



Product Data Sheet

FlowMaxx IDL Lineset

Model	Diameter (in.)	Length (ft.)	Max Operating Pressure @ 302°F (psi)	Insulation (in.)	Max Operating Pressure @ 68°F (psi)	R @104°F
FlowMaxx-IDL-5/8IN-19MM-82FT	5/8	82	150	3/4	232	R5.0
FlowMaxx-IDL-3/4IN-19MM-82FT	3/4	82	95	3/4	145	R4.75
FlowMaxx-IDL-1IN-19MM-82FT	1	82	95	3/4	145	R4.4

- Easy, leak-free installation - no torch needed
- Flow and return markings for easy use
- Meets the highest requirements for modern solar heating systems
- Pre-insulated and flexible stainless steel piping
- No special tools needed for installation or maintenance
- CFC and HCFC-free insulation, according to DIN 1988 Parts 2 and 7
- DIN EN 13823 & EN ISO 11925-2 fire resistant EPDM rubber
- AISI 316L Stainless Steel

Technical Specifications - Stainless Steel Pipe

Material	Flexible, corrugated stainless steel
Stainless Steel Grade	316L
Bending Radius	5/8" Models: 0.98" 3/4" Models: 1.18" 1" Models: 1.57"
Internal Diameter	5/8" Models: 0.64" 3/4" Models: 0.80" 1" Models: 1.0"
External Diameter	5/8" Models: 0.85" 3/4" Models: 1.1" 1" Models: 1.3"
Wall Thickness	5/8" Models: 0.007" 3/4" Models: 0.007" 1" Models: 0.008"
Burst Pressure	4x Max Operating Pressure
Fluid Capacity	5/8" - 0.0143 gal./ft. 3/4" - 0.0362 gal./ft. 1" - 0.0519 gal./ft.

- NSF/ANSI 61 Compliant (stainless steel piping) Pending IAPMO Listing* EN 10204 3.1: DIN 1.4404
- ASTM A312
- ASTM D792

Technical Specifications - Insulation

Material	Closed-cell, synthetic high-temperature rubber
Thickness	3/4" (19mm)
Continuous Service Temperature Range	-40°F to 300°F
Maximum Temperature	375°F
Thermal Conductivity Btu-in./hr.-ft ² -°F @ 104°F	0.26
UV & Outdoor Protective Coating:	LLDPE + Carbon Black UV Stabilizer

Insulation Notes

- FlowMaxx Lineset insulation coated with LLDPE UV Black protective layer (10+ years lifespan)
- FlowMaxx Lineset does not require additional coating or protection when installed outdoors.
- Insulation LLDPE allows for expansion and contraction of interior stainless steel pipe to allow for system thermal expansion and contraction.

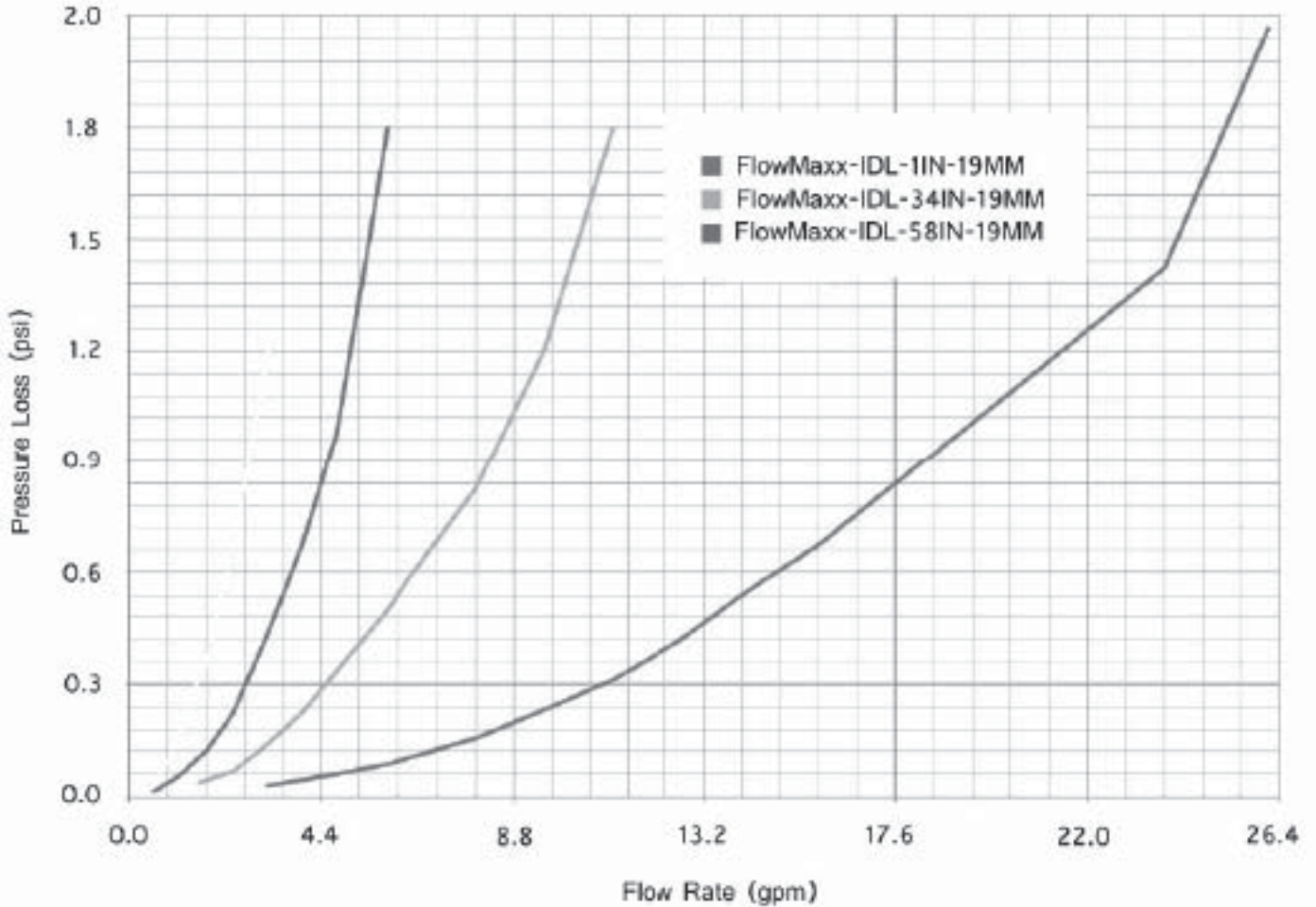
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Pressure Loss Graph



