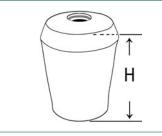
Zamak, chrome-plated, for cold water

Item-No.: loose handle	Con.:	Execution:	Length:	Packing unit:
52208-Haube-Zamak	3/8"	3-corn. handle	36	-/-
52209-Haube-Zamak	1/2"	3-corn. handle	36	-/-



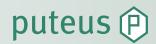
#### Round handle





Round handle, plastic, chrome-plated, for hot water appliances

Item-No.:	Con.:	Execution:	Length:	Packing unit:
loose handle		Pin	Н	
80281-R	3/8"	red	39	1/300
80281-B	3/8"	blue	39	1/300
80281-W	3/8"	white	39	1/300
Set 1 with grid socket				
80281-R-Set1	3/8"	red	39	1/200
80281-B-Set1	3/8"	blue	39	1/200
80281-W-Set1	3/8"	white	39	1/200
Set 2 with grid socket and upper pa	ırt			
80281-R-Set2	3/8"	red	39	1/200
80281-B-Set2	3/8"	blue	39	1/200
80281-W-Set2	3/8"	white	39	1/200

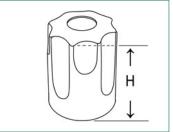


#### Plastic, chrome-plated, for cold water

Item-No.:	Con.:	Execution:	Length:	Packing unit:		
loose handle			Н			
52208 6	3/8"	Comfort grip	36	-/-		
52209 3	1/2"	Comfort grip	36	10/100		
Set 1 with grid socket						
52208-Set1	3/8"	Comfort grip	36	-/-		
52209-Set1	1/2"	Comfort grip	36	-/-		
Set 2 with grid socket and upper part						
52208-Set2	3/8"	Comfort grip	36	-/-		
52209-Set2	1/2"	Comfort grip	36	-/-		

#### **Round handle**





#### Plastic, chrome-plated, for hot water units

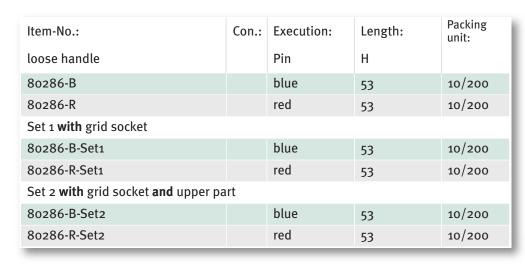
Item-No.:	Con.:	Execution:	Length:	Packing unit:
loose handle		Pin	Н	
80282-R		red	48	10/200
80282-B		blue	48	10/200
80282-W		white	48	10/200
Set 1 with grid socket				
80282-R-Set1		red	48	1/200
80282-B-Set1		blue	48	1/200
80282-W-Set1		white	48	1/200
Set 2 with grid socket and upper pa	ırt			
80282-R-Set2		red	48	1/200
80282-B-Set2		blue	48	1/200
80282-W-Set2		white	48	1/200

#### **Round handle**

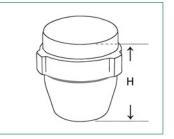


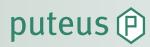


#### **Crown handle**



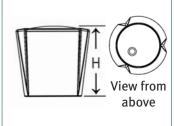






### Round handle



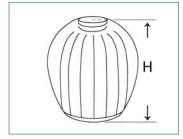


#### Zamak-handle, chrome-plated

Item-No.:	Con.:	Execution:	Length:	Packing unit:		
loose handle		Pin	Н			
S-2584-B		blue	45	10/80		
S-2584-R		red	45	10/80		
Set 1 with grid socket						
S-2584-B-Set1		blue	45	-/160		
S-2584-R-Set1		red	45	-/160		
Set 2 with grid socket and upper part (3/8" 52418 / 1/2" 52419)						
S-2584-B-Set2		blue	45	-/160		
S-2584-R-Set2		red	45	-/160		

# **Crystal handle**





#### Acrylic handle, oval, for grid sockets

Item-No.:	Con.:	Execution:	Length:	Packing unit:	
loose handle		Pin	Н		
80283-B		blue	55	10/200	
80283-R		red	55	10/200	
Set 1 with grid socket					
80283-B-Set1		blue	55	10/200	
80283-R-Set1		red	55	10/200	
Set 2 with grid socket and upper part (3/8" 52418 / 1/2" 52419)					
80283-B-Set2		blue	55	10/200	
80283-R-Set2		red	55	10/200	

### Diamond handle





#### Acrylic handle, chrome-plated, for grid sockets

Item-No.:	Con.:	Execution:	Length:	Packing unit:	
loose handle			Н		
80284-B		3-corn. handle	50	10/200	
80284-R		3-corn. handle	50	10/200	
Set 1 with grid socket					
80284-B-Set1		3-corn. handle	50	10/200	
80284-R-Set1		3-corn. handle	50	10/200	
Set 2 with grid socket and upper part (3/8" 52418 / 1/2" 52419)					
80284-B-Set2		3-corn. handle	50	10/200	
80284-R-Set2		3-corn. handle	50	10/200	

# Acrylic handle

#### Acrylic handle, conical, for grid sockets

Item-No.:	Con.:	Execution:	Length:	Packing unit:		
loose handle		Pin	Н			
80285-B		blue	45	10/200		
80285-R		red	45	10/200		
Set 1 with grid socket						
80285-B-Set1		blue	45	10/200		
80285-R-Set1		red	45	10/200		
Set 2 with grid socket and upper pa	Set 2 with grid socket and upper part (3/8" 52418 / 1/2" 52419)					
80285-B-Set2		blue	45	10/200		
80285-R-Set2		red	45	10/200		



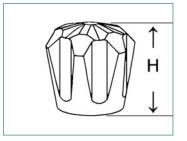


# Crystal handle

#### Acrylic handle, cylindrical, for grid sockets

Item-No.:	Con.:	Execution:	Length:	Packing unit:		
loose handle		Pin	Н			
80287-B		blue	45	10/200		
80287-R		red	45	10/200		
Set 1 with grid socket						
80287-B-Set1		blue	45	10/200		
80287-R-Set1		red	45	10/200		
Set 2 with grid socket and upper pa	Set 2 with grid socket and upper part (3/8" 52418 / 1/2" 52419)					
80287-B-Set2		blue	45	10/200		
80287-R-Set2		red	45	10/200		



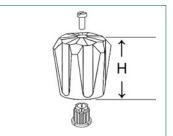


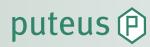
#### Acrylic handle with screw and grid socket

Item-No.:	Con.:	Execution:	Length:	Packing unit:
without pin (see image)		Pin	Н	
80272-G	1/2"		47	-/-
with blue pin				
80272-Griff	1/2"	blue	47	-/-
with red pin				
80273-Griff	1/2"	red	47	-/-

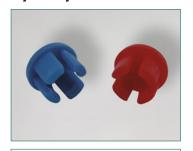
# **Crystal handle**

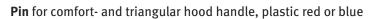






# **Spare parts for handles**





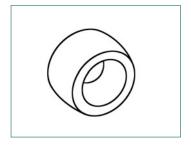
Item-No.:	Execution:	Connection:			Packing unit:
loose handle	Pin		Ø	Height:	
52209-Haube-Pin-R	red	3/8" + 1/2"	10,5	7,3	-/-
52209-Haube-Pin-B	blue	3/8" + 1/2"	10,5	7,3	-/-





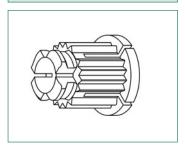
Pin for Zamac- and triangular hood handle, plastic red or blue

Item-No.:	Execution:	Connection:			Packing unit:
loose handle	Pin		Ø	Height:	
5240x-Pin-R	red	3/8" + 1/2"	7	4	-/-
524ox-Pin-B	blue	3/8" + 1/2"	7	4	-/-



#### Grid socket for sanitary handle, plastic, white

Item-No.:	Connection:	Execution:	Height: H	Packing unit:
52202 4				-/5000

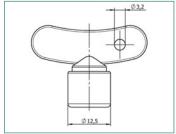


#### **Socket wrench**

#### Zinc die cast chromium-plated, square

Item-No.:	Wrench size:	Packing unit:
52054 9	7 mm	250/1000
52057 o (suitable for 52051/52)	6,2 mm	300/2400



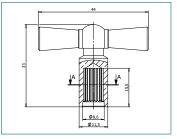


# Socket wrench for sanitary upper parts

#### Brass chromium-plated

Item-No.:	Wrench size:	Packing unit:
52057-11712		50/450



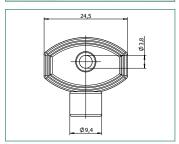


# Socket wrench for heating emptying

#### Zamac

Item-No.:	Wrench size:	Packing unit:
54763 8 (e.g. 54761)	5 mm	100/1000

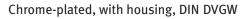






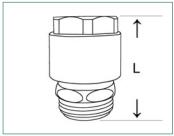
### **Aerator with housing**





Item-No.:		Connection	Length:	Packing unit:
52205 5	-	3/4" female/male	47,5	25/200



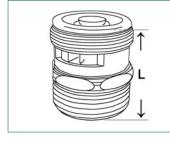


#### Aerator, chrome-plated



Without housing, shape C, DIN DVGW, suitable for washing machine valves (for example 52219)

Item-No.:	Connection: various inserts (illu. plastic)	Exe- cution:	Length:	Packing unit:
52262-M28	M 28 x 1 x 3/4" (male) <b>brass</b>	loose	30,5	-/360
52262-M27	M 27 X 1 X 3/4" (male) <b>plastic</b>	loose	30,5	-/360



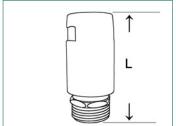


# Flow pipe aerator with backflow preventer, chrome plated





Item-No.:	Connection:	Nominal width:	Length:	Packing unit:
52191 1	female 3/4" x male 3/4"	20	70	-/-



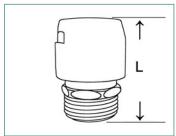
# Flow pipe aerator without backflow preventer, chrome plated

Flow direction from top to bottom, only for valves with integrated backflow preventer

Item-No.:	Connection:	Nominal width:	Length:	Packing unit:
52193 5	female 1/2" x male 1/2"	15	45	-/-
52194 2	female 3/4" x male 3/4"	20	45	-/-







## Flow pipe aerator with backflow preventer, chrome plated

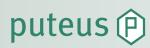
Flow direction from top to bottom, especially for bath and shower mixers

Item-No.:	Connection:	Nominal width:	Length:	Packing unit:
52192 8	female 1/2" x male 1/2"	15	58	-/-







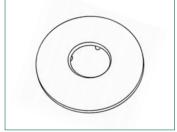


# **Sliding rosette**



### Stainless steel

Item-No.:	,	Connec.:		Ø	Height:	Packing unit:
	to Item-No.:		outside	inside		
52266 6	52210	3/8"	54	17	11,5	100/1200

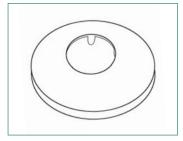


# **Sliding rosette**



### Stainless steel

Item-No.:	for example to Item-No.:	Connection:	Ø outside		Height:	Packing unit:
52265 9	52211	1/2"	54	21	12	100/1200



