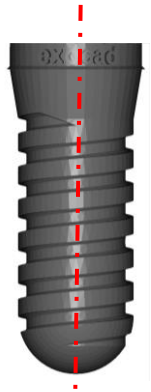
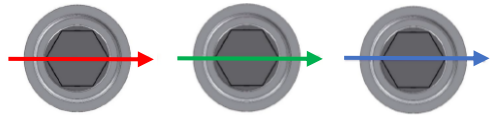
1. Implant specifications

1.1 Position of the coordinate system - Straight Implant

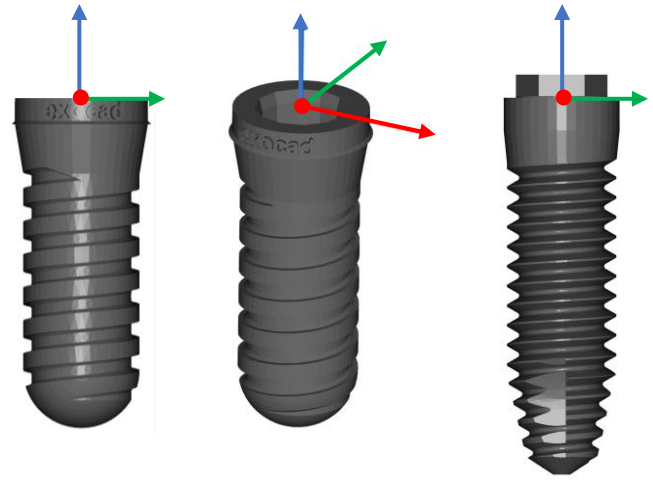
1) The centerline of the implant has to match one of the axes (x, y or z).



2) If your connection is polygonal, please match one of the axes (x, y or z) to the corner.



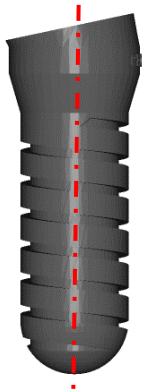
3) Please place the origin of your coordinate system at the top of the implant.



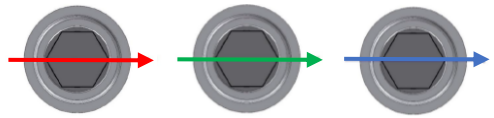
4) Only the following characters are allowed in file names of STL meshes: small/capital Latin letters numbers _ and - . (points)

For implants, you can aim for 40000 triangles max, or max 1 MB file size.

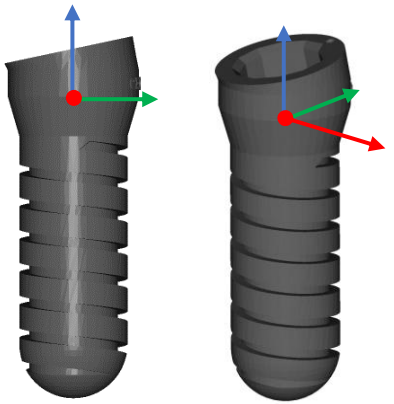
1.2 Position of the coordinate system - Angled Implant



1) The centerline of the implant has to match one of the axes (x, y or z).



2) If your connection is polygonal, please match one of the axes (x, y or z) to the corner.



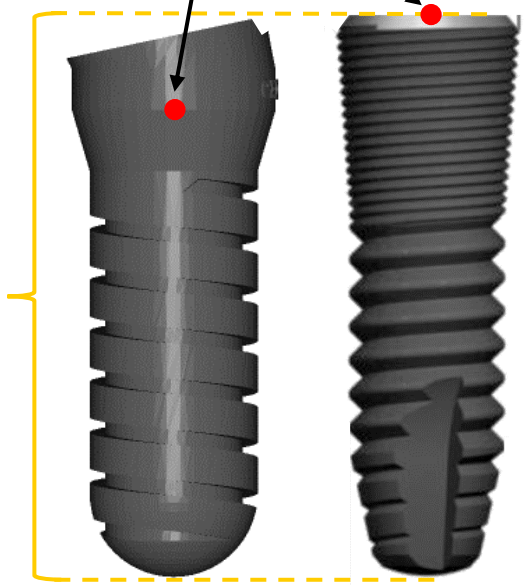
3) Place the origin of your coordinate system on a meaningful plane, e.g., bone level or a prominent edge of the implant.

4) Only the following characters are allowed in file names of STL meshes: small/capital Latin letters numbers _ and - . (points)

For implants, you can aim for 40000 triangles max, or max 1 MB file size.

1.3 Implant Reference point and Rotation Lock

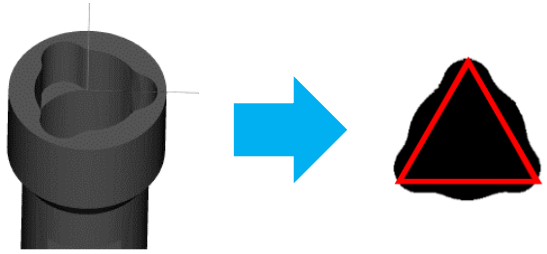
reference point



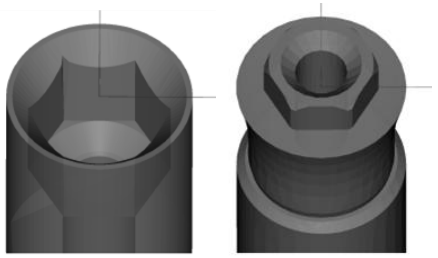
real length
=
implant length of physical part in reality
=
mesh length

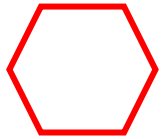
Will be used for collision detection.

