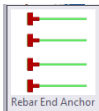# Dextra Griptec component plugin for Rebar Coupler and Anchor tools.

Dextra components are meant to be used with the Tekla default "Rebar Coupler and Anchor tools" which is an integral part of more recent versions of Tekla. For older versions of Tekla, this tool should be downloaded from the Tekla Warehouse.
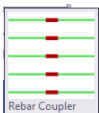
The Rebar Coupler and Anchor Tools is divided into several applications, as follows:
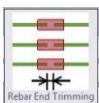
Rebar End Anchor.

 The individual Griptec components can then be represented as attached to separate rebars on drawings within the rebar schedule.

Rebar Coupler

 This tool identifies the ends of two different rebar diameters, which require connecting via a Griptec coupler assembly. A Transition splice can then be inserted.

Rebar End Trimming

 This tool is used to adjust rebar ends to the correct position (Recommend for "Griptec Male + Position" and "Griptec Male + Bridging")

Update Rebar Attribute.

 This tool is used to update rebar attributes (separately or as batch). This is especially useful to clear attributes associated with a rebar where a coupler has been added and then removed.
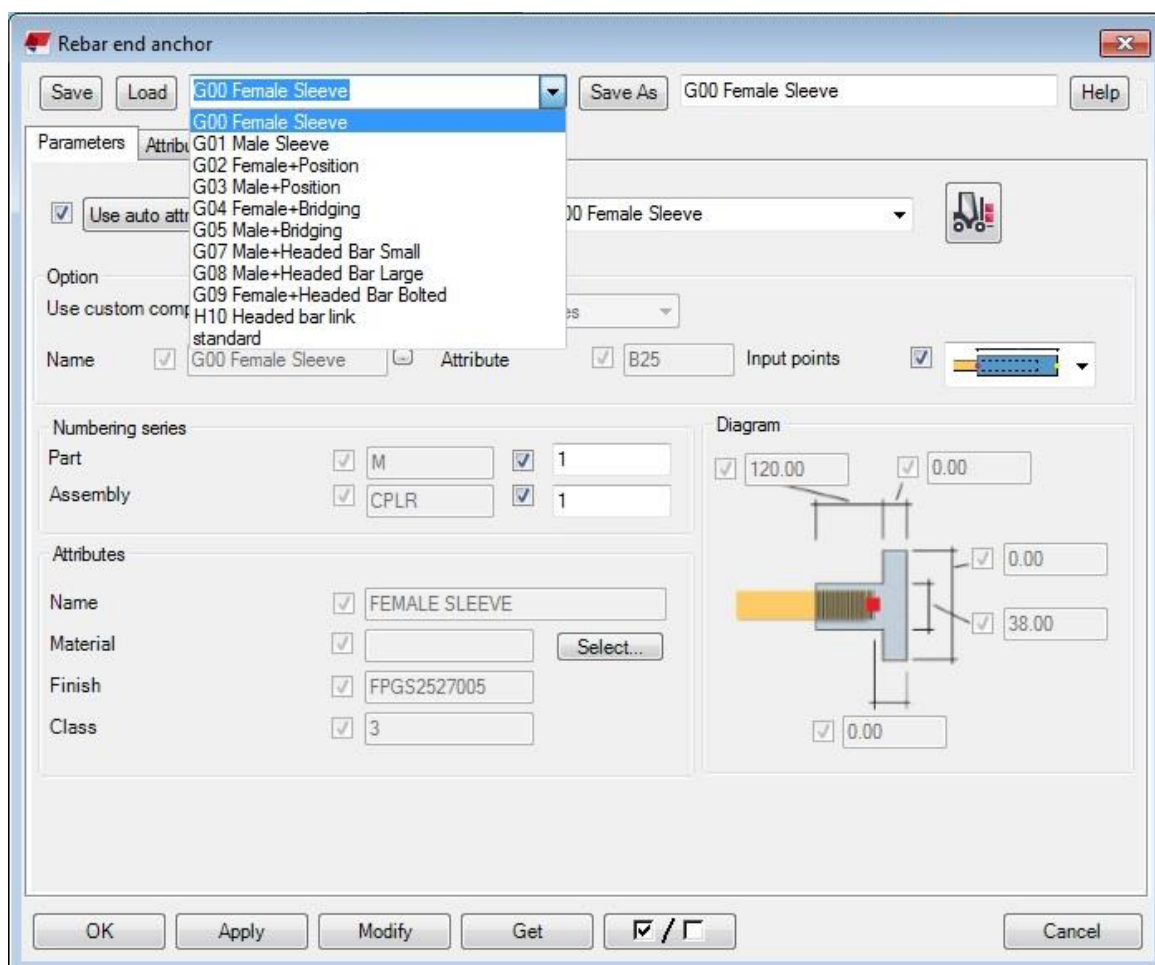
Rebar End Anchor

