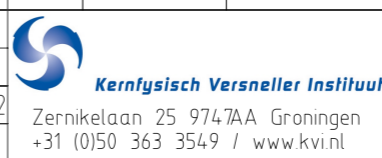


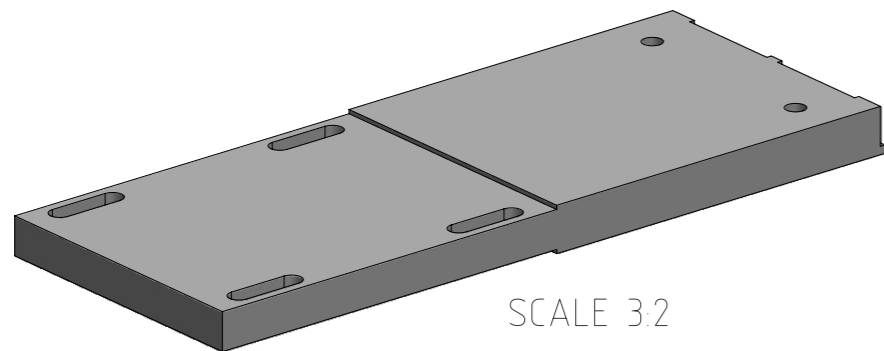
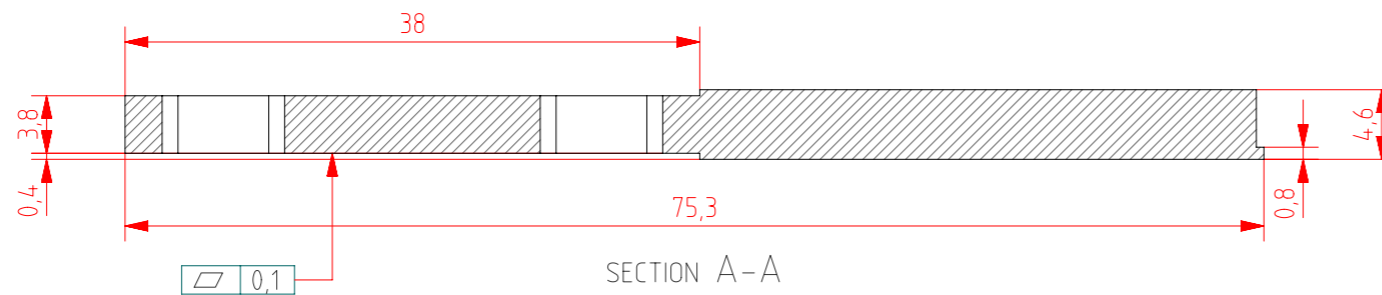
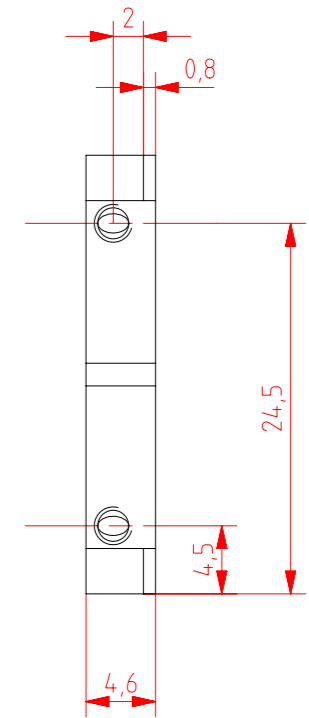
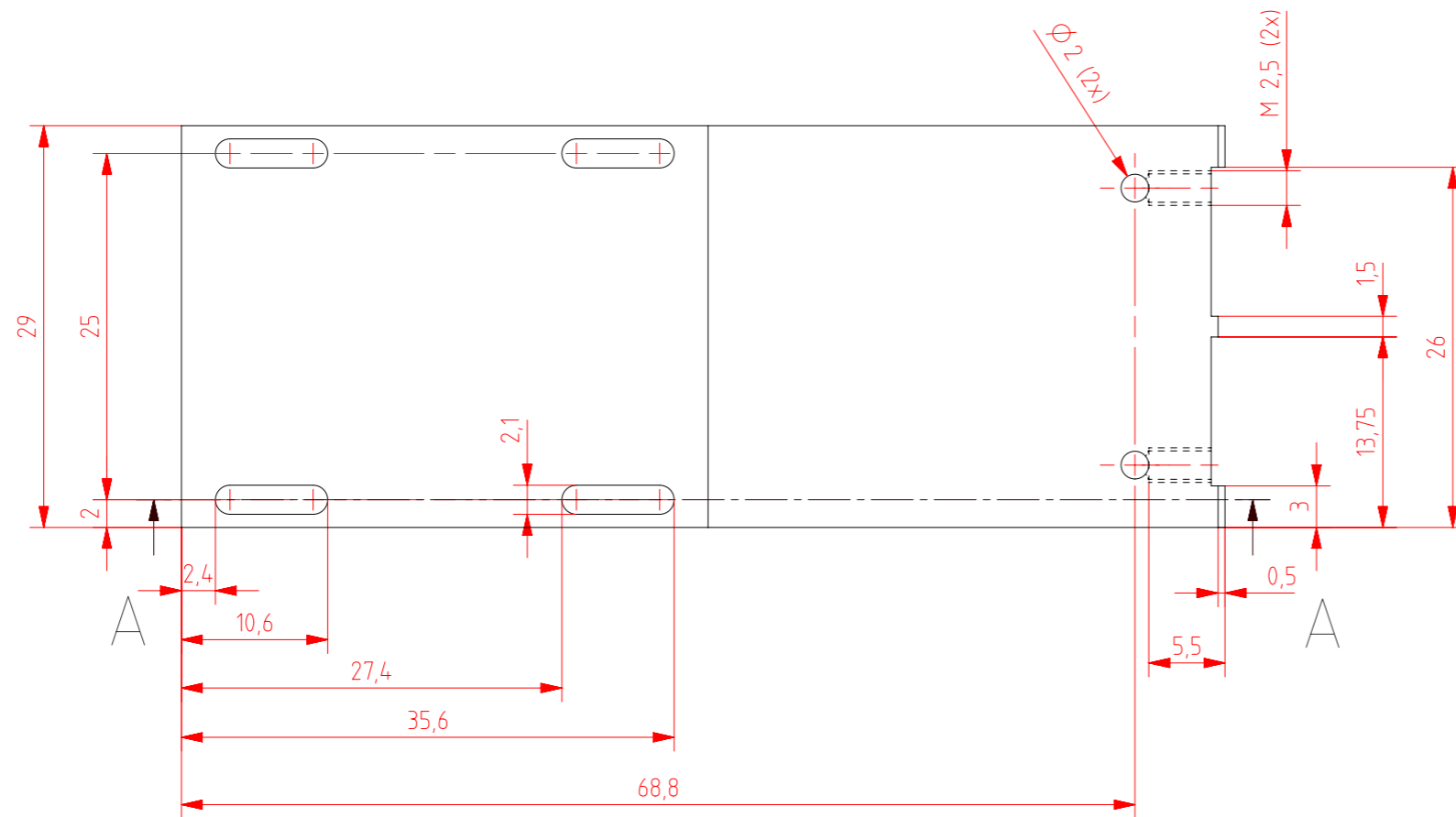
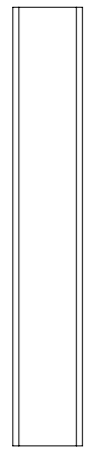
Projectcode: 623001  
 Werkorder: G1003  
 Dimensions: 155x59x12  
 Material: AISI.316(1.4401)  
 Mass [kg]: 0,75

Shape- and dest.tol. acc. NEN-ISO 1101	Dim. tol. acc. NEN-ISO 406	General Tolerances NEN-ISO 2768-1m / 2768-2K	Roughness acc. NPR 3634	mm	Scale 1:1
Date: 05-2012		Name: M.Lindemulder	Project: EXL proto		A3
Checked: -		-	Group: Nustar		
Revision: 3mm cutout added			Date: 19-07-2012		Sheet 1/2
Revision: 3mm cutout added			Date: 19-07-2012		
Revision: 3mm cutout added			Date: 19-07-2012		Drawing number: 3;1003;6000-01_dwg
Revision: 3mm cutout added			Date: 19-07-2012		