rotation lock count
=
possible rotation settings in connection geometry

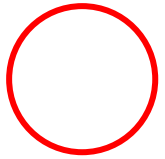


rotation lock count = 3
= 3 possible positions



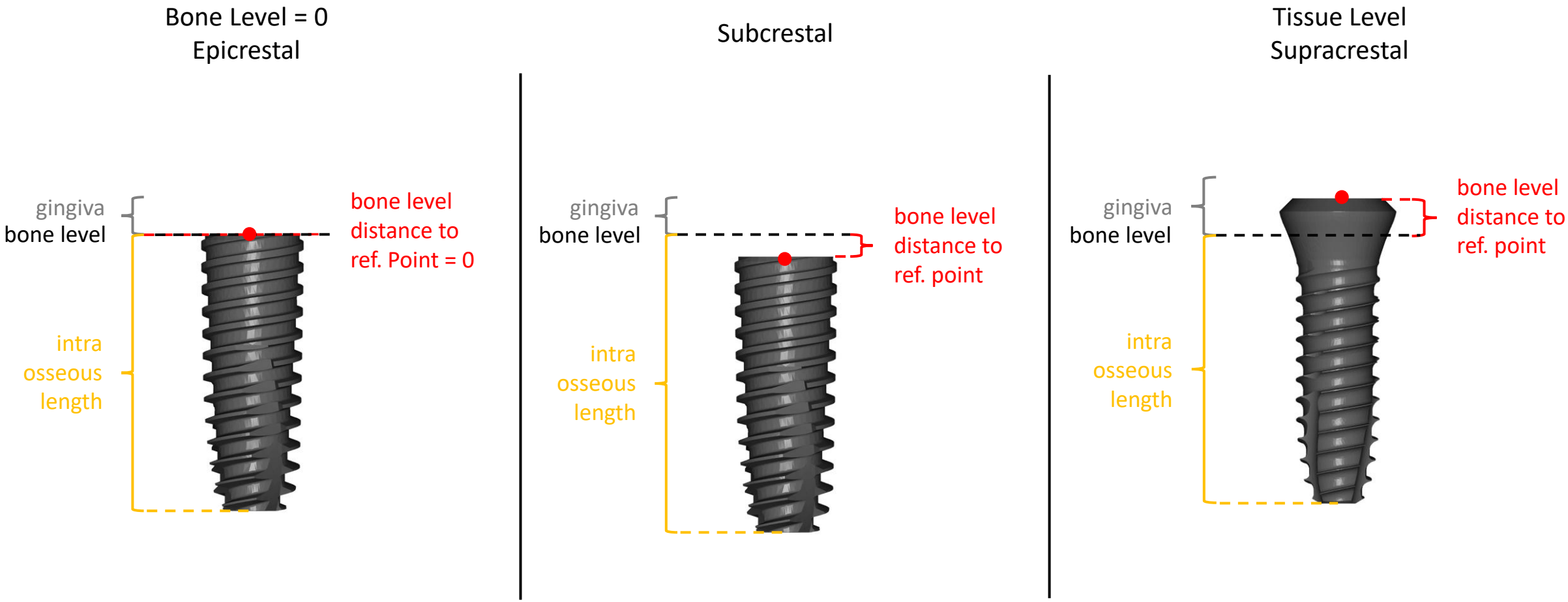


rotation lock count = 6
= 6 possible positions



rotation lock count = 0
= freely rotatable

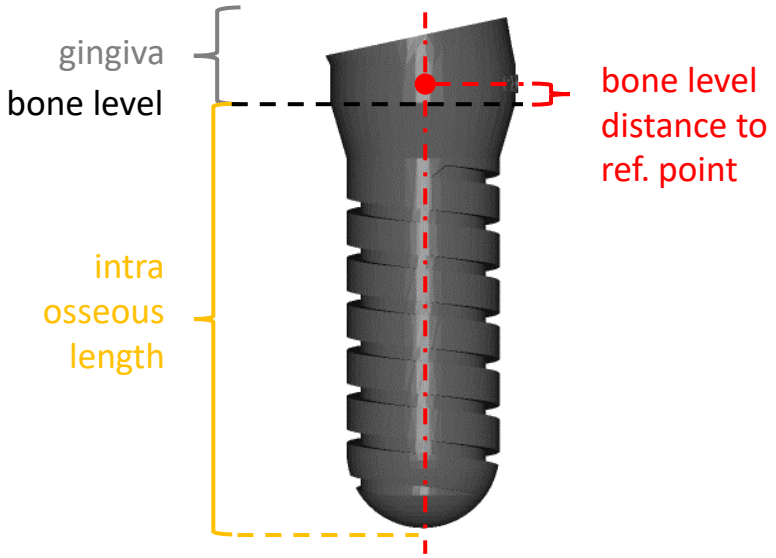
1.4 Implant Reference Point to Implant Bone Level Parameter – Straight Implant



