

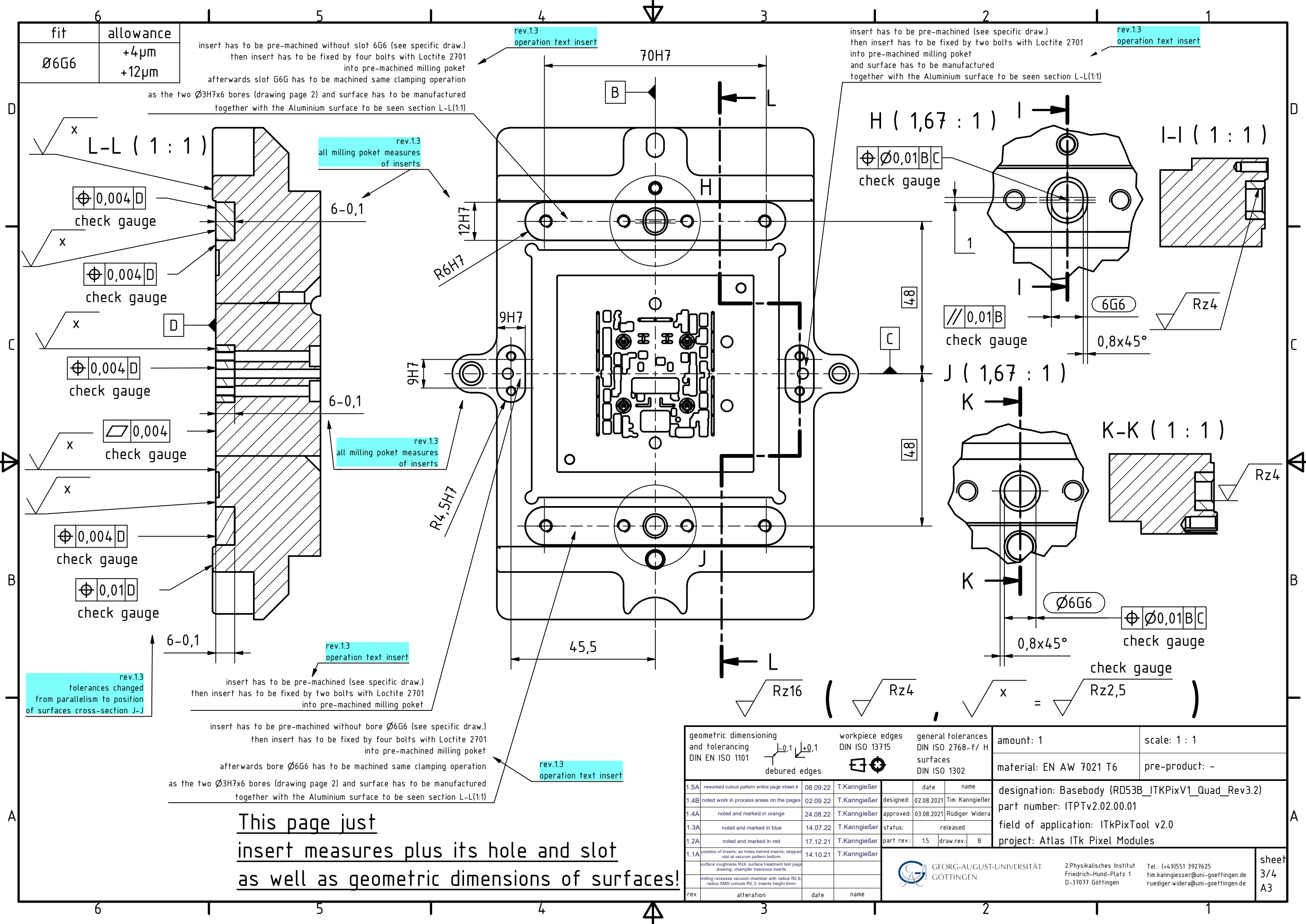
fit	allowance
Ø3H7	+0µm +10µm
Ø5H7	+0µm +12µm

