

Carrier Tube Bundles

METRIC SIZES

Series 4C82
4C83
4C84

DEKORON®
Unitherm™
Tubing Bundle Experts Since 1962

Carrier Tube Bundles for field-installation of Electric Heat Tracing Cables.

Dekoron® Unitherm™ Series 4C82 through 4C84 Carrier Tube bundles are designed for applications where the user must use an electric heating cable but finds that a standard built-to-length or cut-to-length electric trace bundle is not a cost efficient answer for his application.

The pre-engineered Carrier Tube Bundle allows the user to install the bundle in his application and determine the actual length required for his heating cable. The centrally mounted carrier tube then provides a smooth conduit allowing installation of the heater.

The 4C82/3/4 Series bundles use a high efficiency aerogel thermal insulation for smaller diameters, better protection from chloride stress corrosion, and improved efficiency. This design can also be used in a number of applications, including:

- Heat trace using mineral insulated cables where the run length is unknown or may be shifted during installation.
- Multiple heat trace runs using mineral insulated cables or other electric heat trace cables.
- Heat trace runs with multiple taps, instruments, or fittings where conventional heat traced tubing bundles are not feasible.
- Heat trace bundles where conditions may require periodic replacement of electric heat trace cables.
- Applications where the heat trace tubing bundle is not accessible for routine monitoring or maintenance.

Additional features of this product are:

- Pre-engineered for consistent and predictable thermal and electrical characteristics
- Centrally mounted heater conduit for easy heat trace cable installation
- Bundle can be installed around fittings, taps and instruments without requiring a splice in the heating cable
- High efficiency thermal insulation for smaller OD's, better tray loading, tighter bends
- Hydrophobic insulation repels water
- Insulation provides added protection from stress corrosion cracking
- Wide selection of process tube materials
- Optional sensor conduit for process control
- One bundle could be used in multiple applications simply by changing the type or heat output of the electric heat trace cable.

Applications for this product:

- High temperature process lines
- Lines with multiple taps or instruments
- Lines in hazardous areas
- Applications requiring several temperature requirements for the same tubing
- Applications requiring a replaceable heater
- Bundles routed through inaccessible areas



Product Key:

- 1 Centrally mounted heater conduit to allow easy insertion of Self-Regulating, Power Limiting or Mineral Insulated Electric Heat Trace.
- 2 Single or multiple 6mm, 10mm or 12mm OD Seamless or Welded Stainless Steel process tubes.
- 3 High efficiency, hydrophobic, aerogels thermal insulation.
- 4 Choice of weather protective jacket

Typical Product Constructions

Series	No Tubes	Tube OD	Carrier Tube	Jacket
4C82	1 thru 4	6mm	3/4" x .049 T316L	FTPVC
4C83	1 thru 3	10mm	Welded Stainless	FRTPE
4C84	1 thru 3	12mm	Steel	FRTPU

Standard products contain welded or seamless Type 316/316L stainless steel, hydrophobic, high efficiency aerogels thermal insulation and a weather-protective FRPVC extruded outer jacket. Alternate tube, heater and jackets available. Contact Dekoron Unitherm for assistance on selecting the correct products and materials for the application.

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Technical Information:

Process Tubes -	4C82	1 to 4 6mm Welded or Seamless Stainless steel or PFA Fluoropolymer
	4C83	1 to 3 10mm Welded or Seamless Stainless steel or PFA Fluoropolymer
	4C84	1 to 3 12mm Welded or Seamless Stainless steel or PFA Fluoropolymer
Carrier Tube	All	3/4" x .049" Welded Stainless Steel
Insulation		High-efficiency, hydrophobic aerogel thermal insulation
Outer Jacket		FRPVC - standard optional FRTPE, FRTPU
Maximum Operating Temperature		200°C

