

NORMAPLAST® SV

Hose connectors

NORMAPLAST® SV products are proven plastic hose and pipe connection components that create secure, reliable and affordable connections in lines used for transporting media.

NORMAPLAST® SV hose and pipe connectors are used in the automotive construction industry as well as practically every other industrial sector.

- 1 NORMAPLAST YN**
Y plastic pipe connectors
- 2 NORMAPLAST TS**
Equal T push-on connectors
- 3 NORMAPLAST GES**
Straight taper thread connectors
- 4 NORMAPLAST TES**
T-taper thread connectors
- 5 NORMAPLAST GRS**
Reducing straight push-on connectors
- 6 NORMAPLAST WN**
Elbow plastic pipe connectors
- 7 NORMAPLAST GN**
Straight plastic pipe connectors
- 8 NORMAPLAST KS**
Cross push-on connectors



Advantages at a glance

- Extremely strong
- Durable
- Low weight
- Can be used for damping/absorption
- Resistant to abrasion
- Highly resistant to impact

Applications

- Machine building
- White goods
- Chemical industry
- Irrigation systems
- Food and beverage industry
- Railway industry
- Agricultural machines
- Building machines
- Engine manufacturing
- Pump and filter

Types

1. Taper thread connectors

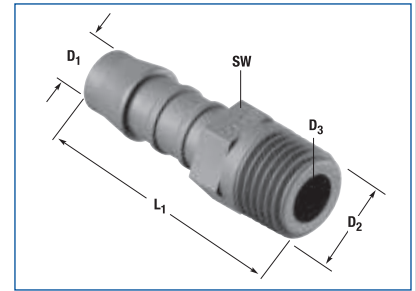
These NORMAPLAST® SV connection components, made from polyamide 6, feature a thread at one end and either one or two hose connecting spigots at the other.

The spigot ribbing ensures that the hose stays securely in place. It may be necessary to use a hose clamp to provide additional security at the junction piece.

The three thread geometries available come in the following colours so that you can quickly tell which is which:

- Metric tapered thread – light grey
- Whitworth pipe thread – anthracite
- NPT thread – black

(Other materials available on request)



2. Hose connectors

These thread-free NORMAPLAST® SV connection components enable hoses to be connected to one another quickly and easily. Simply push the hoses onto the spigots, and that's all there is to it.

The spigot ribbing ensures that the hose stays securely in place.

NORMAPLAST® SV hose connectors are made from POM (acetal copolymer) in a natural colour as standard (other materials available on request).



3. Compression connectors

These NORMAPLAST® SV connection components feature a metric thread at one end and either one or two pipe unions at the other.

These are made from black polyamide 6 with 30% glass fibre content.



4. Push-on connectors

These NORMAPLAST® SV components are suitable for connecting plastic pipes such as PA6 and PA12 pipes.

With these connectors, there is no need to use clamps as an additional means of securing the junction piece.

The push-on connectors are made from black polyamide 6 or polyamide 12 with 30% glass fibre content.

Push-on connectors with O-rings are available on request.



Materials & applications

Materials

Mechanical Properties	PP Moplen HP501H	POM Polyacetal copolymer standard material hose connectors	PA6 Polyamide not reinforced Standard material threaded connectors	PA mit Glasfaser Polyamide reinforced Standard material pipe connectors
Operation temperature	0oC to +80oC short term (up to 1h) max. +100oC	-40°C to 80°C, short-term (up to 1h) 110°C	-40°C to 90°C, short-term (up to 1h) 120°C	-40°C to 120°C, short-term (up to 1h) 150°C
Max. admissible pressure	10bar	10bar	10bar	10bar

Thermal properties

In the case of threaded spigots, the expansion coefficient 100×10^{-6} for thermoplastic material must be taken into consideration if temperature fluctuations occur. Our standard materials are classified in accordance with the UL (Underwriters Laboratories) system as follows:

- Flammability rating (UL94)
- POM, PP, PA6, PA6.6, and PA12: HB (Horizontal Burning)