geometric dimensioning and tolerancing DIN EN ISO 1101 bore description DIN 6780		workpiece edges DIN ISO 13715	general tolerances DIN ISO 2768-f/ H surfaces DIN ISO 1302	amount: 1	scale: 1 : 1,2
deburred edges				material: EN AW 7021 T6	pre-product: -
1.5A reworked cutout pattern entire page sheet.4		08.09.22	T.Kanngießer	date	name
1.4B noted work in process areas on the pages		02.09.22	T.Kanngießer	designed: 02.08.2021	Tim Kanngießer
1.4A noted and marked in orange		24.08.22	T.Kanngießer	approved: 03.08.2021	Rüdiger Widera
1.3A noted and marked in blue		14.07.22	T.Kanngießer	status:	released
1.2A noted and marked in red		17.12.21	T.Kanngießer	part rev.: 1.5	draw.rev.: B
1.1A position of inserts; air holes behind inserts; skipped slot at vacuum pattern bottom		14.10.21	T.Kanngießer		
surface roughness Rz4; surface treatment text page drawing; chamfer tolerance inserts					
milling recesses vacuum chamber with radius R2.6; radius SMD cutouts R0.3; inserts height 6mm					
rev.	alteration	date	name		

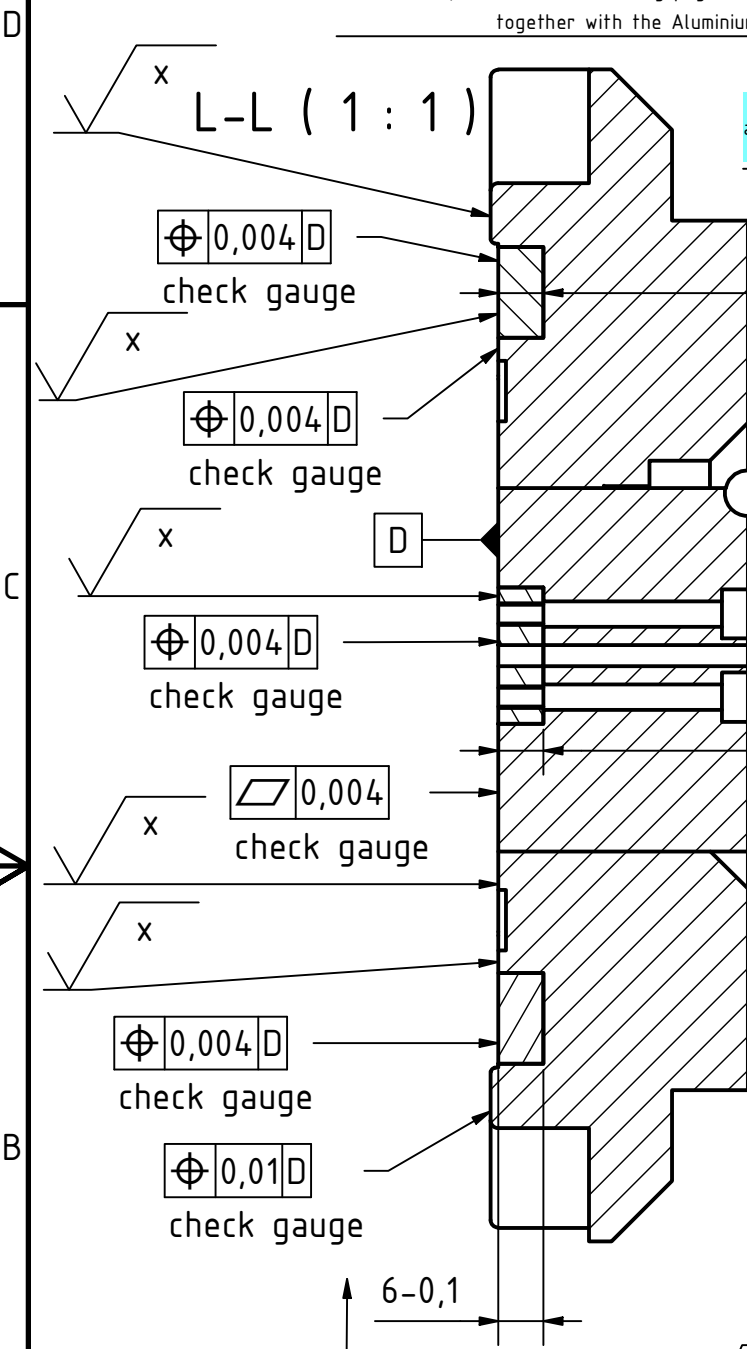
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fit	allowance
Ø6G6	+4µm +12µm



