

1 Introduction

This requirements catalog is intended as an attachment to our technical drawings and describes the drawing features that are either omitted from or only partially specified on the drawings due to their self-evident nature and Zimmer's internal quality consciousness. It applies to all suppliers that provide Zimmer with drawing parts.

The features listed in the following are mandatory for all drawings that do not contain special indications regarding these. If there are uncertainties about the provided data (PDF / DXF / 3D model), consult Zimmer to be sure. The leading document is always the PDF drawing.

2 Tolerances

The general tolerance in the drawing header applies to all dimensions without a tolerance. Fit sizes are given tolerances explicitly or through the corresponding ISO fit. The specified tolerances must be adhered to. If there are deviations, they must be approved by Zimmer. The "Special approval" form must be used here:

[0959 Externe Sonderfreigabe/special release](#)

3 Surface quality

We expect a clean surface quality without ridges, grooves, impact marks and burrs. The required roughness in each case depends on the function of the part and is specified on the drawing. The following specifications apply to drawings that do not contain special notes.

4 Parts that are subsequently coated

Coatings such as hardcoat or electroless nickel plating are specified with indication of the layer thickness in the title block. Here, observe the following:

- The dimensions specified on our drawings are **manufacturing dimensions**. Adhering to these dimensions and the subsequent coatings will automatically result in the desired final dimensions.
- Inhomogeneities on the surface generally appear more noticeable after coating than before. It is mandatory to ensure a homogeneous surface quality. In particular, rework using sandpaper is not permitted because this is clearly visible after coating.
- For threads, a note is often found that says "observe layer thickness." These threads must be produced with allowance as follows:

Tolerance class		Allowance for thread production
Fine	Internal thread	5G
	External thread	4g
Medium	Internal thread	6G
	External thread	6e
Coarse	Internal thread	7G
	External thread	8e

5 Parts that are subsequently heat-treated

During processing, please observe the heat treatment processes specified in the title blocks. These drawings are **finished dimension drawings**. Drilled holes and fits must be produced at the upper tolerance limit; external dimensions must be at the lower tolerance limit.

Please consult the purchasing department of Zimmer GmbH if you are uncertain.

6 Edge breaks and chamfering

The edge breaks and chamfers specified on the drawings apply to the **finished part**.

If edge breaks or chamfers are affected by the subsequent processing, e.g. by sanding, then this must be taken into account and the edge break or the chamfer must be designed to be larger by a margin of the sanding oversize.

7 Cleaning and corrosion protection

Rusting steels must be provided with suitable corrosion protection. All other parts must be delivered **free of grease and oil**. In general, parts must be delivered **free of chips**.

When manufacturing plastics, it must be ensured that there is no residue, e.g. threads/sprue, on the part.

8 In conclusion

It is mandatory to adhere to all additional information in our orders:

- If there are no special packaging instructions, the following applies to the type of package:
Sufficient protective packaging is required. Any kind of damage to parts during transport must be prevented
- Delivery in the form of bulk goods is only permitted in individual cases and must be approved in prior consultation by the purchasing department of Zimmer GmbH
- Sustainable packaging is very important. Excessive packaging of individual parts must be avoided
- All deliveries must include a copy of the test certificate

Remaining uncertainties regarding the requirements must be clarified with Zimmer purchasing department before production begins.

This document is to be considered a **supplement to the existing QAA of Zimmer GmbH**.

By signing below, the supplier confirms recognition of this document:

Supplier

Location, Date

Signature