NEN ISO 2768-2K	Nominal dims. mm	Straightness & Flatness	t/m10	10-30	30-100	100-300	300-1000	1000-3000	Squareness	t/m100	100-300	300-1000	1000-3000	Symmetry	t/m100	100-300	300-1000	1000-3000	Circular Stroke
Geometrical tolerances	Tolerance mm		0,05	0,1	0,2	0,4	0,6	0,8		0,4	0,6	0,8	1		0,6	0,8	1		0,2

NEN-ISO 2768-1m	Nominal dims	Tolerance	0,5-3	±0,1	3-6	±0,1	6-30	±0,2	30-120	±0,3	120-400	±0,5	400-1000	±0,8	1000-2000	±1,2	2000-4000	±2	Broken edges	0,5-3	±0,2	3-6	±0,5	6-	±1	Corners	l-min. cornerside	0-10	±1°	10-50	±0°30'	50-120	±0°20'	120-400	±0°10'	400-	±0°5'
-----------------	--------------	-----------	-------	------	-----	------	------	------	--------	------	---------	------	----------	------	-----------	------	-----------	----	--------------	-------	------	-----	------	----	----	---------	-------------------	------	-----	-------	--------	--------	--------	---------	--------	------	-------



SCALE 3:2

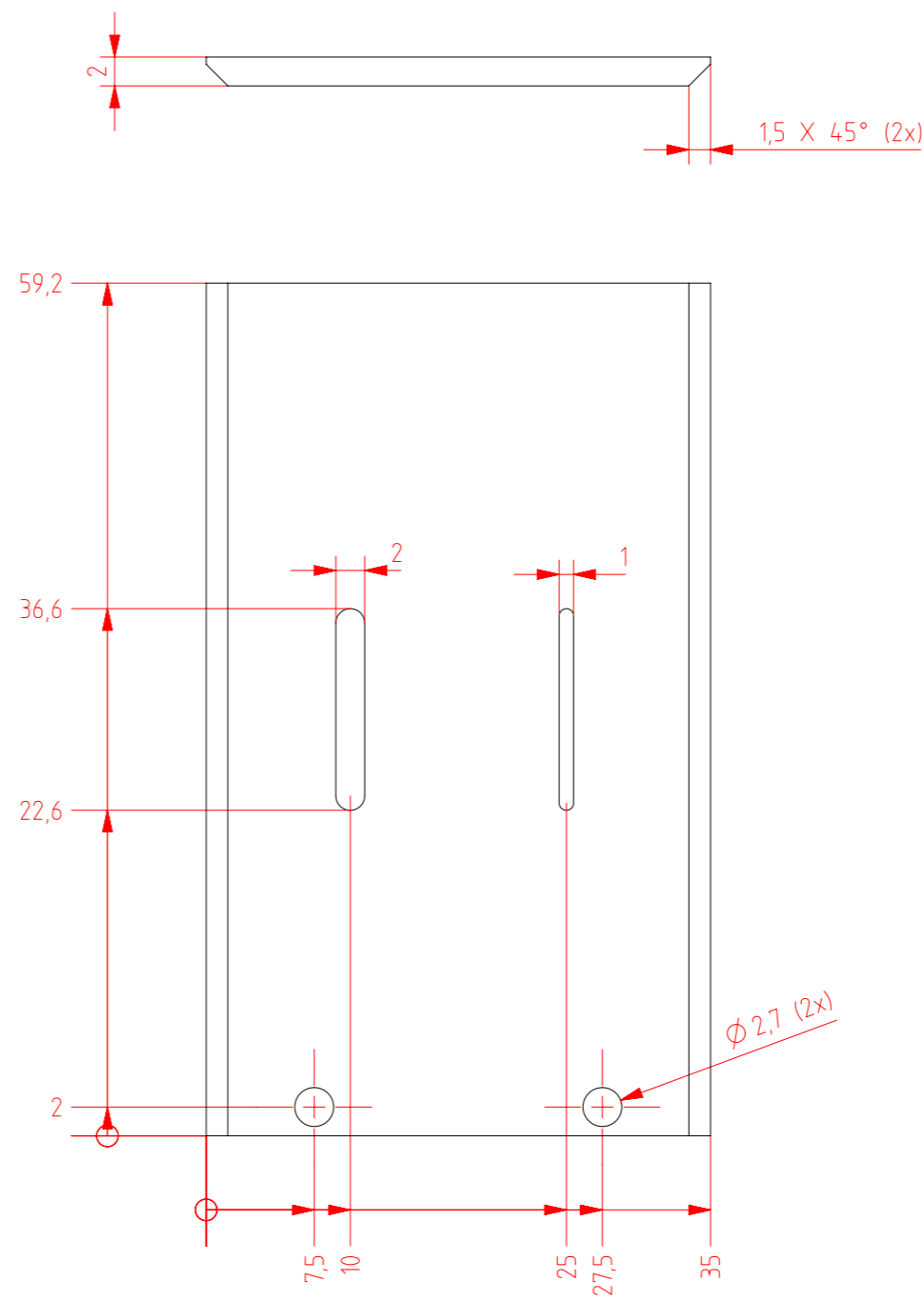
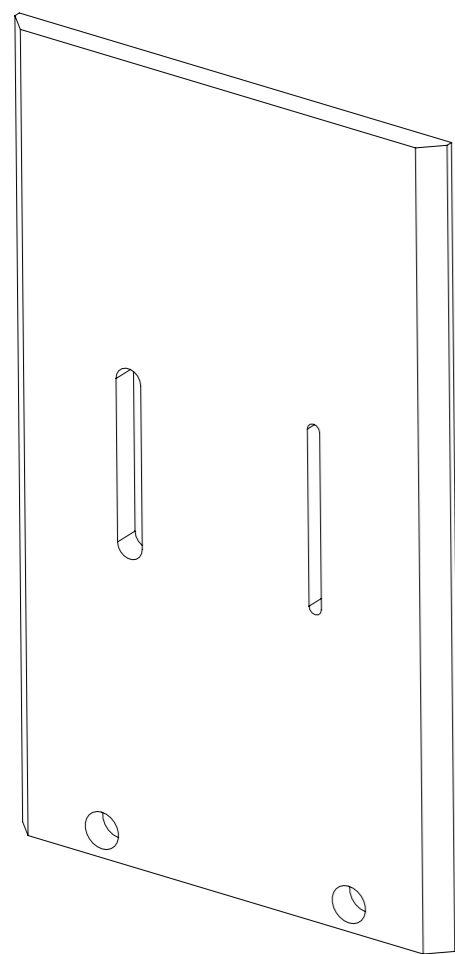
Projectcode: 623001  
 Werkorder: G1003  
 Dimensions: 75,3x29x4,6  
 Material: AISI-316(1.4401)  
 Mass [kg]: 0,06

Ra 0,8

Shape- and dest.tol. acc. NEN-ISO 1101	Dim. tol. acc. NEN-ISO 406	General Tolerances NEN-ISO 2768-1m / 2768-2K		Roughness acc. NPR 3634	mm		Scale 2:1	
		Date:	Name:	Project: EXL proto				
		Drawn	05-2012	M.Lindemulder	Group: Nustar			
		Checked	-	-	Name: Slit support			
		 Zernikelaan 25 9747AA Groningen +31 (0)50 363 3549 / www.kvi.nl			Drawing number: 3,1003;6000-02_dwg			
Revision	Date				Sheet 1/1			

NEN ISO 2768-2K	Nominal dims. mm	Straightness & Flatness		f/m10	10-30	30-100	100-300	300-1000	1000-3000	Squareness		f/m100	100-300	300-1000	1000-3000	Symmetry		f/m100	100-300	300-1000	1000-3000	Circular Stroke	
Geometrical tolerances	Tolerance mm			0,05	0,1	0,2	0,4	0,6	0,8	$\perp$		0,4	0,6	0,8	1	$\equiv$		0,6	0,8	1	$\curvearrowright$	0,2	

Linear dimensions	Tolerance	0-10	± 1°	10-50	± 0°30'	50-120	± 0°20'	120-400	± 0°10'	400-	± 0°5'
Nominal dims		0-10	± 1°	10-50	± 0°30'	50-120	± 0°20'	120-400	± 0°10'	400-	± 0°5'
Broken edges		0,5-3	± 0,2	3-6	± 0,5	6-	± 1				
Corners		l-min.	cornerside								
		[mm]	[mm]								