1.5 Implant Reference Point to Implant Bone Level Parameter – Angled Implant

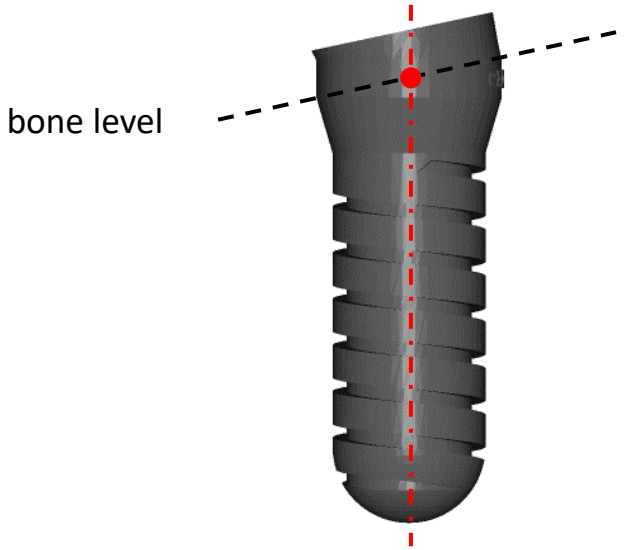
Tissue Level
Supracrestal

„Type S: Straight insertion“



Tissue Level
Supracrestal

„Type A: Angled insertion“



Currently not supported

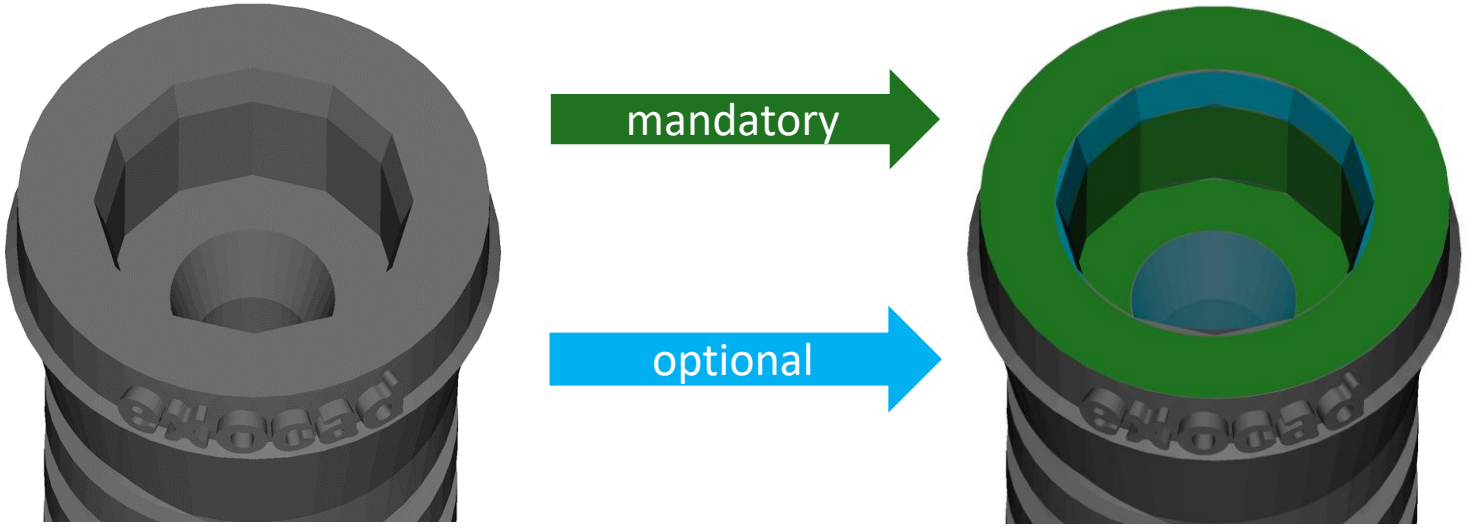
● = reference point

1.6 Compatibility between implant and prosthetic component

Compatibility between the CAD prosthetic libraries and the exoplan implant libraries is achieved by visually comparing the connection geometry of the implant and compatible prosthetic parts.

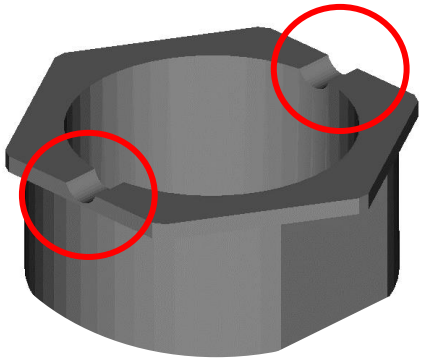
All matching surfaces between implant and prosthetic component are required.
Radii, chamfers and threads can be removed.

It is not permitted to integrate parts without the visible connection geometry.

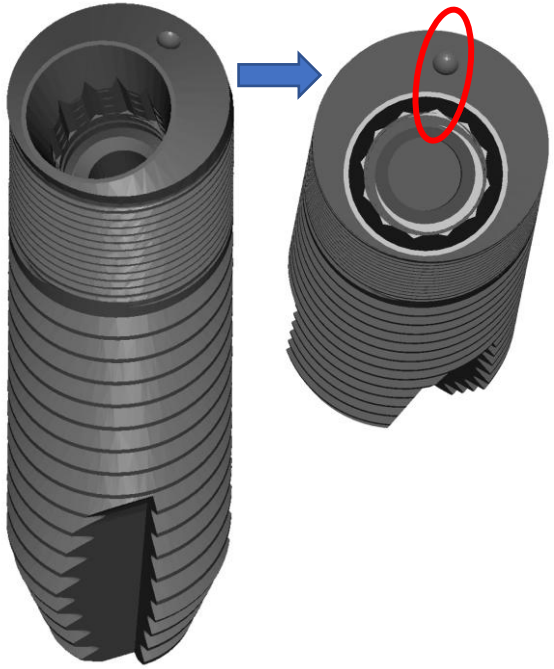


1.7 Marker / Rotation Marker

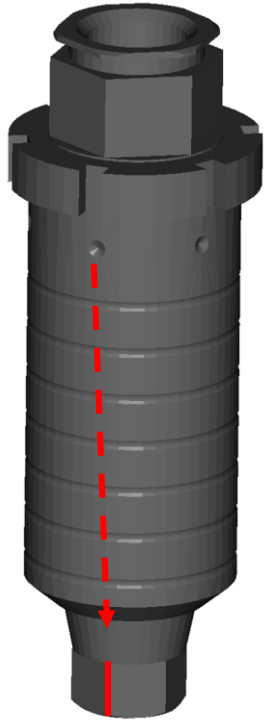
A rotation marker is a physical indicator that helps ensure the correct orientation of the implant.
It can be located on the implant and/or other parts related to the implant planning process (e.g. sleeve, implant driver, insertion post).
If you have sleeves with a marker you can turn them in our software together with the implant so they always have the correct position to eachother.
If there is any mandatory rule, please revise the column "Insertion Post with Rotation Marker available" on the excel sheet in the register tab "implant parameters“.