Chemical properties of the plastics used								
No.	Chemical substance	Concentration	Temperature	POM	PP	PA 6	PA 6.6	PA 12
1	Acetone	100%	20 °C/50 °C	1/3	1/1	1/0	1/0	1/0
2	Formic acid	98-100%	20 °C/50 °C	4/4	1/3	4/4	4/4	4/4
3	Ammonium hydroxide (spirits of ammonia)	Any	20 °C/50 °C	1/2	1/1	1/0	1/0	1/0
4	Benzine; normal and super unleaded	Commercial	20 °C/50 °C	1/1	3/4	1/1	1/1	1/1
5	Benzene, benzene hydrocarbons	100%	20 °C/50 °C	3/3	3/4	1/0	1/0	1/0
6	Bleaching lye (12.5% active chlorine)	Aqueous solution 12.5%	20 °C/50 °C	4/4	3/3	4/4	4/4	3/3
7	Brake fluid (DOT4)	Commercial	20 °C/50 °C	1/1	1/1	1/1	1/1	1/1
8	Butanol	Technically pure	20 °C/50 °C	1/2	1/1	1/0	1/0	1/0
9	Chlorine, chlorine water	Commercial	20 °C/50 °C	4/4	4/4	4/4	4/4	4/4
10	Disinfectant phenols	Diluted solution	20 °C/50 °C	4/4	1/1	4/4	4/4	4/4
11	Diesel fuel, diesel oil	Commercial	20 °C/50 °C	1/1	1/3	1/1	1/1	1/1
12	Decalcifier	Aqueous solution~10%	20 °C/50 °C	4/4	1/1	2/3	2/3	2/3
13	Photographic developer (1:100)	Commercial	20 °C/50 °C	1/1	1/1	4/4	4/4	4/4
14	Natural gas (town gas, coal gas)	Commercial	20 °C/50 °C	1/1	1/1	1/1	1/1	1/1
15	Crude oil	Commercial	20 °C/50 °C	1/1	3/3	1/1	1/1	1/1
16	Acetic acid (glacial acetic acid)	90%	20 °C/50 °C	4/4	1/2	4/4	4/4	4/4
17	Ethyl alcohol	96% (techn. pure)	20 °C/50 °C	1/2	1/1	1/0	1/0	1/0
18	Photographic emulsion	Commercial	20 °C/50 °C	1/0	1/1	1/0	1/0	1/0
19	Fruit juices	Commercial	20 °C/50 °C	1/1	1/1	1/1	1/1	1/1
20	Glycerine	Technically pure	20 °C/50 °C	1/1	1/1	1/1	1/1	1/1
21	Glycantin	Commercial	20 °C/50 °C	1/1	1/1	3/3	3/3	3/3
22	Heating oil	Commercial	20 °C/50 °C	1/1	1/3	1/1	1/1	1/1
23	Hydraulic fluid	Commercial	20 °C/50 °C	1/0	1/3	1/1	1/1	1/1
24	Carbon dioxide, carbonic acid	Technically pure, saturated	20 °C/50 °C	1/1	1/1	1/0	1/0	1/0
25	Coolants (based on glycol)	Commercial	20 °C/50 °C	1/1	1/1	3/3	1/1	1/1
26	Methane	Technically pure	20 °C/50 °C	1/1	1/1	1/1	1/1	1/1
27	Methanol	Technically pure	20 °C/50 °C	1/1	1/1	1/1	1/1	3/3
28	Methyl ethyl ketone	100%	20 °C/50 °C	3/3	1/3	1/0	1/0	1/1
29	Engine oils (HD)	Commercial	20 °C/50 °C	1/1	1/3	1/1	1/1	1/1
30	Sodium hydroxide (lye; caustic soda)	40%	20 °C/50 °C	1/1	1/1	1/1	1/1	1/1
31	Ozone	Gaseous	20 °C/50 °C	4/4	3/4	3/4	3/4	3/4
32	Propanol	Technically pure	20 °C/50 °C	1/1	1/1	1/1	1/1	2/2
33	Propane (liquefied gas)	Liquid	20 °C/50 °C	1/1	1/1	1/0	1/0	1/0
34	Propene	96%	20 °C/50 °C	1/0	1/1	1/0	1/0	1/0
35	Rape oil (rape oil methyl ester)	Commercial	20 °C/50 °C	1/1	2/2 (*)	1/1	1/1	1/1
36	Hydrochloric acid	Aqueous, 10%	20 °C/50 °C	4/4	1/1	4/4	4/4	3/3
37	Lubricating oil/grease, soft soap	Commercial	20 °C/50 °C	1/1	1/2	1/1	1/1	1/1
38	Sulphuric acid	Aqueous, 10%	20 °C/50 °C	4/4	1/2	3/3	3/3	2/2
39	De-icing salt solution (brine)	Saturated	20 °C/50 °C	1/2	1/1	1/1	1/1	1/1
40	Soap suds (dissolved detergent)	Diluted solution	20 °C/50 °C	1/1	2/2 (*)	1/1	1/1	1/1
41	Water (drinking, river, sea)	Technically pure	20 °C/50 °C	1/1	1/1	1/1	1/1	1/1
42	Citric acid	10%	20 °C/50 °C	2/4	1/1	1/0	1/0	1/0

Materials & applications

Explanation of abbreviations:

- POM = Acetal copolymer
- PP = Polypropylene
- PA = Polyamide

0 = No data available/Not possible to make an appropriate statement

1 = Highly stable/suitable

(change in dimensions: none or negligible and reversible; no damage even after extended period)

2 = Very stable/suitable

(change in dimensions after short period: none or negligible and reversible; little change in dimensions, possibly irreversible change to properties after extended period)

3 = Limited stability

(considerable changes to dimensions, possibly irreversible change to properties after extended period)

4 = Unstable/unsuitable

(soluble or serious effects after a short period)

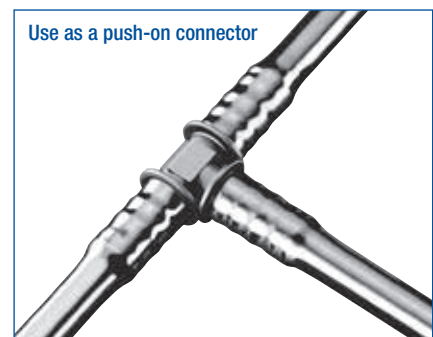
(*) Moisture expansion

The specifications in this catalog are based on tests carried out by the granular material manufacturer. They are intended to serve as guidelines for our customers, but cannot simply be applied to any case in which customers expose these products to demands which fall outside the scope of the tests performed. On no account should this be done without first consulting us.

Our customers must perform their own tests to determine whether our NORMAPLAST® plastic hose connecting components are suitable for the application they are intended to be used in. We will be happy to offer any advice or information required.

Our liability is subject exclusively to our terms of delivery and sale. Special versions can be produced if an appropriate quantity of the component in question is ordered.

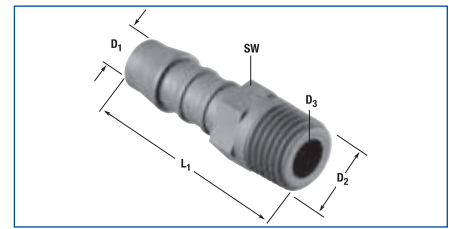
Please contact the relevant manufacturer before using a product as a safety component.