The main tool to insert Griptec in your model is the tool Rebar End Anchor. This tool allow the insertion of Griptec parts onto a single rebar end at a time. This is typically used for the following combinations:
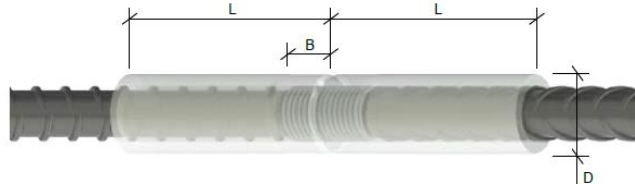
• Female sleeve first on one rebar. Followed by male sleeve on the other rebar.

• Female sleeve first on one rebar. Followed by Male coupler + position assembly set on one rebar.

• Female sleeve first on one rebar. Followed by Male coupler + bridging assembly set on one rebar.

• Insert an End Anchor on one rebar end only.

Open the Rebar End Anchor tool and use the Attribute dropdown list to see the components available.
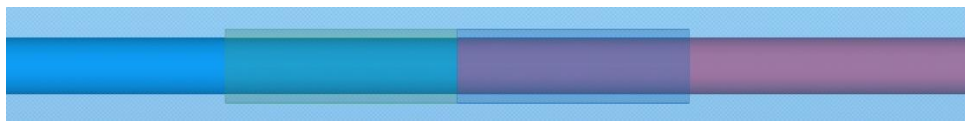
Note on Standard sleeves and actual rebar length

The Griptec system relies on standard sleeves which feature a threaded part (male or female) which is made at Dextra factory. The length of the threaded part is positioned after the rebar and inside the sleeve. It is the same for male and female parts (length "B" visible below).
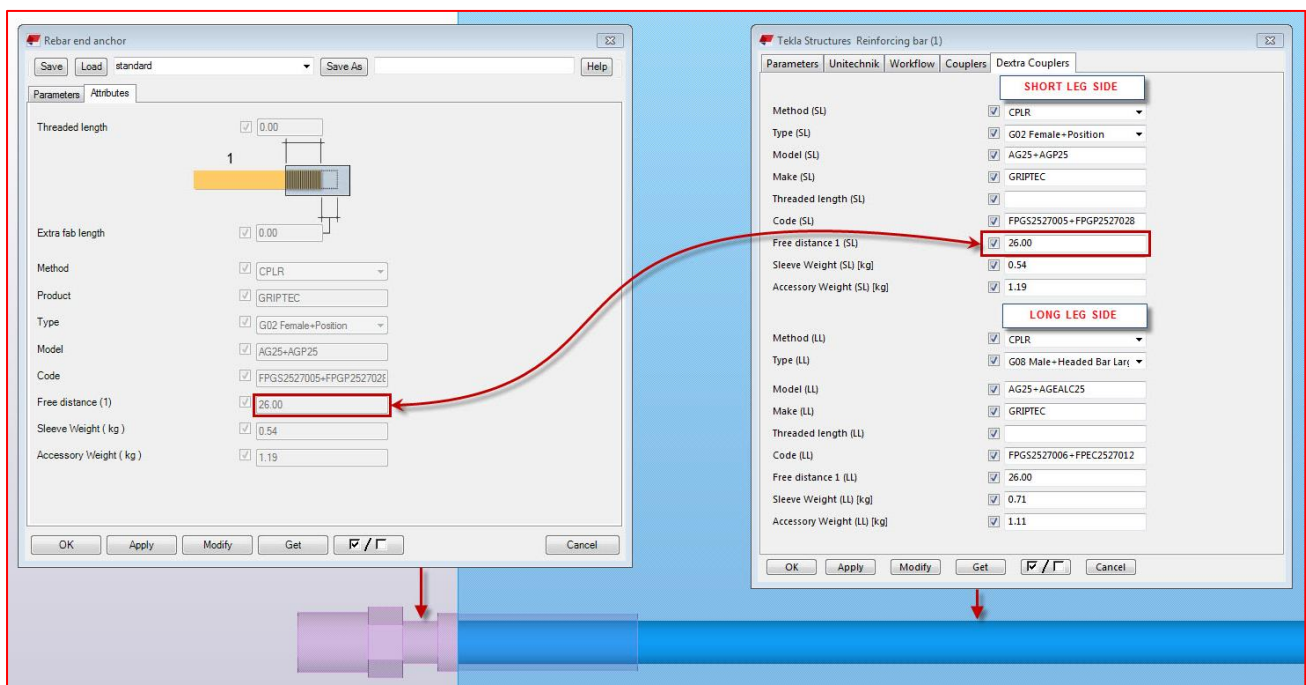