# **Sliding rosette**



### Stainless steel

Item-No.:	for example	Connection:	Ø	Ø	Height:	Packing unit:
	to Item-No.:		outside	inside		
52265-flach	52219	1/2"	56	20	8,5	100/1200

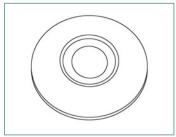


# **Sliding rosette**

### Stainless steel, polished

Item-No.:	for example to Item-No.:	Connection:	Ø outside	Ø inside	Height:	Packing unit:
52265-52219	52219	1/2"	58	22	6,5	100/1200



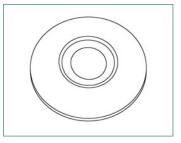


# **Sliding rosette**

### Brass, polished

Item-No.:	for example to Item-No.:	Connection:	Ø outside	Ø inside	Height:	Packing unit:
52265-52141	52141-N	1/2"	58	22	5	100/1200
52265-52142	52142-N	3/4"	66	27	6	100/1200



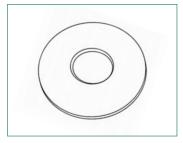


# **Sliding rosette**

### Brass chrome-plated, suitable for all concealed valves, with inner seal

Item-No.:	for example to Item-No.:	Connection:	Ø outside		Height:	Packing unit:
52388			69	24,5	14,5	-/-

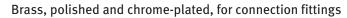




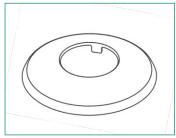


# **Sliding rosette**





Item-No.:	for example	Connection:	Ø	Ø	Height:	Packing unit:
	to Item-No.:		outside	inside		
35732 9			65	28	10,5	50/450

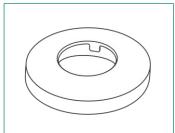


# **Sliding rosette**



Brass, polished and chrome-plated, cylindrical, for connection fittings

Item-No.:	for example	Connection:	Ø	Ø	Height:	Packing unit:
	to Item-No.:		outside	inside		
35743 5			70	28	11	50/450

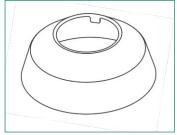


# **Sliding rosette**



Brass, polished and chrome-plated, for connection fittings

Item-No.:	for example	Connection:	Ø	Ø	Height:	Packing unit:
	to Item-No.:		outside	inside		
35734 3	35725-30		69	30	27	40/240



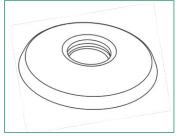


## **Screw rosette**

### Brass, polished and chrome-plated, with thread, for connection fittings

Item-No.:	for example	Connection:	Ø	Ø	Height:	Packing unit:
	to Item-No.:		outside	inside		
35733 6	35710	3/8"	57	16	11,5	64/384
35731 2	35711/12/13	1/2"	69	20	11,5	55/330



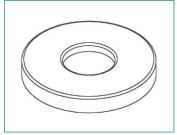


## **Screw rosette**

### Brass, polished and chrome-plated, with thread, for connection fittings

Item-No.:	for example	Connection:	Ø	Ø	Height:	Packing unit:
	to Item-No.:		outside	inside		
35740 4		1/2"	64,5		9	-/-
35735 0		3/4"	64,5		9	-/-

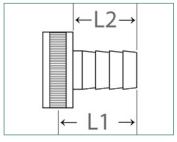






## Hose screw connectors with knurled nut





For use in the sanitary sector

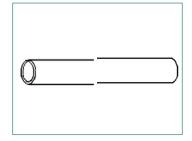
Item-No.:	Spout:	Thread:	Length:		Packing unit:
			L1	L2	
2-pieces, brass sheet, chron	ne-plate	ed, with knurle	d nut		
35081-K taper joint	1/2"	3/4"	31,5	22,5	50/1500
35082-K taper joint	3/4"	1"	33,5	23,5	50/ 900
2-pieces, plastic, chrome-pl	lated, w	ith knurled nu	t		
35081-KU with O-ring	1/2"	3/4"	34,3	23,3	50/1000
35082-KU flat joint	3/4"	1"	33,5	22,5	50/ 900
2-pieces, forged brass, chro	me-plat	ed, with knurl	ed nut		
350818 flat joint	1/2"	3/4"	31,5	22,5	50/1000
35082 5 flat joint	3/4"	1"	33,5	23,5	50/ 900
35119 8 flat joint	1/2"	M22/1	34,5	23	25/ 400
2-pieces, brass sheet, blank	k, with k	nurled nut			
35081-K-52141	1/2"	3/4"	31,5	22,5	50/1500
35082-K-52142	3/4"	1"	33,5	23,5	50/ 900
2-pieces, plastic, blank, with knurled nut					
35081-KU-52141	1/2"	3/4"	31,5	22,5	50/1500
35082-KU-52142	3/4"	1"	33,5	23,5	50/ 900

# Copper pipe, ring shape



Ring shape 5 m, chrome-plated

Item-No.:	Diameter (Ø):	Length:	Packing unit:
52501 8	8 mm	5000 mm	1/20
52502 5	10 mm	5000 mm	1/10
52503 2	12 mm	5000 mm	1/ 9



## **Compression fittings for copper pipes**

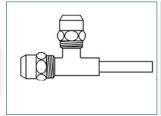
Material in accordance with DIN 50960-6, operating temperature max. 90°C, operating pressure max. 10 bar.

Important note: compression fittings are for single use only!

### **T-branch piece**

T-piece with extension and two high tensile brass cone compression fittings with length compensation, chrome plated

Item-No.:	Connection:	Leaving:	Packing unit:
522673	3/8"	3/8" x 10 mm	25/100

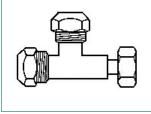




## T-branch piece

T-piece with union nut and two high tensile brass cone compression fittings with length compensation, chrome plated

Item-No.:	Connection:	Leaving:	Packing unit:
52267-3/8"	3/8"	3/8" x 10 mm	25/150

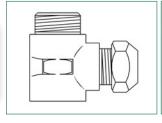




## **T-branch piece**

 $\label{thm:compression} \mbox{T-piece female/male with a compression fitting, chrome plated}$ 

Item-No.:	Connection:	Leaving:	Packing unit:
52463 9	1/2" X 1/2"	3/8" x 10 mm	10/200
52464 6	1/2" X 1/2"	1/2" X 12 mm	10/200

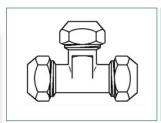




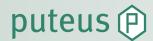
## T-branch piece

T-piece with 3 x compression fittings, chrome plated

Item-No.:	Connection:	Packing unit:
52470 7	3/8" x 8 mm	10/200
52471 4	3/8" x 10 mm	10/200
52472 1	1/2" X 12 mm	10/160

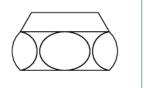






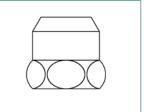
# **Compression fitting, loose**





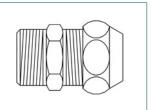
## **Compression fitting, loose**





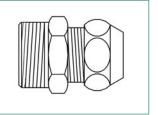
## Single compression fitting





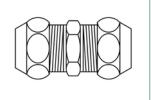
## Single compression fitting





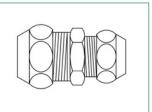
# **Double compression fitting**





# **Double compression fitting**





# Compression fitting without length compensation, chrome-plated

Item-No.:	Connection:	Packing unit:
52450 9	3/8" x 8 mm	25/1000
52451 6	3/8" x 10 mm	25/1000
52452 3	3/8" x 12 mm	25/1000
52450-1/2"	1/2" x 8 mm	25/1000
52451-1/2"	1/2" X 10 mm	25/1000
52452-1/2"	1/2" X 12 mm	25/1000

### Compression fitting with length compensation, chrome-plated

Item-No.:	Connection:	Packing unit:
52451-lang	3/8" x 10 mm	150/750

### On nipple, chrome-plated

Item-No.:	Connection: mxmxØ	Packing unit:
524943	3/8" x 3/8" x 8 mm	25/250
52495 0	3/8" x 3/8" x 10 mm	25/250
52497 4	1/2" X 1/2" X 10 mm	25/200
524967	1/2" X 1/2" X 12 mm	25/200

### Reducing nipple, chrome-plated

Item-No.:	Connection: mxmxØ	Packing unit:
52498 1	3/4" x 3/8" x 10 mm	25/-

### Chrome-plated

Item-No.:	Connection: mxmxØ	Packing unit:
52490 5	3/8" x 3/8" x 8 mm	25/250
52491 2	3/8" x 3/8" x 10 mm	25/250
52491-12 mm	3/8" x 3/8" x 12 mm	25/250
52492 9	1/2" X 1/2" X 12 mm	25/250

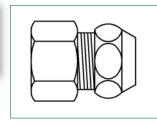
### Reduced, chrome-plated

Item-No.:	Connection: mxmxØ	Packing unit:
52493 6	3/8" x 10 mm x 3/8" x 8 mm	25/400
52499 8	1/2" X 12 mm X 3/8" X 10 mm	50/700

### On nipple with female thread, chrome-plated

Item-No.:	Connection: fxmxØ	Packing unit:
52495-IG	3/8" x 3/8" x 10 mm	50/500
52499-IG	1/2" x 3/8" x 10 mm	25/300

## **Compression fitting**

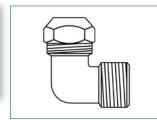




### Elbow male/male with single compression fitting, chrome-plated

Item-No.:	Connection: mxmxØ	Packing unit:
524868	3/8" x 3/8" x 10 mm	25/300
52486-1/2"	1/2" X 1/2" X 10 mm	10/250
52487 5	1/2" X 1/2" X 12 mm	25/150

## **Elbow with one compression fitting**

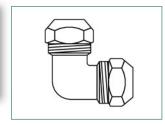




### Elbow male/male with two compression fittings, chrome-plated

Item-No.:	Connection: mxmxØ	Packing unit:
52480 6	3/8" x 3/8" x 8 mm	25/400
524813	3/8" x 3/8" x 10 mm	25/400
52487-11001	1/2" X 1/2" X 12 mm	25/-

### **Elbow with two compression fittings**

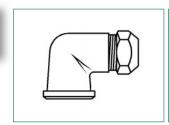




#### Elbow female/male with compression fitting, chrome-plated

Item-No.:	Connection: fxmxØ	Packing unit:
524837	1/2" x 3/8" x 10 mm	10/150

## **Elbow with one compression fitting**

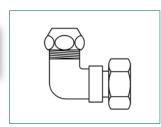




# Elbow, rotable, union nut at one and compression fitting at the other end, chrome-plated

Item-No.:	Connection: fxmxØ	Packing unit:
52489 9	3/8" x 3/8" x 10 mm	10/250

# **Elbow with compression fitting**

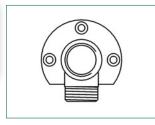




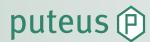
#### Wall plate elbow, without compression fitting, chrome-plated

Item-No.:	Connection: fxmxØ	Packing unit:
52466 0	1/2" x 3/8" x 12,5 mm	10/120
524677	1/2" X 1/2" X 12,5 mm	15/180