Taper thread connectors

GES

Straight taper thread connectors

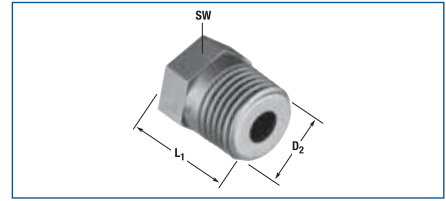


Designation	D ₁	D ₂	D ₃	L ₁ ~	SW	Material
GES 3 / M 5	3	M 5	2.5	19.5	6	Polyamide
GES 4 / M 8 x 1	4	M 8 x 1 keg	2.5	27	10	Polyamide
GES 4 / M 8 x 1.25	4	M 8 x 1.25 keg	2.5	27	10	Polyamide
GES 4 / M 10 x 1	4	M 10 x 1 keg	2.5	27	10	Polyamide
GES 4 / M 12 x 1.5	4	M 12 x 1.5 keg	2.5	32	14	Polyamide
GES 4 / M 14 x 1.5	4	M 14 x 1.5 keg	2.5	32	14	Polyamide
GES 4 / R 1/8	4	R 1/8 keg	2.5	27	10	Polyamide
GES 4 / R 1/4	4	R 1/4 keg	2.5	32	14	Polyamide
GES 4 / 1/8 NPT	4	1/8 NPT	2.5	29	10	Polyamide
GES 4 / 1/4 NPT	4	1/4 NPT	2.5	35	14	Polyamide
GES 5 / M 12 x 1.5	5	M 12 x 1.5 keg	3	36	14	Polyamide
GES 5 / M 14 x 1.5	5	M 14 x 1.5 keg	3	36	14	Polyamide
GES 5 / R 1/4	5	R 1/4 keg	3	36	14	Polyamide
GES 5 / R 1/4 NPT	5	1/4 NPT	3	39	14	Polyamide
GES 6 / M 10 x 1	6	M 10 x 1 keg	4	32.5	10	Polyamide
GES 6 / M 12 x 1.5	6	M 12 x 1.5 keg	4	37.5	14	Polyamide
GES 6 / M 14 x 1.5	6	M 14 x 1.5 keg	4	36.5	14	Polyamide
GES 6 / R 1/8	6	R 1/8 keg	4	32.5	10	Polyamide
GES 6 / R 1/4	6	R 1/4 keg	4	37.5	14	Polyamide
GES 6 / R 3/8	6	R 3/8 keg	4	39	17	Polyamide
GES 6 / 1/8 NPT	6	1/8 NPT	4	34.5	10	Polyamide
GES 6 / 1/4 NPT	6	1/4 NPT	4	40.5	14	Polyamide
GES 8 / M 10x1	8	M 10 x 1 keg	5.6	38	14	Polyamide
GES 8 / M 12x1.5	8	M 12 x 1.5 keg	5.6	41	14	Polyamide
GES 8 / M 14x1.5	8	M 14 x 1.5 keg	5.6	41	14	Polyamide
GES 8 / M 18x1.5	8	M 18 x 1.5 keg	5.6	49	22	Polyamide
GES 8 / M 22x1.5	8	M 22 x 1.5 keg	5.6	49	22	Polyamide
GES 8 / R 1/8	8	R 1/8 keg	5.6	38	14	Polyamide
GES 8 / R 1/4	8	R 1/4 keg	5.6	41	14	Polyamide
GES 8 / R 3/8	8	R 3/8 keg	5.6	41	17	Polyamide
GES 8 / R 1/2	8	R 1/2 keg	5.6	49	22	Polyamide
GES 8 / 1/4 NPT	8	1/4 NPT	5.6	44	14	Polyamide
GES 10 / M 12 x 1.5	10	M 12 x 1.5 keg	7	43.5	14	Polyamide
GES 10 / M 14 x 1.5	10	M 14 x 1.5 keg	7	43.5	14	Polyamide
GES 10 / M 16 x 1.5	10	M 16 x 1.5 keg	7	43.5	17	Polyamide
GES 10 / R 1/4	10	R 1/4 keg	7	43.5	14	Polyamide
GES 10 / R 3/8	10	R 3/8 keg	7	43.5	17	Polyamide
GES 10 / 1/4 NPT	10	1/4 NPT	7	46.5	14	Polyamide
GES 10 / 3/8 NPT	10	3/8 NPT	7	46.5	17	Polyamide
GES 12 / M 16 x 1.5	12	M 16 x 1.5 keg	8.6	45.5	17	Polyamide
GES 12 / M 18 x 1.5	12	M 18 x 1.5 keg	8.6	54	22	Polyamide
GES 12 / M 22 x 1.5	12	M 22 x 1.5 keg	8.6	54	22	Polyamide
GES 12 / R 3/8	12	R 3/8 keg	8.6	45.5	17	Polyamide
GES 12 / R 1/2	12	R 1/2 keg	8.6	54	22	Polyamide
GES 12 / 3/8 NPT	12	3/8 NPT	8.6	48	17	Polyamide
GES 14 / M 20 x 1.5	14	M 20 x 1.5 keg	10	56	22	Polyamide
GES 14 / R 3/8	14	R 3/8 keg	10	56	17	Polyamide
GES 14 / R 1/2	14	R 1/2 keg	10	56	22	Polyamide
GES 14 / R 1/2 NPT	14	1/2 NPT	10	56	22	Polyamide
GES 16 / M 26 x 1.5	16	M 26 x 1.5 keg	12	58	27	Polyamide
GES 16 / R 1/2	16	R 1/2 keg	12	58	22	Polyamide
GES 16 / R 3/4	16	R 3/4 keg	12	58	27	Polyamide
GES 19 / M 26 x 1.5	19	M 26 x 1.5 keg	15	58	27	Polyamide
GES 19 / R 3/4	19	R 3/4 keg	15	58	27	Polyamide
GES 25 / R 1	25	R 1 keg	21	69	32	Polyamide

Taper thread connectors

BST

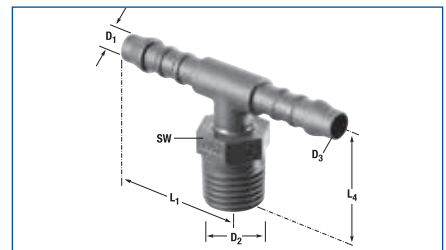
Blanking plugs with screw-in thread



Designation	D ₂	L ₁ ~	SW	Material
BST M 8 x 1	M 8 x 1 keg	13	10	Polyamide
BST M 10 x 1	M 10 x 1 keg	13.5	10	Polyamide
BST M 12 x 1.5	M 12 x 1.5 keg	17.5	14	Polyamide
BST M 14 x 1.5	M 14 x 1.5 keg	17.5	14	Polyamide
BST M 18 x 1.5	M 18 x 1.5 keg	26.5	22	Polyamide
BST M 20 x 1.5	M 20 x 1.5 keg	25	22	Polyamide
BST M 22 x 1.5	M 22 x 1.5 keg	26.5	22	Polyamide
BST M 26 x 1.5	M 26 x 1.5 keg	26	22	Polyamide
BST R 1/8	R 1/8 keg	12.5	10	Polyamide
BST R 1/4	R 1/4 keg	17.5	14	Polyamide
BST R 3/8	R 3/8 keg	27	17	Polyamide
BST R 1/2	R 1/2 keg	27.5	22	Polyamide
BST 1/8 NPT	1/8 NPT	14	10	Polyamide
BST 1/4 NPT	1/4 NPT	20.5	14	Polyamide