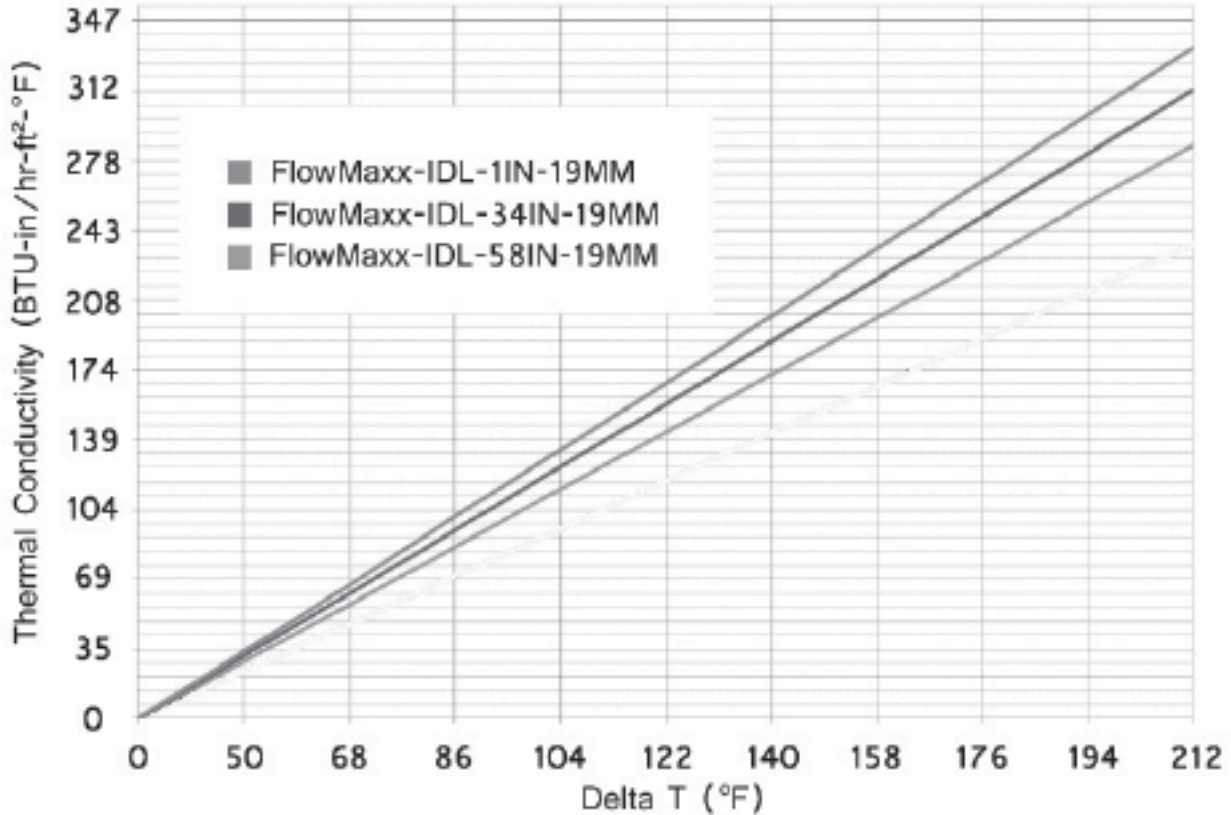
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Heat Loss Graph



Parameters

- Lambda Insulation (104°F) = 0.26 BTU-in./hr.-ft.²-°F
- Lambda Steel Pipe = 146 BTU-in./hr.-ft.²-°F
- Wind Speed = 2.2 mph
- Outside Temperature = 50°F
- VL Flow Temperature
- RL Return Temperature