## Wall plate elbow





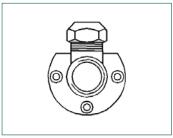


# Wall plate elbow



Wall plate elbow, with one compression fitting, chrome-plated

Item-No.:	Connection: fxmxØ	Packing unit:
52461 5	1/2" x 3/8" x 10 mm	10/100
52462 2	1/2" X 1/2" X 12 mm	10/150



# **Accessories for compression fittings**



Clamping ring for brass compression fittings, series 524xx, chrome-plated

Item-No.:	Connection:	Packing unit:
52455 4	3/8" x 8 mm	1000/15000
52456 1	3/8" x 10 mm	1000/15000



# Wall plate elbow



Wall plate elbow, brass blank, with one compression fitting

Item-No.:	Connection: fxmxØ	Packing unit:
348815	1/2" X 1/2" X 16 mm	25/150

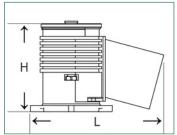


### Wall box

Wall box easy with Euro adapter connection, female thread/male thread, housing polypropylene with talc, fitting brass, screws stainless steel

Item-No.:	Connection:	Length:		Packing unit::
		L	Н	
S-2828	1/2" X 3/4"	95	63	/80
Spare seals				
S-2828-Dichtung	Ø12 x Ø37 x 25,5 mm			50/450



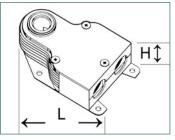


## Wall box

Wall box double with Euro adapter connection, female thread/male thread, housing polypropylene with talc, fitting brass, screws stainless steel

Item-No.:	Connection:	Length:		Packing unit:
		L	Н	
S-2829	1/2" x 3/4"	132	40,5	-/54



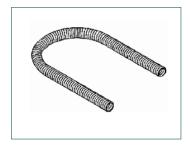


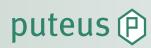
# **Bending spring**

Bending spring for compound pipe, galvanized steel

Item-No.:	Connection:	Length:		Packing unit:
	Ø inside/outside	L	Н	
S-2928-16	16,7 / 20,85	500		1/40
S-2928-20	20,6 / 24,6	500		1/35

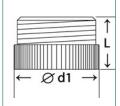






# Adapter fitting

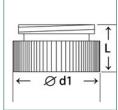




### Brass chrome-plated

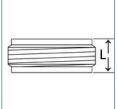
Item-No.:	Connection:	Thread length		Length		Packing unit:	Illu.:
		f	m	L	Ø d1		
35630 8	M 22/1" f x 1/2" m	5,5	8,5	16	24	50/1000	1
35631 5	M 22/1" f x 3/4" m	6	9,5	16	26	50/ 500	1





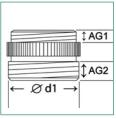
Item-No.:	Connection:	Thread length		Length		Packing unit:	Illu.:
		m	f	L	Ø d1		
35632 2	M 22/1" m x 1/2" f	2,5	7,5	13	24	50/1000	2
35633 9	M 22/1" m x 3/4" f	6,5	8,5	16,5	29	50/1000	2





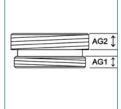
Item-No.:	Connection:	Length:	Packing unit:	Illu.:
		L		
35634 6	M 22/1" f x 3/4" m x 1/2" f	10	50/2000	3





Item-No.:	Connection:	Thread m	Threadlength: m m			Packing unit:	Illu.:
		AG1	AG2	L	Ø d1		
35635 3	M 24/1" m x 3/4 m	4,5	7	18,5	27	50/600	4





Item-No.:	Connection:	Threadlength: m m		Length	Packing unit:	Illu.
with sealing		AG1	AG2	L		
35636 o	M 24/1" m x M 22/1 m	4	3,5	9,5	50/1000	(5)

### Seals

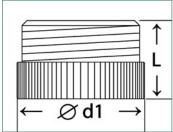
Item-No.:	for item:	Connection:	Item-No.:	for item:	Connection:
35630/31-Dichtung	35630/31	21 X 15 X 1,5 mm	35633/38/39-Dichtung	35633/38/39	24 x 16 x 2,5 mm
35632-Dichtung	35632	18,5 x 15 x 2 mm	35636-Dichtung	35636	21 X 15 X 2,5 MM
35635-Dichtung	35635	22 X 17 X 1,5 MM			

# **Adapter fitting**

### Brass chrome-plated, knurled, with sealing

Item-No.:	Connection:	Threadlength:		Length:		Packing unit:
		male	female	L	Ø d1	
35638 4	1/2" m x 3/4" f	10	9,5	20	29	50/600



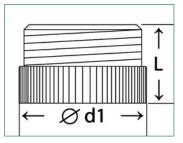


# **Adapter fitting**

### Brass chrome-plated, corded or with external hexagon, with sealing

Item-No.:	Connection:	Threadlength:		Length:		Wrench- size:	Packing unit:
		m	f	L	Ø d1	SW:	
35639 1	1" f x 3/4" m	10	10	22	38	-	25/250



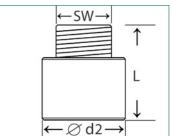


# Brass extension, reduced

### Adapter piece

Item-No.:	Item-No.:	Connection:	Threadlength:		Length:		Wrench- size:	Packing unit:
plane	chrome-pl.		f	m	f/m	Ø d2	SW	
346378	356377	1/2" f x 3/8" m	14	10	29	25,5	11	30/600
34690 3	35690 2	3/4" f x 1/2" m	13	11	30	31,5	12	10/200
346919	35691 0	3/4" f x 3/8" m	14	10	29	32	11	20/360

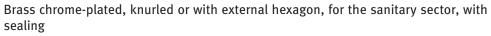




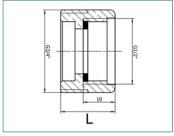


# **Brass reducing nipple**





Item-No.:	Connection:	Thread	length:	th: Length:		Wrench- size:	Packing unit:
		m	f	L	Ø d1	SW	
35432-40758	1/2" f x 3/4" m	8	10	17	26	23	50/500

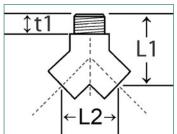


### **Y-connector**



Brass polished and chrome-plated, 2 x female thread, 1 x male thread

Item-No.:	Item-No.:	Conn.:	Threadlength:	Length:		Packing unit:
plain	chrome-pla.		t1	L1	L2	
-	35991 0	1/2"	12	42	32	10/120

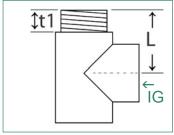


### **Brass tee**



Brass polished and chrome-plated, 1/2" male x 1/2" female x 1/2" female thread

Item-No.:	Connection:	Threadlength:		Length:	Packing unit:
chrome-plated		male t1	female IG	L	
35997 2	1/2"	10	15	28	10/120

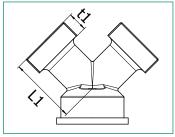


## **Y-connector**

Nominal diameter 1/2", 2 x male, 1 x female, without sealing

Item-No.:	Item-No.:	Connection:	Thread-Length:	Length:	Packing unit:
plain	chrome-pl.	f/m	t1	L1	
349928	359927	3/4"	9	26	10/150
349997	35999 6	3/4"	9	32	-/-



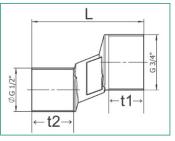


## **S-Connection**

S-nipple, chrome-plated, reach 12,5 mm, 3/4" male x 1/2" male, wrench opening 16, without rosette

Item-No.:	Item-No.:	Connection:	Threadlength:		Length:	Wrench size:	Packing unit:
plain	chropla.		t1	t2	L	SW	
-	35610 0	3/4" m x 1/2" m	16	19	51	16	25/ 350



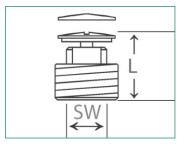


# Blind plugs with slotted screw

Sealing plug plain brass with chrome-plated slotted screw

Item-No.:	Connection:	Thread- Length:	Length:	Wrench- size:	Packing unit:
			L	SW	
34618 7	3/8"	10	20	9	25/1000
34611 8	1/2"	11	21	9	50/ 500
34612 5	3/4"	14	26	12	25/ 500
Accessories: cap	olastic				
34611-Kappe	universal				500/10000
Sealing plug plain	brass with chrom	ne-plated slo	tted screw	+ cap pla	stic
34618-11325	3/8"	14	26	12	25/1000
34611-11325	1/2"	10	20	9	25/ 800
34612-11325	3/4"	11	21	9	25/ 500

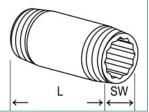






# **Brass pipe**



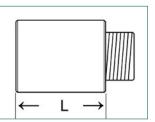


With internal polygon, on both sides tapered male threads according to EN10226-1/ISO 7

	R3/8"	R3/8"	R1/2"	R1/2"	R3/4"	R3/4"	R1"	R1"	
Length:	w. s. 10 plain	w. s. 10 chrom plat.	w. s. 12 plain	w. s. 12 chrom plat.	w. s. 17 plain	w. s. 17 chrom plat.	w. s. 22 plain	w. s. 22 chrom plat.	Pack. unit:
30 mm	29210 1	29215 6	29211 8	29216 3	29212 5	29217 0	29213 2	29218 7	-/10
40 mm	29220 0	29225 5	292217	29226 2	29222 4	29227 9	29223 1	29228 6	-/10
50 mm	29230 9	29235 4	29231 6	29236 1	29232 3	292378	29233 0	29238 5	-/10
60 mm	292408	29245 3	292415	29246 0	29242 2	292477	29243 9	29248 4	-/10
80 mm	292507	29255 2	29251 4	29256 9	29252 1	29257 6	292538	29258 3	-/10
100 mm	292606	29265 1	292613	292668	29262 0	292675	292637	29268 2	-/10
120 mm	29270 5	29275 0	29271 2	29276 7	29272 0	29277 4	292835	29278 1	-/10
130 mm	-	-	-	-	-	-	29293 4	-	-/10
150 mm	29280 4	29285 9	292811	29286 6	292828	292873	-	29288 0	-/10
200 mm	29290 3	29295 8	29291 0	29296 5	29292 7	29297 2	-	29298 9	-/10

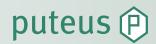
# **Brass tap extension**





Brass plain or chrome-plated, according to DIN 3523

Con.:	plain	chr.pla.	Packing unit:									
L mm	G3/8"	G3/8"		G 1/2"	G1/2"		G3/4"	G3/4"		G1"	G 1"	
10	34810 9	35810 4	10/500	34811 2	35811 1	10/400	34812 9	35812 8	10/200	-	-	-
15	34815 0	35815 9	10/500	348167	35816 6	10/300	34817 4	35817 3	10/200	-	-	-
20	34820 4	35820 3	10/400	348211	35821 0	10/250	348228	35822 7	10/150	34823 5	35823 4	10/100
25	34825 9	35825 8	10/300	34826 6	35826 5	10/200	348273	35827 2	10/150	34828 0	35828 9	10/100
30	34830 3	35830 2	10/250	34831 0	358319	10/150	34832 7	35832 6	10/150	34833 4	35833 3	10/ 50
35	34835 8	-	10/200	34836 5	-	10/100	34837 2	-	10/100	-	-	-
40	34840 2	35840 1	10/200	348419	358418	10/150	34842 6	35842 5	10/100	34843 3	35843 2	10/100
45	348457	-	10/150	34846 4	35846 3	5/100	348471	35847 0	5/ 50	-	-	-
50	34850 1	35850 o	5/ 150	348518	358517	5/100	34852 5	35852 4	5/ 50	34854 9	358548	5/ 50
60	34855 6	-	5/100	34856 3	-	5/100	34857 0	-	5/ 50	-	-	-
65	34860 o	35860 9	5/100	348617	358616	5/100	34862 4	35862 3	5/ 50	-	-	-
80	34865 5	35865 4	5/100	34866 2	35866 1	5/ 50	348679	358678	5/100	-	-	-
100	34859 4	35859 3	5/ 50	348587	35858 6	5/ 50	34868 6	-	5/ 50	348648	358647	5/ 30