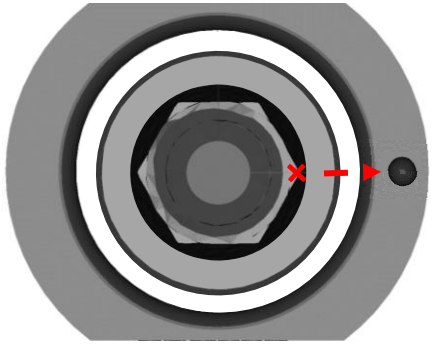
sleeve with marker



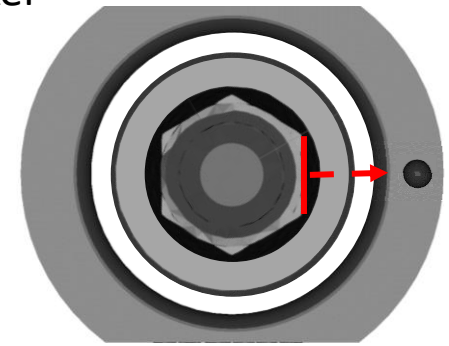
implant with marker



implant driver with marker



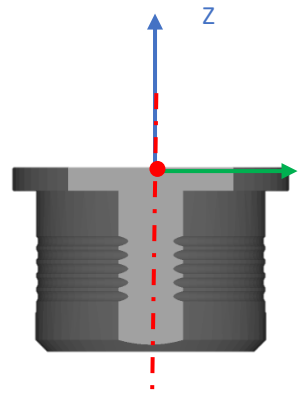
corner to marker



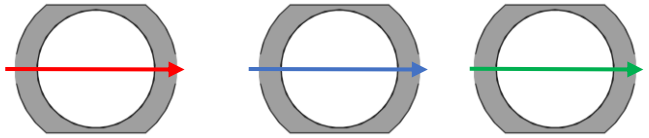
face to marker

2. Surgical Guide component specifications (Sleeves, Drills, Anchor Pins and Handles)

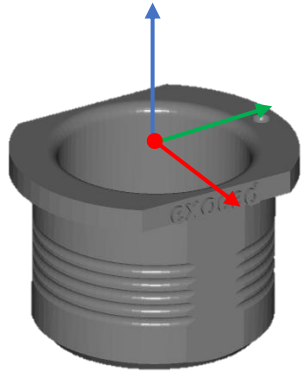
2.1 Position of the coordinate system - Sleeve



1) The centerline of the sleeve has to match the Z axis.



2) If your sleeve is not rotationally symmetric, please match one of the axes (x or y) to the main direction.

