# TRI
# MO

# TRIMOTERM

TABLE OF CONTENT

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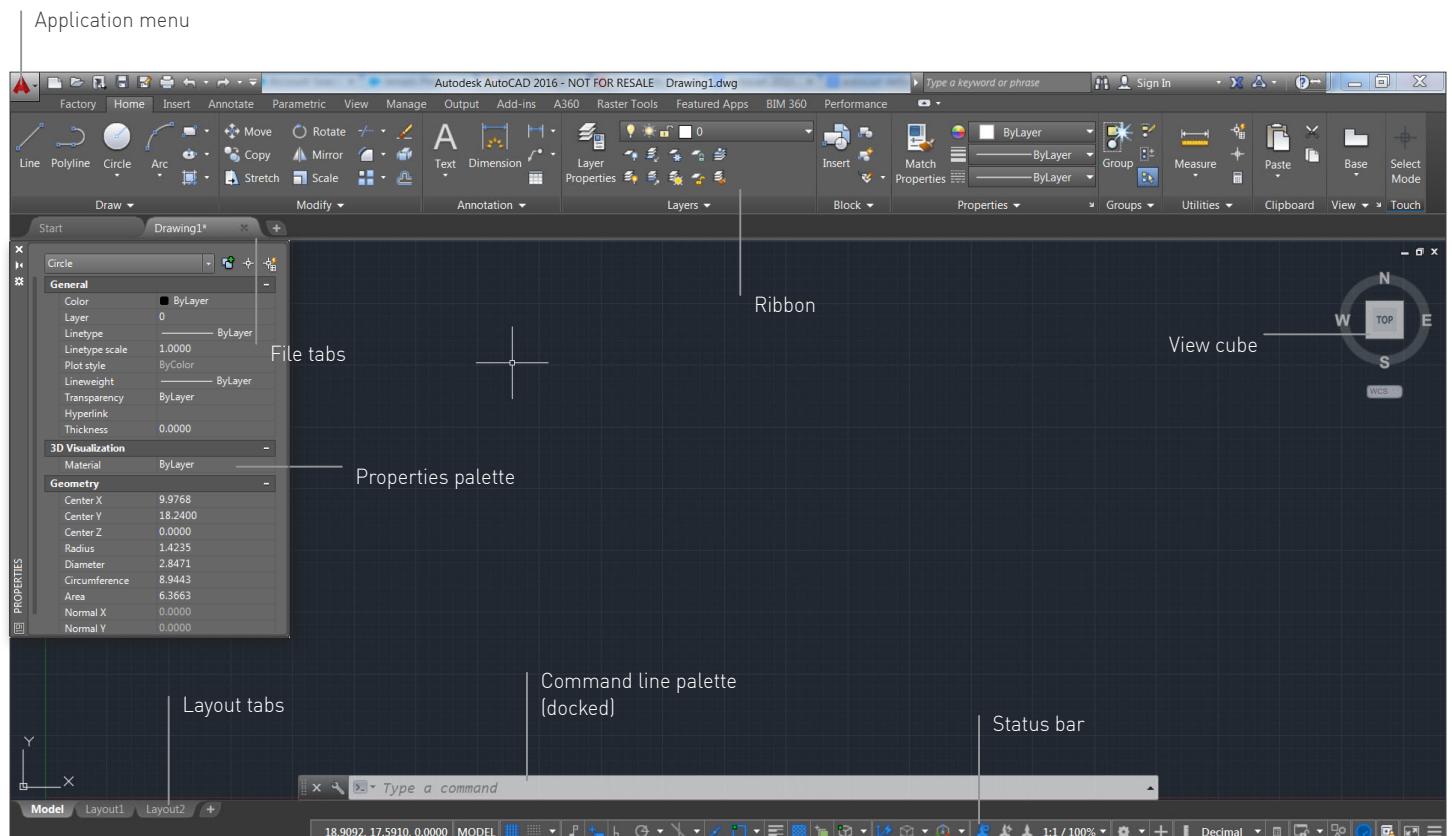
# GENERAL

## AUTOCAD USER INTERFACE ELEMENTS

Whether you are new to AutoCAD, or an expert user, you might not be fully aware of all of the "UI" elements available. The following pages describe the most recognized AutoCAD commands being used with TRIMOTERM design details.

### RIBBON

The "Ribbon" contains various commands organized into tabs and panels. Contextual tabs are very powerful, they appear with panels of commands and options relating to whatever task is at hand and whatever entity type is selected.

### PROPERTIES PALETTE

Object properties control the appearance and behavior of objects, and are used to organize a drawing. Every object has a "General properties" including its layer, color, linetype, linetype scale, lineweight, transparency, and plot style. In addition, objects have properties that are specific to their type.