rev.1.3
all milling pocket measures
of inserts

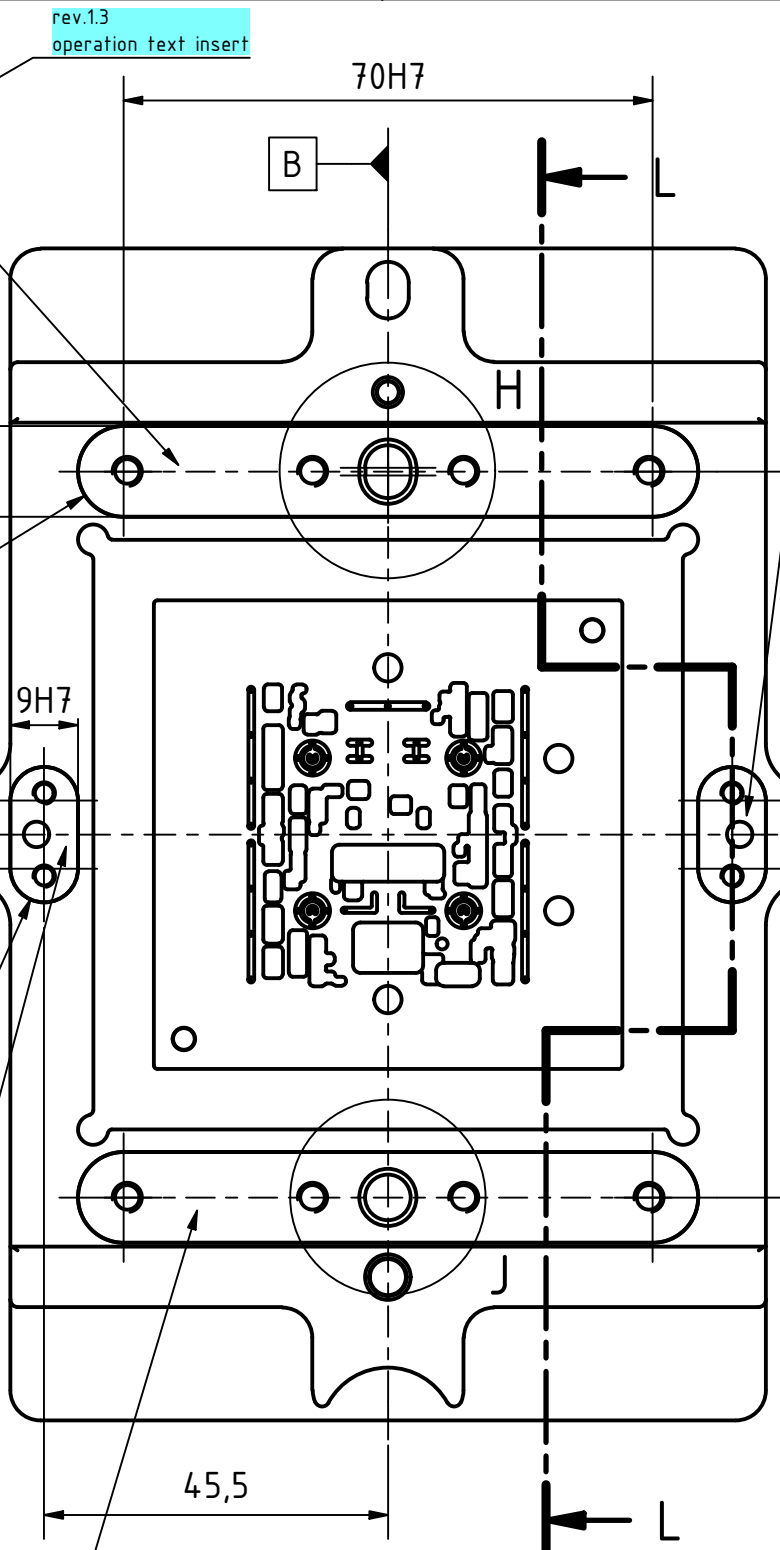
rev.1.3
all milling pocket measures
of inserts

