

nVent RAYCHEM TraceCalc® Pro Version 2.13
Readme File

Welcome to nVent RAYCHEM TraceCalc® Pro, the industry standard for heat-tracing design. nVent is devoted to delivering quality software and support to make this the best design tool available in the industry today. Your feedback is very important to us. Please feel free to contact us at thermal.info@nVent.com with questions, issues, or suggestions for this program.

IMPORTANT: Please check our web site periodically to obtain the latest TraceCalc Pro news and updates.

This Readme covers the following topics:

- 1. Main New Features of Version 2.13**
- 2. Known Issues and Limitations**
- 3. System Requirements**
- 4. Installation**
- 5. Register for a Validation Code**
- 6. Technical Support**
- 7. Change History** (new features and fixed issues)

1. Main new features of version 2.13

- A new set of nVent Raychem heat shrink components have been introduced for the European and Asian (IEC) markets. The new product range consists of two new splice kits (S-20, S-40) and two new end seal kits (E-20, E-40) that together cover the entire temperature span of nVent parallel heating cables. All new kits are approved for use in hazardous areas. They will replace the old heat shrink kits (E-06 / E-19 / S19 / S-21 & S-69) which are planned for obsolescence. For more information, contact your local representative or visit our website: <https://raychem.nvent.com>.
- The default cold leads for polymer series heating cables type XPI-F for the European and Asian (IEC) markets, have been set to standard XPI cold leads. These are 100% compatible with the XPI-F heating cables and offer superior chemical resistance to XPI-F cold leads. However, if XPI-F cold leads are desired, they still can be forced in the Heater options tab.
- The availability (made-to-order / made-to-stock) of mineral insulated heating cables for the European and Asian (IEC) markets has been updated to reflect the latest changes to nVent stocking policy for mineral insulated heating cables. This will also be reflected in the next edition of the pricelists. For more information, contact your local representative.
- For designs with mineral insulated cables using North-American standards, the software now includes validation to ensure that the temperature ratings of the hot-cold connections are respected to ensure optimum reliability and lifetime of the system.
- The complete configured ordering string of a mineral-insulated heating unit is now shown in the results summary pane at the bottom of the TraceCalc Pro design interface. This facilitates the review of completed designs with mineral heating units,. Previously it was only visible in the BOM or detailed reports.

- The vessel properties form, where all vessel design data is entered, now also shows the vessel volume. This is the total actual vessel volume and not the liquid volume that the vessel can carry.

2. Known Issues and Limitations

- For designs with European single conductor, polymer insulated (PI) series heater cables, the connection components selected by TraceCalc Pro have the following limitations:
 - a. For CS-150-xx-PI connection kits, the specific crimp size is not indicated in the bill of material. You will need to manually select the correct crimp based on data presented in the latest Technical Data Book.
 - b. For Power Tee or Power Splice configurations, a JB-EX-20 junction box will be selected by TraceCalc Pro; a JB-EX-21 should be substituted instead.
 - c. The last leg of a multi-segment Parent/Child design will include two single conductor segments and a junction box allowed for series connection of the two segments. At this point, TraceCalc Pro does not support a single looped cable as the last segment.
 - d. TraceCalc Pro will not support the full application range of the universal connection and splice kit for PI heating cables, reference: CS-150-UNI-PI. Its maximum use temperature has been limited to 120°C for simplification of the selection algorithms. If the user plans to select the kit, it is important to verify the maximum allowed wattages for higher temperatures as detailed in our installation instructions (ref. Install-064). In case of doubt, please contact nVent or use the kit CS-150-2.5- PI instead.
- For European series cable designs, TraceCalc Pro will propose a bill of materials for which some components have the quantity set to zero. These are small electrical items required to create the desired electrical configuration and are compatible with the proposed junction box. Users should adjust the quantities of these components to ensure that the requested electrical configuration can be realized. Refer to the individual datasheets of the proposed junction boxes for more information on the exact contents and electrical limitations.

3. System Requirements

The TraceCalc Pro installation package no longer supports installation on Windows XP. Contact nVent for more information.

Minimum Requirements:

- Microsoft Windows 10 or later, Server 2012 or later
- At least 25 MB of free hard disk space
- **Internet Explorer 6.0 or later**
- Adobe Acrobat Reader 5.0 or later
- Recommended: 500 MHZ, 2 GB RAM

4. Installation

The program can be downloaded from our website. After downloading, just start the TraceCalc Pro 2.13 Setup.exe program and follow the instructions.

During installation, Setup will detect if an earlier version has been installed. If you have an earlier version installed, then Setup will uninstall it before continuing. All of your application settings will be retained. Old projects will not be removed and can be used with TraceCalc Pro 2.13.

5. Register for a Validation Code

When you install the TraceCalc Pro software, you are getting a trial version that will only function for 30 days, unless it is registered and a valid registration code entered.

The first time you launch TraceCalc Pro, you will be prompted to register. Register online through our public website. Once you register, we will send you the validation code. To enter the code, launch TraceCalc Pro, click **Register** on the main menu and type the code in the pop-up window.

6. Technical Support

For help using TraceCalc Pro, first check the extensive on-line help in the program.

- To contact your local nVent representative, visit our website, click on the 'Support' menu, then choose 'Where to Buy'
- To view Frequently Asked Questions, visit our website, click on the 'Support' menu, then choose 'Frequently Asked Questions (FAQ)'
- To contact Technical Support, send email to thermal.info@nVent.com and indicate your country and preferred language.
- To download the latest version of TraceCalc Pro or the user manual, go to the TraceCalc Pro page.

Thanks for reporting any issues to us.

7. Change history

Version 2.13

New	XPI cold leads will now be the default cold leads used with XPI-F heating cables (Europe only).
New	New heat shrink splice (S-20, S-40) and end seal (E-20, E-40) components have been introduced (Europe only).
New	The diameters of 62CC4200 and 61CD3610 have been updated.
New	Heater availability (made-to-order / made-to-stock) has been updated to reflect the latest catalog.

New	MI cold lead maximum heater exposure temperature is now being validated for cold leads in North America.
New	The configured part number string of mineral-insulated cables is now shown in the results summary pane.
New	When no image is available for a component, the components tab will now show the message 'no image available' rather than a default image.
New	The S48/X/T PyroFLX cold lead has been removed, as it is obsolete.
New	A new English / Russian Azeri warning label has been added (Europe only).
New	The vessel volume is now shown on the vessel properties form.
Fixed	Product tolerances have been revised on the BTV cable range to a more stringent window. This can result in different calculated values for the operating load and circuit CB current. However these results will always result in a lower value & hence cannot cause any performance, electrical nor safety issue.
Fixed	Coaxial connectors should not be allowed with S49A or S48A cold leads.
Fixed	The ETS-05 should be allowed in T5 hazardous areas.
Fixed	When using Imperial units, the insulation k-factor reported to the user could be up to 2% different than the value used in the calculation, due to a rounding error.
Fixed	The number of heater entries was not being accounted for correctly when calculating the number of required parts for the heater termination kit.