Application menu



AutoCAD user interface screen

# GENERAL

## APPLICATION MENU

"Application Menu" can be found in the far upper left corner of the AutoCAD screen. In AutoCAD, it's generally contains a big red "A". When you single-click this button a menu drops down that contains items shown on the right picture. Probably more importantly, the application menu contains links to your most recently accessed drawings, and sheet sets. With the click of a button you can change this to a list of currently open drawings.

## LAYOUT TABS

"Layout tabs" provide access to "Model Space" and each "Layout" in a given document. Left-click on a tab to make it current, and Right-click on a tab to access more options such as Print, Move, or Rename. There is always a tab containing a plus sign for the creation of a new layout.

## STATUS BAR

Moving to the bottom of the application, you will find the "Status Bar". In later versions of AutoCAD the status bar contains icons only. By default several icons are not enabled, so you might want to turn them on. Below is a "stock status bar", along with the control icon on the far right, expanded to show you the other available icons.
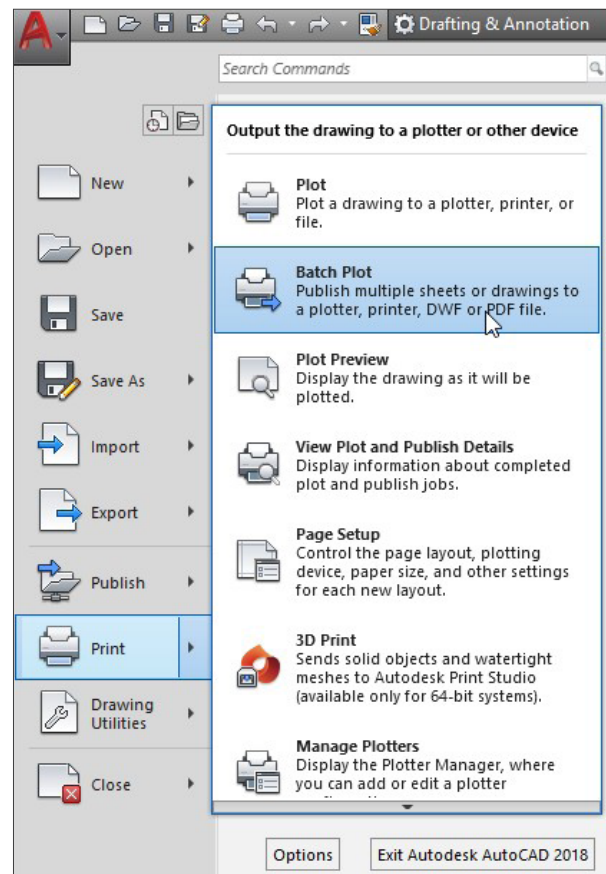
## AUTOCAD BASIC COMMANDS

### DYNAMIC BLOCKS

"Dynamic blocks" contain rules and restrictions that control the appearance and behavior of a block when it is inserted into a drawing or when it's later modified. The controls are limited to 2D operations only. You can access the "Block Editor" by using the "BEDIT" command.

### BATCH PLOT

"Batch Plot" command allows you to publish multiple sheets or drawings to PDF files. It can also be used for publishing to a plotter, printer, or DWF. You can access "Batch Plot" by Left-click on "Output tab" > "Plot panel" > "Batch Plot".

### XREF

An "XRef" is an external reference to another AutoCAD drawing file. One file can reference many other files and display them as if they were one. You can access the command by Left-click on "Menu bar" > "Settings" > "XRefs".

# GENERAL

## INTRODUCTION

Experiences of our internal and external TRIMOTERM design experts have been now translated to a user friendly AutoCAD drawing. New details drawing scheme is based on a drawing: TRIMOTERM system FTV - Design - TE-H EN within which the specific components like .Xref drawings, main page, details scheme and corresponding notes of details can be found.

## DESIGN DETAILS INSTALLATION

The last version of TRIMOTERM design details package can be downloaded on:
trimo-group.com/en/downloads/design-tools/dwg

After the download the details folder package must be un-zipped (.zip). Last update of the details was done on January 2020 by TRIMO). Drawing is available for AutoCAD version 2013 or later.

To obtain .Xref paths it is necessary to leave details folder structure unchanged. If file references are not loaded or accessible it is necessary to set the path to references again (see picture 2).



