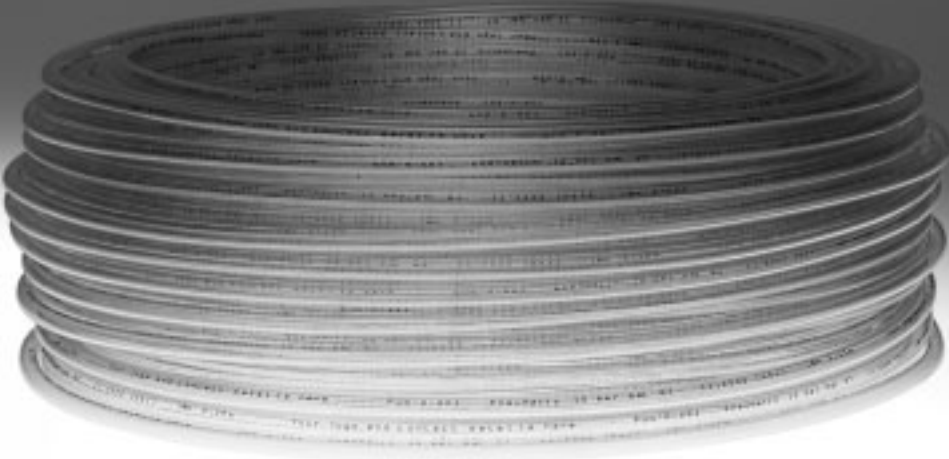



Plastic tubing, standard O.D., NPT




Plastic tubing, standard O.D., NPT

Product range overview



Version	Type	Outside diameter [inch]	Colour									Operating medium		
			Silver	Blue	Black	Yellow	Green	Red	Brown	White	Natural	Compressed air	Vacuum	Water
	PEN Polyethylene	(5/32) ¹⁾ , 3/16, 1/4, 5/16, 3/8, 1/2, 5/8	(■) ¹⁾	■	■	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	■	■	■
	PLN Polyethylene	(5/32) ¹⁾ , 3/16, 1/4, 5/16, 3/8, (1/2) ¹⁾ , 5/8	(■) ¹⁾	■	■	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	(■) ¹⁾	■	■	■	-
	PUN-H Polyurethane	1/8, 5/32, 3/16, 1/4, 5/16, 3/8, 1/2, 5/8	■	■	■	■	■	■	■	■	■	■	■	■

1) Please note the information below.

-  - Note

Product options in brackets can only be ordered using the modular product system.
Please note the minimum ordering quantity of 10,000 ft.

There is a modular product system for plastic tubing.

- PEN → 8
- PLN → 10
- PUN → 14

Plastic tubing, standard O.D., NPT

Product range overview

Type	Suitability for use in the food industry	Halogen-free	Contact with electric cables	PWIS-free to FN 942 010	Suitable for chain link trunking	Resistance				Flexibility	Shore hardness ³⁾	→ Page/Internet
						Chemicals	Microbes	UV radiation	Hydrolysis			
PEN	-	■	■	■	+++	++	++	++ ²⁾	+++	++	D 52 ±3	6
PLN	■	■	■	■	-	++	++	++ ²⁾	+++	+	D 52 ±3	9
PUN-H	■	■	■	■	++	+	++	++ ²⁾	++	+++	D 52 ±3	11

+++ Highly suitable
++ Suitable

+ Limited suitability (upon request)
- Unsuitable

2) Applies to black colour
3) Values are determined using test boards. Values determined using tubing may vary.

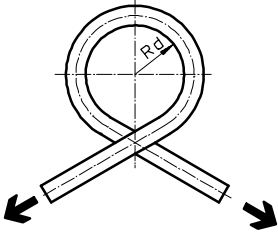
Plastic tubing, standard O.D., NPT

Technical data

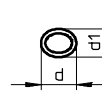
FESTO

Method of measurement

Bending radius relevant for flow rate R_d



The tubing is bent in the direction of its curvature until a flattening corresponding to 5% of the tubing O.D. occurs.
 R_d is then calculated mathematically. The flow rate is not reduced until R_d is reached.

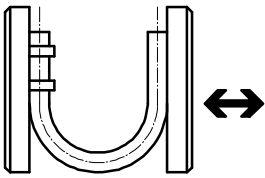


Cross section flattened by bending the tubing.

d = Non-deformed tubing O.D.

d_1 = Deformed tubing O.D.

Minimum bending radius R_{min}



The tubing fixed to the base plate is bent until the deformation results in a kink. The measured value is the minimum bending radius R_{min} . This R_{min} results in significant reductions in flow rate.