rev.1.3
operation text insert

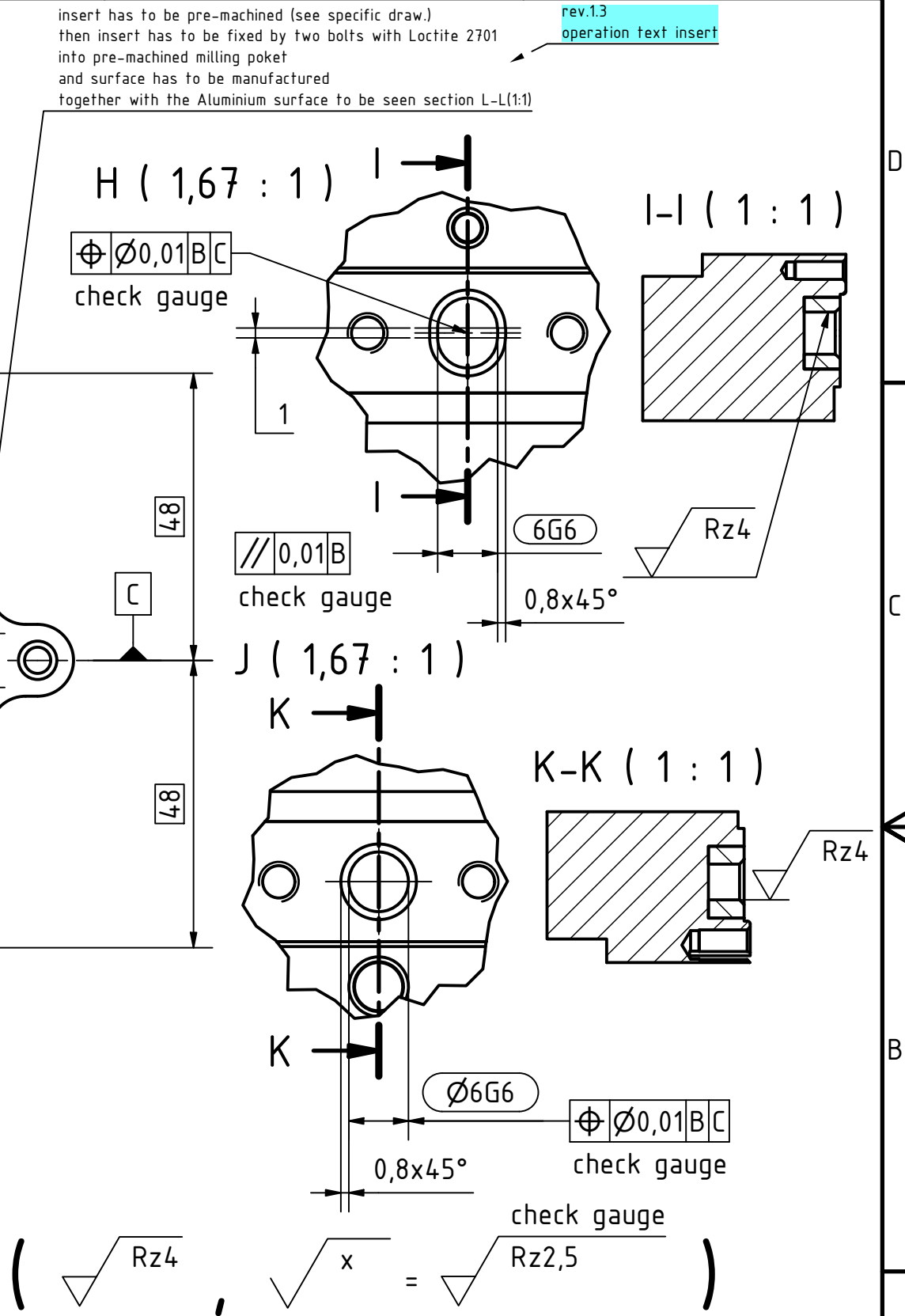
rev.1.3
tolerances changed
from parallelism to position
of surfaces cross-section J-J