References file contains individual AutoCAD details with digital image of the product.
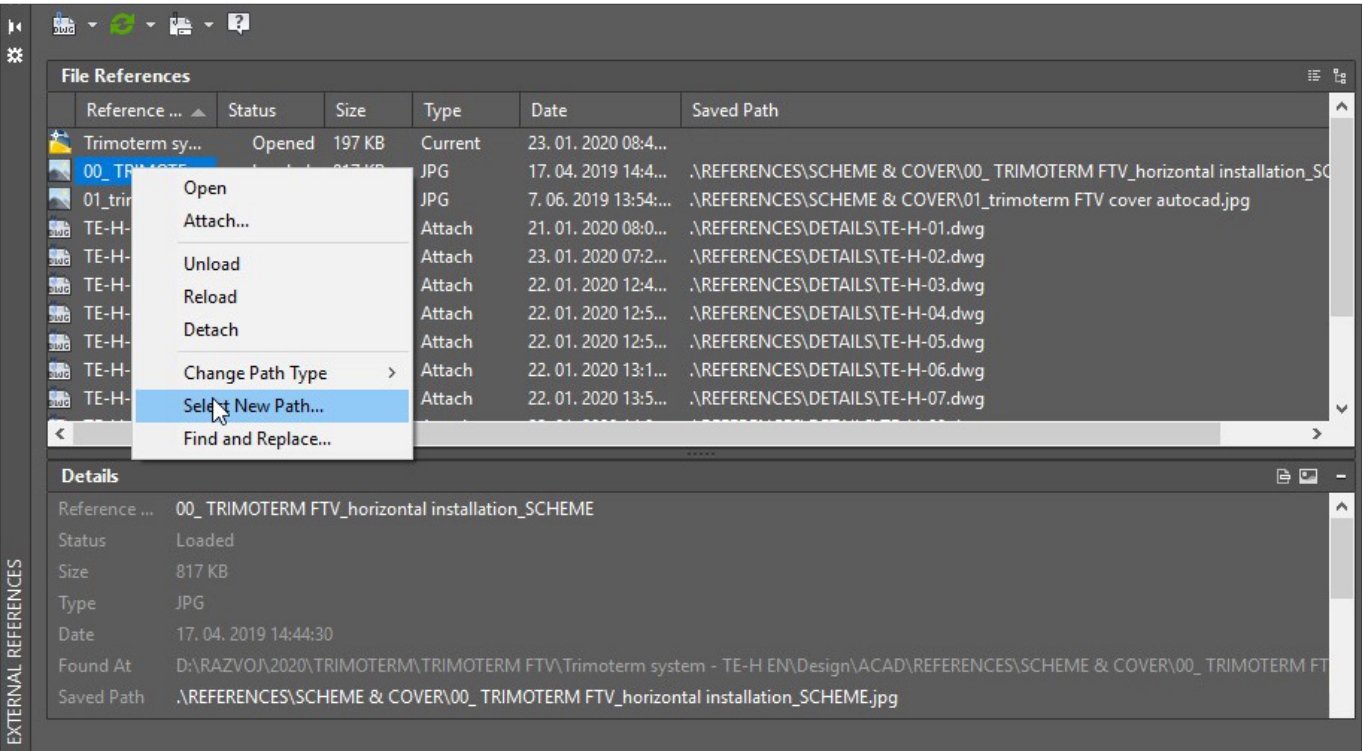
# GENERAL

**ACCES TO THE DETAIL**

After design details drawing (Trimoterm system FTV - Design - TE-H EN.dwg) is successfully downloaded, saved and opened in AutoCAD (version 2013 or later), detail groups can be accessed by simply entering "XOPEN" command in a "Command line palette" and choosing + Left-click on required group of details.

The alternative way to open the details is by positioning on the desired details group, and selecting "Open Xref" command by a Right-click (see picture 1).

The direct access to certain detail group number is always possible through downloaded design details file structure ( > REFERENCES > DETAILS ).
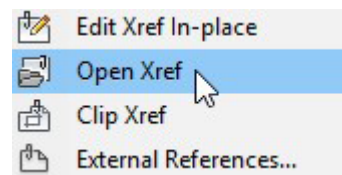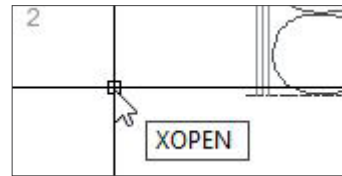
Picture 1

## NAMING CONVENTION

The naming convention found on each detail sheet declares the facade system, type of the detail (DESIGN), element installation direction (TE-H - horizontally laid facade element) and description language (EN - English). All this marks constitutes the detail number.