Plastic tubing, standard O.D., NPT

Type codes

PEN – [] – 3/8 – BL – 150 – CB

Material

PEN	Polyethylene
PLN	Polyethylene
PUN	Polyurethane

Approval

H	Hydrolysis-resistant
---	----------------------

Outside diameter [inch]

Colour

SW	Black
BL	Blue
GN	Green
RT	Red
WS	White
GE	Yellow
BR	Brown
SI	Silver
NT	Natural

Packaging unit [feet]

Packaging

CB	Cardboard box
HA	Reel

Plastic tubing PEN, NPT

Technical data



Plastic tubing PEN

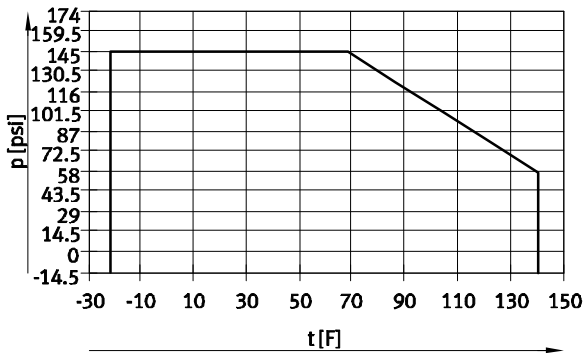
Compressed air tubing made of polyethylene is distinguished by great resistance to chemicals and hydrolysis. It is resistant to most cleaning agents and lubricants.



Operating and environmental conditions		
Temperature dependent operating pressure	[Psi]	-14.4 ... +145 → diagram
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:-:-]
		Water as per manufacturer's declaration ¹⁾
Ambient temperature	[°F]	-22 ... +140
Tubing characteristics		Suitable for energy chains for applications with a high cycle rate
Tubing test conditions		Suitable for energy chains: > 5 million cycles to Festo standard 942021

1) Additional information www.festo.com/sp → Certificates.

Operating pressure p as a function of temperature t



Possible fittings



Push-in fitting QS-U,
Quick Star
→ Internet: qs*-u



Push-in fitting QB-U,
Quick Basic
→ Internet: qb*-u

Materials	
Shore hardness	D 52 ±3
Tubing	PE
Note on materials	Conforms to RoHS
	Free of copper and PTFE

Plastic tubing PEN, NPT

Technical data

Dimensions and ordering data							
Outside diameter	Min. bending radius	Bending radius relevant for flow rate	Weight	Colour	Part No.	Type	PU ¹⁾
[inch]	[ft]	[ft]	[oz/ft]				[ft]
3/16	0.039	0.075	0.100	Black	569882	PEN-3/16-SW-150-CB	150
1/4	0.041	0.085	0.186	Black	569883	PEN-1/4-SW-150-CB	150
				Blue	569891	PEN-1/4-BL-150-CB	150
5/16	0.073	0.114	0.250	Black	569884	PEN-5/16-SW-150-CB	150
				Blue	569892	PEN-5/16-BL-150-CB	150
3/8	0.088	0.131	0.376	Black	569885	PEN-3/8-SW-150-CB	150
				Blue	569893	PEN-3/8-BL-150-CB	150
1/2	0.108	0.196	0.848	Black	569886	PEN-1/2-SW-150-CB	150
				Blue	569894	PEN-1/2-BL-150-CB	150
5/8	0.196	0.410	1.158	Black	569887	PEN-5/8-SW-150-CB	150
				Blue	569895	PEN-5/8-BL-150-CB	150

1) Packaging unit

Plastic tubing PEN, NPT

Ordering data – Modular product



Ordering table (minimum order quantity 10,000 ft, rounding-off value 50 ft)											
Size	5/32	3/16	1/4	5/16	3/8	1/2	5/8	Condi- tions	Code	Enter code	
M Module No.	567448										
Function	Polyethylene tubing, standard O.D., economical								PEN	PEN	
Tubing O.D. [inch]	5/32	–	–	–	–	–	–		-5/32		
	–	3/16	–	–	–	–	–		-3/16		
	–	–	1/4	–	–	–	–		-1/4		
	–	–	–	5/16	–	–	–		-5/16		
	–	–	–	–	3/8	–	–		-3/8		
	–	–	–	–	–	1/2	–		-1/2		
	–	–	–	–	–	–	5/8		-5/8		
	–	–	–	–	–	–	–				
Colour	Silver								-SI		
	Blue								-BL		
	Black								-SW		
	Yellow								-GE		
	Green								-GN		
	Red								-RT		
	Brown								-BR		
	White								-WS		
	Natural								-NT		
O Inscription text (on request)	Standard										
	Customer-specific tubing inscription								1	-TXT	
M Packaging unit [ft]	150									-150	
	500									-500	
	1,000						–	–		-1000	
	1,500				–	–	–	–		-1500	
	Packaging	Cardboard box								2	-CB
Reel								3	-HA		