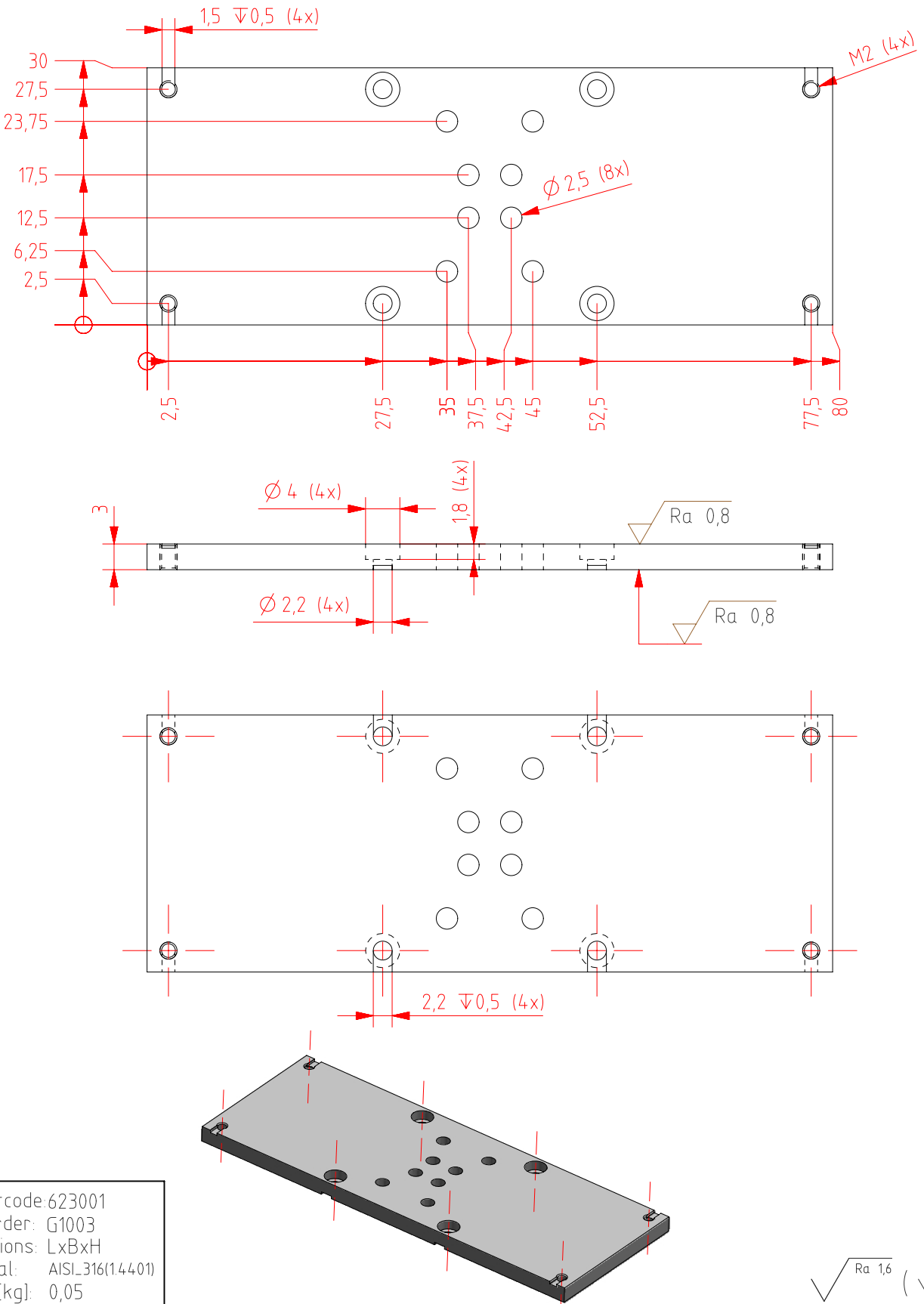
Ra 0,8

Projectcode: 623001  
 Werkorder: G1003  
 Dimensions: 59,2x35x3  
 Material: Tantalum  
 Mass [kg]: 0,1

Shape- and dest.fol. acc. NEN-ISO 1101	Dim. tol. acc. NEN-ISO 406	General Tolerances NEN-ISO 2768-1m / 2768-2K		Roughness acc. NPR 3634	mm		Scale 2:1
		Date:	Name:	Project: EXL proto			A3
		Drawn	M.Lindemulder	Group: 1003			
		Checked	-	Name:			Sheet
		Thickness to 2mm			Slit plate		
		Revision			Drawing number:		
		Date	Zernikelaan 25 9747AA Groningen +31 (0)50 363 3549 / www.kvi.nl		3;1003;6000-04_dwg		

NEN ISO 2768-2K	Nominal dims. mm	Straightness	—	f/m10	10-30	30-100	100-300	300-1000	1000-3000	Squareness	⊥	f/m100	100-300	300-1000	1000-3000	Symmetry	≡	f/m100	100-300	300-1000	1000-3000	Circular Stroke	↗
Geometrical tolerances	Tolerance mm	& Flatness	□	0,05	0,1	0,2	0,4	0,6	0,8	⊥	0,4	0,6	0,8	1	≡	0,6	0,8	1	↗	0,2			

Linear dimensions	0-10	10-50	50-120	120-400	400-
Nominal dims	± 1°	± 0°30'	± 0°20'	± 0°10'	± 0°5'
Tolerance	[mm]	[mm]	[mm]	[mm]	[mm]
Broken edges	0,5-3	3-6	6-		
	± 0,2	± 0,5	± 1		
Corners	0-10				
	± 1°				



Projectcode: 623001  
 Werkkorder: G1003  
 Dimensions: LxBxH  
 Material: AISI\_316(1.4401)  
 Mass [kg]: 0,05

$\sqrt{Ra 1,6}$  ( $\sqrt{Ra 0,8}$ )