TES

T-taper thread connectors

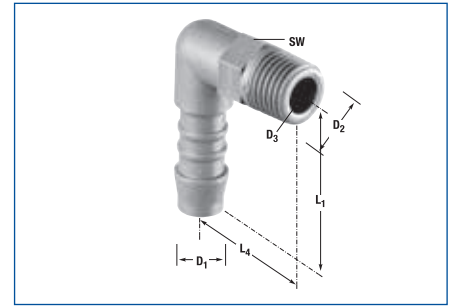


Designation	D ₁	D ₂	D ₃	L ₁ ~	L ₂ ~	SW	Material
TES 4 / M 8 x 1	4	M 8 x 1 keg	2.5	21	18	10	Polyamide
TES 4 / M 10 x 1	4	M 10 x 1 keg	2.5	21	18	10	Polyamide
TES 4 / M 12 x 1.5	4	M 12 x 1.5 keg	2.9	21	23	14	Polyamide
TES 4 / R 1/8	4	R 1/8 keg	2.5	21	18	10	Polyamide
TES 4 / R 1/4	4	R 1/4 keg	2.5	21	23	14	Polyamide
TES 4 / 1/8 NPT	4	1/8 NPT	2.5	21	20	10	Polyamide
TES 4 / 1/4 NPT	4	1/4 NPT	2.5	21	26	14	Polyamide
TES 6 / M 10 x 1	6	M 10 x 1 keg	4	28.5	21	10	Polyamide
TES 6 / M 12 x 1.5	6	M 12 x 1.5 keg	4	28.5	26	14	Polyamide
TES 6 / R 1/8	6	R 1/8 keg	4	28.5	21	10	Polyamide
TES 6 / R 1/4	6	R 1/4 keg	4	28.5	26	14	Polyamide
TES 6 / 1/8 NPT	6	1/8 NPT	4	28.5	23	10	Polyamide
TES 6 / 1/4 NPT	6	1/4 NPT	4	28.5	29	14	Polyamide
TES 8 / M 12 x 1.5	8	M 12 x 1.5 keg	5.6	33	27.5	14	Polyamide
TES 8 / M 14 x 1.5	8	M 14 x 1.5 keg	5.6	33	27.5	14	Polyamide
TES 8 / R 1/4	8	R 1/4 keg	5.6	33	27.5	14	Polyamide
TES 8 / 1/4 NPT	8	1/4 NPT	5.6	33	30.5	14	Polyamide
TES 10 / R 3/8	10	R 3/8 keg	7	35.5	30	17	Polyamide

Taper thread connectors

WES

Elbow taper thread connectors

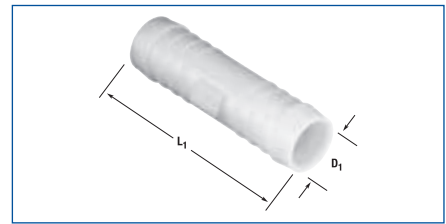


Designation	D ₁	D ₂	D ₃	L ₁ ~	L ₂ ~	SW	Material
WES 3 / M 5	3	M 5 keg	2.5	12.5	12.5	6	Polyamide
WES 4 / M 8 x 1	4	M 8 x 1 keg	2.7	21	16	10	Polyamide
WES 4 / M 10 x 1	4	M 10 x 1 keg	2.7	21	16	10	Polyamide
WES 4 / M 12 x 1.5	4	M 12 x 1.5 keg	2.7	21	25	14	Polyamide
WES 4 / M 14 x 1.5	4	M 14 x 1.5 keg	2.7	21	25	14	Polyamide
WES 4 / R 1/8	4	R 1/8 keg	2.7	21	16	10	Polyamide
WES 4 / R 1/4	4	R 1/4 keg	2.7	21	25	14	Polyamide
WES 4 / 1/8 NPT	4	1/8 NPT	2.7	21	18	10	Polyamide
WES 4 / 1/4 NPT	4	1/4 NPT	2.7	21	28	14	Polyamide
WES 6 / M 10 x 1	6	M 10 x 1 keg	4	28.5	21	10	Polyamide
WES 6 / M 12 x 1.5	6	M 12 x 1.5 keg	4	28.5	26	14	Polyamide
WES 6 / R 1/8	6	R 1/8 keg	4	28.5	21	10	Polyamide
WES 6 / R 1/4	6	R 1/4 keg	4	28.5	26	14	Polyamide
WES 6 / R 3/8	6	R 3/8 keg	4	28.5	27	17	Polyamide
WES 6 / 1/8 NPT	6	1/8 NPT	4	28.5	23	10	Polyamide
WES 6 / 1/4 NPT	6	1/4 NPT	4	28.5	29	14	Polyamide
WES 8 / M 10 x 1	8	M 10 x 1 keg	5.6	33	23.5	14	Polyamide
WES 8 / M 12 x 1.5	8	M 12 x 1.5 keg	5.6	33	27.5	14	Polyamide
WES 8 / M 14 x 1.5	8	M 14 x 1.5 keg	5.6	33	27.5	14	Polyamide
WES 8 / M 16 x 1.5	8	M 16 x 1.5 keg	5.6	36	27.5	17	Polyamide
WES 8 / M 18 x 1.5	8	M 18 x 1.5 keg	5.6	36	36	19	Polyamide
WES 8 / M 22 x 1.5	8	M 22 x 1.5 keg	5.6	36	36	22	Polyamide
WES 8 / R 1/8	8	R 1/8 keg	5.6	33	23	14	Polyamide
WES 8 / R 1/4	8	R 1/4 keg	5.6	33	27.5	14	Polyamide
WES 8 / R 3/8	8	R 3/8 keg	5.6	36	31	17	Polyamide
WES 8 / R 1/2	8	R 1/2 keg	5.6	36	36	22	Polyamide
WES 8 / 1/4 NPT	8	1/4 NPT	5.6	33	30.5	14	Polyamide
WES 10 / M 14 x 1.5	10	M 14 x 1.5 keg	7	38	30	14	Polyamide
WES 10 / R 1/4	10	R 1/4 keg	7	38	30	14	Polyamide
WES 10 / R 3/8	10	R 3/8 keg	7	38	30	17	Polyamide
WES 10 / 1/2 NPT	10	1/2 NPT	7	38	38	22	Polyamide
WES 12 / M 16 x 1.5	12	M 16 x 1.5 keg	8.6	40.5	30	17	Polyamide
WES 12 / M 18 x 1.5	12	M 18 x 1.5 keg	8.6	40.5	36	19	Polyamide
WES 12 / M 22 x 1.5	12	M 22 x 1.5 keg	8.6	40.5	36	22	Polyamide
WES 12 / M 26 x 1.5	12	M 26 x 1.5 keg	8.6	40.5	36	22	Polyamide
WES 12 / R 3/8	12	R 3/8 keg	8.6	40.5	31	17	Polyamide
WES 12 / R 1/2	12	R 1/2 keg	8.6	40.5	36	22	Polyamide
WES 12 / 3/8 NPT	12	3/8 NPT	8.6	40.5	31	19	Polyamide
WES 19 / M 24 x 2	19	M 24 x 2 keg	15	45	42.8	27	Polyamide
WES 19 / R 3/4	19	R 3/4 keg	15	45.5	42.8	27	Polyamide
WES 25 / R 1	25	R 1 keg	21	60	49	32	Polyamide