- 1** **TXT** Only on request
- 2** **CB** Only with packaging unit 150

- 3** **HA** Not with packaging unit 150

Transfer order code

Plastic tubing PLN, NPT

Technical data



Plastic tubing PLN

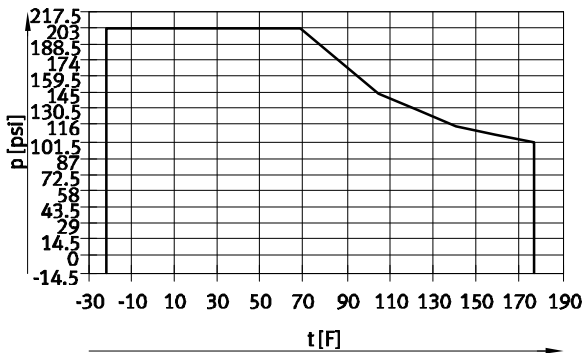
Compressed air tubing made of polyethylene is distinguished by great resistance to chemicals and hydrolysis. It is resistant to most cleaning agents and lubricants.



Operating and environmental conditions		
Temperature dependent operating pressure	[psi]	-14.4 ... +203 → diagram
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:--:-]
Ambient temperature	[°F]	-22 ... +176
Food-safe ¹⁾		See supplementary material information

1) Additional information www.festo.com/sp → Certificates.

Operating pressure p as a function of temperature t



Possible fittings



Push-in fitting QS-U,
Quick Star
→ Internet: qs*-u



Push-in fitting QB-U,
Quick Basic
→ Internet: qb*-u

Materials	
Shore hardness	D 52 ±3
Tubing	PE
Note on materials	Conforms to RoHS Free of copper and PTFE

Dimensions and ordering data							
Outside diameter	Min. bending radius	Bending radius relevant for flow rate	Weight	Colour	Part No.	Type	PU ¹⁾
[inch]	[ft]	[ft]	[oz/ft]				[ft]
3/16	0.036	0.095	0.107	Natural	569898	PLN-3/16-NT-150-CB	150
				Blue	569914	PLN-3/16-BL-150-CB	150
1/4	0.039	0.105	0.180	Natural	569899	PLN-1/4-NT-150-CB	150
					575897	PLN-1/4-NT-500-HA	500
				Black	569907	PLN-1/4-SW-150-CB	150
				Blue	569915	PLN-1/4-BL-150-CB	150
5/16	0.082	0.164	0.231	Natural	569900	PLN-5/16-NT-150-CB	150
3/8	0.115	0.187	0.403	Natural	569901	PLN-3/8-NT-150-CB	150
				Black	569909	PLN-3/8-SW-150-CB	150
				Blue	569917	PLN-3/8-BL-150-CB	150
5/8	0.197	0.311	0.881	Natural	569903	PLN-5/8-NT-150-CB	150
				Black	569911	PLN-5/8-SW-150-CB	150

1) Packaging unit

Plastic tubing PLN, NPT

Ordering data – Modular product



Ordering table (minimum order quantity 10,000 ft, rounding-off value 50 ft)										
Size	5/32	3/16	1/4	5/16	3/8	1/2	5/8	Condi- tions	Code	Enter code
M Module No.	567449									
Function	Polyethylene tubing, standard O.D., resistant to cleaning agents								PLN	PLN
Tubing O.D. [inch]	5/32	–	–	–	–	–	–	–	-5/32	
	–	3/16	–	–	–	–	–	–	-3/16	
	–	–	1/4	–	–	–	–	–	-1/4	
	–	–	–	5/16	–	–	–	–	-5/16	
	–	–	–	–	3/8	–	–	–	-3/8	
	–	–	–	–	–	1/2	–	–	-1/2	
	–	–	–	–	–	–	5/8	–	-5/8	
	–	–	–	–	–	–	–	–	–	
Colour	Silver								-SI	
	Blue								-BL	
	Black								-SW	
	Yellow								-GE	
	Green								-GN	
	Red								-RT	
	Brown								-BR	
	White								-WS	
Natural								-NT		
O Inscription text (on request)	Standard									
	Customer-specific tubing inscription								1	-TXT
M Packaging unit [ft]	150									-150
	500									-500
	1,000						–	–		-1000
	1,500				–	–	–	–		-1500
	Packaging	Cardboard box								2
Reel								3	-HA	