In order to simplify the installation process by Tekla user, this offset "B" is not taken into account when installing a sleeve with the Rebar Anchor Tool. Therefore, the rebar is shown flush with the face of the sleeve, and rebar on both sides are butt-to-butt.

Therefore, each bar end is actually slightly longer than it should be in reality, as it features an extra "B" length.

For users willing to remove the "B" extra length, the value is available under the "Dextra Couplers" tab to be retrieved when running reports. The value is named "Free Distance 1" and is available twice, for the short leg (SL) and the long leg (LL).

"Free Distance 1"is added automatically to the rebar properties when adding the Standard sleeve using Rebar Anchor tool.

Rebar Coupler

The component is used only to insert "G06 Female + Transition" stud.
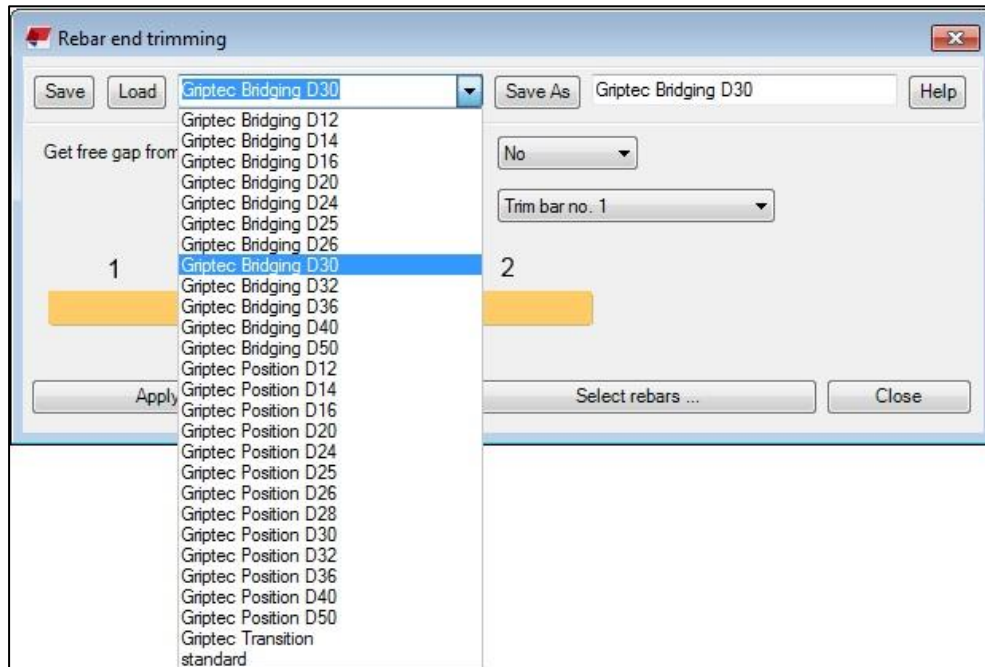

The sequence is as follows:

1. Using the Rebar End Anchor tool, set up a "G00 Female Sleeve" onto the larger bar side.
2. Using the Rebar Coupler tool, set up the "G06 Female+Transition" in two clicks: select first the smaller rebar, then the larger rebar. The program will identify which transition stud is needed, where no transition stud is available for the combination selected, the stud will not appear.

Please refer to Griptec Product Datasheet available on the Dextra website for a list of the combinations available.

Rebar End Trimming.