Detail name and number offers the overview of the whole scope of design details.

| COMPANY BRAND NAME | PRODUCT FAMILY NAME | | PRODUCT NAME | INSTALLATION DIRRECTION | NO. OF DETAIL GROUP | NO. OF DETAIL |
|---|---|---|---|---|---|---|

**TRI MO TRIMOTERM**          DETAIL: **TE-H-01.02**

**HORIZONTAL INSTALLATION**

# TRIMOTERM FTV

BUILDING APPLICATION

● External Facade          ○ External Soffit

○ Internal Wall          ○ Internal Ceiling

○ Roof          ○ Backing panel

| PRODUCT INSTALLATION DIRECTION | NAME OF THE PRODUCT |
|---|---|

BUILDING APPLICATION POSSIBILITY

Naming convention of design detail: TE-H(V)-x.y.

1

INSTRUCTIONS

# INSTRUCTIONS

## DRAWING SPECIFICS OF DETAIL GROUP

All detail groups can be explored and accessed through the combined drawing set in a "Model" tab window. Individual detail group pages are accessible through the "Layout" tabs with specific name and number of the detail (see picture 3).

Names on Layout tabs, (example:"1_09_01_D01") describes detail name and number:

- 1, 2, 3      number sequence of paper page
- 09_01, 09_02    number of detail (TE-H-09.01, TE-H-09.02)
- D01, E01      name of detail (DILATATION 01, ...)

In a "Model space" tab we find all drawing elements of particular detail group (drawing of a detail, drawing frame, notes, element position text). That greatly improves the detail selection and distinction. Be aware that the "Group Selection" command icon is turned on (see picture 4).

### COPY & PASTE TO THE DIFERENT AUTOCAD DRAWING

Selecting and copying the detail in order to paste it to other AutoCAD drawing can be done through a "Layout view". In order to enable copying "Paper space" view must be changed to a "Model space" view.
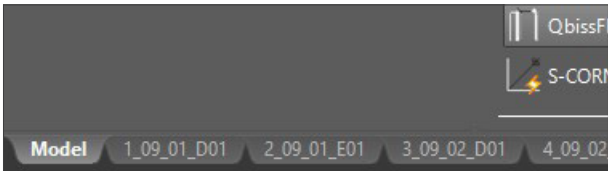
### PLOT

When it comes to page plotting this kind of a drawing organization is a great advantage. With a few, very simple steps we can plot the whole or a selected number of detail pages.

Pre-set drawing plotter is defined from a default AutoCAD list. Plot stile is organized on the basis of default layer drawing structure therefore a specific "Plot stile" (.ctb file) it is not needed.

All detail pages are placed in a A4 (210 × 297 mm) page format. Scale in a "Model" tab view is set to 1:2,5 and in "Layout view" to 1:1. That enables plotting an A4 detail page sheet in a scale of 1:2,5. Within that, it is important to notice the drawing objects like dimension lines and position labels requires an "Annotation Scale" function in a bottom "Status bar" to be turned on (see picture 5).



| 4 | Thermal insulation |
|---|---|
| 5 | Blind rivet |
| 6 | Fixing screw |
| 7 | Flashing support |
| 8 | Self adhesive sealing tape EP |

