

Drawing information

Usage of drawing

All rights to this drawing are reserved for Swedrive AB and the drawing must not be used in any way that can harm the interests of the company. It may not be spread or forwarded without approval from Swedrive AB.

Revisions

The current revision of the drawing must be checked and approved to be valid for production.

The current revision number of a component shall always be noted in the order specification. The revision number in the order specification must also correlate with the revision number on the drawing for the drawing to be valid for production.

Notes on the drawing

In the upper right corner of the drawing there is a list of general requirements which applies when no contrary tolerance or requirement has been specified on the drawing.

- "Tolerances except as stated ISO 2768-_"
 - General dimension tolerances according to ISO-standard SS-ISO 2768-1 (see chart below). The standard can be bought by following the link below.
<https://www.sis.se/produkter/metrologi-och-matning-fysikaliska-fenomen/langd-och-vinkelmatning/toleranser-och-passningar/ssiso27681/>
- "Surface finish except as stated Ra_"
 - Surface roughness shall be evaluated with the arithmetical mean value, Ra-value.
 - Verification of the surface roughness can be performed by tactile testing and comparing with a surface roughness standard comparative or by measuring (optically or with needle).
- "Metric threads except as stated: SS-ISO 965/1-5 6g/6H"
 - For external threads the general tolerance is 6g and for internal threads 6H. The standard can be bought by following the link below.
<https://www.sis.se/produkter/mechaniska-system-och-komponenter/gangor/metriska-gangor/ssiso96512015/>
- "Sizes with ISO-code tolerances: SIZE ISO-14405 (E)"
 - The default way of evaluating sizes (holes, shafts and notches) according to SS-ISO-14405 is by measure between two points. Swedrive depart from this rule by choosing the envelope principle as default evaluation method for all size dimensions with ISO-code tolerances (h7, G8, P6 etc.). The envelope principle means the requirement of perfect shape at maximum material condition and is defined in SS-EN ISO 8015:2011. The standard can be bought by following the link below.
<https://www.sis.se/produkter/terminologi-och-dokumentation/ritteknik/regler-for-maskinritningar/sseniso801520112/>
 - Evaluation of the envelope requirement is preferably made by using Taylor's principle.

- "Break all sharp edges"
 - All edges shall, if nothing else is specified on the drawing, be broken and free from burr.
- "Rules for evaluation: KI-02"
 - For general rules about how measurements and other requirements shall be interpreted, the instruction KI-02 applies.

Charts with general tolerances according to ISO 2768-1:

Allowable deviations for linear measurements, except from broken edges. Measurements in mm.

Tolerance class		0,5 Up to 3	(3) Up to 6	(6) Up to 30	(30) Up to 120	(120) Up to 400	(400) Up to 1000	(1000) Up to 2000	(2000) Up to 4000
f	Fine	±0,05	±0,05	±0,1	±0,15	±0,2	±0,3	±0,5	-
m	Medium	±0,1	±0,1	±0,2	±0,3	±0,5	±0,8	±1,2	±2
c	Coarse	±0,2	±0,3	±0,5	±0,8	±1,2	±2	±3	±4
v	Very coarse	-	±0,5	±1	±1,5	±2,5	±4	±6	±8

Allowable deviations for broken edges (outer radii and chamfers). Measurements in mm.

Tolerance class		0,5 Up to 3	3 Up to 6	over 6
f	Fine	±0,2	±0,5	±1
m	Medium	±0,2	±0,5	±1
c	Coarse	±0,4	±1	±2
v	Very coarse	±0,4	±1	±2

Allowable deviations for angular dimensions

Tolerance class		Up to 10	(10) Up to 50	(50) Up to 120	(120) Up to 400	over 400
f	Fine	±1°	±0°30'	±0°20'	±0°10'	±0°5'
m	Medium					
c	Coarse	±1°30'	±1°	±0°30'	±0°15'	±0°10'
v	Very coarse	±3°	±2°	±1°	±0°30'	±0°20'