This application is used to trim rebar ends and reposition Position and Bridging studs accordingly.
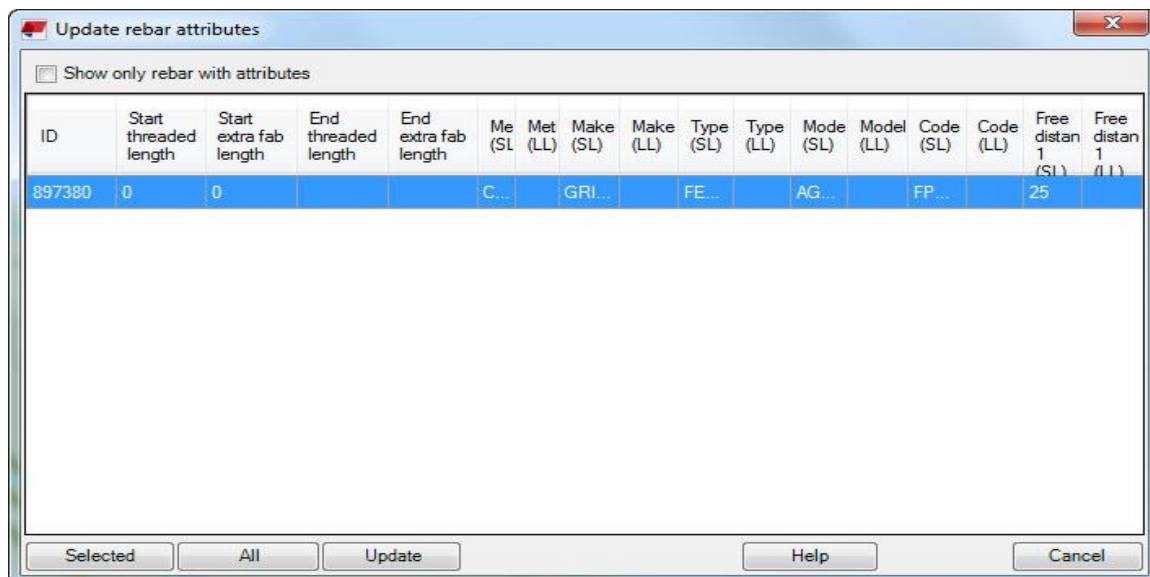
Select the component from the dropdown list as below. Note that you need to pick the correct rebar diameter at it isn't recognized automatically by this attribute.

Example

1. Select component with the correct rebar diameter from the list click "Load" and then "Apply".
2. "Select rebar" and pick on screen rebar that you want to trim (1st rebar) end then click on the 2nd rebar.

Update rebar attributes

Use this application for updating rebar attributes which have been connected via Griptec (Note that if you remove a Griptec coupler assembly, the attribute will remain attached to the rebar. This tool may help you to remove those). It is possible to modify/remove the attributes individually or as batch.

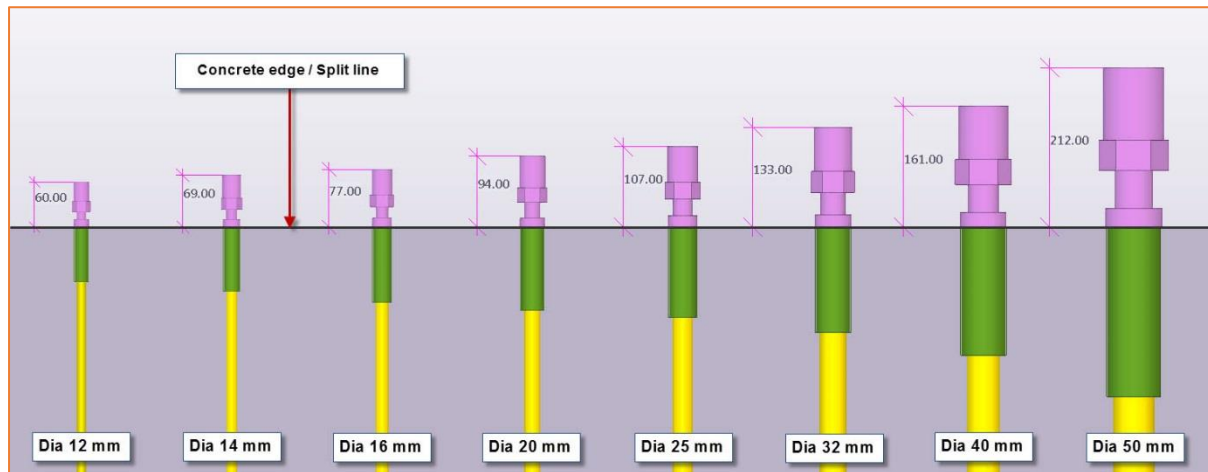## Bridging and Position offset information