- 1** TXT Only on request
- 2** CB Only with packaging unit 150

- 3** HA Not with packaging unit 150

Transfer order code

Plastic tubing PUN-H, hydrolysis-resistant, NPT

Technical data

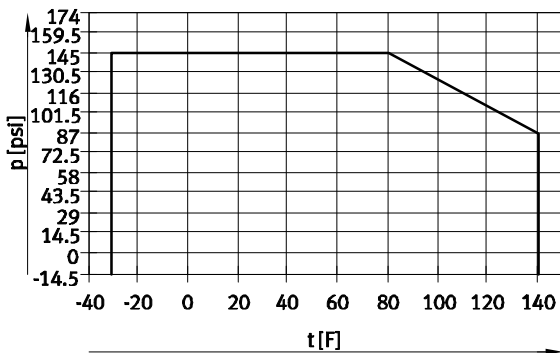
Plastic tubing PUN-H



Operating and environmental conditions		
Temperature dependent operating pressure	[psi]	-14.4 ... +145 → diagram
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:--:-]
Ambient temperature	[°F]	-31 ... +145
Food-safe ¹⁾		See supplementary material information
Tubing characteristics		Suitable for energy chains for applications with a high cycle rate
Tubing test conditions		Suitable for energy chains: > 5 million cycles to Festo standard 942021

1) Additional information www.festo.com/sp → Certificates.

Operating pressure p as a function of temperature t



Possible fittings



Push-in fitting QS-U,
Quick Star
→ Internet: [qs*-u](#)



Push-in fitting QB-U,
Quick Basic
→ Internet: [qb*-u](#)

Materials

Shore hardness	D 52 ±3
Tubing	TPE-U(PU)
Note on materials	Conforms to RoHS
	Free of copper and PTFE

Plastic tubing PUN-H, hydrolysis-resistant, NPT

Technical data

Dimensions and ordering data							
Outside diameter	Min. bending radius	Bending radius relevant for flow rate	Weight	Colour	Part No.	Type	PU ¹⁾
[inch]	[ft]	[ft]	[oz/ft]				[ft]
1/8	0.020	0.039	0.060	Silver	567937	PUN-H-1/8-SI-150-CB	150
				Blue	567945	PUN-H-1/8-BL-150-CB	150
				Black	567953	PUN-H-1/8-SW-150-CB	150
				Natural	567961	PUN-H-1/8-NT-150-CB	150
				Green	567977	PUN-H-1/8-GN-150-CB	150
				Brown	567993	PUN-H-1/8-BR-150-CB	150
5/32	0.020	0.052	0.090	Blue	567946	PUN-H-5/32-BL-150-CB	150
				Black	567954	PUN-H-5/32-SW-150-CB	150
				Black	568017	PUN-H-5/32-SW-500-HA	500
				Natural	567962	PUN-H-5/32-NT-150-CB	150
				Brown	567994	PUN-H-5/32-BR-150-CB	150
3/16	0.025	0.069	0.130	Blue	567947	PUN-H-3/16-BL-150-CB	150
				Black	567955	PUN-H-3/16-SW-150-CB	150
				Natural	567963	PUN-H-3/16-NT-150-CB	150
				Yellow	567971	PUN-H-3/16-GE-150-CB	150
				Green	567979	PUN-H-3/16-GN-150-CB	150
				Brown	567995	PUN-H-3/16-BR-150-CB	150
1/4	0.032	0.085	0.230	Silver	567940	PUN-H-1/4-SI-150-CB	150
				Silver	568010	PUN-H-1/4-SI-500-HA	500
				Blue	567948	PUN-H-1/4-BL-150-CB	150
				Blue	568014	PUN-H-1/4-BL-500-HA	500
				Blue	568021	PUN-H-1/4-BL-1000-HA	1000
				Black	567956	PUN-H-1/4-SW-150-CB	150
				Black	568018	PUN-H-1/4-SW-500-HA	500
				Black	568023	PUN-H-1/4-SW-1000-HA	1000
				Natural	567964	PUN-H-1/4-NT-150-CB	150
				Natural	8003126	PUN-H-1/4-NT-500-HA	500
				Yellow	567972	PUN-H-1/4-GE-150-CB	150
				Green	567980	PUN-H-1/4-GN-150-CB	150
				Red	567988	PUN-H-1/4-RT-150-CB	150
				White	568004	PUN-H-1/4-WS-150-CB	150
				5/16	0.065	0.121	0.310
Blue	567949	PUN-H-5/16-BL-150-CB	150				
Blue	568022	PUN-H-5/16-BL-1000-HA	1000				
Black	567957	PUN-H-5/16-SW-150-CB	150				
Black	568024	PUN-H-5/16-SW-1000-HA	1000				
Natural	567965	PUN-H-5/16-NT-150-CB	150				
Natural	8003127	PUN-H-5/16-NT-500-HA	500				
Brown	567997	PUN-H-5/16-BR-150-CB	150				
3/8	0.081	0.171	0.480	Silver	567942	PUN-H-3/8-SI-150-CB	150
				Blue	567950	PUN-H-3/8-BL-150-CB	150
				Blue	568016	PUN-H-3/8-BL-500-HA	500
				Black	567958	PUN-H-3/8-SW-150-CB	150
				Black	568020	PUN-H-3/8-SW-500-HA	500
				Natural	567966	PUN-H-3/8-NT-150-CB	150
				Natural	8003128	PUN-H-3/8-NT-500-HA	500
				Yellow	567974	PUN-H-3/8-GE-150-CB	150
				Green	567982	PUN-H-3/8-GN-150-CB	150
				Red	567990	PUN-H-3/8-RT-150-CB	150
				Brown	567998	PUN-H-3/8-BR-150-CB	150
				White	568006	PUN-H-3/8-WS-150-CB	150