VERSION: I 01. 07. 2019 I

**JOINT** —— Name of detail

Latest version of design details is clearly marked on bottom left side of every details sheet.
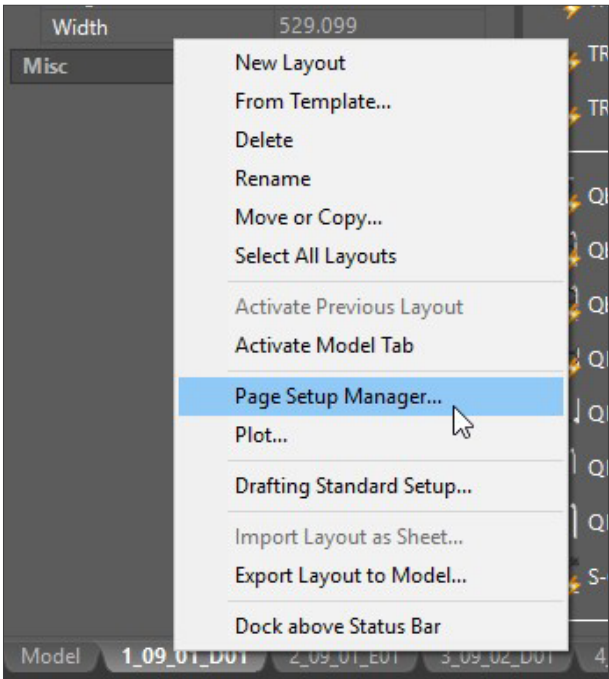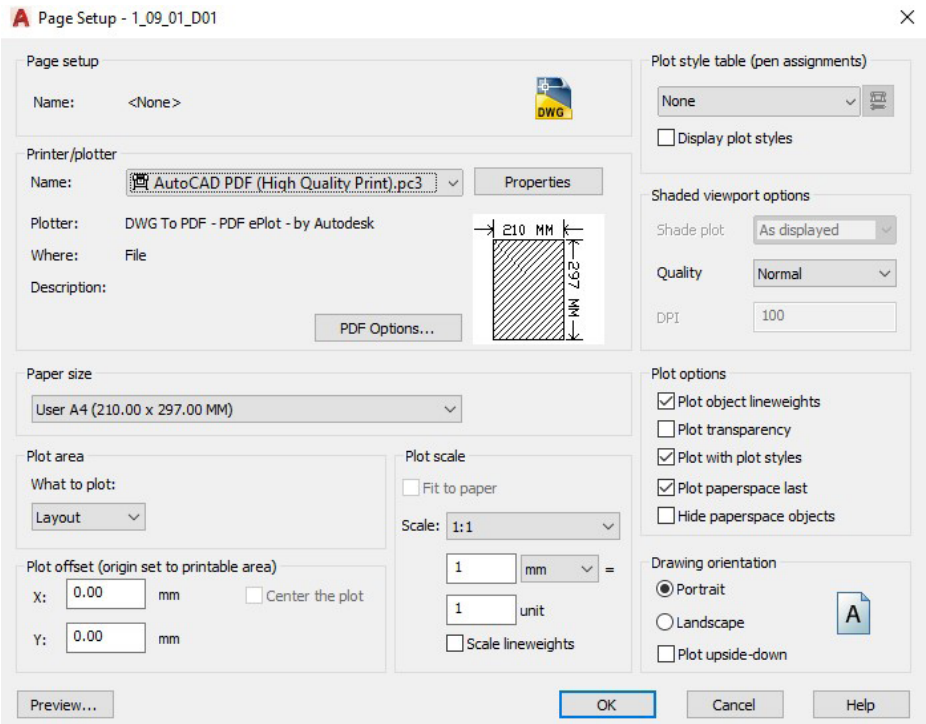


Picture 3
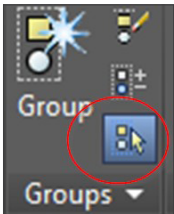


Picture 4



Picture 5

# INSTRUCTIONS

When in a detail "Layout" window, page plot setup for individual detail is done by Right-click on a "Layout" tab and choosing "Page Setup Manager" command (see picture 6).

To allow pages to plot correctly, follow the basic "Page setup" window settings shown in a picture 7.
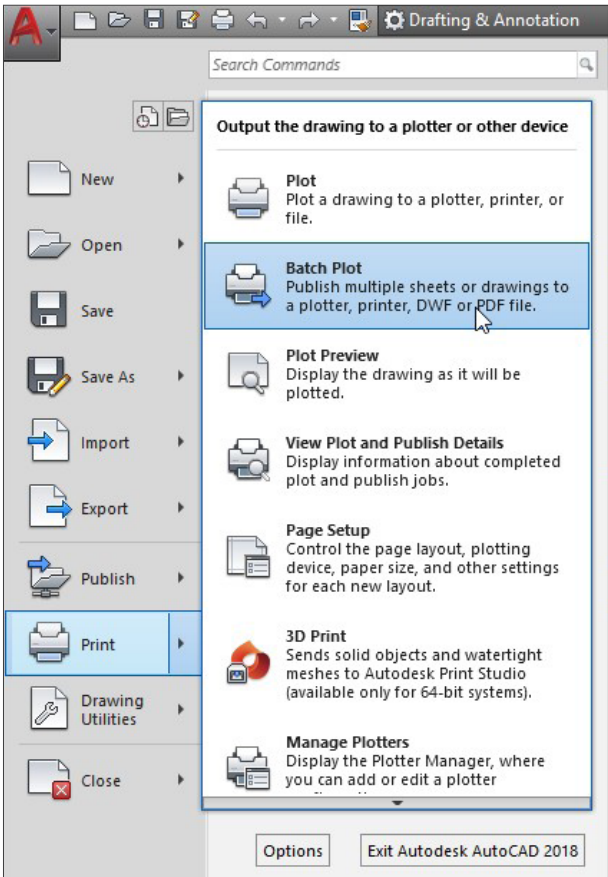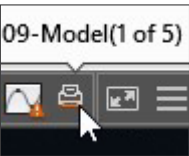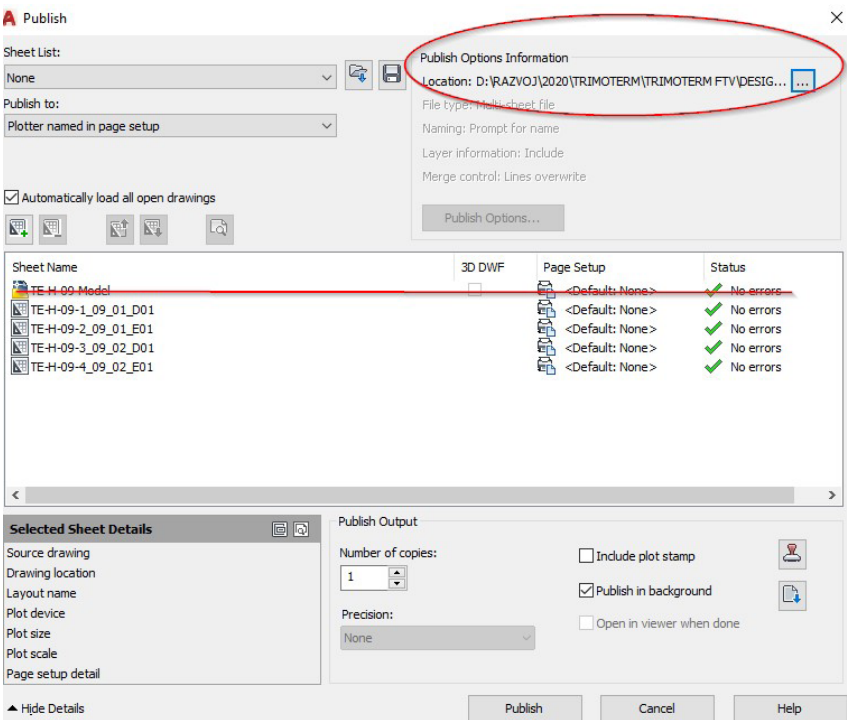