Female + Position

Figure 1 Tekla model of Griptec Position Couplers. Position stud assembly is light purple.
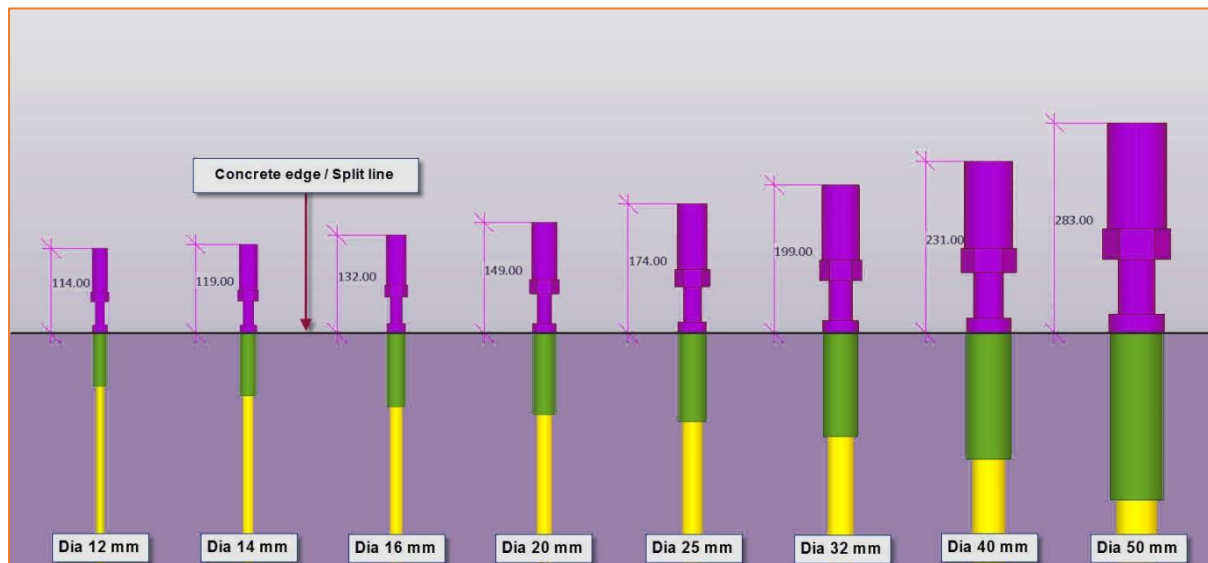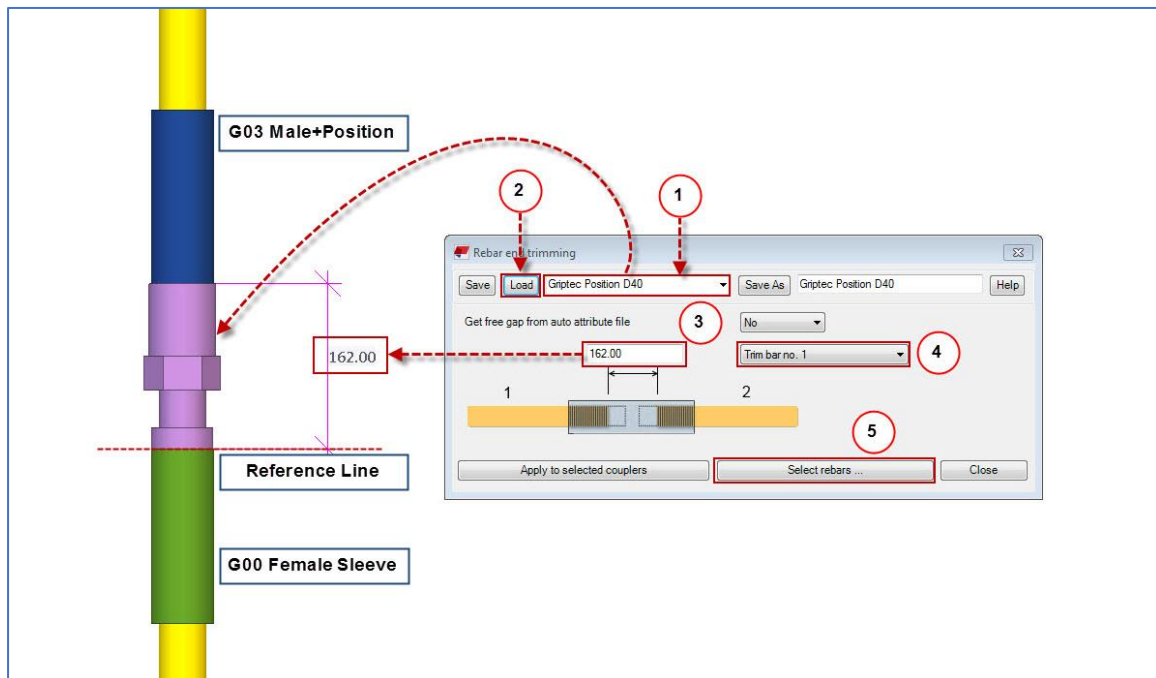
Female + Bridging