Hose Connectors

GS

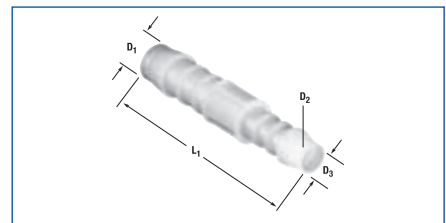
Straight push-on connectors



Designation	D_1	D_2	$L_1 \sim$	Material
GS 3	3	2.5	25	Acetal copolymer (POM)
GS 4	4	2.7	35	Acetal copolymer (POM)
GS 5	5	3	45	Acetal copolymer (POM)
GS 6	6	4	49	Acetal copolymer (POM)
GS 8	8	5.6	56	Acetal copolymer (POM)
GS 10	10	7	63	Acetal copolymer (POM)
GS 12	12	8.6	66.5	Acetal copolymer (POM)
GS 13	13	8.6	73	Acetal copolymer (POM)
GS 14	14	10	79	Acetal copolymer (POM)
GS 16	16	12	75	Acetal copolymer (POM)
GS 19	19	15	76	Acetal copolymer (POM)
GS 25	25	21	95	Acetal copolymer (POM)

GRS

Reducing straight push-on connectors

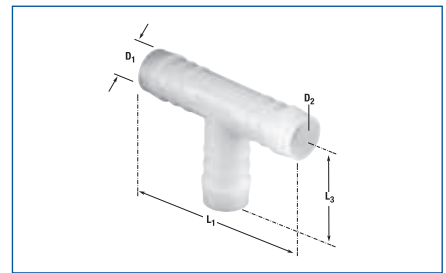


Designation	D_1	D_2	D_3	$L_1 \sim$	Material
GRS 4 - 3	4	2.5	3	30	Acetal copolymer (POM)
GRS 5 - 4	5	2.7	3	41	Acetal copolymer (POM)
GRS 6 - 4	6	2.7	4	42.5	Acetal copolymer (POM)
GRS 8 - 4	8	2.7	4	48	Acetal copolymer (POM)
GRS 8 - 6	8	4	6	54	Acetal copolymer (POM)
GRS 10 - 6	10	4	6	58	Acetal copolymer (POM)
GRS 10 - 8	10	5.6	8	60.5	Acetal copolymer (POM)
GRS 12 - 8	12	5.6	8	62.5	Acetal copolymer (POM)
GRS 12 - 10	12	7	10	64	Acetal copolymer (POM)

Hose Connectors

TS

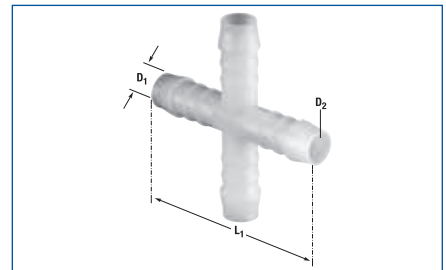
Equal T push-on connectors



Designation	D ₁	D ₂	L ₁ ~	L ₃ ~	Material
TS 3	3	2.5	25	12.5	Acetal copolymer (POM)
TS 4	4	2.7	35	19.5	Acetal copolymer (POM)
TS 5	5	3	42	22	Acetal copolymer (POM)
TS 6	6	4	50	26	Acetal copolymer (POM)
TS 7	7	5	50	26	Acetal copolymer (POM)
TS 8	8	5.6	58	30	Acetal copolymer (POM)
TS 10	10	7	62.5	33.5	Acetal copolymer (POM)
TS 12	12	8.6	69	36	Acetal copolymer (POM)
TS 13	13	8.6	68	36	Acetal copolymer (POM)
TS 14	14	10	77.5	41.5	Acetal copolymer (POM)
TS 15	15	11	79.5	43.5	Acetal copolymer (POM)
TS 16	16	12	81	45	Acetal copolymer (POM)
TS 19	19	15	85	45	Acetal copolymer (POM)
TS 25	25	21	105	52.5	Acetal copolymer (POM)

KS

Cross push-on connectors

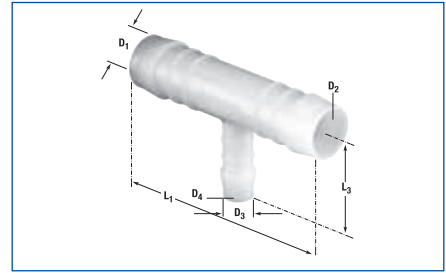


Designation	D ₁	D ₂	L ₁ ~	Material
KS 4	4	2.9	39	Acetal copolymer (POM)
KS 5	5	3	48	Acetal copolymer (POM)
KS 6	6	4	48	Acetal copolymer (POM)
KS 12	12	8.6	69	Acetal copolymer (POM)