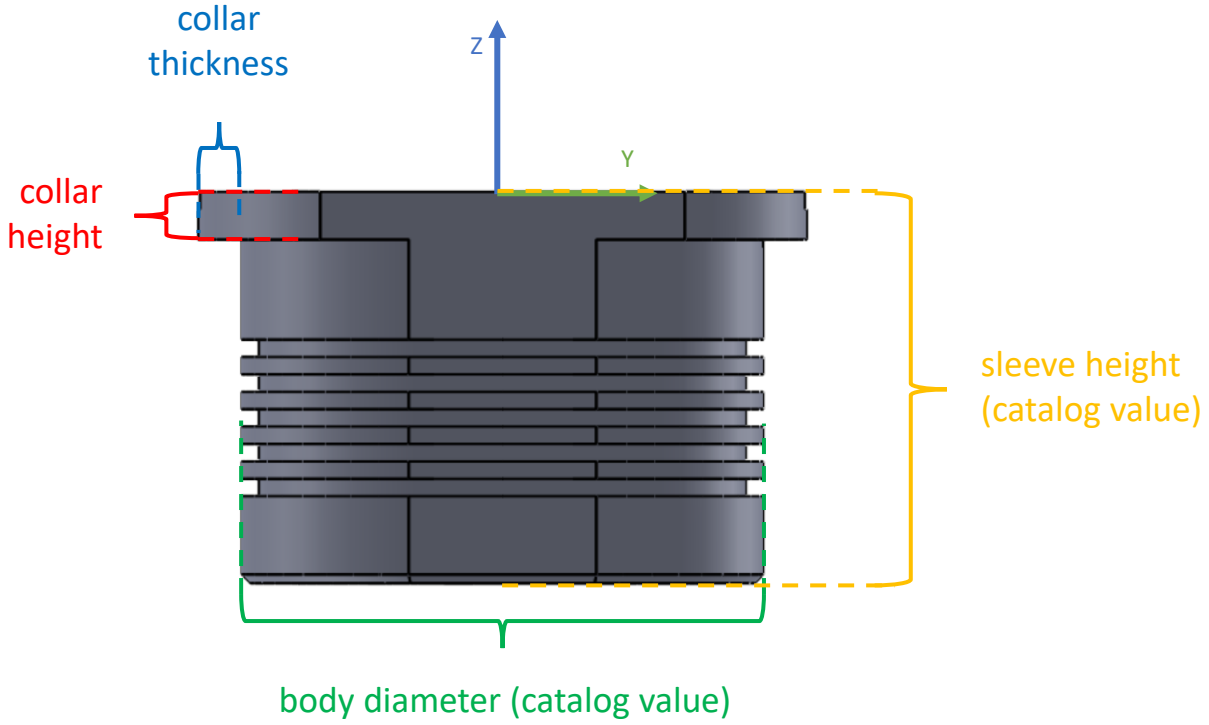


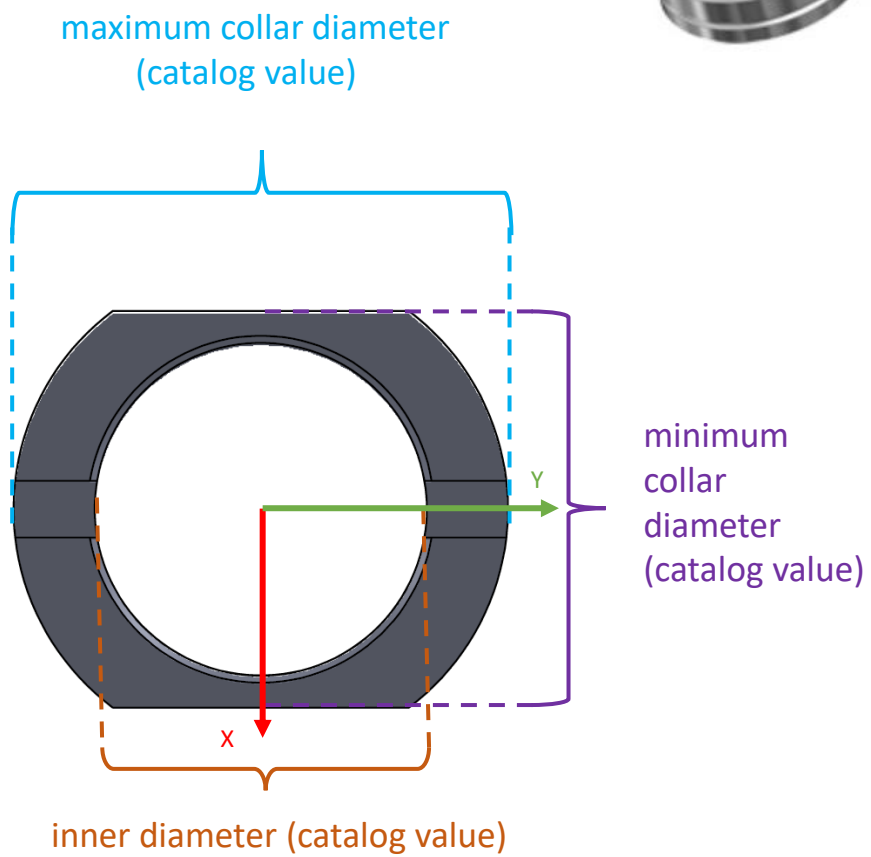
3) Please place the origin of your coordinate system at the top of the sleeve.

4) Only the following characters are allowed in file names of STL meshes: small/capital Latin letters numbers _ and - . (points)

For sleeves, you can aim for 40000 triangles max, or max 1 MB file size.

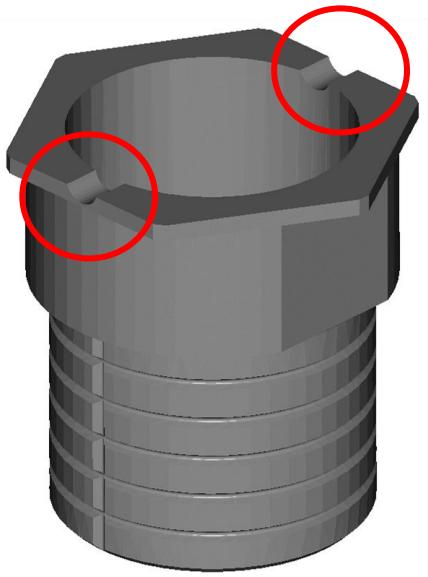
2.2 Sleeve Dimension Parameters





2.2.1 Marker / Rotation Marker

If there is a fixed orientation between the sleeve and the implant connection, please tell us. Due to this feature you can adjust the rotation of the implant or sleeve in the software, without missing the suggested orientation.