Picture 6



Picture 7

# INSTRUCTIONS

## BATCH PLOT

When there is a need of plotting the whole detail pages set, this kind of a drawing organization is a great advantage. When in a detail "Model" window open a "Batch Plot" command to publish multiple pages of a detail to a PDF plotter (see picture 8).

To ease the process of "Batch Plot" it is important to leave opened only the drawing used for plotting. In a "Publish" set-up window, model drawing must be erased. The location file of the drawing batch is set in a "Publish Option Information" tab. After all the settings are correctly entered we can click publish to allow drawings to be plotted and saved (see picture 9).

Note: The status of publishing process can be monitored through an icon in a "Status bar" (see picture below).





Picture 8



Picture 9

# INSTRUCTIONS

## DYNAMIC BLOCK FEATURES

A great advantage of a drawing structure is an introduction of dynamic blocks for most of the drawing elements in design details. "Dynamic blocks" enables easier element displacement within the drawing.

If the block is copied to another drawing we must make sure to use the correct way of the transfer. Be aware that block properties in a new drawing overwrite by the properties of copied block.

One of attributes' (element information) feature is that they can be transferred from on block to a another. To be able to transfer attributes, the name of the "Dynamic block" must be the same (see picture 11).

### TABLE OF QUANTITIES

"Position label" text (see picture 12) is controlled by attributes in a "Properties palette". They enable entering information to form "Elements order data". The information can be further on exported to third party application to process and form adequate "List of elements".

"Position labels" and "List of elements" (amount) are used to form "Bill of materials (BOM)" (see picture 13).

To do all the data transactions the "MAV" function is used.

Note: "MAV" function is not included in a standard AutoCAD application package and must be added individually. For more detailed information about availability and installation, please contact Trimo's design team.
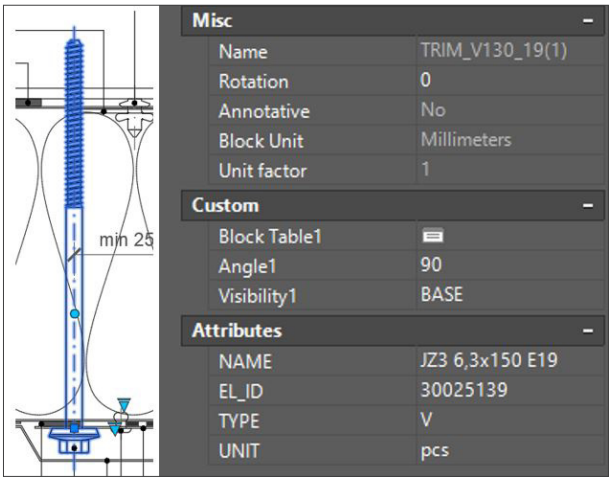