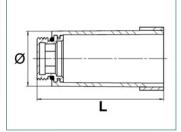


Plastic, brass insert with hexagon socket, according to DIN 1988-2, for pressurising, venting and rinsing, permanent use possible

Item-No.:	Color:	Connection:	Length: L	Ø	Packing unit:
36391-B	blue	1/2"	75 mm	30 mm	10/400
36391-R	red	1/2"	75 mm	30 mm	10/400
36391-W	white	1/2"	75 mm	30 mm	10/400
36392-B	blue	3/4"	79 mm	34,5 mm	-/250
36392-R	red	3/4"	79 mm	34,5 mm	-/250
36392-W	white	3/4"	79 mm	34,5 mm	-/250
Spare part:					
36391-O-Ring	EPDM	Ø 18 x 2,5 mm	1		
36392-0-Ring	EPDM	Ø 21,8 x 3,1 m	ım		

# Assembly plug



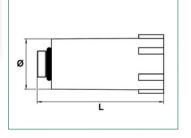


## Assembly plug, plastic

Completely made of plastic, according to DIN 1988-2, for one-off leak test, not suitable for permanent use

Item-No.:	Color:	Connection:	Length: L	Ø	Packing unit:
36394-B	blue	3/8"	75 mm	30 mm	25/400
36394-R	red	3/8"	75 mm	30 mm	25/400
36394-W	white	3/8"	75 mm	30 mm	25/400
36395-B	blue	1/2"	75 mm	30 mm	-/400
36395-R	red	1/2"	75 mm	30 mm	-/400
36395-W	white	1/2"	75 mm	30 mm	-/400



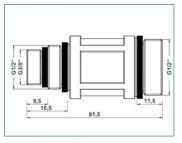


# Assembly plug, plastic

Completely made of plastic with 3 x male threat (G  $_3/8$ ", G  $_1/2$ ", G  $_3/4$ "), not suitable for permanent use

Item-No.:	Color:	Connection:	Length: L	Ø	Packing unit:
36396-B	blue		61,5 mm		50/400
36396-R	red		61,5 mm		50/400







# **Drain construction plugs**





Made entirely of plastic, blue, for drain pipes  $\emptyset$  32/40/50 mm, universal

Item-No.:	Color:	Dim.:	Length: L	Ø	Pack. u.:
36399 3	blue		122 mm	32/40/50	5/300

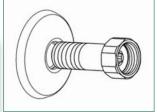
# Fittings, model SUISSE, with SVGW-certification



## **Screw fitting**

Screw fitting straight, chrome-plated and polished, with screw rosette

Item-No.:	Connection:	Packing unit:
35710 7	3/8" x 1/2" x 55 mm	-/100
35711 4	1/2" X 1/2" X 55 mm	-/100
35712 1	1/2" X 1/2" X 65 mm	-/100
35713 8	1/2" x 3/4" x 60 mm	-/100

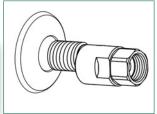




# **Screw fitting**

Eccentric screw fitting, 5 mm, chrome-plated and polished, with push-on rosette

Item-No.:	Connection:	Packing unit:
35723 7	1/2" x 1/2" x 63 mm	-/100
35724 4	1/2" x 3/4" x 68 mm	-/100

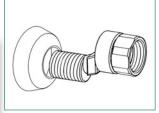




## **Screw fitting**

Eccentric screw fitting, 17 mm, chrome-plated and polished, with push-on rosette

Item-No.:	Connection:	Packing unit:
35728 2	3/8" x 1/2" x 68 mm	-/100
35729 9	1/2" x 1/2" x 68 mm	-/100
35730 5	1/2" x 3/4" x 68 mm	-/100

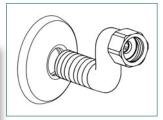




## **Screw fitting**

Eccentric screw fitting, 30 mm, chrome-plated and polished, with screw rosette

Item-No.:	Connection:	Packing unit:
35717 6	3/8" x 1/2" x 65 mm	-/100
35718 3	1/2" x 1/2" x 65 mm	-/100
35719 0	1/2" x 3/4" x 68 mm	-/100

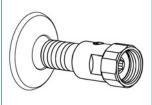






# **Screw fitting**



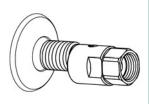


Straight screw fitting, chrome-plated and polished, shut off function, with push-on rosette

Item-No.:	Connection:	Packing unit:
35714 5	3/8" x 1/2" x 62 mm	-/100
35715 2	1/2" X 1/2" X 62 mm	-/100
35716 9	1/2" x 3/4" x 65 mm	-/100

## **Screw fitting**



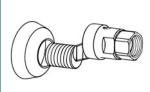


Eccentric screw fitting, 5 mm, chrome-plated and polished, shut off function, with push-on rosette

Item-No.:	Connection:	Packing unit:
35720 6	3/8" x 1/2" x 62 mm	-/100
35721 3	1/2" X 1/2" X 62 mm	-/100
35722 0	1/2" x 3/4" x 65 mm	-/100

## **Screw fitting**



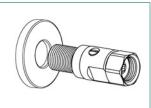


Eccentric screw fitting, 17 mm, chrome-plated and polished, shut off function, with push-on rosette

Item-No.:	Connection:	Packing unit:
35725 1	3/8" x 1/2" x 82 mm	-/100
35726 8	1/2" X 1/2" X 82 mm	-/100
35727 5	1/2" x 3/4" x 85 mm	-/100

## **Screw fitting**





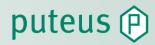
Straight screw fitting, chrome-plated and polished, with screw rosette

Item-No.:	Connection:	Packing unit:
35738 1	1/2" X 1/2" X 72 mm	-/-
35739 8	1/2" x 3/4" x 75 mm	-/-

## Replacement seals for connection fittings

AFM 34, KTW-certified,  $18 \times 10 \times 2 \text{ mm} (1/2")$ 

Item-No. seal:	for item	for item-No.:										
35710-AFM	35710	35711	35712	35714	35715	35717	35718	35720	35721	35723	35725	35726
	35728	35729	35739									
Novapress 260 or equivalent, 24 x 14 x 3 mm												
WS-551-Dtg-3mm	35713	35716	35719	35722	35724	35727	35730	35739				



## Flexible connection hoses for drinking water

Stainless steel braiding 1.4301, inner hose from polyethylene (PE-Xc), tested in accordance with DVGW W 270 and W 543, stamped sleeves according to DVGW

Connection: compression nut x pipe socket 10 mm

Item-No.:	Length (mm):	Compression nut:	Packing unit:
52750-150-TVO	150	3/8" x 10 mm	-/25
52750-TVO	200	3/8" x 10 mm	-/25
52751-TVO	300	3/8" x 10 mm	-/25
52750-400-TVO	400	3/8" x 10 mm	-/25
52752-TVO	500	3/8" x 10 mm	-/25
52753-TVO	800	3/8" x 10 mm	-/25
52754-TVO	1000	3/8" x 10 mm	-/25

### Flexible hose





### Flexible hose

Connection: union nut x pipe socket 10 mm

Item-No.:	Length (mm):	Union nut:	Pack. u.	Seal:
52760-TVO	200	3/8"	-/25	52771-TVO-Dichtung
52761-TVO	300	3/8"	-/25	52771-TVO-Dichtung
52762-TVO	500	3/8"	-/25	52771-TVO-Dichtung
52763-TV0	800	3/8"	-/25	52771-TVO-Dichtung
52764-TVO	1000	3/8"	-/25	52771-TVO-Dichtung
52766-TV0	300	1/2"	-/25	52772-TVO-Dichtung
52767-TVO	500	1/2"	-/25	52772-TVO-Dichtung
52768-TVO	800	1/2"	-/25	52772-TVO-Dichtung
52769-TVO	1000	1/2"	-/25	52772-TVO-Dichtung



### Connection: union nut 3/8" x compression nut

Item-No.:	Length (mm):	Comp. nut:	Pack. u.	Seal:
52770-TVO	200	3/8" x 10 mm	-/25	52771-TVO-Dichtung
52771-TVO	300	3/8" x 10 mm	-/25	52771-TVO-Dichtung
52772-TVO	500	3/8" x 10 mm	-/25	52771-TVO-Dichtung
52773-TVO	800	3/8" x 10 mm	-/25	52771-TVO-Dichtung
52774-TVO	1000	3/8" x 10 mm	-/25	52771-TVO-Dichtung
52776-TVO	300	3/8" x 8 mm	-/25	52771-TVO-Dichtung
52777-TVO	500	3/8" x 8 mm	-/25	52771-TVO-Dichtung
52778-TVO	800	3/8" x 8 mm	-/25	52771-TVO-Dichtung
52779-TVO	1000	3/8" x 8 mm	-/25	52771-TVO-Dichtung

### Flexible hose







## Flexible hose





Connection: union nut x union nut

Item-No.:	Length (mm):	Union nut:	Packing unit:
52781-TVO	300	3/8" x 3/8"	-/25
52783-TV0	500	3/8" x 3/8"	-/25
52784-TV0	300	3/8" x 1/2"	-/25
52786-TV0	500	3/8" x 1/2"	-/25
52787-TV0	300	1/2" X 1/2"	-/25
52789-TV0	500	1/2" X 1/2"	-/25

## Flexible hose





Connection: union nut x male thread (ISO 228)

Item-No.:	Length (mm):	Union nut x male thread:	Packing unit:
52790-TV0	200	3/8" x 3/8"	-/25
52791-TVO	300	3/8" x 3/8"	-/25
52792-TV0	400	3/8" x 3/8"	-/25
52793-TV0	500	3/8" x 3/8"	-/25
52797-TVO	300	1/2" X 1/2"	-/25
52799-TVO	500	1/2" X 1/2"	-/25
52743-TVO-E	500	3/4" x 3/4"	-/25
52745-TVO-E	1000	3/4" x 3/4"	-/25
52747-TVO-E	2000	3/4" x 3/4"	-/25
52748-TVO-E	3000	3/4" x 3/4"	-/25

## Flexible hose





Connection: union nut 3/8" x male thread (DIN 13)

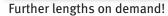
Item-No.:	Length (mm):	Male thread:	Packing unit:
52794-TVO	300	M10/1	-/25
52792-M15-TVO	400	M15/1	-/25
52795-TV0	500	M10/1	-/25
52795-M10L-TVO	500	M10/1 long	-/25
52798-TV0	400	M8/1	-/25
52795-M8-TV0	500	M8/1	-/25
52795-M8L-TV0	500	M8/1 long	-/25
52796-TV0	350	M10/1	-/25
52796-M8-Lang	350	M8/1 long	-/25
52796-M10-kurz-TVO	350	M10/1 short	-/25



## Flexible hose, torsion-proof!

Connection: compression nut torsion-proof x pipe socket 10 mm

Item-No.:	Length (mm):	Compression nut:	Packing unit:
52751-V-TVO	300	3/8" x 10 mm	-/25
52752-V-TVO	500	3/8" x 10 mm	-/25







## Flexible hose, torsion-proof!

Connection: union nut 3/8" torsion-proof x compression nut

Item-No.:	Length (mm):	Compression nut:	Packing unit:
52771-V-TVO	300	3/8" x 10 mm	-/25
52772-V-TV0	500	3/8" x 10 mm	-/25

Further lengths on demand!





