

Foundation Tools v2.2 Feadship

To use the Foundation Tools, please follow the next steps.

Step 1 Registration:

When not done yet, please register at <http://www.ale.nl/register> (or login button at the top right corner), then wait for our team to have your account approved.

Registering is important, as you will be notified when any updates are available.

Step 2 Login:

Login at <http://www.ale.nl> and confirm you are not a robot.

Step 3 Download:

Start downloading the Foundation Tools (3 of them); these can be found under Downloads (top right corner) or under Engineering Tools → Foundation Tools. Store them on a convenient place on your PC.

Step 4 Opening the files:

After opening the files, Excel will ask you to **Enable Editing** as the files are currently view protected.

Another security warning may pop-up asking you if you want to **Enable Content**, please accept this.

Step 5 Using the Tools:

This step only explains the usage of Tool no. 1, the rest of the tools function the same way. The following layout should be visible; a description of all textboxes and buttons will be found below.

The screenshot displays the 'Foundation Tool 1 Calculator' interface, version 2.2, developed by Feadship Royal Dutch Shipyards. The interface is divided into several sections:

- Input Fields:** Drawing number (4544-64646-46-46-4646-464-64-AB), Calculation number (63-41-55-90), and Company name (ghsijkl).
- Material Selection:** Radio buttons for Steel and Aluminium (selected).
- Profile Choice:** Radio buttons for 'Use all profiles', 'profiles', and 'Manual'.
- Self supporting frame:** Radio buttons for 'No' and 'Yes'.
- Mass equipment:** A text input field with the value '10' kg.
- Aluminium selected:** A confirmation message.
- Suggestion for Standard Aluminium Profiles:** A table with columns for Profile 1, Dimensions, Profile 2, Dimensions, and Total mass of frame. The suggested profile is 30x30x3, with a total mass of 1.385 kg.
- 3D Model:** A 3D rendering of a frame structure with dimensions (400x600x800) and deflection values: Deflection topside of equipment (-0.071 mm), Deflection Profile 1 (0.009 mm), and Deflection Profile 2 (0.000 mm). Forces $F_1 = 2g$ and $F_2 = 2g$ are indicated.
- Manual profile selection disabled:** A message at the bottom of the interface.

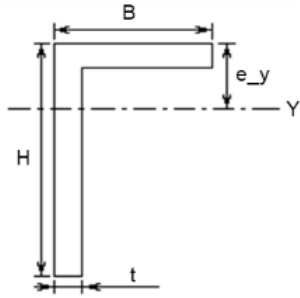
- **Drawing number:** here you will fill in the given drawing number (please only fill in the numbers, not the dashes and letters!); These numbers have the following format:
xxxx-xxxxx-xx-xx-xx-xxxx-xxxx-xxx-xx-AA
Ship–Company–Department–Block–Deck–Area–Spec–Sequence–Sheet–Revision
- **Rev.:** here you will fill in the revision letter (From A to Z, two letters)
- **Calculation number:** this number will be randomly generated after you have filled in the drawing and revision number. After you completed the calculation this Calculation number must be noted on the Foundation drawing.
- **Company name:** please fill in your company's name here
- **Material:** here you select which material you would like to use for the foundation. In this version, steel is disabled.
- **Profile choice:** as default, the tool will use all standard profiles named in Appendix A, when preferred, you can "force" the tool to calculate with box-profiles only. A manual mode is also available for users who prefer to select all profiles themselves.
- **Self-supporting frame (only available in Tool 1):** Select Yes if you only wish to calculate profile 2
- **Mass equipment:** here you will fill in the equipment's mass. Please do this as accurate as possible. The tool calculates with a safety factor, so it is not necessary to "manipulate" this value.
- **Foundation and Equipment dimensions:** self-evident, here you will fill in the dimensions of the foundation and equipment. If the center of gravity is unknown, please use half of the equipment height for it.
- **Update button:** After everything is filled in correctly, press the Update button. 2 profile choices will appear together with a mass. Please refer to the image on the right side to see which profile belongs where.
- **Save as PDF:** when finished and double checked, select this button. A popup window will appear asking you were to store the calculation file. The generated calculation number is visible on the PDF file. Please use this number on the foundation drawing.
- **Clear form button:** (top right of the image), this button will reset all textboxes so that you can start with a next calculation.