Hose Connectors

TRS

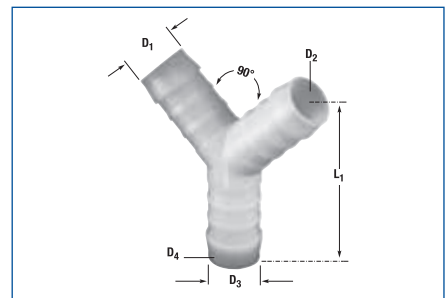
Reducing T push-on connectors



Designation	D ₁	D ₂	D ₃	D ₄	L ₁ ~	L ₂ ~	Material
TRS 3 - 4 - 3	3	2.5	4	2.5	25	17.5	Acetal copolymer (POM)
TRS 4 - 6 - 4	4	2.7	6	4	37	24	Acetal copolymer (POM)
TRS 6 - 4 - 6	6	4	4	2.5	49	20.5	Acetal copolymer (POM)
TRS 8 - 4 - 8	8	5.6	4	2.5	56	22	Acetal copolymer (POM)
TRS 8 - 6 - 8	8	5.6	6	4	56	28	Acetal copolymer (POM)
TRS 8 - 12 - 8	8	5.6	12	8.6	57	34	Acetal copolymer (POM)
TRS 10 - 6 - 10	10	7	6	4	62	28	Acetal copolymer (POM)
TRS 10 - 8 - 10	10	7	8	5.6	62	31	Acetal copolymer (POM)
TRS 10 - 13 - 10	10	7	13	8.6	64	38	Acetal copolymer (POM)
TRS 12 - 6 - 12	12	8.6	6	4	69	29	Acetal copolymer (POM)
TRS 12 - 8 - 12	12	8.6	8	5.6	69	31	Acetal copolymer (POM)
TRS 12 - 10 - 12	12	8.6	10	7	69	33	Acetal copolymer (POM)
TRS 15 - 6 - 15	15	11	6	4	78	28	Acetal copolymer (POM)
TRS 15 - 8 - 15	15	11	8	5.6	79	33	Acetal copolymer (POM)
TRS 18 - 10 - 18	18	14	10	7	79	36	Acetal copolymer (POM)
TRS 18 - 15 - 18	18	14	15	11	80	44	Acetal copolymer (POM)

YRS

Reducing Y push-on connectors

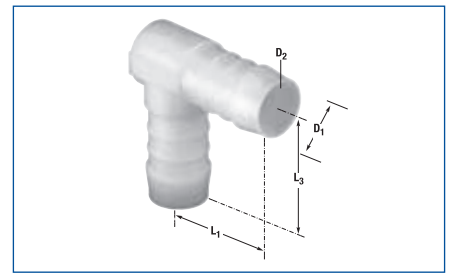


Designation	D ₁	D ₂	D ₃	D ₄	L ₁ ~	Material
YRS 4 - 6 - 4	4	2.7	6	4	35	Acetal copolymer (POM)
YRS 6 - 8 - 6	6	4	8	5.6	49	Acetal copolymer (POM)

Hose Connectors

WS

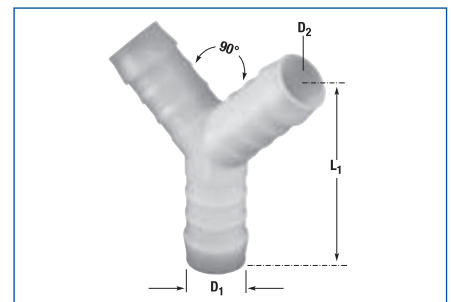
Elbow push-on connectors



Designation	D ₁	D ₂	L ₁ ~	L ₃ ~	Material
WS 3	3	2.5	12.5	12.5	Acetal copolymer (POM)
WS 4	4	2.5	17.5	19.5	Acetal copolymer (POM)
WS 5	5	3	21	22	Acetal copolymer (POM)
WS 6	6	4	25	26	Acetal copolymer (POM)
WS 8	8	5.6	29	30	Acetal copolymer (POM)
WS 10	10	7	31	33.5	Acetal copolymer (POM)
WS 12	12	8.6	34.5	36	Acetal copolymer (POM)
WS 13	13	8.6	36.5	38.5	Acetal copolymer (POM)
WS 14	14	10	38.5	41.5	Acetal copolymer (POM)
WS 15	15	11	40	43.5	Acetal copolymer (POM)
WS 16	16	12	40.5	45	Acetal copolymer (POM)
WS 19	19	15	43.5	46	Acetal copolymer (POM)
WS 25	25	21	52.5	52.5	Acetal copolymer (POM)

YS

Equal Y push-on connectors

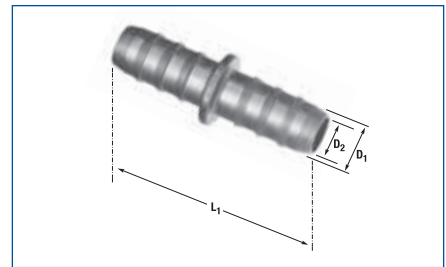


Designation	D ₁	D ₂	L ₁ ~	Material
YS 3	3	2.5	21	Acetal copolymer (POM)
YS 4	4	2.5	25.5	Acetal copolymer (POM)
YS 5	5	3	43	Acetal copolymer (POM)
YS 6	6	4	44	Acetal copolymer (POM)
YS 8	8	5.6	51	Acetal copolymer (POM)
YS 10	10	7	54	Acetal copolymer (POM)
YS 12	12	8.6	64	Acetal copolymer (POM)
YS 13	13	9	65	Acetal copolymer (POM)
YS 14	14	10	65	Acetal copolymer (POM)
YS 16	16	12	67	Acetal copolymer (POM)
YS 19	19	15	72	Acetal copolymer (POM)