sleeve with marker

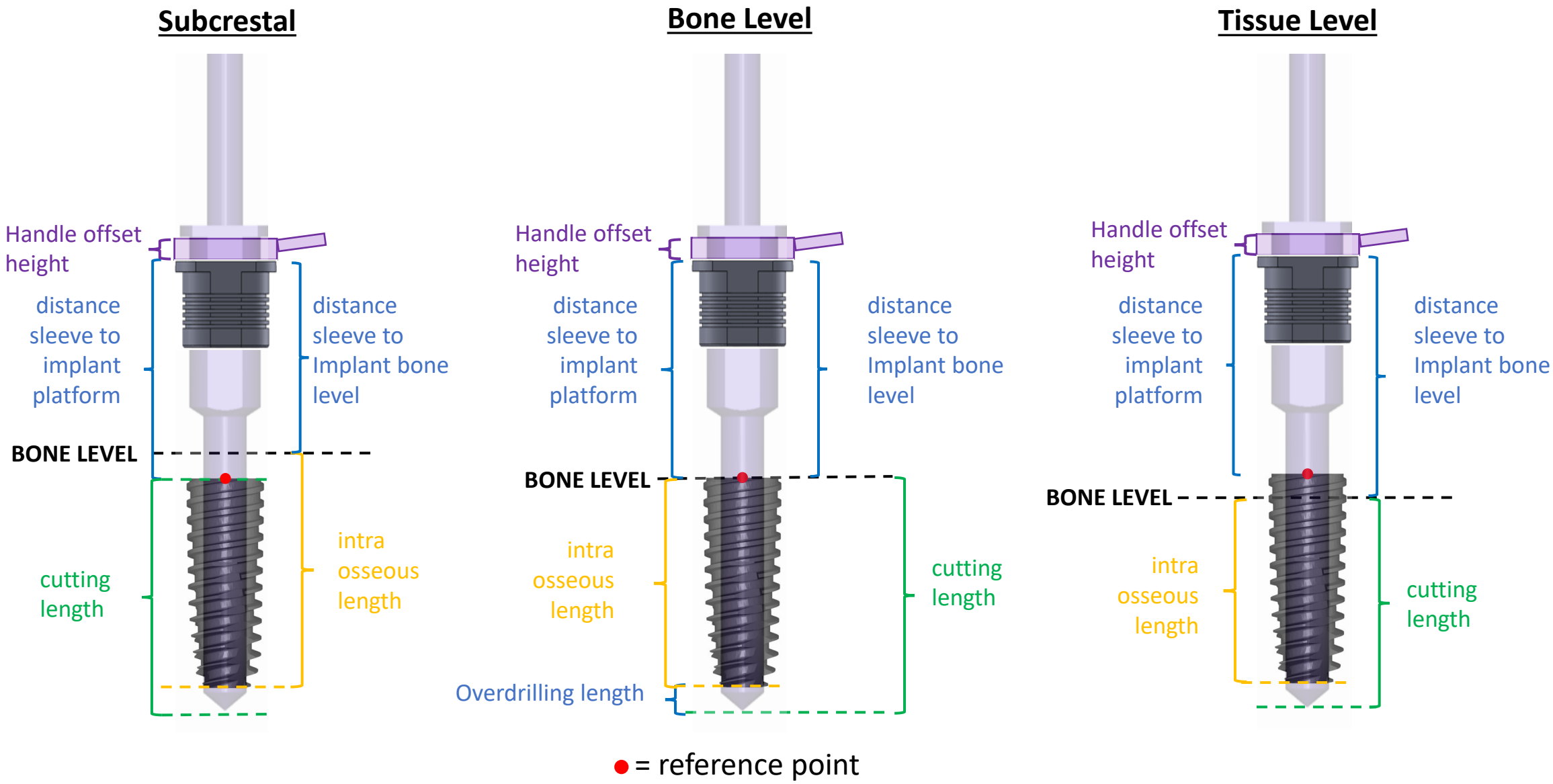
Option A

corner to marker

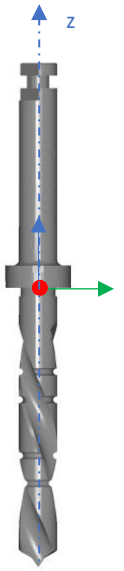
Option B

face to marker

2.3 Sleeve Distance to Implant Bone Level Parameter

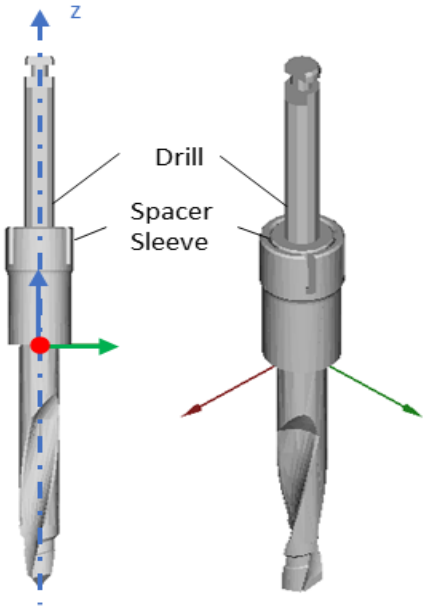


2.4 Position of the coordinate system - Drill



1) The centerline of the drill has to match the Z axis.

2) Please place the origin of your coordinate system at the pressure pitch of the drill.



3) Only the following characters are allowed in file names of STL meshes: small/capital Latin letters numbers _ and - . (points)

4) If a drill length is controlled by a spacer, sleeve please send us the drill assembled with the spacer sleeve (see picture on the right).

For drills, you can aim for 40000 triangles max, or max 1 MB file size.

2.5 Position of the coordinate system – Drill with Depth Marks

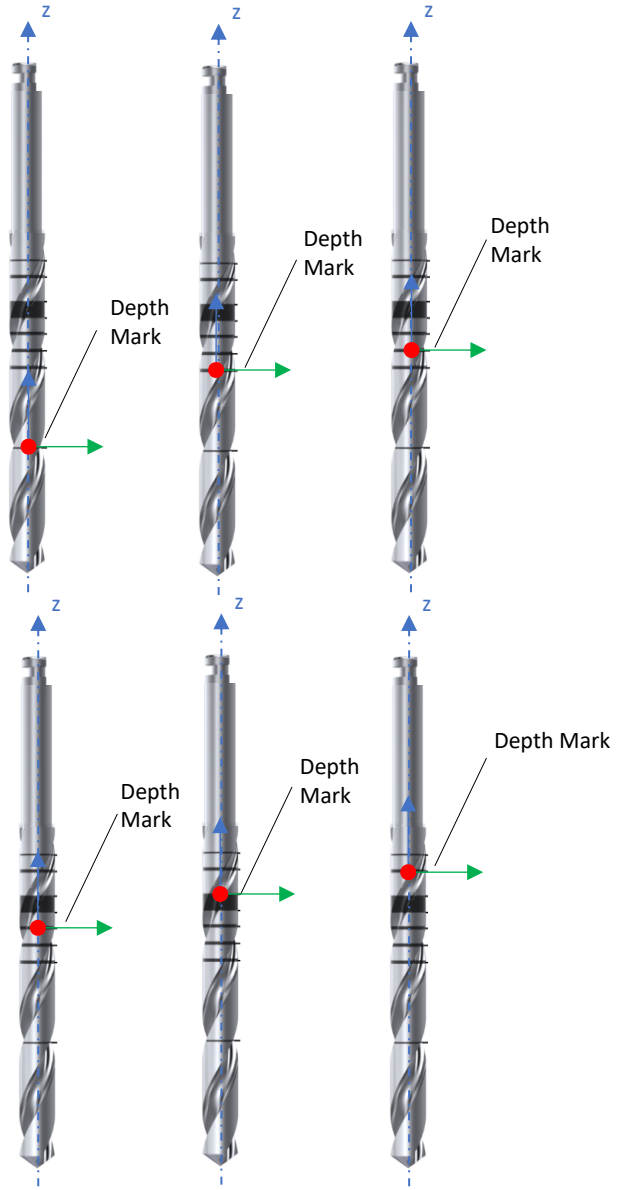
1) The centerline of the drill has to match the Z axis.

2) Please place the origin of your coordinate system at every drill depth mark.

3) Each depth mark will require its own dedicated .stl file. For instance, if a drill has six depth marks, it will need six separate .stl files - one for each depth mark.