Panel fixing screw (picture 11)
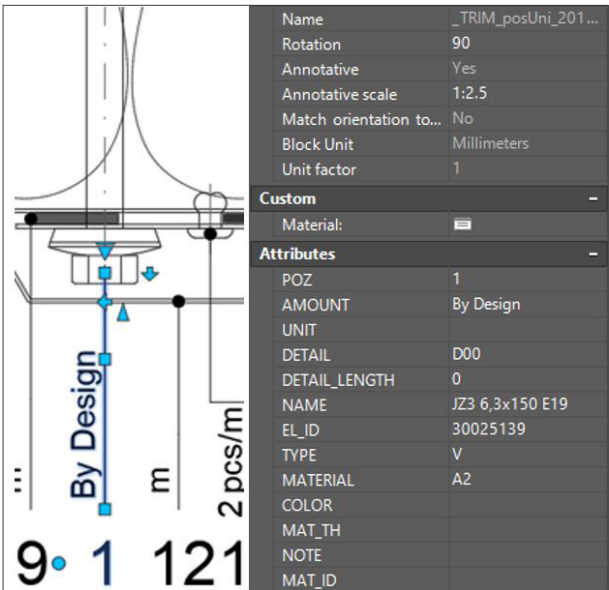


Position label (Picture 12)

| POS | CODE | ELEMENT | AMOUNT | UNIT |
|-----|------|---------|--------|------|
| 1 | 30025139 | JZ3 6,3x150 E19 | By Design | |
| 2 | 30006660 | Vapour control layer - inner; with EPDM glue | | m |

Picture 13

# INSTRUCTIONS

## VISIBILITY STATE

Within "Dynamic blocks" we have two "Visibility State" options (see picture 14):

- BASE          basic level of element representation - a default level in standard design details.
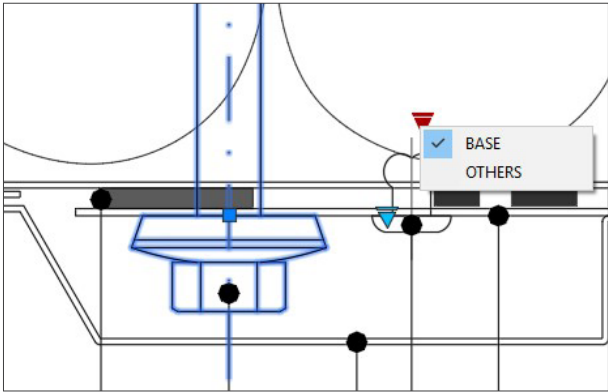- OTHERS        advanced level of element representation - an adjustable designers' level in design details.

## PANEL THICKNESS

Beside Visibility State", elements contain an additional "marker" which defines elements family with correlation to element thickness (see picture 15).

When element thickness is changed the attributes connected change parametrically. Furthermore the element geometry change as well. (see picture 16).

The alternative way to define element thickness is to select "Block Table1" in "Custom" properties in the "Properties palette". In the table we can choose from available thicknesses required by a project. When element thickness is changed the attributes connected change automatically.

Note: Do not change values under PANEL_THICKNES attribute in the "Properties palette". The change will not be translated to other attributes.
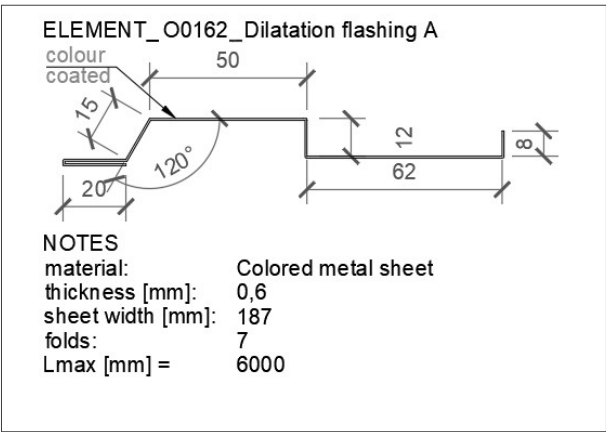
# INSTRUCTIONS

## ELEMENT LABELS & INFORMATION TABLE

The element labels is another feature worth mentioning. The labels or element descriptions are designed around unified attributes with "Position label" and "Element drawing".
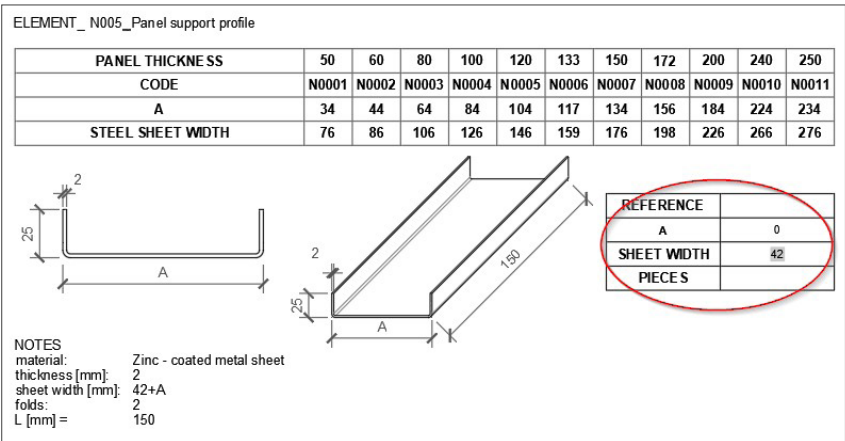
With the use of "MAV" function, quick translation of parameters to individual element schedules is possible (see picture 17).