Hose Connectors

GN

Straight plastic pipe connectors

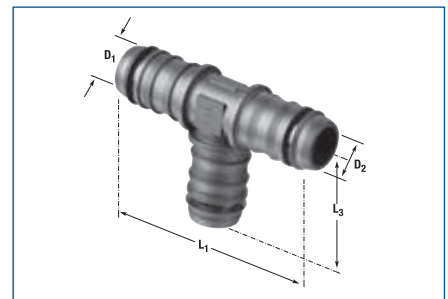


Designation	D ₁	D ₂	L ₁ ~	Material
GN 6	6.4	4.75	45	Polyamide 6 or 12; 30% GF*
GN 8	9.2	6.8	46	Polyamide 6 or 12; 30% GF*
GN 10	11	8	46	Polyamide 6 or 12; 30% GF*
GN 15	16.9	12	32	Polyamide 6 or 12; 30% GF*
GN 19	21	16	39	Polyamide 6 or 12; 30% GF*
GN 27	29	24	42	Polyamide 6 or 12; 30% GF*

* Glass fibre content

TN

T plastic pipe connectors



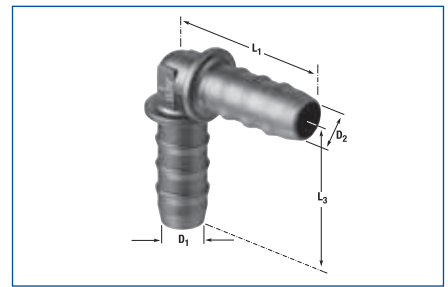
Designation	D ₁	D ₂	L ₁ ~	L ₃ ~	Material
TN 6	6.4	4.75	66	28	Polyamide 6 or 12; 30% GF*
TN 8	9.2	6.8	58	29	Polyamide 6 or 12; 30% GF*
TN 10	11	8	60	30	Polyamide 6 or 12; 30% GF*
TN 15	16.4	12	72	36	Polyamide 6 or 12; 30% GF*
TN 19	18.9	16	65	32.5	Polyamide 6 or 12; 30% GF*

* Glass fibre content

Hose Connectors

WN

Elbow plastic pipe connectors

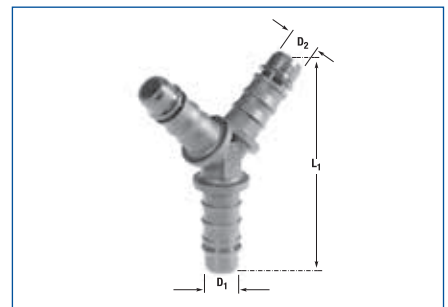


Designation	D ₁	D ₂	L ₁ ~	L ₃ ~	Material
WN 6	6.4	4.75	28	28	Polyamide 6 or 12; 30% GF*
WN 8	9.2	6.8	29	29	Polyamide 6 or 12; 30% GF*
WN 10	11	8	30	30	Polyamide 6 or 12; 30% GF*
WN 19	18.9	16	32	32	Polyamide 6 or 12; 30% GF*

* Glass fibre content

YN

Y plastic pipe connectors



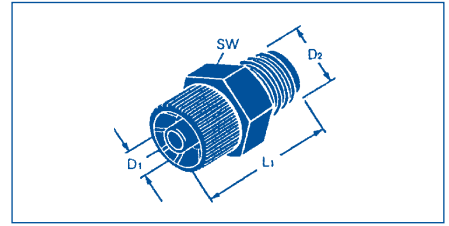
Designation	D ₁	D ₂	L ₁ ~	Material
YN 8	8.4	5.8	50.5	Polyamide 6 or 12; 30% GF*

* Glass fibre content

Compression connectors

EG

Straight compression connectors

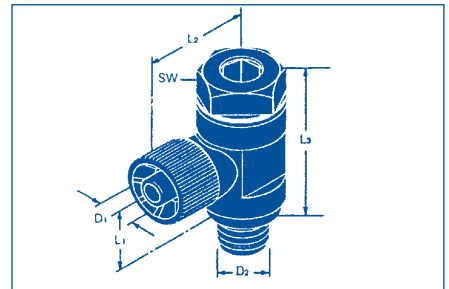


Designation	D ₁	D ₂	L ₁ ~	SW	Material
EG 6 x 1 - R 1/8	6 x 1	R 1/8 keg	25	13	Polyamide 6; 30% GF*
EG 6 x 1 - R 1/4	6 x 1	R 1/4 keg	31	17	Polyamide 6; 30% GF*
EG 6 x 1 - M 10 x 1	6 x 1	M 10 x 1 keg	25	13	Polyamide 6; 30% GF*
EG 8 x 1 - R 1/8	8 x 1	R 1/8 keg	25	13	Polyamide 6; 30% GF*
EG 8 x 1 - R 1/4	8 x 1	R 1/4 keg	31	17	Polyamide 6; 30% GF*
EG 8 x 1 - M 10 x 1	8 x 1	M 10 x 1 keg	25	13	Polyamide 6; 30% GF*

* Glass fibre content

EWS

Swivel elbow compression connectors



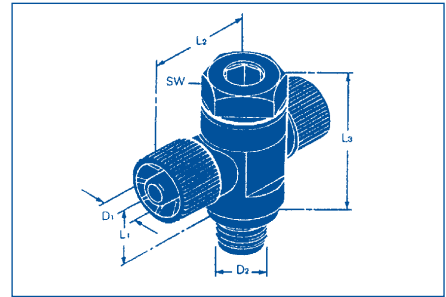
Designation	D ₁	D ₂	L ₁ ~	L ₂ ~	L ₃ ~	SW	Material
EWS 6 x 1 - R 1/8	6 x 1	R 1/8	14	21	30	13	Polyamide 6; 30% GF*
EWS 6 x 1 - R 1/4	6 x 1	R 1/4	15	23	33.5	17	Polyamide 6; 30% GF*
EWS 6 x 1 - M 10 x 1	6 x 1	M 10 x 1	14	21	30	13	Polyamide 6; 30% GF*
EWS 8 x 1 - R 1/8	8 x 1	R 1/8	14	21	30	13	Polyamide 6; 30% GF*
EWS 8 x 1 - R 1/4	8 x 1	R 1/4	15	23	33.5	17	Polyamide 6; 30% GF*
EWS 8 x 1 - M 10 x 1	8 x 1	M 10 x 1	14	21	30	13	Polyamide 6; 30% GF*

