

For Residential or Commercial Radiant Heating and Snow Melt Applications

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

R-flex™

Flexible Insulated PEX Pipe for hot or chilled water

Sizes: 1" (25.4 mm)

32 mm (1.3")

40 mm (1.6")

50 mm (2.0")

63 mm (2.5")

75mm (3.0")

90mm (3.5")

110mm (4.3")

R-flex is a multi-layered insulated piping system consisting of cross-linked SDR-9 (1" only) or SDR-11 PEX barrier pipe, multiple PE foam insulation layers, and an outer dual wall corrugated casing. R-flex is engineered for exterior hydronic heating and cooling applications and is **not intended for interior or potable applications**. R-flex tubing features an integral DIN 4726 standard oxygen barrier that limits oxygen diffusion through the pipe wall to less than 0.10 g/m³/day at 104°F water temperature and is available in single or dual pipe configuration.

Specifications

Insulation thermal conductivity 0.0211 Btu/hr sq ft °F (0.0365 W/m °K). Insulation water absorption after 28 days less than 1.04% volume.

System shall be installed using Watts Radiant Single or Dual R-flex. All

connections shall be made using Watts Radiant's R-flex Compression fittings in accordance with all corresponding installation guidelines.

Operating Temperature & Pressure

Max. Temperature	Max. Pressure
200°F (93.3°C)	80 psi (5.5 bar)
180°F (82.2°C)	100 psi (6.9 bar)
73.4°F (22.7°C)	160 psi (11.0 bar)

Installation Parameters

R-flex must be installed in accordance with all Watts Radiant installation procedures, including information provided in the R-flex installation manual and guidelines.

Features

R-flex is available with either Single or Dual PEX pipes. The inner insulation layer is constructed of flexible, water resistant, extruded PE foam encased in a unique dual layer corrugated outer casing. This dual layer provides enhanced flexibility while preventing water penetration. In the event the outer layer is damaged, the inner layer still protects the insulation from water penetration - preventing a potential increase in heat loss.

Applications

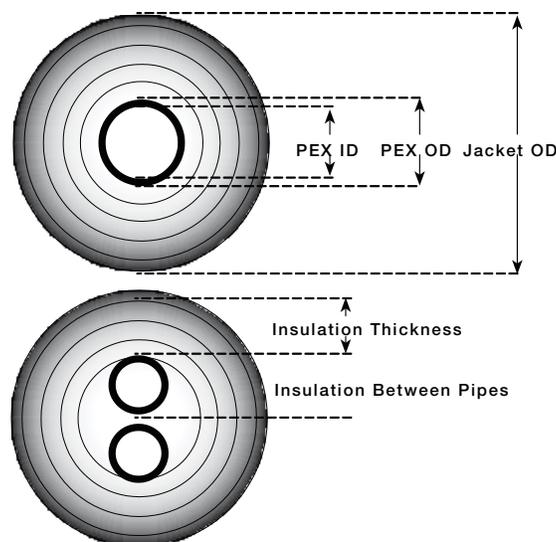
R-flex can be used for hydronic heating, hydronic snow melting, district heating, commercial and process piping, cooling towers and chilled water systems, geothermal, agricultural piping, biomass heat sources, wood-fired boilers, solar, and more.

CAUTION

This Engineering Sheet is not intended to provide full installation instructions and safety information. In order to avoid property damage or injury, please refer to the complete installation manual and product safety information provided with the product.



R-flex consists of a barrier PEX pipe, PE foam insulation, and a dual wall external protective casing.



Pex Tubing Standards and Listings



1inch pex tubing is certified to ASTM F876, SDR-9 dimensions.



All other pex tubing manufactured in accordance to DIN standards for Testing and Materials (DIN 16892 and 16893).



WattsRadiant™
Floor Heating & Snow Melting
Watts Radiant is an ISO 9001-2008 approved facility.

Watts Radiant product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Radiant Technical Service. Watts Radiant reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts Radiant products previously or subsequently sold.