In addition to element drawing and parameters a table of element information is formed. The data in the table is needed to order or send the element to production.

Steel sheet width dimension is calculated on the basis of parameters from element information table and panel thickness (see picture 18).
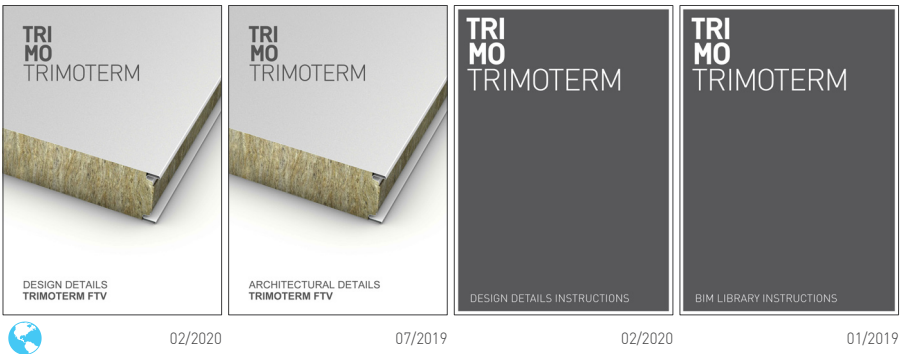


ELEMENT_ O0162_Dilatation flashing A

NOTES
material: Colored metal sheet
thickness [mm]: 0,6
sheet width [mm]: 187
folds: 7
Lmax [mm] = 6000

Picture 17



ELEMENT_ N005_Panel support profile

| PANEL THICKNESS | 50 | 60 | 80 | 100 | 120 | 133 | 150 | 172 | 200 | 240 | 250 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | N0001 | N0002 | N0003 | N0004 | N0005 | N0006 | N0007 | N0008 | N0009 | N0010 | N0011 |
| A | 34 | 44 | 64 | 84 | 104 | 117 | 134 | 156 | 184 | 224 | 234 |
| STEEL SHEET WIDTH | 76 | 86 | 106 | 126 | 146 | 159 | 176 | 198 | 226 | 266 | 276 |

| REFERENCE | |
|---|---|
| A | 0 |
| SHEET WIDTH | 42 |
| PIECES | |

NOTES
material: Zinc - coated metal sheet
thickness [mm]: 2
sheet width [mm]: 42+A
folds: 2
L [mm] = 150

Picture 18

# ASSOCIATED DOCUMENTS



DESIGN DETAILS
**TRIMOTERM FTV**
02/2020

ARCHITECTURAL DETAILS
**TRIMOTERM FTV**
07/2019

DESIGN DETAILS INSTRUCTIONS
02/2020
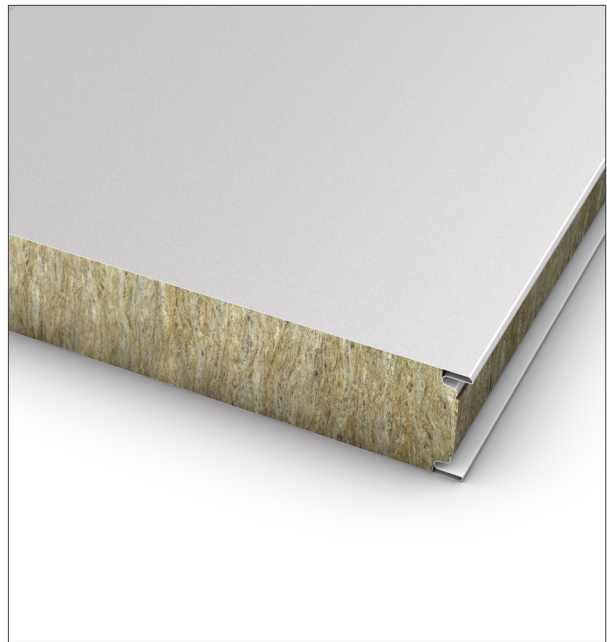
BIM LIBRARY INSTRUCTIONS
01/2019

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