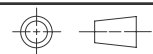
Shape- and dest.tol. acc. NEN-ISO 1101

Dim. tol. acc. NEN-ISO 406

General Tolerances NEN-ISO 2768-1m / 2768-2K

Roughness acc. NPR 3634

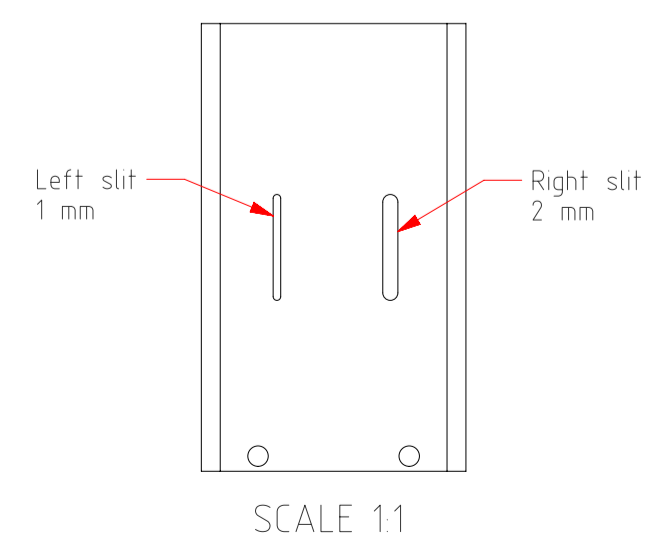
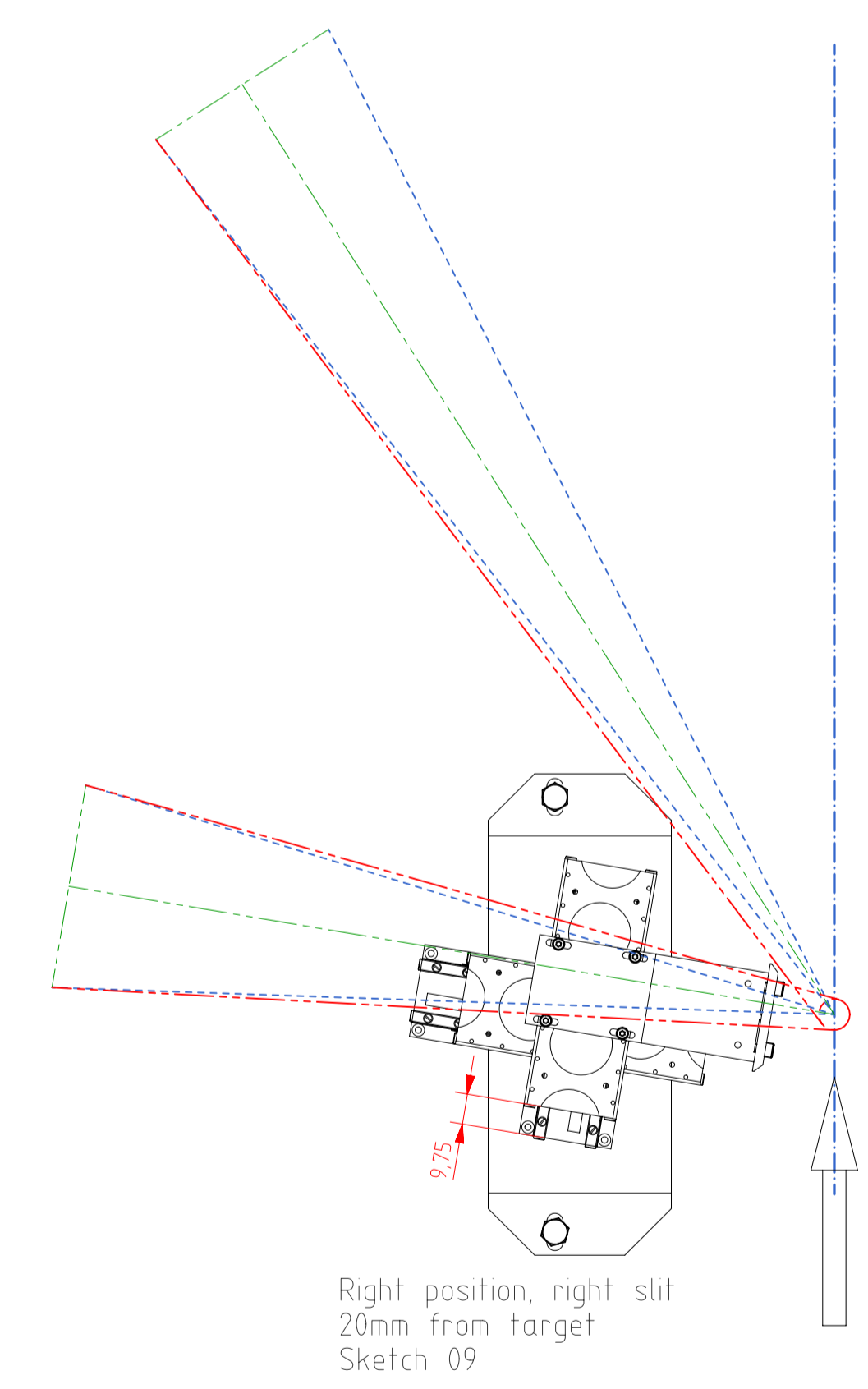
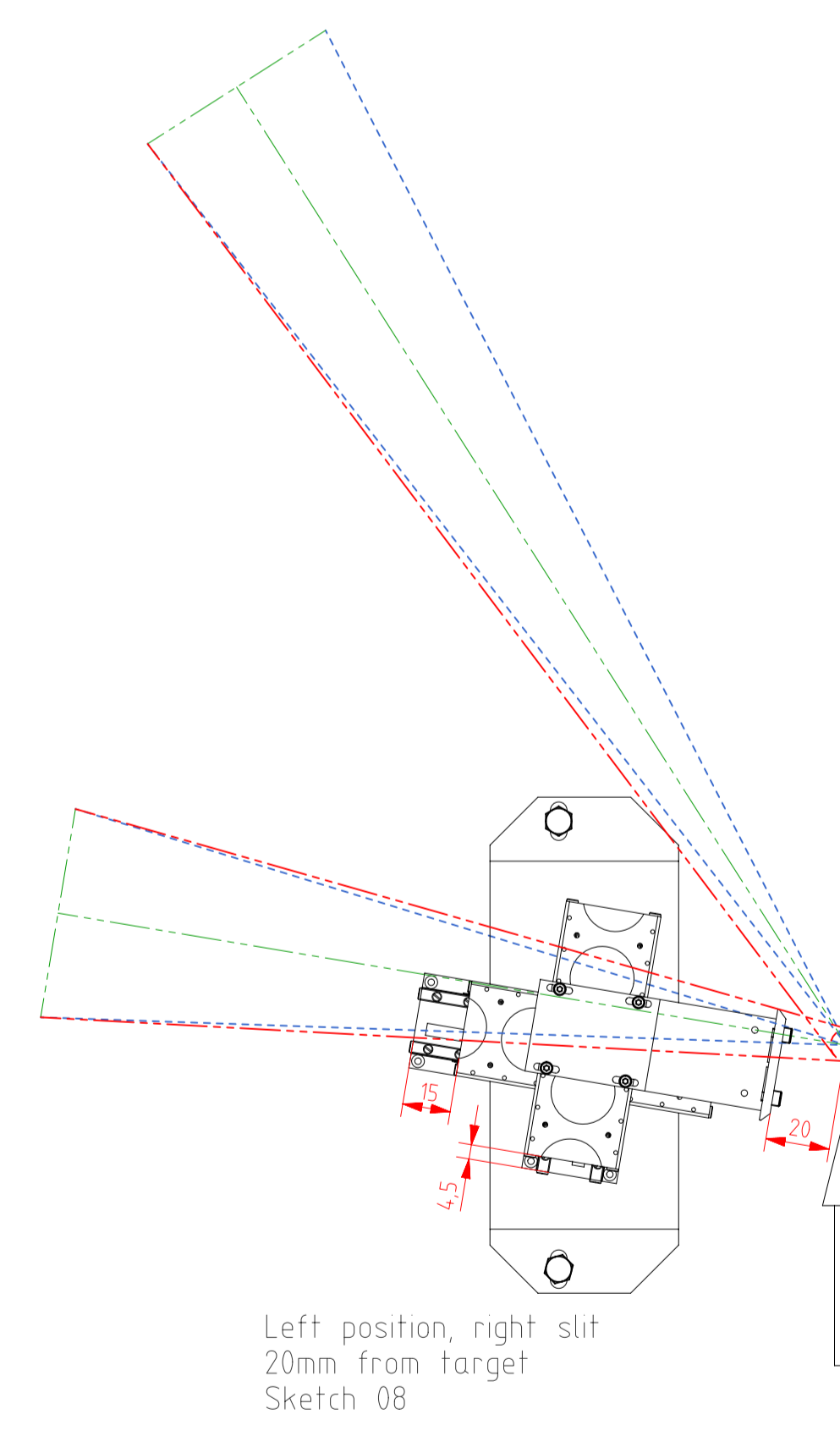