## Flexible hose, torsion-proof!

Connection: union nut torsion-proof x compression nut

Item-No.:	Length (mm):	Union nut:	Packing unit:
52781-V-TVO	300	3/8" x 3/8"	-/25
52782-V-TVO	500	3/8" x 3/8"	-/25

Further lengths on demand!





For low-pressure mixers, stainless steel, DVGW, compression nut  $3/8\ensuremath{\text{"}}\xspace$  x male thread, DN 6

Item-No.:	Length (mm):	Male thread:	Packing unit:	
86650-Set	350	M8 short		
	500	M8 short	-/50	
	500	M8 long		

## Flexible hose kit







## Armoured hoses: flexible hoses for the heating sector

Stainless steel braiding, brass connecting fittings nickel plated, EPDM hose, working pressure: max. 20 bar, operating temperature: -10° C bis + 75° C

### **Armoured hose**



Connection: union nut x male thread, EPDM-hose

Item-No.:	Length (mm):	Connection:	Hose Ø:	Packing unit:
			inside/outside	
52816 3	500	1/2" f x m	16 mm/22 mm	loose
52817 0	750	1/2" f x m	16 mm/22 mm	loose
52818 7	1000	1/2" f x m	16 mm/22 mm	loose
52819 4	1500	1/2" f x m	16 mm/22 mm	loose
52800 2	1000	3/4" f x m	13 mm/18 mm	loose
528019	1500	3/4" f x m	13 mm/18 mm	loose
52802 6	2000	3/4" f x m	13 mm/18 mm	loose
52803 3	2500	3/4" f x m	13 mm/18 mm	loose
52804 0	3000	3/4" f x m	13 mm/18 mm	loose
52836 1	500	3/4" f x m	19 mm/27 mm	loose
528378	750	3/4" f x m	19 mm/27 mm	loose
52838 5	1000	3/4" f x m	19 mm/27 mm	loose
52839 2	1500	3/4" f x m	19 mm/27 mm	loose
52824 8	300	1" f x m	25 mm/34 mm	loose
52823 1	400	1" f x m	25 mm/34 mm	loose
52825 5	500	1" f x m	25 mm/34 mm	loose
52827 9	750	1" f x m	25 mm/34 mm	loose
52806 4	1000	1" f x m	25 mm/34 mm	loose



## **Armoured hose**

### Connection: union nut x union nut, EPDM-hose

Item-No.:	Length (mm):	Connection:	Hose Ø:	Packing unit:
			inside/outside	
528088	500	1/2" f x f	16 mm/22 mm	loose
52809 5	750	1/2" f x f	16 mm/22 mm	loose
52810 1	1000	1/2" f x f	16 mm/22 mm	loose
52811 8	1500	1/2" f x f	16 mm/22 mm	loose
52832 3	500	3/4" fx f	19 mm/27 mm	loose
52833 0	750	3/4" fx f	19 mm/27 mm	loose
528347	1000	3/4" fx f	19 mm/27 mm	loose
52835 4	1500	3/4" fx f	19 mm/27 mm	loose
52842 2	300	1" f x f	25 mm/34 mm	loose
52844 6	500	ı" fx f	25 mm/34 mm	loose
52845 3	750	ı" fx f	25 mm/34 mm	loose
52846 0	1000	ı" fx f	25 mm/34 mm	loose
528477	1500	ı" fx f	25 mm/34 mm	loose



# Armoured hose with angle connector

### Union nut, female elbow x male thread, EPDM hose

Item-No.:	Length (mm):	Connection:	Hose $\emptyset$ : inside/outside	Packing unit:
52823-W	200	1" f x m	25 mm/34 mm	-/-



# Replacement fibre seals for flexible hoses

Item-No.:	Connection:	Packing unit:
52766-Dichtung	Union nut 1/2"	10
52800-Dichtung	Union nut 3/4"	10
52822-Dichtung	Union nut 1"	10



## **Washing machine hoses**

(working pressure max. 20 bar, bursting pressure 60 bar at 25°C)

### **Connection hose**



Including clamped connections, one-side with plastic straight connector female thread 3/4", the other side with plastic angle connector female thread 3/4", for cold water

Item-No.:	Length (mm):	Connection:	Packing unit:
39505 5	1000	3/8"	-/10
39510 9	1500	3/8"	-/10
39520 8	2000	3/8"	-/10
39530 7	2500	3/8"	-/10
39540 6	3000	3/8"	-/10
39545 1	3500	3/8"	-/10
39550 5	4000	3/8"	-/10
39560 4	5000	3/8"	-/10
39570 3	6000	3/8"	-/10

## Safety inlet hose



With burst safety device, with VDE-certificate, female thread on both sides, for cold water

Item-No.:	Length (mm):	Connection:	Packing unit:
39519 2	1500	3/4"	-/10
39529 1	2000	3/4"	-/10
39547 5	2500	3/4"	-/10
39549 9	3000	3/4"	-/10
39559 8	3900	3/4"	-/10
39548 2	5000	3/4"	-/10

### **Extension for inlet hoses**

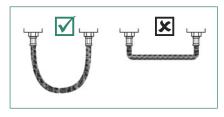


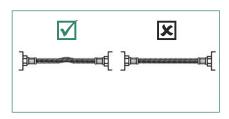
Including clamped connections, female 3/4" x male 3/4", both-sided straight connectors, 50 bar, for cold water

Item-No.:	Length (mm):	Hose Ø:	Packing unit:
39511 6	1500	3/8"	-/10
395215	2000	3/8"	-/10
39531 4	2500	3/8"	-/10
39536 9	3000	3/8"	-/10
39546 8	3500	3/8"	-/10

### Installation of flexible hose

You should avoid the twisting of hoses when installing them!







Please respect the flexibility of the hoses, avoid too much tension and sharp bends. Choose the correct length of the hose. If necessary, use an angle connection to reach a sufficient water flow and to avoid kinks. Tighten the union nuts only by hand, this also applies to the connection side for the fitting. Cement, plaster and other caustic and corrosive materials (e.g. chloride-containing media and/or cleaning media) may damage the braid. Do not repress the sleeve with pliers or other tools. Do not install flexible hoses with loosely fitted press sleeves. Flexible hoses must be installed easily accessible.

### Inlet hose, reels

Grey, working pressure 10 bar, with certificate, rolls of 40 m, without connectors, for cold water

Item-No.:	Length:	Connection:	Packing unit:
39500 0	40 m	13 x 3 mm (3/8")	bulk packing
395017	40 m	13 X 3,5 mm (1/2")	bulk packing



### Grooved, with sockets 19/22, extendible, both sides with sockets

Item-No.:	Length (mm):	Connection:	Packing unit:
39580 2	600 - 2000	3/4"	-/10
39581 9	1200 - 4000	3/4"	-/10

## **Spiral outlet hose**

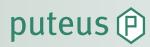


# Grooved, with sockets 19/22, including suspension bracket ( $180^{\circ}$ ), both sides with sockets, in poly-bag

Item-No.:	Length (mm):	Connection:	Packing unit:
39590 1	1500	3/4"	-/10
39594 9	2000	3/4"	-/10
39591 8	2500	3/4"	-/10
39592 5	3500	3/4"	-/10

### **Spiral outlet hose**





# **Suspension bracket**



Bulk packing, plastic, for outlet hoses up to 3/4", curved  $180^{\circ}$ 

Item-No.:	Length (mm):	Connection:	Packing unit:
39599 4	-	3/4", 180°	-/10

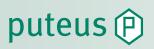
# **Heavy version hose fastener**

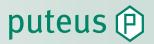


For washing machine outlet hoses, grey plastic coating

Item-No.:	Length (mm):	Connection:	Packing unit:
39382 2	-	3/4"	1/36
39382-K3-E	in single carton with euro perforation		







### puteus GmbH terms and conditions for contracting, delivery, and payment

- These general conditions of sale apply to all present and future business re lations with companies, legal persons governed by public law, and separate estates under public law with respect to deliveries and other services including work orders and the delivery of non-fungible items.
- The buyer's purchasing terms will not be recognized even if puteus GmbH does not explicitly object to them upon becoming aware of them or after receipt unless puteus GmbH explicitly approves of their validity in writing.

#### Section 2 Offerings

- 1. Offerings from puteus GmbH are non-binding and subject to availability.
- The right to make reasonable technical changes in the form, color, and/or weight of offerings is reserved.

#### Section 3 Shipping

- Shipping, including free delivery, is at the buyer's own risk. Selection of the routing is hereby ceded to puteus GmbH. The buyer will bear the shipping costs unless an agreement to the contrary has been made in writing.
- Transportation insurance will only be obtained upon written request by the buyer and at the buyer's expense. Any damages incurred in transit are to be immediately reported to the carrier and to puteus GmbH.
- 3. If items should be delivered in returnable containers, then the containers are to be emptied of residues upon receipt and promptly returned carriage paid. Loss or damage of re-use packaging will be at the buyer's expense if the buyer is responsible.
- 4. Non-returnable packaging will not be accepted by puteus GmbH and must be disposed of by the customer and the customer's expense.
- Returnable containers that are not explicitly included in the price or the in voice amount will only be made available on loan. They will remain the property of puteus GmbH.

#### Section 4 Passage of risk

The risk of accidental loss or accidental impairment of products will pass to the buyer upon delivery or, in the event of sale by dispatch, with the handing over of the item to the shipper, carrier, or other person or institution designated to execute the act of shipping.

#### Section 5 Delivery/acceptance

- 1. Delivery periods are approximate. They are subject to timely receipt of supplies. If puteus GmbH does not adhere to agreed delivery periods, then the buyer is to set an appropriate subsequent delivery period of at least three weeks for puteus GmbH in writing starting upon receipt of the new deadline by puteus GmbH. The buyer will be entitled to withdraw upon expiration of the subsequent deadline. puteus GmbH will be authorized to make subsequent delivery until a written declaration of withdrawal has been received.
- 2. In the event of force majeure, industrial action, or other faultless stoppages that last longer than one week, the delivery or acceptance period will be extended by the duration of the hindrance up to a maximum of five weeks in addition to a subsequent-delivery period. The extension will only come into effect if the reason for the hindrance is promptly reported to the other party as soon as it has been observed that the aforementioned period cannot be complied with.
- 3. Partial deliveries are permissible.
- 4. In the event that the buyer should default in taking delivery, puteus GmbH will be authorized, after setting a five-day grace period, to invoice the buyer as of the time that the product was provided or to withdraw from the agreement or to demand compensation for damages at its own discretion. Storage of products that are not accepted by the buyer will be at the buyer's own risk and will take storage costs into account.