Figure 2 Tekla model of Griptec Bridging Couplers. Bridging stud assembly is purple.

www.dextragroup.com
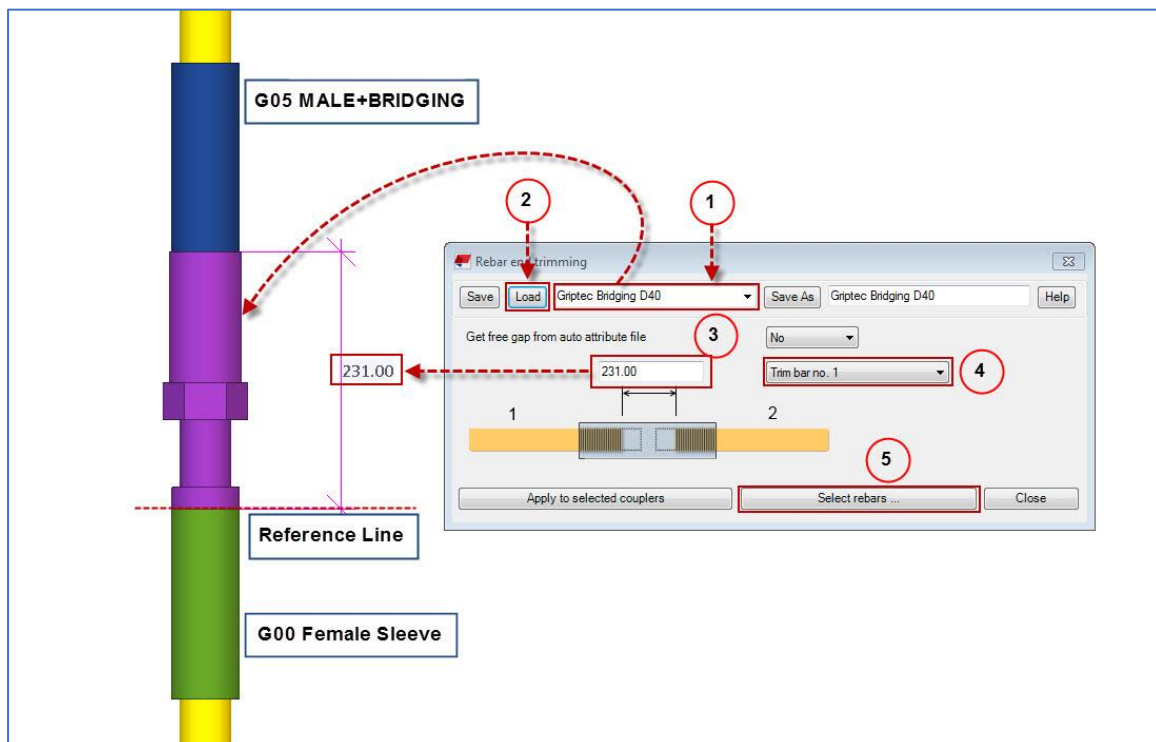
Step by Step to Griptec component.

Griptec with Male + Position

Two rebars are already split and in contact.

1. 1st rebar end (G00 Female Sleeve): Use "*Rebar End Anchor tools"* then load "G00 Female Sleeve" from the list. Click "Apply", select rebar to receive component and pick the insert position.
2. 2nd rebar end (G03 Male+Position): Use *Rebar End Anchor tools* then load "G03 Male+Position" from the list. Click "Apply", select rebar to receive component then pick at the insert position.
3. Adjust the end of rebar to the correct position using command "*Rebar end trimming*" then following step.
   1. Select product with the right diameter from dropdown.
   2. Click "*Load*" the value will be adjust.
   3. Trim value will load to dialog (Do not change).
   4. Trim bar no. 1 will load to dialog.
   5. Click "*Select rebars*" then click on first rebar (this rebar will be trimming as per configuration number 4) and then second rebar.