Calculation Method

Media Temperature $T_v = (V_L + R_L)/2$
 $\Delta T = T_v - T_o$
 Heat Loss = $2 \times Q (\Delta T)$

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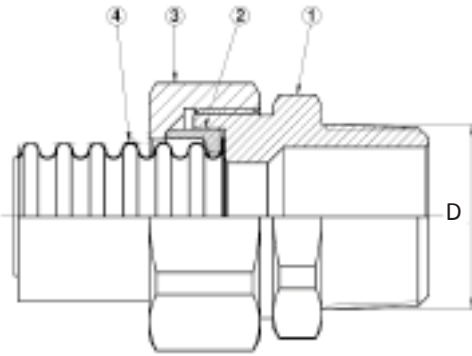
FlowMaxx Quick-Connect Fittings

Fitting Type	Connections	SKU
Male Fittings (NPT)	5/8" D x 3/4"	FlowMaxx-A-5/8IN-3/4IN-PF-M
	3/4" D x 3/4"	FlowMaxx-A-3/4IN-3/4IN-PF-M
	1" D x 1"	FlowMaxx-A-1IN-1IN-PF-M
Couplings	5/8" D	FlowMaxx-A-5/8IN-5/8IN-CC-PF
	3/4" D	FlowMaxx-A-3/4IN-3/4IN-CC-PF
	1" D	FlowMaxx-A-1IN-1IN-CC-PF
T Fittings (NPT)	3/4" x 3/4" x 3/4"	FlowMaxx-A-TEE-3/4IN-PF
	3/4" x 1" x 3/4"	FlowMaxx-A-TEE-3/4IN-1IN-3/4IN-PF
	1" x 1" x 1"	FlowMaxx-A-TEE-1IN-PF

Temperature & Pressure Ratings

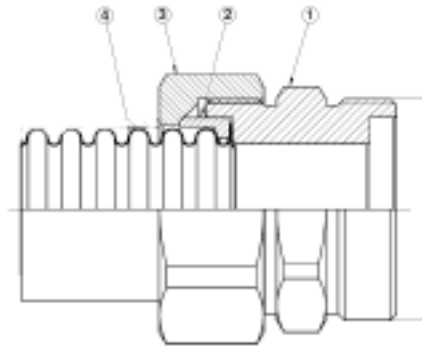
Operating Pressure Rating: 500°F @ 150 psi

Male Fittings



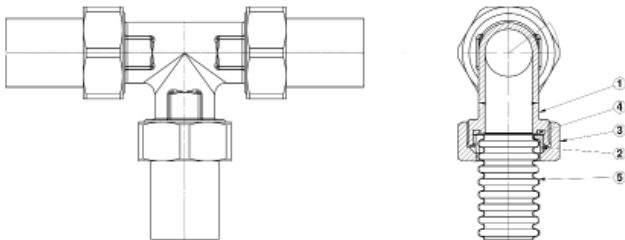
1. Brass Adapter Nipple
2. Brass Ring
3. Brass Nut
4. Corrugated Stainless Steel Piping

Couplings



1. Brass Adapter Nipple
2. Brass Ring
3. Brass Nut
4. Corrugated Stainless Steel Piping

T Fittings



1. Brass Adapter Nipple
2. Brass Ring
3. Brass Nut
4. Gasket
5. Corrugated Stainless Steel Piping

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Tube Insulation Technical Data

Description

Black, EPDM-based, flexible, closed-cell elastomeric thermal insulation in tubular with proprietary LLDPE jacketing inhibited with Carbon Black UV protection.

Specifications Compliance

ASTM C 534 Type I (Tubular) Grade 2

UV Protection: > 2.5% Carbon Black LLDPE; 10+ year lifespan for outdoor use.

Approvals, Certifications, Compliances

- Manufactured without CFCs, HFCs, HCFCs, PBDEs, or Formaldehyde

Typical Properties

Specifications	Values	Test Method
Water Vapor Permeability Perm-in [Kg/[s x m x Pa]]	0.08 (1.6 x 10 ⁻¹³)	ASTM E 96, Procedure A
Flame Spread and Smoke Developed Index	20/50 rated	ASTM E 84
Water Absorption % by Volume	0.2%	--
Mold Growth: Fungi Resistance: Bacterial Resistance:	Passed	UL181 ASTM G21/C1338 ASTM G22
Upper Use Limit ¹ : Lower Use Limit ² :	375°F (190°C) -297°F (-183°C)	ASTM C534 ASTM C534
Ozone Resistance	Excellent	ASTM D 1149
Oil Resistance	Excellent	ASTM Oil No. 1 and No. 3

¹ Suitable for systems with occasional or intermittent temperatures up to 375°F (190°C), with a recommended exposure limit of one 30-minute period at 375°F (190°C) over 24 hours of operation.

² At temperatures below -20°F (-29°C), elastomeric insulation starts to become less flexible. However, this characteristic does not affect thermal efficiency or water vapor permeability of insulation.

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