4) Only the following characters are allowed in file names of STL meshes:
small/capital Latin letters numbers _ and - . (points)

For drills, you can aim for 40000 triangles max, or max 1 MB file size.



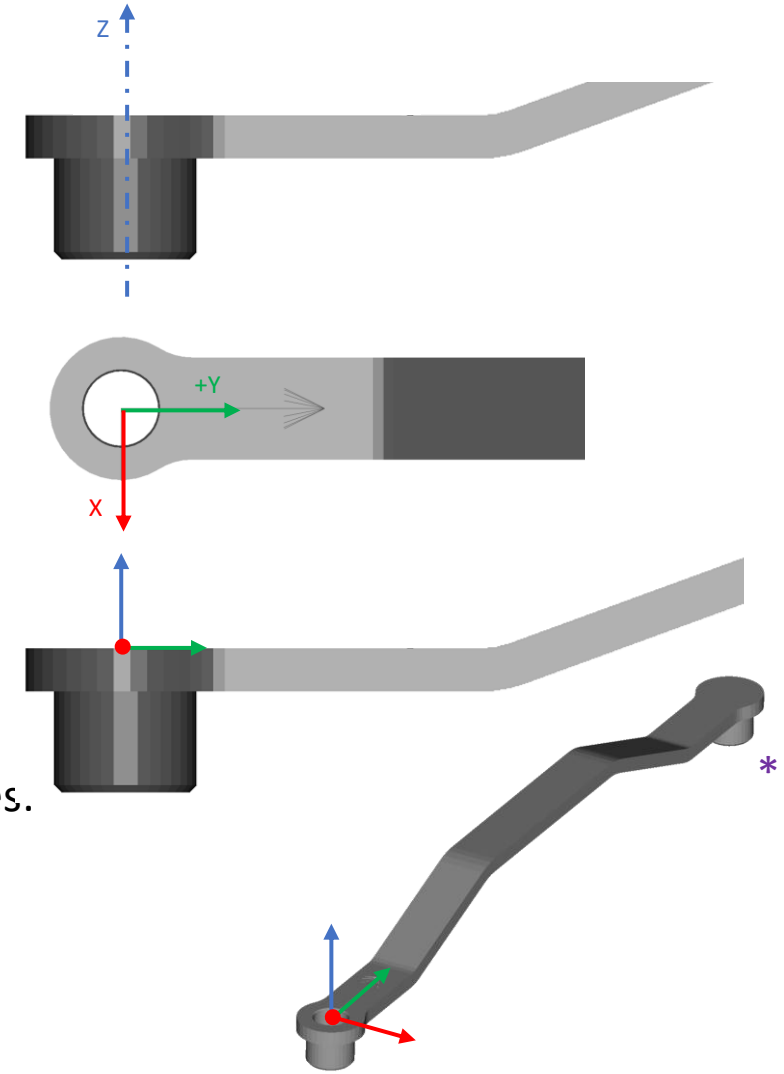
2.6 Position of the coordinate system - Drill Key/Handle

1) The centerline of the handle has to match the Z axis.

2) The handle has to be oriented to +Y.

3) Please place the origin of your coordinate system at the top of the handle.

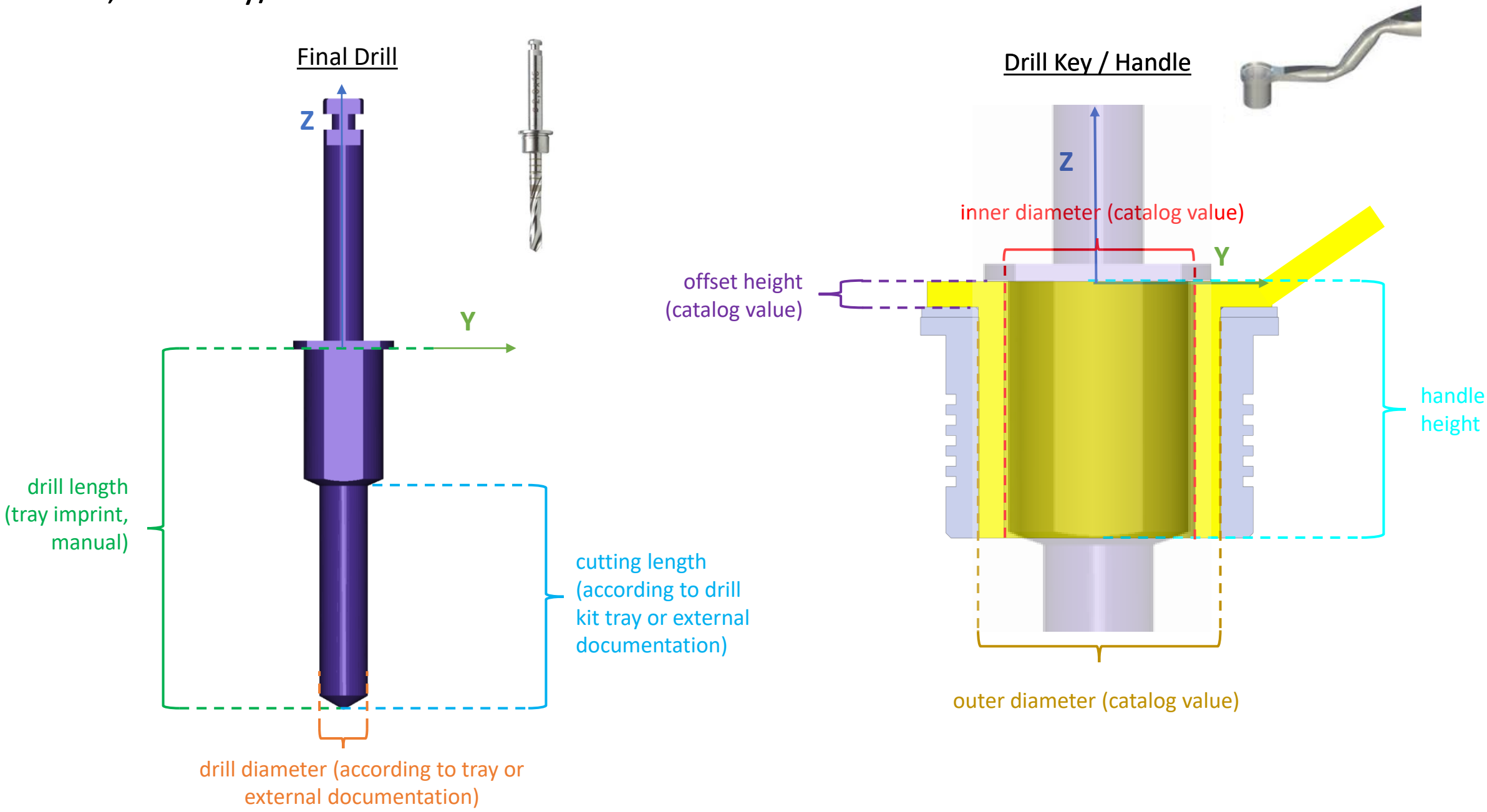
4) Only the following characters are allowed in file names of STL meshes.
small/capital Latin letters numbers _ and - . (points)