insert has to be pre-machined (see specific draw.)
then insert has to be fixed by four bolts with Loctite 2701
into pre-machined milling pocket
afterwards slot G6G has to be machined same clamping operation
as the two Ø3H7x6 bores (drawing page 2) and surface has to be manufactured
together with the Aluminium surface to be seen section L-L(1:1)

This page just
insert measures plus its hole and slot
as well as geometric dimensions of surfaces!



rev.1.3
operation text insert



insert has to be pre-machined (see specific draw.)
then insert has to be fixed by two bolts with Loctite 2701
into pre-machined milling pocket
and surface has to be manufactured
together with the Aluminium surface to be seen section L-L(1:1)

rev.1.3
operation text insert

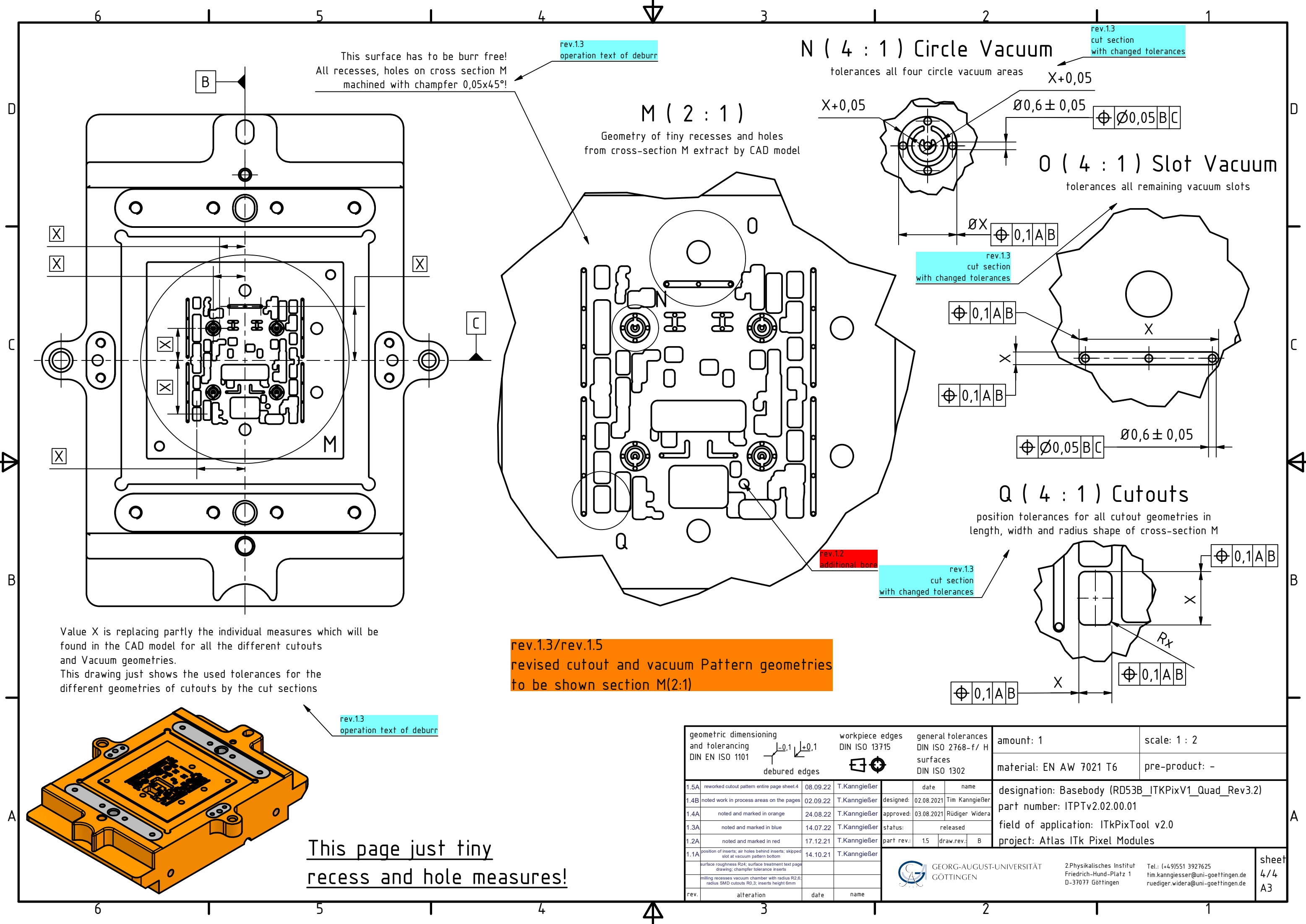
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milling recesses vacuum chamber with radius R2.6; radius SMD cutouts R0.3; inserts height 6mm					
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sheet
3/4
A3