Tubing Specifications

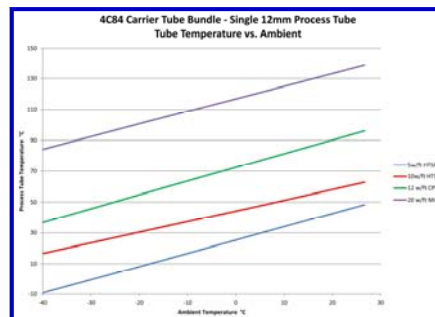
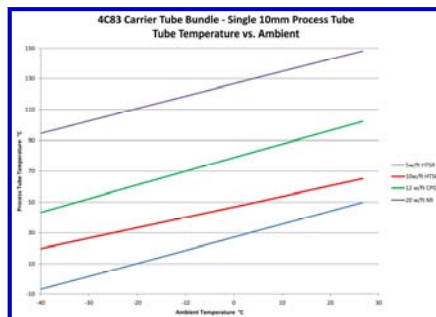
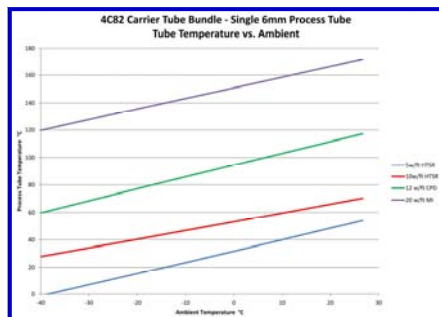
Tube OD	Standard Wall Thickness ⁽¹⁾	Material ⁽²⁾	ASTM Std	Working Pressure @ 200°C ⁽³⁾
6 mm	1 mm	316/316L- S/S WLD	A-269	158 Bar
10 mm	1 mm	316/316L- S/S WLD	A-269	195 Bar
12 mm	1 mm	316/316L- S/S WLD	A-269	89 Bar
6 mm	1 mm	PFA Fluoropolymer	D-6867	6.5 Bar
10 mm	1.5 mm	PFA Fluoropolymer	D-6867	6.9 Bar
12 mm	1.5 mm	PFA Fluoropolymer	D-6867	5.2 Bar

Notes:

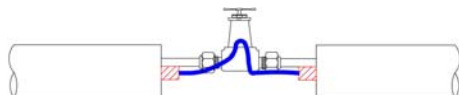
- (1) other wall thickness are available
 - (2) alternate metal and polymer tubing materials are available
 - (3) working pressure based on welded tube, seamless will be higher.
- Contact Dekoron Unitherm for alternate materials

Contact Dekoron Unitherm for information on product options, dimensions, weights and minimum bending radius for these custom designed products.

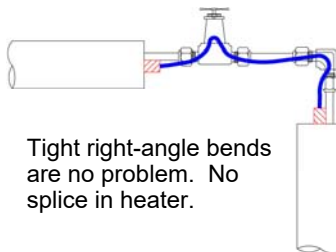
Process Tube Temperatures vs Ambient for Carrier Tube Bundles with Single Process Tubes:



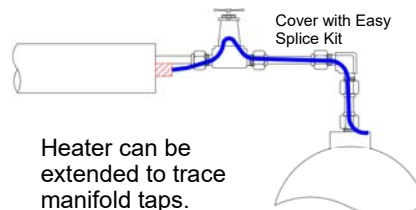
Typical Applications for Carrier Tube Bundles:



Carrier Tube Bundles easily allow installation of valves and instruments without splicing MI



Tight right-angle bends are no problem. No splice in heater.



Heater can be extended to trace manifold taps.

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For additional information visit our website:
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Carrier Tube Accessories:

	Item Number
Uniseal Cable Entry Seals for Bundles up to 35mm for Bundles up to 66.5mm	Seal 1.60 Seal 2.75
Unicut™ Bundle Jacket Cutter	1631-01001
RTV Silicone End Sealant	
85 g tube	1535-02080
292 g cartridge	1535-02120
EasySplice™ Jacket Splice Kit	1540-620xx
Dekoron Unitherm Seal Patch Kit	
20 cm x 20 cm Single Self-Sealing Patch	1540-10000
20 cm x 7.6 m Self-Sealing Roll	1540-20000

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