* Please provide for each diameter of the handle one .stl file with appropriate file name:
"article number_diameter" -> "48513_45"

For drill keys/handles, you can aim for 40000 triangles max, or max 1 MB file size.

2.7 Drill, Drill Key/Handle Dimension Parameters



2.8 Position of the coordinate system - Anchor/Fixation Pin /Sleeve

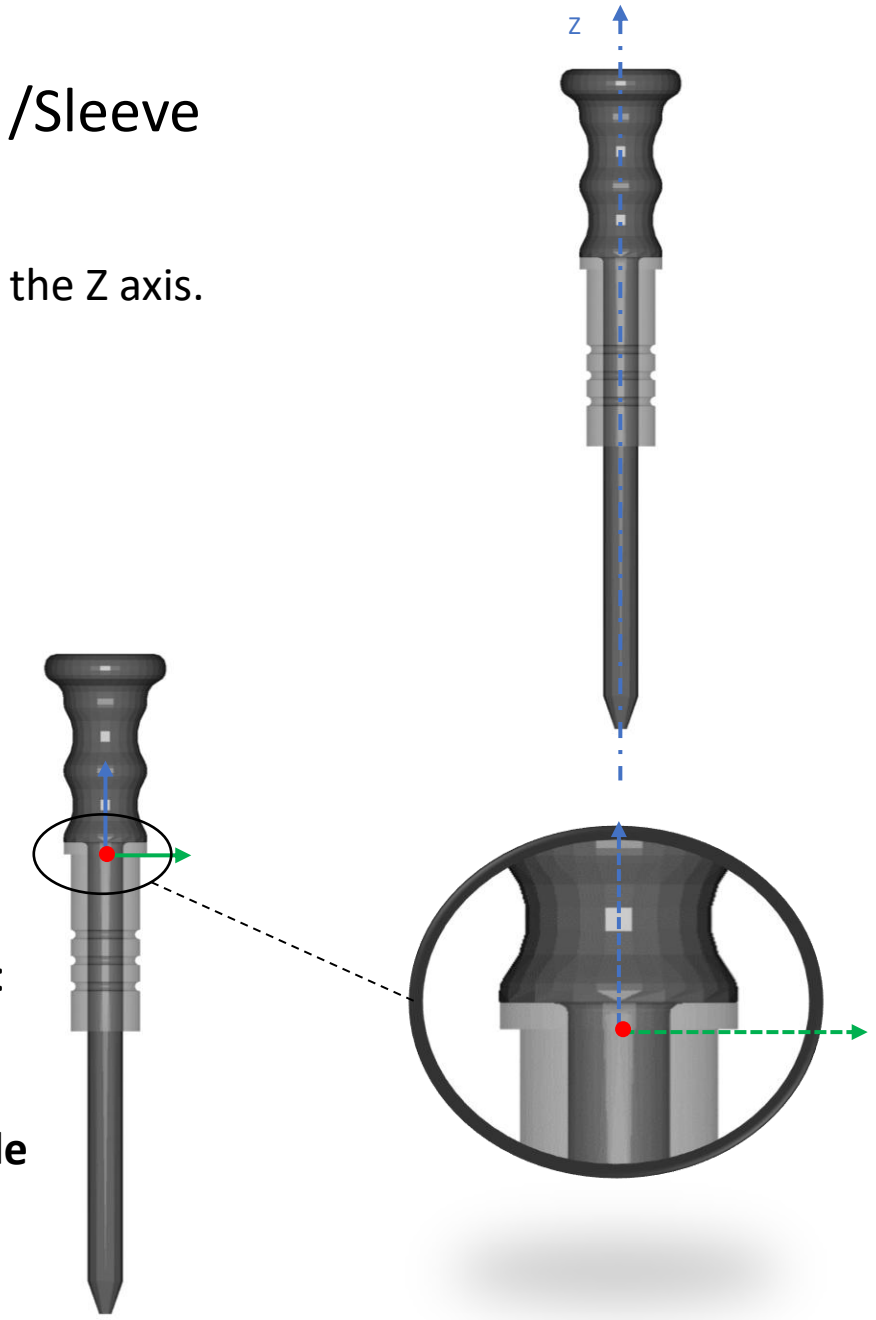
1) The centerline of the Anchor/Fixation Pin and the sleeve has to match the Z axis.

2) Please place the origin of your system at the lower edge of sleeve.

3) Please make sure that the Pin is correct aligned to the sleeve.

4) Only the following characters are allowed in file names of STL meshes:
small/capital Latin letters numbers _ and - . (points)

For these .stl files, you can aim for 40000 triangles max, or max 1 MB file



2.9 Anchor / Fixation Pin / Pin Sleeve Dimension Parameters