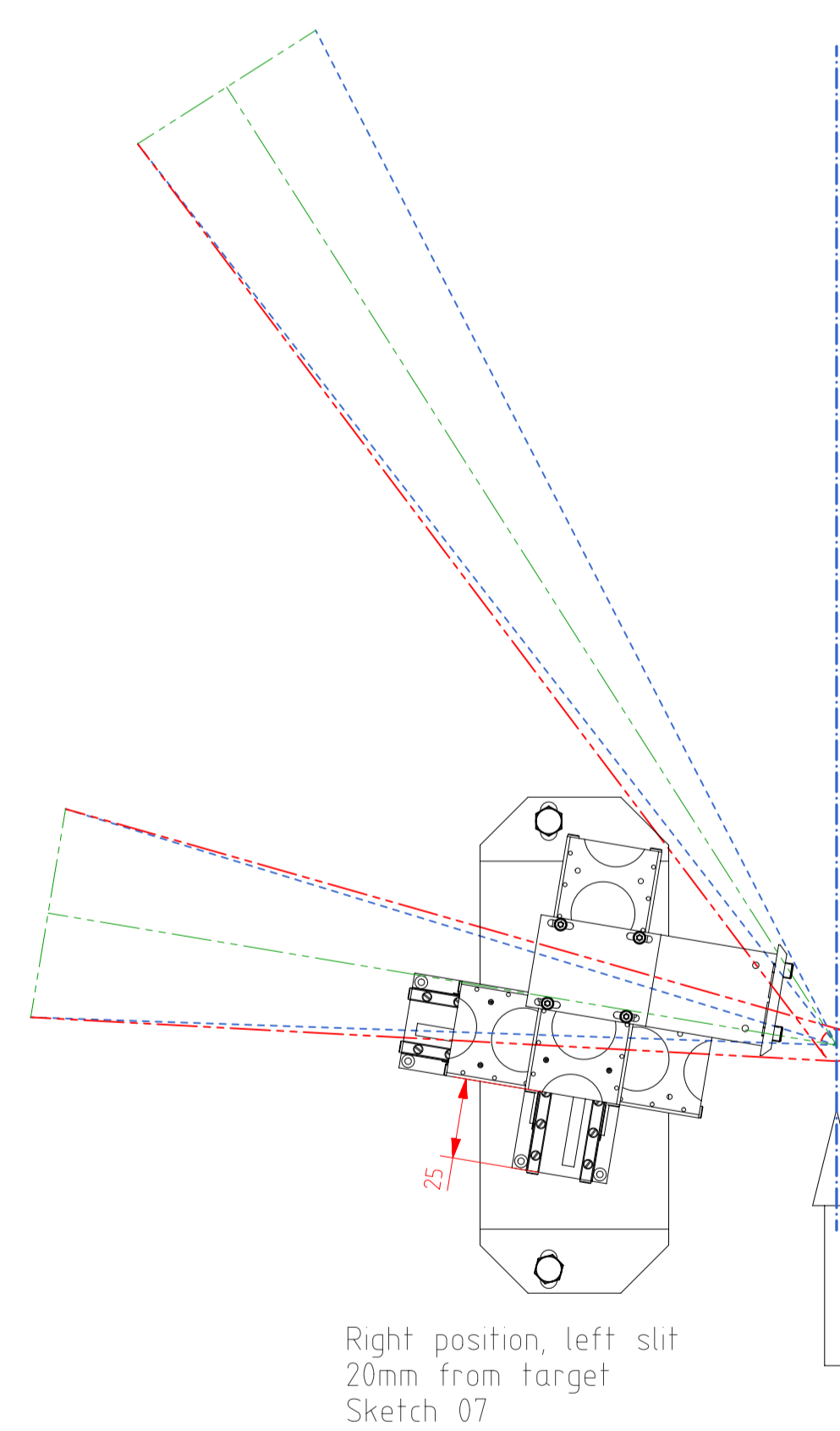
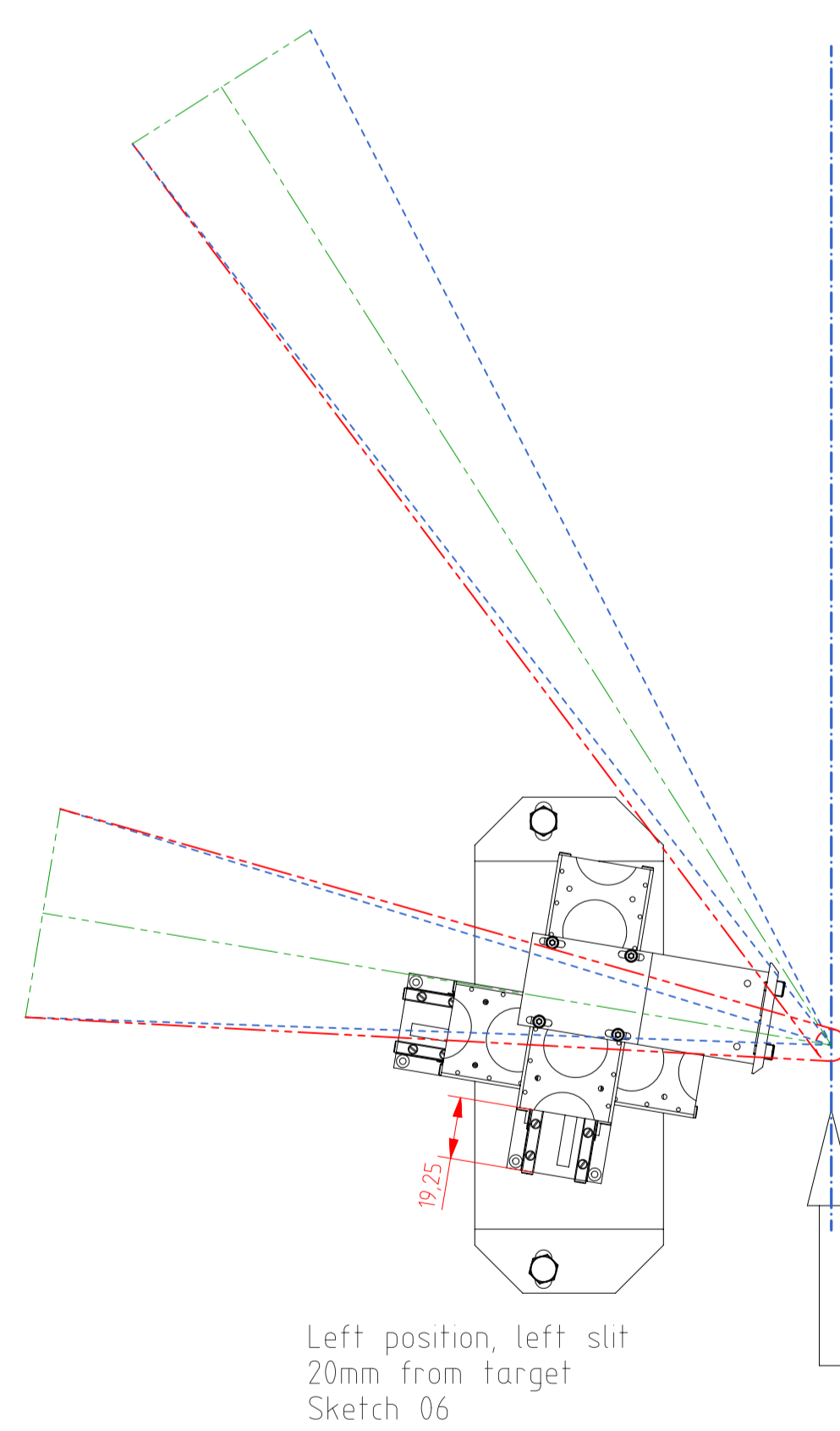
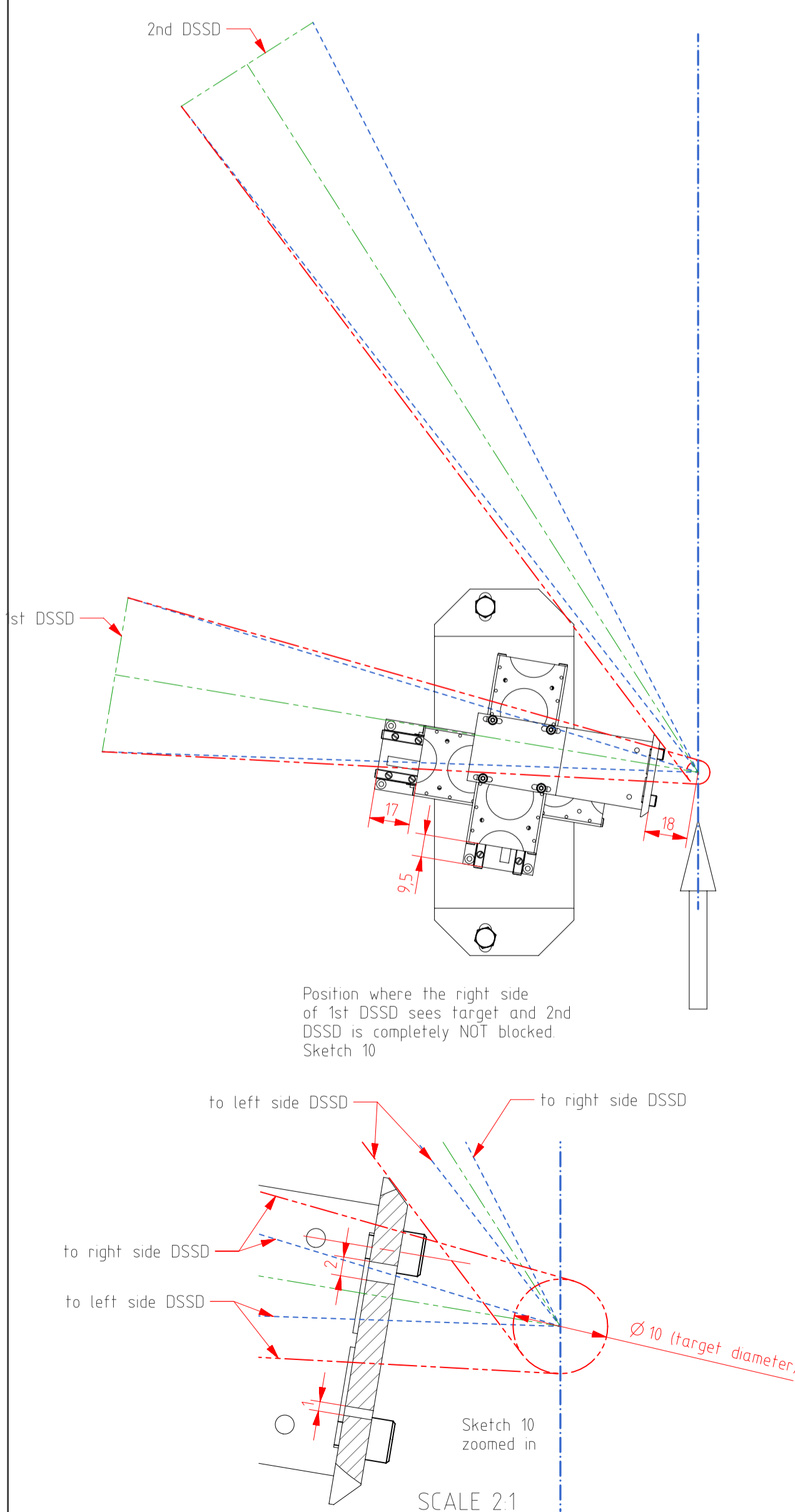
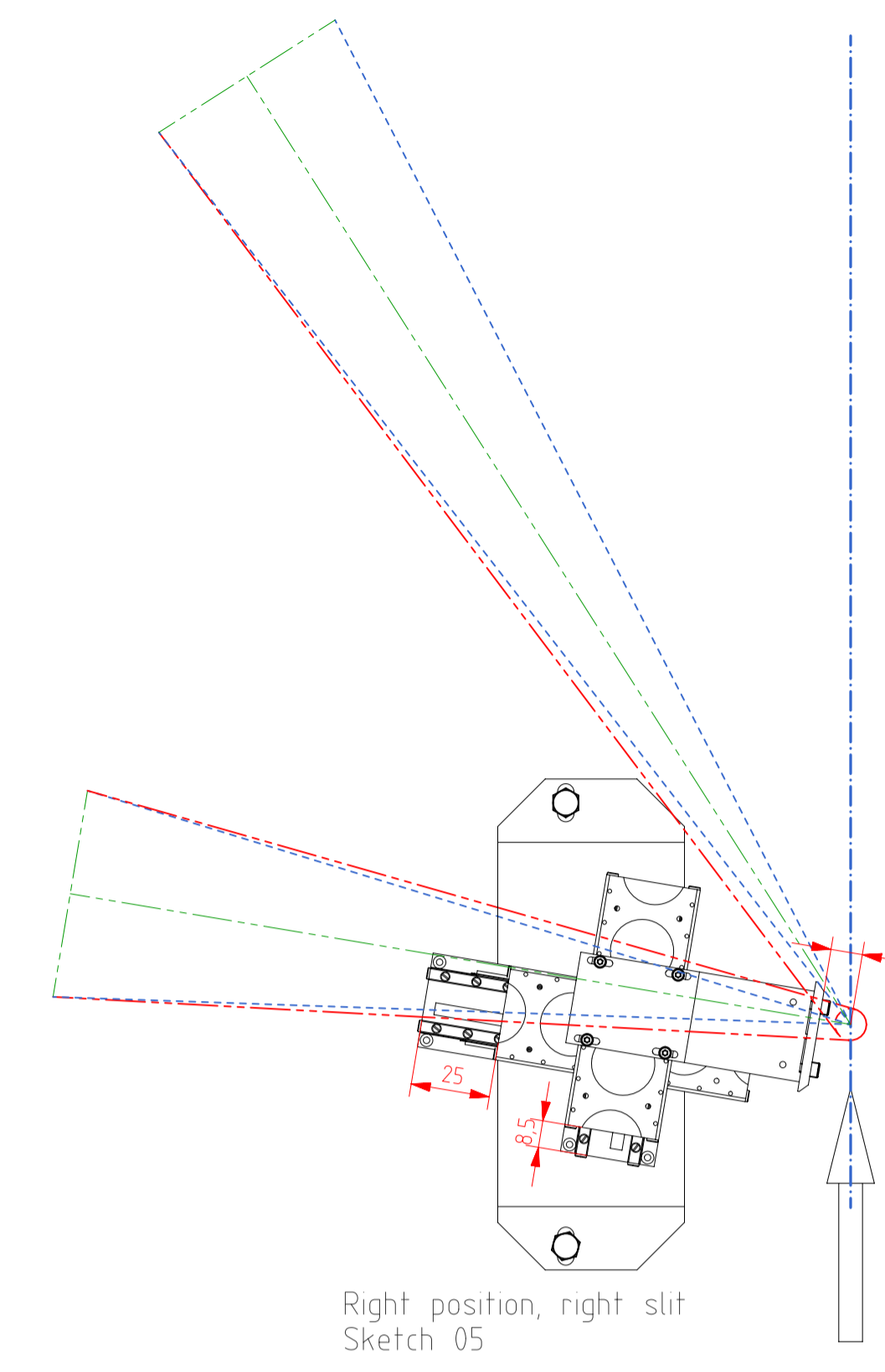