Please keep in mind to always use the latest versions of the tools. Updates will be available regularly and notifications will be sent to your registered e-mail address.

For any questions / remarks you can e-mail us at weight@ale.nl

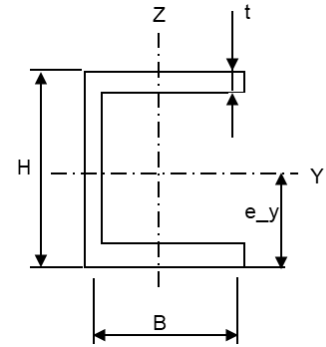
Appendix A

Profiel 1



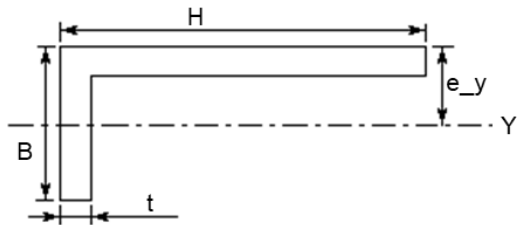
Material	H	B	t	Grade
Aluminium	30 x	30 x	3	6060 T6
Aluminium	30 x	30 x	4	6060 T6
Aluminium	30 x	30 x	5	6060 T6
Aluminium	40 x	40 x	3	6060 T6
Aluminium	40 x	40 x	4	6060 T6
Aluminium	40 x	40 x	5	6060 T6
Aluminium	50 x	50 x	3	6060 T6
Aluminium	50 x	50 x	4	6060 T6
Aluminium	50 x	50 x	5	6060 T6
Aluminium	50 x	50 x	6	6060 T6

Profile 3



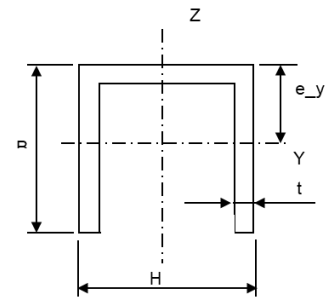
Material	H	B	t	Grade
Aluminium	30 x	20 x	3	6060 T6
Aluminium	30 x	30 x	3	6060 T6
Aluminium	40 x	20 x	3	6060 T6
Aluminium	50 x	50 x	3	6060 T6
Aluminium	50 x	50 x	5	6060 T6

Profile 2



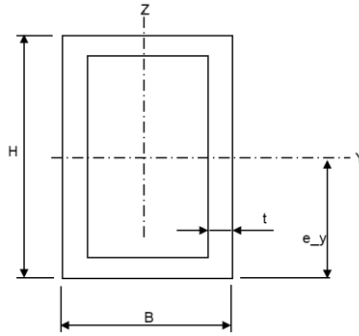
Material	H	B	t	Grade
<i>Disabled, as profile 1 contains just point symmetric profiles</i>				

Profile 4



Material	H	B	t	Grade
Aluminium	30 x	20 x	3	6060 T6
Aluminium	30 x	30 x	3	6060 T6
Aluminium	40 x	20 x	3	6060 T6
Aluminium	50 x	50 x	3	6060 T6
Aluminium	50 x	50 x	5	6060 T6

Profile 5



Material	H		B		t	Grade
Aluminium	30	x	30	x	3	6060 T6
Aluminium	40	x	20	x	3	6060 T6
Aluminium	40	x	30	x	3	6060 T6
Aluminium	50	x	25	x	3	6060 T6
Aluminium	50	x	50	x	3	6060 T6
Aluminium	50	x	50	x	4	6060 T6
Aluminium	50	x	50	x	5	6060 T6
Aluminium	60	x	60	x	3	6060 T6
Aluminium	60	x	60	x	4	6060 T6
Aluminium	80	x	40	x	4	6060 T6
Aluminium	80	x	80	x	3	6060 T6
Aluminium	80	x	80	x	4	6060 T6
Aluminium	100	x	40	x	3	6060 T6
Aluminium	100	x	50	x	3	6060 T6
Aluminium	100	x	50	x	4	6060 T6
Aluminium	100	x	50	x	5	6060 T6
Aluminium	100	x	100	x	4	6060 T6
Aluminium	100	x	100	x	5	6060 T6