#### Section 6 Sample materials

- Samples will be delivered at cost. In the absence of any agreement to the contrary, samples that have been loaned to the buyer by puteus GmbH will remain our property.
- In consideration of technical or material-dependent deviations in production, samples are not considered samples in the meaning of Section 454 of the German Civil Code (BGB).

#### Section 7 Prices

- puteus GmbH prices are net prices and do not include statutory value-added tax.
- 2. If there should be a period of more than four months between the conclusion of the agreement and delivery, then the puteus GmbH prices as of the day of delivery will apply. This will not apply if delivery has been delayed due to the fault of puteus GmbH.

### Section 8 Payment

- puteus GmbH invoices will be issued on the day of delivery or provision of the product. Payment will be due in full within 30 days of the invoice date. In the event of payment within eight days of the invoice date, puteus GmbH will grant a cash discount of 2% of the remaining invoice amount after any trade discounts have been deducted.
- 2. Upon payment after the due date, puteus GmbH will calculate an interest rate of an additional 8% above the base rate. Both puteus GmbH and the buyer will be at liberty to present evidence of greater or lesser damage.
- 3. The credit balance may only be adjusted based on claims that are uncontested or that have been determined without further legal recourse. The same applies to withholding due invoice amounts unless the counterclaim is based on the same statutory relationship.

- 4. puteus GmbH will not be obligated to make further deliveries on the basis of any current contracts until due invoice amounts have been paid in full, including interest. If after a contract has been concluded it should become agrent that puteus GmbH's pecuniary claim is in jeopardy due to the buyer's insolvency or if the buyer should be in default on a significant payment amount or if other circumstances should arise indicating that the buyer's solvency has significantly deteriorated, then the rights according to Section 321 of the German Civil Code (BGB) will accrue to puteus GmbH. puteus GmbH will then also be authorized to accelerate all claims that are not yet due based on the current business relationship with the buyer
- 5. The supplier is entitled to assign his receivables against buyers to a third party.
- 6. The buyer is obliged to reimburse any fees, costs and expenses in connection with any successful legal prosecution against him outside Germany.

#### Section 9 Liability for defects

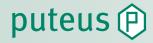
- Obvious defects or other objections with respect to the delivery item including the absence of guaranteed or warranted qualities are to be promptly reported to puteus GmbH in writing no later than 14 days after receipt of the delivery item.
- 2. puteus GmbH assumes no liability for deviations in quality, color, size, (specific) weight, or equipment that might arise in the course of normal business practice, are minimal, or are unavoidable. Application-specific verbal and written consultation from puteus GmbH including from puteus GmbH's vendors will not exempt the buyer from responsibility to examine delivered products for their intended purpose.
- No objections to obvious defects will be accepted after the product has begun to be processed.
- 4. Upon receipt of valid notice of defect within the prescribed time limit, puteus GmbH may choose to eliminate the defect or deliver a non-defective product (supplementary performance) at its own discretion. In the event that puteus GmbH should fail or refuse to execute supplementary performance, the buyer may withdraw from the agreement or reduce the purchase price after an appropriate period has unsuccessfully elapsed. If the defect is insignificant or if the product has already been sold, processed, or altered, then the buyer will only be entitled to a reduction of payment.

#### Section 10 General limitation of liability, statute of limitations, and right of recourse

- 1. puteus GmbH, including its management and other auxiliary persons, will be liable for violations of contractual or non-contractual obligations, particularly due to impossibility, delay, fault in preparing the contract, or tort, only in the event of wrongful intent or gross negligence and only with respect to damages that are typical of the contract and that are foreseeable at the time that the contract is concluded. For the remainder, liability on the part of puteus GmbH is also excluded for damages caused by defects and consequential damages.
- 2. These restrictions will not apply to culpable violation of essential contractual obligations that jeopardize the purpose of the contract; in the event of culpably induced harm to life, body, or health; if and to the extent that puteus GmbH has guaranteed the state of the purchased item or has assumed a procurement risk; nor in cases of compulsory liability according to the German Product Liability Law. This will have no effect on regulations concerning the burden of proof.
- 3. In the absence of any agreement to the contrary, the statutory limit on contractual claims against puteus GmbH that accrue to the buyer by reason of and in connection with product delivery will be one year after delivery of the product. This term will not apply to products that are used for a construction in a manner that is in keeping with their conventional use. This will have no effect on puteus GmbH's liability arising from intentional or grossly negligent breaches of obligation or culpably induced harm to life, body, or health.
- 4. The buyer's right of recovery in accordance with Section 478 of the German Civil Code (BGB) against puteus GmbH is restricted to the statutory scope of warranty claims that are invoked against the buyer by a third party and assumes that the buyer has fulfilled its obligation to puteus GmbH to give notice of defects in accordance with Section 377 of the BGB.

### Section 11 Reservation of ownership

- 1. Delivered products will remain the property of puteus GmbH until all claims as of the moment that the contract was concluded have been paid in full regardless of the legal basis for the claims. This will apply even if payments for particularly specified claims have been made. Neither the suspension of individual claims in a current account nor the balancing of accounts and acknowledgment thereof will affect the reservation of ownership.
- 2. If the reserved product that was delivered to the buyer should be machined or processed by the buyer, the machining or processing by the buyer will be executed by the buyer for puteus GmbH without any obligations accruing to puteus GmbH. If the delivery item is connected to, mixed with, or combined with items that do not belong to puteus GmbH, then puteus GmbH will be come the co-owner of the total item in accordance with statutory provisions. If the buyer should acquire sole ownership of the new item, then it hereby transfers co-ownership of the items connected to it to puteus GmbH in proportion to the value of the delivery item at the time that the connection was made.
- 3. If the buyer should sell the reserved product individually or in conjunction with a product that does not belong to puteus GmbH, then the buyer hereby assigns the claims resulting from the resale to puteus GmbH in the amount of the value of the reserved product with all ancillary rights and claims that accrue in lieu of the reserved product. If the resold product is co-owned by



- puteus GmbH, then the claim assignment will extend to the amount that cor responds to puteus GmbH's share of the co-ownership. puteus GmbH hereby accepts these assignments. Incorporation of the reserved product into built structures will also be considered a sale.
- 4. The buyer is hereby authorized to collect on claims arising from resale. This collection authorization will become void if it should be revoked by puteus GmbH no later than the moment of a default on payment, non-payment of a bill, or petitioning for the initiation of bankruptcy proceedings. puteus GmbH will only invoke its right to revocation if, after the conclusion of the agreement, it becomes apparent that puteus GmbH's pecuniary claim arising from this or from another agreement with the buyer is in jeopardy due to the buyer's insolvency. Upon request by puteus GmbH, the buyer will be obligated to immediately inform its own buyer of the assignment to puteus GmbH and to promptly transfer to puteus GmbH the documents necessary for collection, in particular the buyer must transfer to puteus GmbH a precise summary of its claims with the name and mailing address of its own buyer and must pro vide puteus GmbH with all the information necessary to assert the assigned claims. The buyer hereby authorizes puteus GmbH to inform the secondary buyer of the assignment and to collect on the claims immediately upon default on a payment or deterioration of its financial circumstances. puteus GmbH will have the right to demand that the legal validity of the assigned claims be examined by a representative based on the buyer's accounting. The buyer must provide puteus GmbH with a summary of the reserved products that are still on hand.
- 5. If the buyer should act in breach of contract, and particularly in the event of a default on payment, puteus GmbH will be authorized to withdraw the delivery item after giving formal notice and setting a time limit and the buyer will be obligated to return it. Neither assertion of the reservation of ownership nor seizure of the delivery item by puteus GmbH will be considered withdrawal from the agreement.
- 6. The buyer is hereby authorized and empowered to resell, use, or incorporate the reserved product only in the conventional and proper course of business and only on the understanding that claims that have been assigned in accordance with the provisions above will in fact proceed to puteus GmbH. The buyer is not authorized to otherwise transfer the reserved product. The buyer may not pledge the reserved product nor transfer ownership as collateral. The buyer's authorization in accordance with the first sentence of this paragraph will not apply in the event of impending or already established insolvency or in the event of other essential deterioration of its financial circumstances.
- 7. The buyer must both promptly inform puteus GmbH of enforcement measures undertaken by third parties with respect to the delivery item with reserved ownership or the claims assigned to us and deliver the documents necessary to challenge the enforcement.
- 8. If the value of the total collateral granted to puteus GmbH should exceed puteus GmbH's claims by more than 20%, then puteus GmbH will be obligated and prepared to return or release to the buyer the collateral granted to puteus GmbH to the extent that it exceeds the agreed coverage limit.

#### Section 12 Blanket orders and call orders

1. If an on-call purchase is agreed with the buyer, then payment for outstanding deliveries will be due automatically upon expiry of the on-call term. The buyer will then be obligated to call for the outstanding deliveries and to pay the agreed purchase price as paid for the transfer of the property. With respect to any individual installment, in addition to fulfillment, puteus GmbH will have the right to demand compensation for pecuniary detriment or to proceed in accordance with Section 323 of the German Civil Code (BGB).

2. If the buyer should fail to call for the agreed deliveries within the agreed oncall term, then puteus GmbH will have the right to otherwise utilize the products without fixing a time limit. The same will apply if the buyer should file for bankruptcy within the on-call term and/or become insolvent.

#### Section 13 Price clause

puteus GmbH hereby reserves the right to reasonably change its prices for all orders — including on-call orders and call-off contracts — that, either contractually or at the buyer's request, are delivered more than three months after the order was placed if costs should decline or increase after the contract was concluded, particularly due to wage increases or changes in the cost of materials. The orderer will be provided with evidence of such changes upon request.

#### Section 14 Proprietary rights, tools, models, and illustrations

- If items are delivered based on illustrations or other details provided by the buyer, then it will be the buyer's responsibility to ensure their accuracy and that no third party proprietary rights are violated. The buyer must indemnify puteus GmbH against any claims by a holder of proprietary rights.
- 2. puteus GmbH may invoice for molds, models, tools, and equipment that are required for the ordered product. They will remain property of puteus GmbH even if puteus GmbH manufactured them on behalf of the buyer and/or has paid the buyer in whole or in part. This will apply even if they were manufactured according to special instructions from the buyer, which uses them exclusively for deliveries to the orderer, as long as it fulfills its commitment and payment obligations and the business relationship persists.
- 3. If no parts are reordered two years after the last production, then puteus GmbH, after giving appropriate notice to the buyer and after a period of six weeks from receipt of notice by the buyer, will have the right to scrap or otherwise utilize the molds, models, tools, and manufactured equipment.
- 4. If the buyer should file for bankruptcy, puteus GmbH will be authorized to scrap or otherwise utilize the molds, models, tools, or manufactured equipment before two years have expired and without notifying the buyer in advance.