This surface has to be burr free!
All recesses, holes on cross section M
machined with chamfer 0,05x45°!

rev.1.3
operation text of deburr

N (4 : 1) Circle Vacuum

tolerances all four circle vacuum areas

rev.1.3
cut section
with changed tolerances

X+0,05

M (2 : 1)

Geometry of tiny recesses and holes
from cross-section M extract by CAD model

O (4 : 1) Slot Vacuum

tolerances all remaining vacuum slots

rev.1.3
cut section
with changed tolerances

X

Ø0,6 ± 0,05

Q (4 : 1) Cutouts

position tolerances for all cutout geometries in
length, width and radius shape of cross-section M

rev.1.2
additional bore

rev.1.3
cut section
with changed tolerances

X

R_x

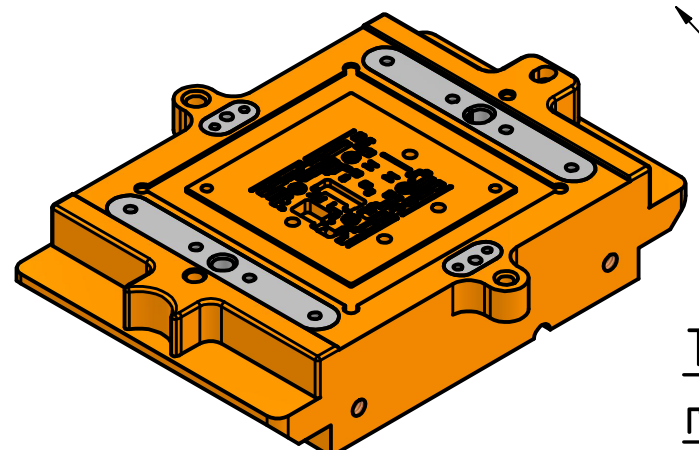
Ø0,1 AB

Ø0,1 AB

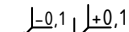


Value X is replacing partly the individual measures which will be
found in the CAD model for all the different cutouts
and Vacuum geometries.
This drawing just shows the used tolerances for the
different geometries of cutouts by the cut sections

rev.1.3/rev.1.5
revised cutout and vacuum Pattern geometries
to be shown section M(2:1)

rev.1.3
operation text of deburr



This page just tiny
recess and hole measures!

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 deburred edges							material: EN AW 7021 T6		pre-product: -		
1.5A reworked cutout pattern entire page sheet.4		08.09.22	T.Kanngießer		date	name		designation: Basebody (RD53B_ITkPixV1_Quad_Rev3.2) part number: ITPTv2.02.00.01 field of application: ITkPixTool v2.0 project: Atlas ITk Pixel Modules			
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rev.	alteration	date	name	sheet 4/4 A3							