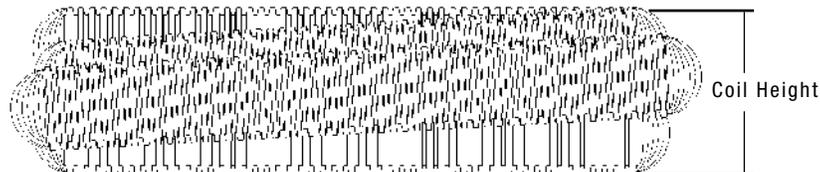
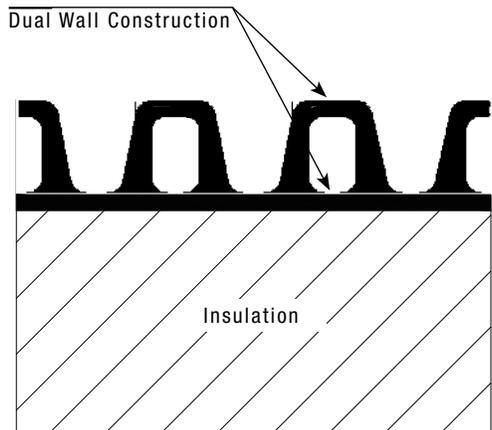
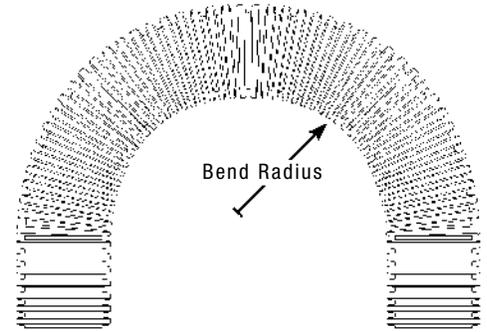
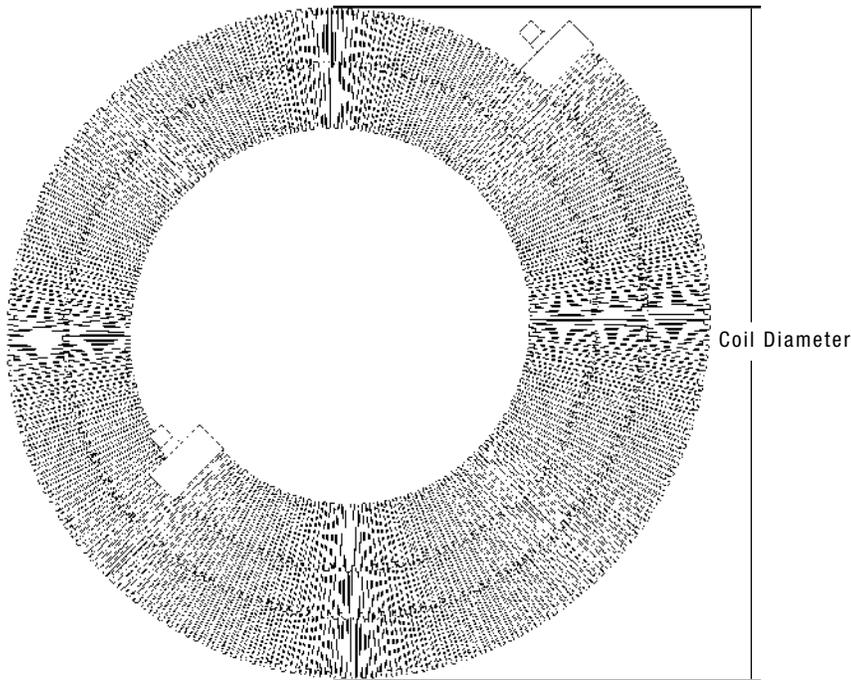
Specifications (conforms to DIN 16892, SDR 11)

Order #	Description	PEX ID	PEX OD	Jacket OD	Bend Radius	Coil Length	Coil Diameter	Coil Height	Coil Weight	Fluid Cap./100m (328ft)	Insulation Thickness	Casing R-Value
Single	81012929	160/40 R-flex	32.6 mm (1.28")	40.0 mm (1.57")	160 mm (6.30")	350 mm (13.8")	2300 mm (90.6")	850 mm (33.50")	232 kg (512 lbs)	83.00 L (21.93 gal)	47.5 mm (1.88")	6.79
	81012886	160/50 R-flex	40.8 mm (1.61")	50.0 mm (1.97")		450 mm (17.8")			248 kg (547 lbs)	131.31 L (34.69 gal)	42.5 mm (1.68")	6.07
	81012887	160/63 R-flex	51.6 mm (2.03")	63.0 mm (2.48")		550 mm (21.7")			278 kg (613 lbs)	208.76 L (55.15 gal)	37.0 mm (1.46")	5.27
	81012889	200/75 R-flex	61.4 mm (2.42")	75.0 mm (2.95")	200 mm (7.90")	800 mm (31.5")		1400 mm (55.20")	416 kg (917 lbs)	296.67 L (78.37 gal)	52.0 mm (2.05")	7.4
	81012890	200/90 R-flex	73.6 mm (2.90")	90.0 mm (3.54")		1100 mm (43.4")			473 kg (1,043 lbs)	426.02 L (112.55 gal)	44.0 mm (1.74")	6.28
	81012891	200/110 R-flex	90.0 mm (3.55")	110.0 mm (4.33")		1200 mm (27.3")			564 kg (1,244 lbs)	638.41 L (168.365 gal)	34.0 mm (1.33")	4.84

Dual	81012879	125/2x1 R-flex*	0.863" (21.92 mm)	1.125" (28.58 mm)	4.90" (125 mm)	11.80" (300 mm)	100 m** (328 ft)	82.70" (2100 m)	27.60" (700 mm)	368 kg (162 lbs)	19.97 gal (75.46 L)	1.11" (28.0 mm)	4.01
	81012880	125/2x32 R-flex	26.2 mm (1.03")	32.0 mm (1.26")	125 mm (4.90")	300 mm (11.80")		2100 m (82.70")	700 mm (27.60")	182 kg (402 lbs)	107.48 L (28.40 gal)	22.3 mm (0.88")	3.18
	81012882	160/2x40 R-flex	32.6 mm (1.28")	40.0 mm (1.57")	160 mm (6.30")	600 mm (23.70")		850 mm (33.50")	263 kg (580 lbs)	166.00 L (43.86 gal)	34.0 mm (1.34")	4.84	
	81012884	200/2x50 R-flex	40.8 mm (1.61")	50.0 mm (1.97")	200 mm (7.90")	800 mm (31.50")		2300 mm (55.20")	1400 mm (55.20")	403 kg (889 lbs)	262.62 L (69.38 gal)	46.0 mm (1.81")	5.67
	81012885	200/2x63 R-flex	51.6 mm (2.03")	63.0 mm (2.48")	1200 mm (47.30")	464 kg (1,023 lbs)				417.52 L (110.30 gal)	33.0 mm (1.30")	4.69	

* Pex pipe is ASTM F876, SDR-9 dimensions.

** Custom lengths are available upon request. Contact distributor for details.



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