#### Section 15 Return of catalog products

Catalog products may only be returned due to product redelivery according to prior agreement and are to be undertaken freely. 30% of the handling costs will be deducted from any credit entries for re-saleable products.

#### Section 16 Place of fulfillment/legal venue

- The place of fulfillment for all claims arising from the contractual relationship will be puteus GmbH's principle place of business.
- 2. For all present and future claims arising from the business relationship, including bills and checks receivable, the legal venue will be puteus GmbH's corporate headquarters. This will apply even if the buyer has no legal venue in Germany or if the buyer's domicile or usual residence is unknown at the time when proceedings are instituted. puteus GmbH will also be authorized to bring an action at the buyer's principle place of business.
- The laws of the Federal Republic of Germany will apply. The terms of the United Nations Convention on Contracts for the International Sale of Goods will not apply.
- 4. If particular terms of the agreement with the client, including these General Terms and Conditions, should be or become legally inoperable in whole or in part, the validity of the remaining terms will be wholly or partially unaffected. The wholly or partially inoperable provision will be replaced by a provision whose commercial outcome approximates that of the inoperable term as closely as possible.

puteus GmbH, Lenenweg 6, D-47918 Tönisvorst Version: November 2023

### **TECHNICAL INFORMATION**

#### Size and weight

Unless otherwise stated, all dimensions are in millimeters (mm) and weights are in grams (g).

PN = nominal pressure in bars 1 bar 10N / cm<sup>2</sup> => ca. 10 m column of water

DN = nominal diameter in inches or mm 1" = 25,4 mm => ca. 25 mm

Nominal pressure is the maximum applicable pressure at the standard temperature, which, unless otherwise stated, is 20°C.

Nominal diameter is the excess pressure when all operational conditions are taken into consideration, including pressure surges. It depends on the operating temperature, the medium, the size of the component/valve, and, where applicable, the type of seal.

There are legal provisions or regulations that apply to certain areas of application and that take precedence over the guidelines provided in this catalog.

#### Mediun

The details presented in this catalog with respect to pressure and temperature conditions refer to water.

Suitability for gases, oils, or glycolic or other media should be investigated in light of the operating pressure and operating temperature. Our applicability information may not be applied to media or operating conditions other than those that have been approved without our clearance.

#### Custom models

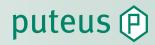
If there are no articles in our standard program that are suitable for your needs, we can also create custom models upon request. For this, we would need a detailed letter of inquiry with the corresponding number of units as well as drawings or sample parts.

#### Installation instructions

#### A) Screw thread

Connection dimensions and screw thread of complementary proportions must always be selected.

The screw thread should not be too strongly sealed with hemp or sealing tape, which is to say that after the hemp has been applied, the crest of the thread must still be visible. Sealing the thread too strongly will increase the pressure in the component. Over time, that pressure can cause cracks.



To avoid causing damage during installation, the components should be conventionally screwed in with the appropriate, customary tools, without excessive force and without lever extension.

Self-sealing valves must not be sealed further with hemp or sealing tape. The corresponding mating thread must be of sufficient length (min. 12 mm). Where applicable, components are only to be installed on the spanner flats provided for that purpose by means of a suitable spanner/pliers. Our products must be installed without tension in due consideration for the information above. Alignment, e.g., of connections that we provide by means of heating appliances, is prohibited because this can also cause tension cracks and secondary damage later on.

Where applicable, connecting different metals or alloys can cause corrosion, for which puteus GmbH cannot be held liable (e.g., connections between brass and stainless steel or copper with zinc-plated metals). These characteristics are to be checked before our products are installed.

The components' pressure and sealing are to be carefully tested after installation. Where applicable, the installation instructions that are enclosed with the components are to be observed when doing so.

#### B) Gate valve

After disassembly/repairs/maintenance work, the upper section is only to be reassembled with a raised sealing wedge. Do not damage sealing surfaces/key seats. Sealing wedges cannot be replaced.

#### C) Socket slide valve

These must only be installed in closed position. Key seats must not be damaged by screwing in pipes by force.

#### D) Ball valves

To ensure operability, for example, only set ball valves on very low static and dynamic power. Where applicable, the component should be supported by appropriate measures (e.g., pipe clamps or similar). The torque to be applied to the ball valve must only be applied to the spanner flats at the end that is being screwed in, otherwise there is a risk that the ball valve could be unsealed or cracked. Likewise, bodies and ball valve screwing components must not be screwed against one another. Doing so would also cause leaks and/or the risk of breakage.

#### E) Pipe and hose connections

According to DIN EN 1717 pipe and hose connections for devices that contain non-potable water (e.g. washing machines) must be connected to a water intake using a backflow preventer to avoid any backflow of polluted water into the potable water line.

#### Recommendations for the use of ball valves

#### 1. General information

Ball valves serve as shut-off valves for pressurized media. The manufacturer's information on flow media, operating pressure and temperature range must be respected. Using other than approved media may shorten the ball valve 's lifespan or lead to a failure of the ball valve.

The installation may only be carried out in systems with equal pressures. Any possible pressure surges due to the quick-lock system must be taken into account as these may damage the piping system. The valve can be opened and closed by a 90° turn of the lever, intermediate positions of the lever are not allowed during the operating condition.

Ball valves should be stored in a dry place, free of dirt and without direct sunlight.

#### 2. Installation and removal instructions

Ball valves may only be used in compliance with the requirements for their intended use. The installation must be carried out stress-free and with appropriate tools in a pressure less state only by qualified and trained staff. Do not turn the ball valve forcibly and do not use it to align the pipeline. The ball valve must be checked for damage before installation. Plumbing lines must be rinsed before first commissioning after maintenance and repairs.

Do not clamp the ball valve too tightly in a vise or something similar for pre-assembly in order to avoid damage and stress cracks on the body. According to the general installation instructions you must not seal the threads with too much hemp. The tips of the threads must remain visible. When in stalling the ball valve only use the designated spanner flat at the installation side to apply the counter-torque. Never apply the wrench to the body or to the side opposite of the installation side. Do not exceed the recommended tightening torque, any existing sensor plugs must be tightened to 15 Nm. The handle must not be used as a mounting lever.

The use of quarter-turn ball taps is only allowed with free outflow to avoid a backflow of sewage into the pipeline. Quarter-turn ball taps are not suitable for the use in domestic water-pipe systems or as device connection taps. It is necessary to carry out functional and leak tests after installing and before the ball valve is put into operation for the first time.

### 3. Commissioning

Operating conditions and installation works must be checked again before commissioning. Notice: Due to a long-term storage or long downtimes the release torque may be much higher than the usual turning moment.

Before initial start-up or putting into operation after maintenance work the pipeline has to be deaerated. In case of pressure surges air bubbles may cause explosions or damages to the piping system. Therefore the pressure should only be slowly increased.

Ball valves at the end of a pipeline must be sealed professionally with a blind flange to avoid the valve being forcibly teared off. Caution! Danger! The ball valve may not be operated with a tool that shall serve to increase the leverage (e.g. hammer, pliers, extension tubes etc.)

#### 4. Maintenance and inspection

Depending on the assembly situation, ball valves have to be drained before the first frost sets in as well as before cleaning works. When emptying the valve the handle should be in a 45-degree-position to make sure that the dead space may be emptied, too. Tests for tightness, functionality and damages should be carried out regularly. Depending on the operating situation this should be done in shorter time intervals. During long periods of disuse the ball valve should be put into operation every few months to guarantee proper functioning.

Defective or corroded valves or valves that do not work properly must be replaced during maintenance work. Replacement and removal may only be carried out by qualified personnel whilst the pipeline is not under pressure.

### 5. Warnings

The manufacturer will not accept any liability for deficiencies caused by assembly errors, improper handling, the use of impermissible media or not allowed operating situations as well as for damages due to normal wear and tear.

Ball valves may not be used as throttle valves! They may only be used in a fully opened or closed situation to avoid damages to seals in the spherical area. Depending on the operating situation the ball valve's body can get very warm. Caution!

Legal health and safety regulations, national rules and technical rules and standards for certain operating and mounting situations have to be observed. Viscous fluids or hardenable media as well as certain chemical substances may impede the funcion or make it impossible. Please refer to the manufacturer's information.

Polluted or sandy media may cause damages to the seals. In case of neglecting the given information on working pressure or working temperature leaks may occur or the ball valve may tear apart. Caution!

(as of November 2023)

#### Further Information:

Unless otherwise indicated or unless they are provided with drain plugs that are used to empty the valve before the frost season, no valves (taps, check valves, foot valves, gate valves, ball valves, etc.) are frost-resistant.

Our ball valves, valves and fittings have to be installed without mechanical tension. They must not be used for adjusting pipings.

Chrome plated surfaces, e.g., on bathroom fixtures or device connector valves, are sensitive to lime-dissolving agents, acidic cleaners, and all types of



abrasives. These surfaces must only be cleaned with clear water and a soft cloth (leather).

Our pumps, wall and standing fountains are provided with a protective coating for transport purposes by the manufacturer. This first layer of paint is not considered to be a permanent corrosion protection or optical coating.

We offer no guarantee for wearing parts in the event of corrosion or malfunction due to very hard water or contaminated water lines (e.g., with respect to sealing or mixing jets) or due to improper assembly; chemical or mechanical events during transportation, storage, connection, repair, or use; or improper handling of products.

We provide the statutory guarantee for defects in our products that arise due to material or manufacturing defects or through normal use. Defects due to non-observance of the information above are excluded from that guarantee.

Previous documents cease to be valid upon publication of the catalog. Our catalog serves exclusively as a basis for wholesale, industrial, and technical information and work. It is not a sales document.

Returns are only permitted based on prior written agreement; this particularly applies to custom production. Return deliveries that are not prepaid will not be accepted.

#### Recommendations for the handling of hoses

A number of factors can have an impact on how long the hose lasts:

- application
- medium
- abrasion
- storage etc.

Therefore it is not possible to give a general information about the durability of a hose. The end user should regularly check the hose for leaks and replace it if necessary.

The rubber compound can change its characteristics over time because of its chemical properties. This process can be accelerated by improper use of the hose or other influences. Therefore we give the following recommendations:

#### Storage

- 1. Avoid long storage periods! Otherwise, a check is important at the 1st use.
- 2. Ideally you should store the hose at a temperature between +10°C and +25°C. Temperatures of less than o°C or more than +40°C will damage the hose. Keep the hose away from all sources of heat! Avoid dry air as well as high air humidity!
- 3. No direct solar radiation or aggressive artificial light!
- 4. Airflow and ozone can ruin the material. Do not store near electric motors, high-voltage units etc. because of the danger of sparks or electrostatic charge or uncontrolled heating of eventually mounted metal couplings.
- 5. Different substances can affect the material of the hose. Therefore please avoid any contacts with: solvents, fuels, acids, disinfectants, wood preservers, volatile or organic chemical substances or mixtures. Manganese, iron, copper and copper alloys may affect some kinds of rubber mixtures.
- 6. Store loosely rolled and stress-free to avoid compressing the tube. Coiled hose should be stored in a horizontal position. Do not pile up and pay attention to the weight to avoid any deformations! If given by the supplier, please note the minimum bend radii to prevent kinks.
- 7. Check the hose for suitability and proper seat of mounted couplings before delivery or resale.
- 8. Clean the hose before re-storage (please check suitability of the cleaning agent!). This applies particularly in case of the use of chemical, explosive or abrasive materials. Checks for reusability are essential.