Griptec with Male + Bridging

Two rebars are already split and in contact.

4. 1ˢᵗ rebar end (G00 Female Sleeve): Use "*Rebar End Anchor tools*" then load "G00 Female Sleeve" from the list. Click "Apply", select rebar to receive component and pick the insert position.
5. 2ⁿᵈ rebar end (G05 Male+Bridging): Use *Rebar End Anchor tools* then load "G05 Male+Bridging" from the list. Click "Apply", select rebar to receive component then pick at the insert position.
6. Adjust the end of rebar to the correct position using command "*Rebar end trimming*" then following step.
    1. Select product with the right diameter from dropdown.
    2. Click "*Load*" the value will be adjust.
    3. Trim value will load to dialog (Do not change).
    4. Trim bar no. 1 will load to dialog.
    5. Click "*Select rebars*" then click on first rebar (this rebar will be trimming as per configuration number 4) and then second rebar.
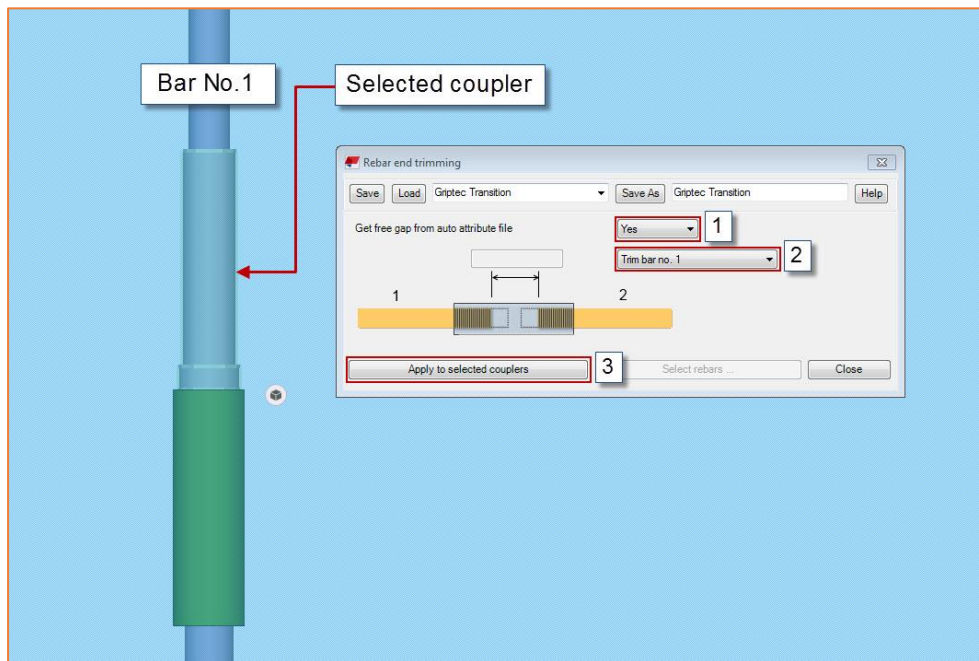
Griptec with Female + Transition

Two rebars of different diameters are also split and in contact:

1. Add a Female sleeve onto the larger rebar: Use *Rebar End Anchor tools* then load "G00 Female Sleeve" from the list then click "Apply" and select rebar to receive component then pick at the insert position.

2. Add the assembly "G06 Female + Transition" to the smaller rebar: Use *Rebar Coupler tools* then load "G06 Female+Transition" from the list and pick the smaller rebar first, followed by the larger rebar (sequence is important here!).

3. Adjust rebar length to their correct position by Rebar end trimming tools. Load "Griptec Transition" in the list. Setup the tools as show in the picture:

    1) Make sure the Get free gap from auto attribute file = Yes
    2) Choose the bar that will be trimmed (the larger, the smaller, or both!)
    3) Select the "G06 Female+Transition" assembly then click "apply to selected couplers" rebar will be adjusted to correct trimming value.

Important

If you modify the rebar diameters, the component will automatically adjust. However, the offset data will not change automatically. You will need to go back to repeat step 3.