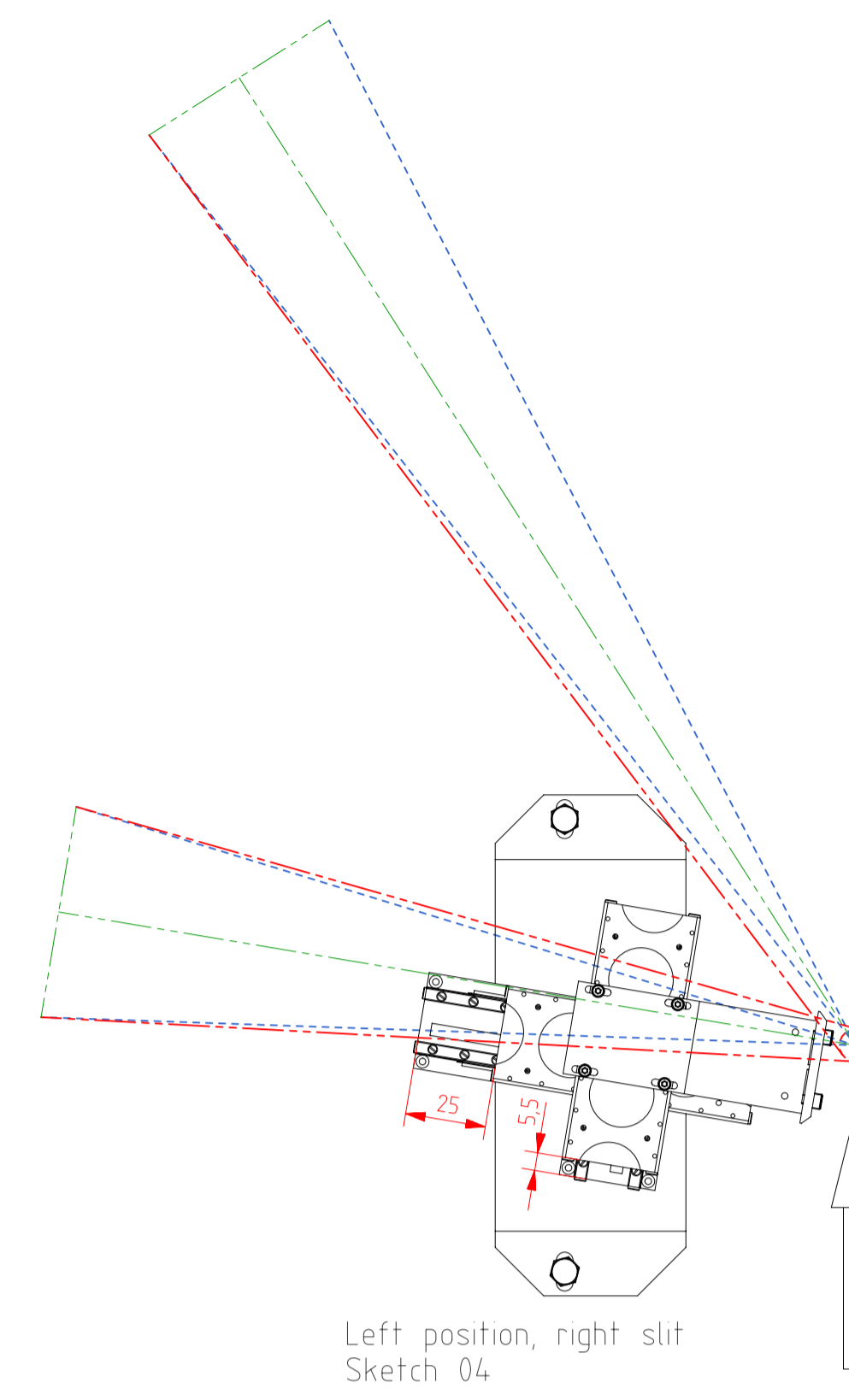
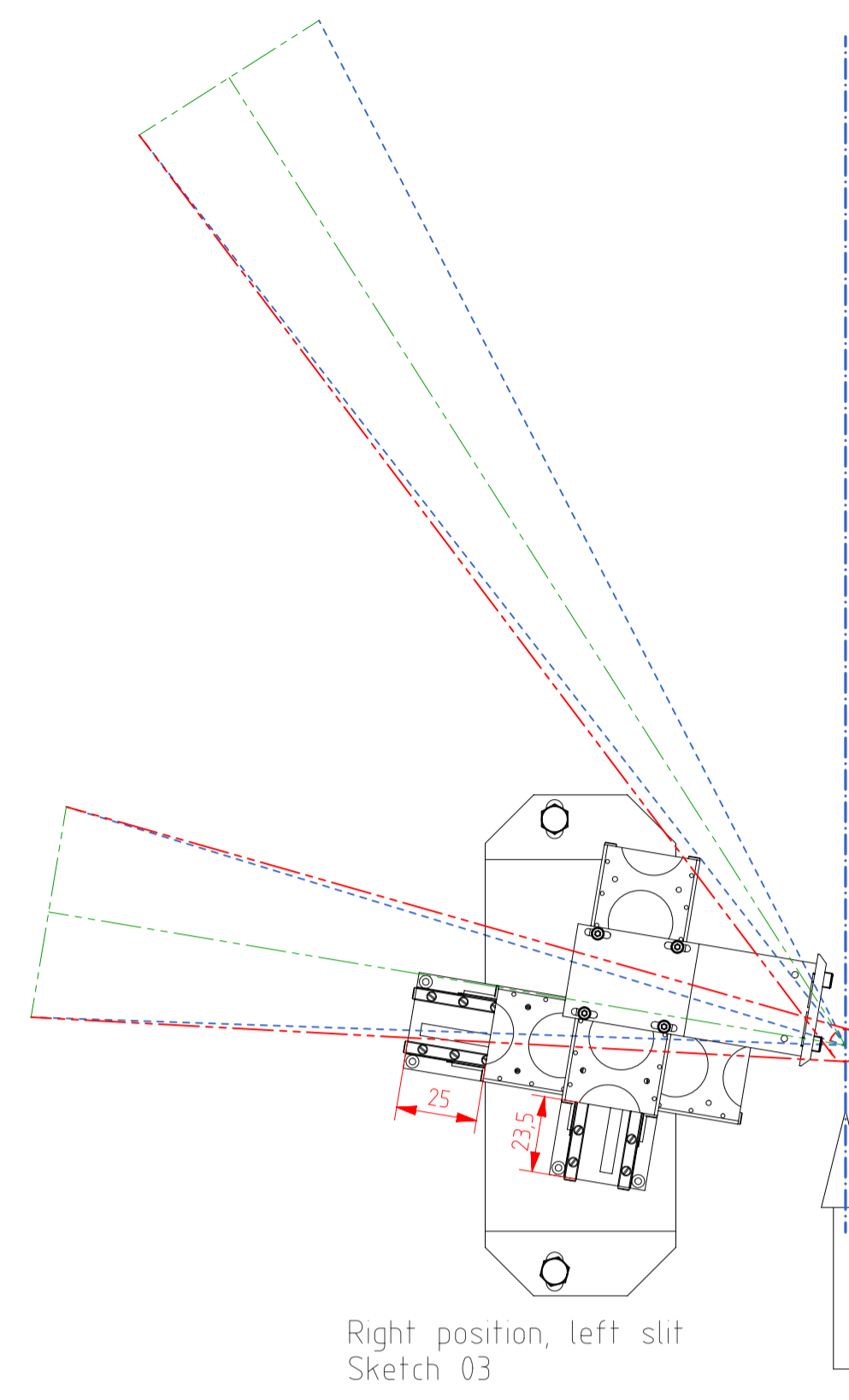
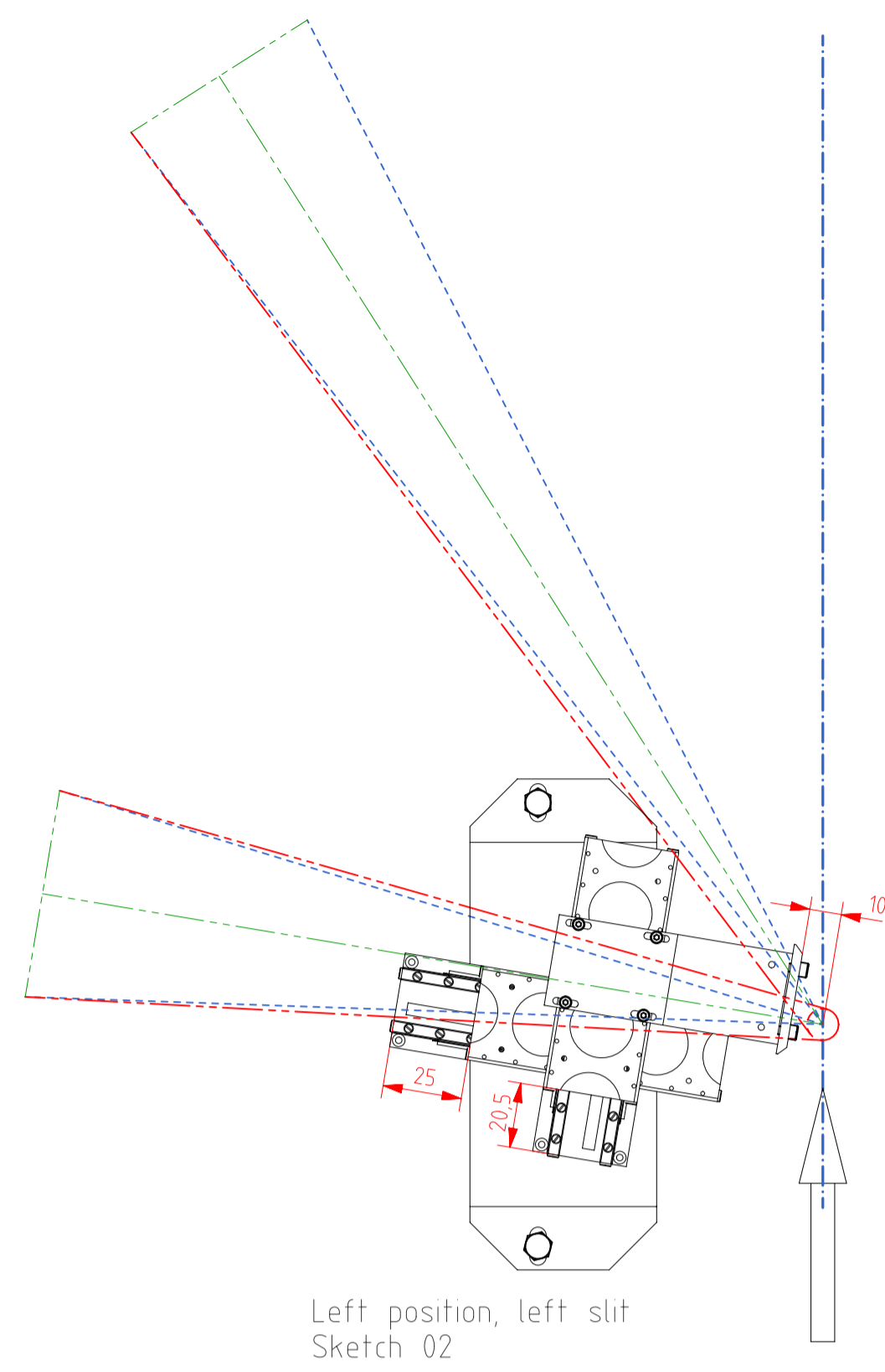
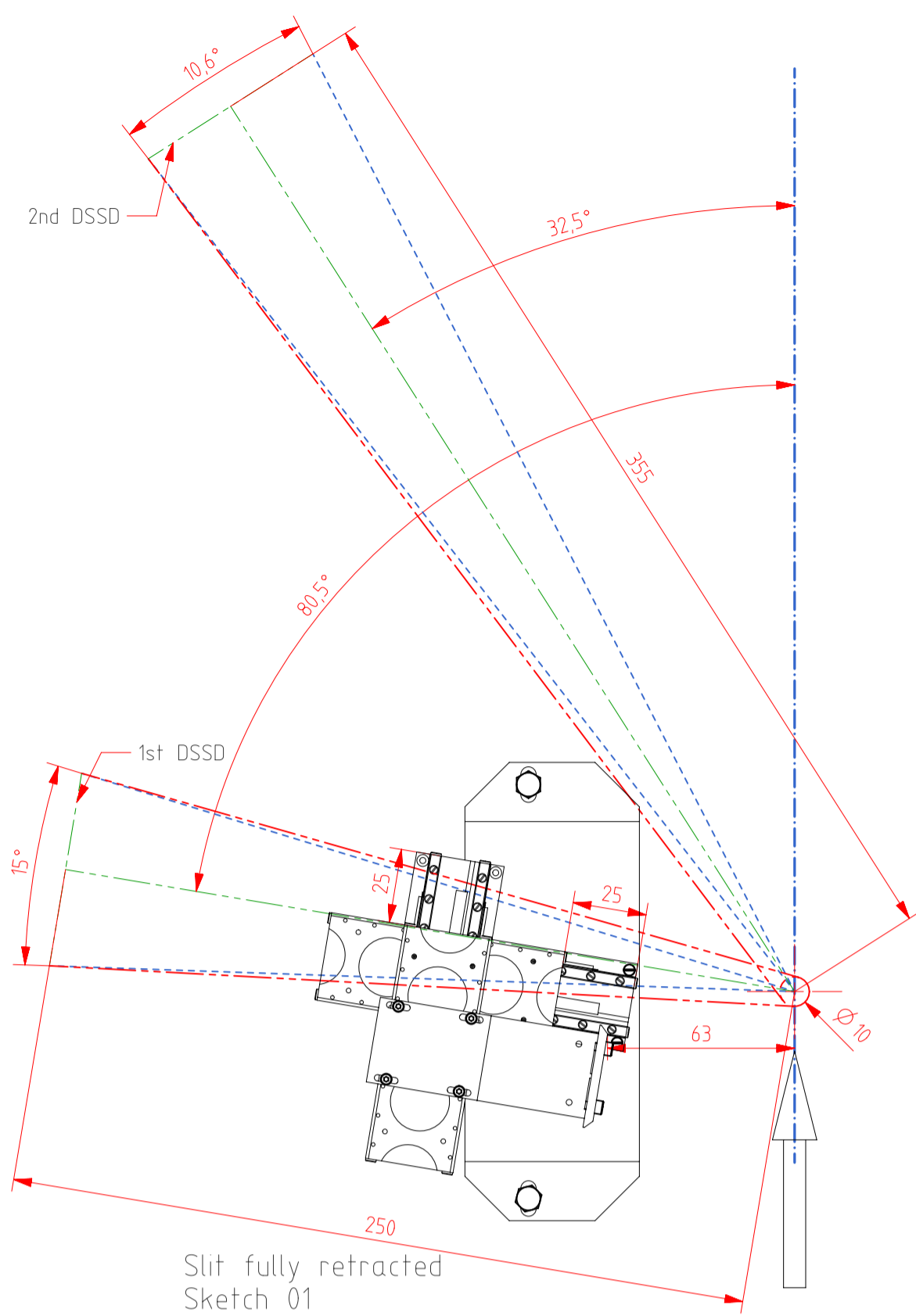
mm