1) Packaging unit

Plastic tubing PUN-H, hydrolysis-resistant, NPT

Technical data

Dimensions and ordering data							
Outside diameter	Min. bending radius	Bending radius relevant for flow rate	Weight	Colour	Part No.	Type	PU ¹⁾
[inch]	[ft]	[ft]	[oz/ft]				[ft]
1/2	0.075	0.204	0.880	Silver	567943	PUN-H-1/2-SI-150-CB	150
				Blue	567951	PUN-H-1/2-BL-150-CB	150
				Black	567959	PUN-H-1/2-SW-150-CB	150
				Natural	567967	PUN-H-1/2-NT-150-CB	150
				Yellow	567975	PUN-H-1/2-GE-150-CB	150
				Green	567983	PUN-H-1/2-GN-150-CB	150
				Red	567991	PUN-H-1/2-RT-150-CB	150
				Brown	567999	PUN-H-1/2-BR-150-CB	150
				White	568007	PUN-H-1/2-WS-150-CB	150
5/8	0.125	0.288	1.380	Blue	567952	PUN-H-5/8-BL-150-CB	150
				Yellow	567976	PUN-H-5/8-GE-150-CB	150
				Green	567984	PUN-H-5/8-GN-150-CB	150
				Red	567992	PUN-H-5/8-RT-150-CB	150
				Brown	568000	PUN-H-5/8-BR-150-CB	150
				White	568008	PUN-H-5/8-WS-150-CB	150

1) Packaging unit

Plastic tubing PUN-H, hydrolysis-resistant, NPT



Ordering data – Modular product

Ordering table (minimum order quantity 10,000 ft, rounding-off value 50 ft)											
Size	1/8	5/32	3/16	1/4	5/16	3/8	1/2	5/8	Condi- tions	Code	Enter code
M Module No.	567446										
Function	Polyurethane tubing, standard O.D.									PUN	PUN
Alternative material characteristic	Hydrolysis-resistant									-H	
M Tubing O.D. [inch]	1/8	–	–	–	–	–	–	–	–	-1/8	
	–	5/32	–	–	–	–	–	–	–	-5/32	
	–	–	3/16	–	–	–	–	–	–	-3/16	
	–	–	–	1/4	–	–	–	–	–	-1/4	
	–	–	–	–	5/16	–	–	–	–	-5/16	
	–	–	–	–	–	3/8	–	–	–	-3/8	
	–	–	–	–	–	–	1/2	–	–	-1/2	
	–	–	–	–	–	–	–	5/8	–	-5/8	
Colour	Silver									-SI	
	Blue									-BL	
	Black									-SW	
	Yellow									-GE	
	Green									-GN	
	Red									-RT	
	Brown									-BR	
	White									-WS	
	Natural									-NT	
O Inscription text (on request)	Standard										
	Customer-specific tubing inscription									-TXT	
M Packaging unit [ft]	150									-150	
	500									-500	
	1,000									-1000	
	1,500									-1500	
Packaging	Cardboard box									-CB	
	Reel									-HA	

- 1** **TXT** Only on request
- 2** **CB** Only with packaging unit 150

- 3** **HA** Not with packaging unit 150
- 4** **NT** Only with alternative material characteristic H

Transfer order code

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