* Glass fibre content

Compression connectors

ETS

Swivel T compression connectors

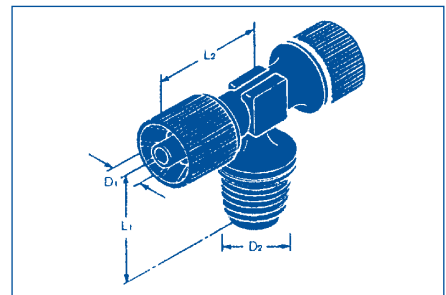


Designation	D ₁	D ₂	L ₁ ~	L ₂ ~	L ₃ ~	SW	Material
ETS 6 x 1 - R 1/8	6 x 1	R 1/8	14	21	30	13	Polyamide 6; 30% GF*
ETS 6 x 1 - R 1/4	6 x 1	R 1/4	15	23	33.5	17	Polyamide 6; 30% GF*
ETS 6 x 1 - M 10x1	6 x 1	M 10 x 1	14	21	30	13	Polyamide 6; 30% GF*
ETS 8 x 1 - R 1/4	8 x 1	R 1/4	15	23	33.5	17	Polyamide 6; 30% GF*

* Glass fibre content

ET

T compression connectors



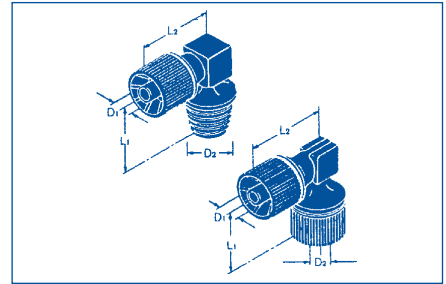
Designation	D ₁	D ₂	L ₁ ~	L ₂ ~	Material
ET 6 x 1 - R 1/8	6 x 1	R 1/8 keg	19	23	Polyamide 6; 30% GF*
ET 6 x 1 - R 1/4	6 x 1	R 1/4 keg	23	23	Polyamide 6; 30% GF*
ET 6 x 1 - M 10x1	6 x 1	M 10 x 1 keg	19	23	Polyamide 6; 30% GF*
ET 8 x 1 - R 1/8	8 x 1	R 1/8 keg	19	23	Polyamide 6; 30% GF*
ET 8 x 1 - R 1/4	8 x 1	R 1/4 keg	23	23	Polyamide 6; 30% GF*
ET 8 x 1 - M 10x1	8 x 1	M 10 x 1 keg	19	23	Polyamide 6; 30% GF*

* Glass fibre content

Compression connectors

EW/WV

Elbow compression connectors

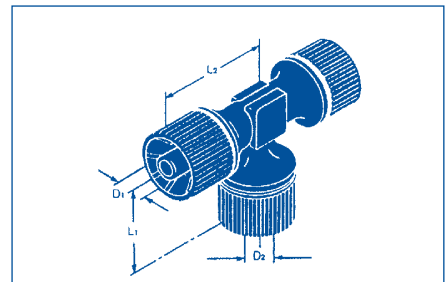


Designation	D ₁	D ₂	L ₁ ~	L ₂ ~	Material
EW 6 x 1 - R 1/8	6 x 1	R 1/8 keg	19	23	Polyamide 6; 30% GF*
EW 6 x 1 - R 1/4	6 x 1	R 1/4 keg	23	23	Polyamide 6; 30% GF*
EW 6 x 1 - M 10 x 1	6 x 1	M 10 x 1 keg	19	23	Polyamide 6; 30% GF*
EW 8 x 1 - R 1/8	8 x 1	R 1/8 keg	19	23	Polyamide 6; 30% GF*
EW 8 x 1 - R 1/4	8 x 1	R 1/4 keg	23	23	Polyamide 6; 30% GF*
EW 8 x 1 - M 10 x 1	8 x 1	M 10 x 1 keg	19	23	Polyamide 6; 30% GF*
WV 8 x 1	8 x 1	8 x 1	23	23	Polyamide 6; 30% GF*

* Glass fibre content

VT/VTR

Equal T and reducing T compression connectors

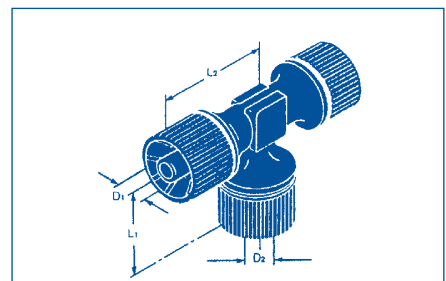


Designation	D ₁	D ₂	L ₁ ~	L ₂ ~	Material
VT 6 x 1	6 x 1	6 x 1	23	23	Polyamide 6; 30% GF*
VT 8 x 1	8 x 1	8 x 1	23	23	Polyamide 6; 30% GF*
VTR 6 x 1 - 8 x 1 - 6 x 1	6 x 1	8 x 1	23	23	Polyamide 6; 30% GF*
VTR 8 x 1 - 6 x 1 - 8 x 1	8 x 1	6 x 1	23	23	Polyamide 6; 30% GF*

* Glass fibre content

VG/VGR

Straight/Reducing compression connectors



Designation	D ₁	L ₁ ~	SW	Material
VG 6 x 1	6 x 1	31	17	Polyamide 6; 30% GF*
VG 8 x 1	8 x 1	31	17	Polyamide 6; 30% GF*
VGR 8 x 1 - 6 x 1	6 x 1	31	17	Polyamide 6; 30% GF*

* Glass fibre content

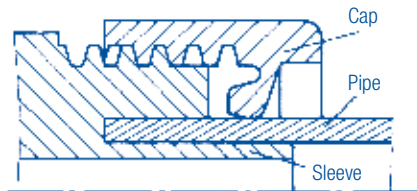
Installation information

Pipe dimensions: Outer diameter - x wall thickness

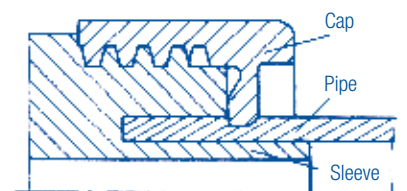
Push the cap onto the pipe; push the pipe onto the sleeve as far as it will go; tighten the cap on the buttress thread as much as possible (using standard pliers if necessary).

Cap also available as an individual part.

Before tightening the cap



After tightening the cap



Cap screwed on as far as it will go.



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