Scale 1,5:1

Revision	Date	Date	Name	Project	Group	Name
Checked	-	-				
 Kernfysisch Versneller Instituut Zernikelaan 25 9747AA Groningen +31 (0)50 363 3549 / www.kvi.nl				Drawing number:		Sheet
				3;1003;6000-06_dwg		1/1





NEN-ISO 2768-2K	Nominal dims mm	Straightness	1mm/10 10-30 30-100 100-200 200-300 300-1000 1000-3000	Squareness	1mm/10 10-30 30-100 100-200 200-300 300-1000 1000-3000	Symmetry	1mm/10 10-30 30-100 100-200 200-300 300-1000 1000-3000	Circular Stroke	0.2
Geometrical tolerances	Tolerance mm	& Flatness	0.05 0.1 0.2 0.4 0.6 0.8	±	0.4 0.6 0.8 1	±	0.6 0.8 1	0.2	

Projectcode 623001  
 Werkkoder G1003  
 Dimensions -  
 Material -  
 Mass (kg) 1.2

Shape- and dest/fal acc NEN-ISO 1001	Dim. tol. acc NEN-ISO 406	General Tolerances NEN-ISO 2768-1m - 2768-2K	Roughness acc NPR 3634	mm	Scale 1:2
Date	Name	Project	EXL proto		
Drawn	05-2012	M.Lindemulder	Group	Nustar	
Checked	-	-	Name	Slit system	A1
			Drawing number	3;1003;6000_positions_dwg	Sheet
Revision	Date	Zernikelaan 25 9747AA Groningen +31 (0)50 363 3549 / www.kvintl			1/1

Linear dimensions	±0.1	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±4	±6	±10	±15	±20	±30	±50	±100	±150	±200	±300	±500	±1000	
Conners	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°	
Broken edges	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	±0.5	
mm	0.5-3	3-6	6-10	10-50	50-120	120-400	400-1000	1000-2000	2000-4000	4000-10000	10000-20000	20000-40000	40000-100000	100000-200000	200000-400000	400000-1000000	1000000-2000000	2000000-4000000	4000000-10000000	10000000-20000000	20000000-40000000	40000000-100000000

**Overview of situations and their corresponding positions of the 2 Attocube positoners**

Sketch	Situation	Slit size	Side of DSSD that sees target	Slit distance from target	Position Attocube A (bottom)	Position Attocube B (top)	2nd DSSD covered if target diameter 10mm	2nd DSSD covered seen from center target
01	Slit fully retracted	-	-	63	-25	-25	not covered	not covered
02	Left position, left slit	1	Left	10	25	20.5	fully covered	fully covered
03	Right position, Left slit	1	Right	10	25	23.5	fully covered	fully covered
04	Left position, right slit	2	Left	10	25	5.5	±20% covered	not covered
05	Right position, Right slit	2	Right	10	25	8.5	±40% covered	not covered
06	Left position, left slit	1	Left	20	15	19.25	±45% covered	±25% covered
07	Right position, Left slit	1	Right	20	15	25	±60% covered	fully covered
08	Left position, right slit	2	Left	20	15	4.5	not covered	not covered
09	Right position, Right slit	2	Right	20	15	9.75	not covered	not covered
10	Right position, Right slit	2	Right	18	17	9.5	<b>just</b> not covered	not covered