#### Use

- 1. Hoses should only be used in accordance to their intended purpose. The misuse –e.g. as towing rope- is not allowed.
- 2. Before using the hose you have to check its suitability with regard to its characteristics, type or size.
- 3. Exercise due diligence when transporting the hose. The hose may not be exposed to severe shocks or tensile forces across rough surfaces. Avoid twisting, kinks and knots.
- 4. Please note the mentioned operating pressures! If checking the hose for leaks, the pressure in a hose free of air bubbles must only be increased gradually until the maximum pressure is reached.
- 5. The hose has been developed to channel liquids which are approved by the manufacturer. This does not give the permission to immerse the hose in the liquids.
- 6. Please note the ambient temperature and the maximum operating temperature which depend on the medium. Keep hose line away from sources of heat!
- 7. The material of the hose must be resistant to all media used. Check this before use. Changes in the concentration of media, period of use or temperature may cause changes in the suitability and chemical resistance of the hose.
- 8. Varying degrees of abrasion may occur depending on the kind of medium used or pulling the hose across different surfaces. Therefore you have to control the wear and tear of the tube regularly.
- 9. Make sure that installed hoses and hose connections are protected against impurities to avoid a contamination of hose and medium; particularly when used with drinking water.
- 10. Do not install hose lines on driveways or rather protect them against running over. If necessary, use hose bridges or the like.
- 11. Mounted hose fittings or spray nozzles should not be used as end or shut-off valves as they are not constructed for that purpose. Do not expose them to a permanent water pressure to prevent the valve/nozzles from being torn off and/or avoid bursting of the hose. After finishing work the water supply to the hose has to be shut off.

#### Assembly and commissioning of hose lines in technical fields

#### Please note:

- 1. When using hoses fitted with connectors, ensure that they are the correct length. An extension through the use of several connecting hoses is not permissible.
- 2. Before putting a hose line into operation please check if it is in accordance with eligible regulations and directives, e.g. the instructions of the Trade Association Too2, §§14 and 15; the Industrial Safety Regulation (BetrSichV) or the Technical Rules for operating safety (TRBS).
- 3. Do not use a hose line if there are any visible damages!
- 4. Hose lines with given inspection intervals may not be used when the inspection date has expired. After repair or modification the hose line must be checked.
- 5. The hose line must be cleaned before putting it into operation. Do not forget to check the suitability of the cleaning agent!
- 6. With regard to electrostatic discharge the following instructions have to be observed: TRBS 2153 ("Avoiding of ignition hazards due to electrostatic charges")
- The hose line must be cleaned when changing from one to another flow medium to avoid a possible chemical reaction or contamination of the new medium.
- 8. For special applications or construction projects, it is essential to comply with the manufacturer's instructions.



#### Disposal

Please follow local regulations if you want to dispose hose materials and/or hose fittings.

Legal information: According to the Drinking Water Ordinance [esp. §§ 3 and 17], every tapping point of water that is not intended for human use must be permanently marked with a notice "no drinking water" and safeguarded against inappropriate use!

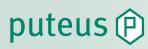
Tapping systems for non-drinking water that are installed in the household in addition to the drinking water supply system must be reported to the health authority!

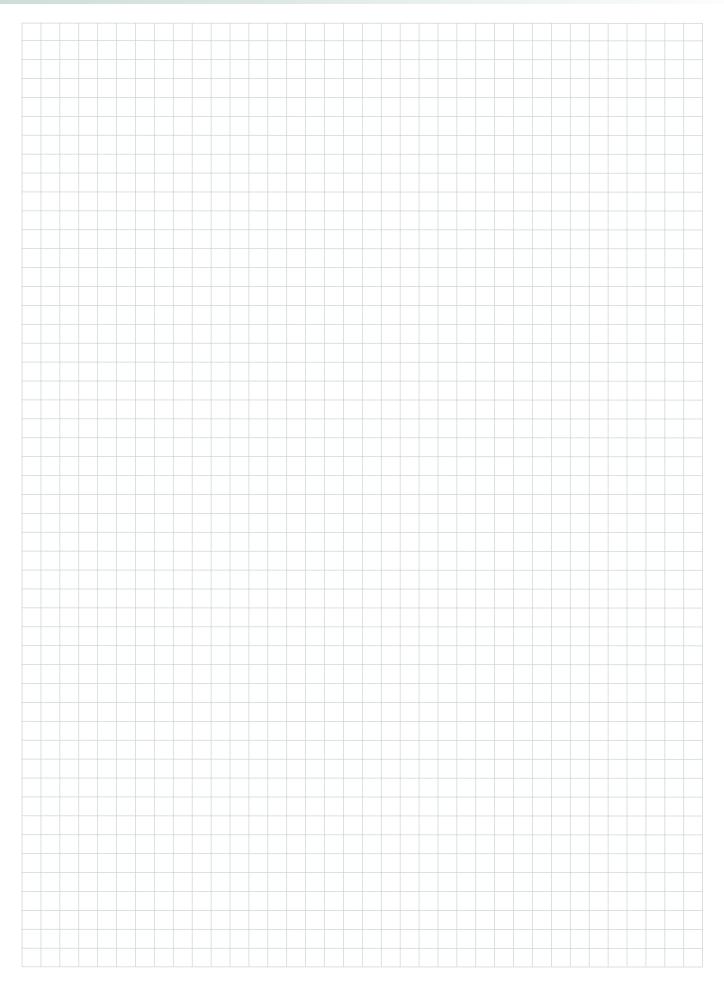
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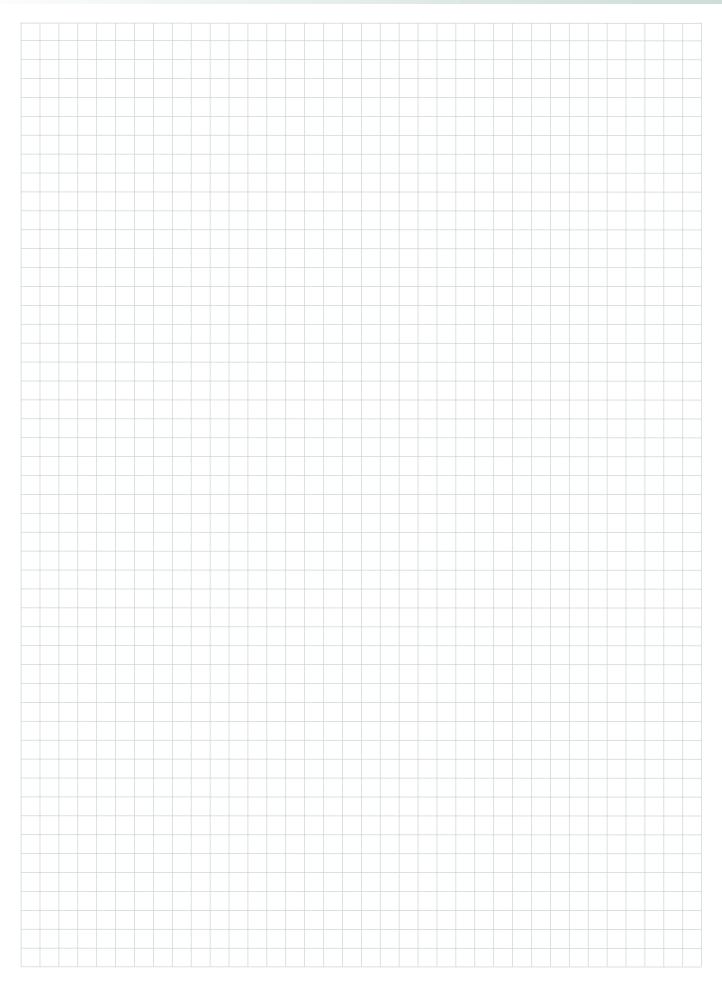
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We assume no liability for any printing errors or divergent illustrations. In the event of erroneous size information, the figures at the start of printing will no longer apply.

Conversion table inch/millimetre			
inch fractional value	mm metric	inch fractional value	mm metric
1/8"	3,175 mm	1 3/4"	44,450 mm
1/4"	6,350 mm	2"	50,800 mm
3/8"	9,525 mm	2 1/4"	57,150 mm
1/2"	12,700 mm	2 1/2"	63,500 mm
5/8"	15,875 mm	2 3/4"	69,850 mm
3/4"	19,050 mm	3"	76,200 mm
7/8"	22,225 mm	3 1/4"	82,550 mm
1"	25,400 mm	3 1/2"	88,900 mm
1 1/4"	31,750 mm	3 3/4"	95,250 mm
1 1/2"	38,100 mm	4"	101,600 mm











### We keep an eye on our qualities:

Both our quality and environmental management system have been certified on the standard basis DIN EN 9001 (Nov. 2015) and DIN EN 14001 (Nov.2015). We face the challenge to guarantee highest qualities for our products and services. All raw materials and external products are checked for quality and suitability. Our own products are tested on a random basis during the production processes, final leaking and material tests are performed.

Our products meet several requirements, such as DVGW, SVGW, KTW, noise class tests (PA-Nr.), ACS and are also complying with binding DIN standards in respect to dimensions or noise behaviour.

With regard to the brass alloy **puteus** valves, fittings and the seals we use are in full compliance with the amended requirements of the drinking water ordinance. Long before the reference date in April 2017 we made sure that the regulations of the valuation basis of the Federal Environmental Agency (UBA) were implemented. These regulations apply to metallic materials which may get in contact with drinking water. They also include the list of materials that are in accordance with the drinking water hygiene (known as the "UBA Positive List"). On the basis of these standards our quality management has also been certified for the process to comply with the nickel values for valves, fittings and other components in drinking water

LGAI

under the terms of the drinking water regulations and recommendations of the Federal Environmental Agency.

Therefore we can ensure a high product quality for our customers because of our high quality awareness.





CERTIFICATE

puteus (P

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#### Disclaimer:

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ZERTIFIZIERT



# Our packaging and labelling proposals

### Four-colour cartons – version 1 –

with Euro-standard-holes, colour prints and product descriptions on the front-side, pictographs and installation dimensions on the back, top and bottom. Items that are available in carton packaging can be found in our catalogue. The item numbers are marked with an additional "-K".



### Four-colour cartons – version 2 –

Promotional four-colour cartons with product photos and descriptions.



#### Labels with EAN-barcodes

Nearly all articles can be labelled with EAN-codes. The self-adhesive and tear-resistant labels contain a product description, barcode and EAN-code.

The complete EAN-code consists of:

4012167 + item-no. + verification digit (without "-E" or other extensions).



### Self-service cards

These cards can be used for certain products of the irrigation sector. The cards are printed with article descriptions, sizes and EAN-codes.



### **Polybags**

We offer customized polybags for single products. Each polybag can be printed according to your wishes.



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Other catalogs to our range:

















2 Sanitary fittings, kitchen + bathroom









**3** Garden fittings + valves



























**6** Hand pumps, hoses + accessories

www.eine-starke-gruppe.de













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