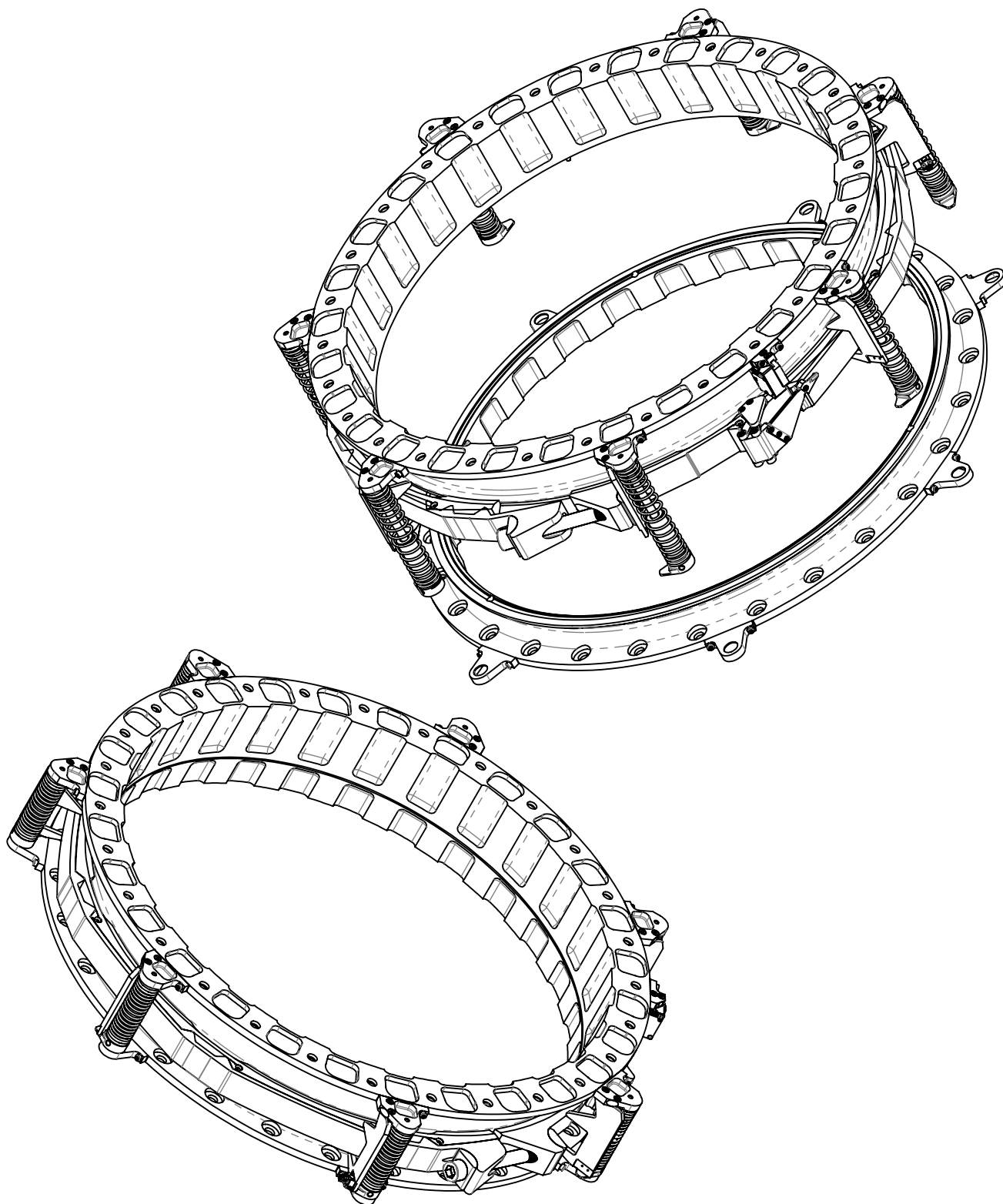




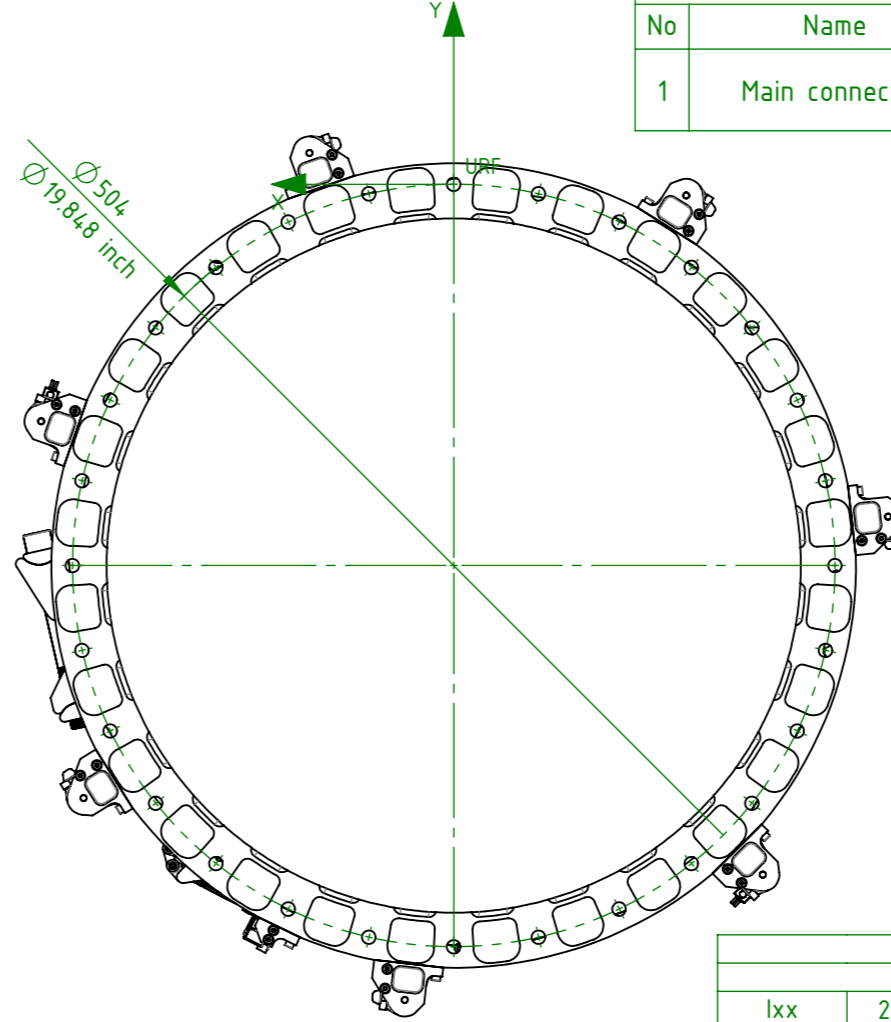
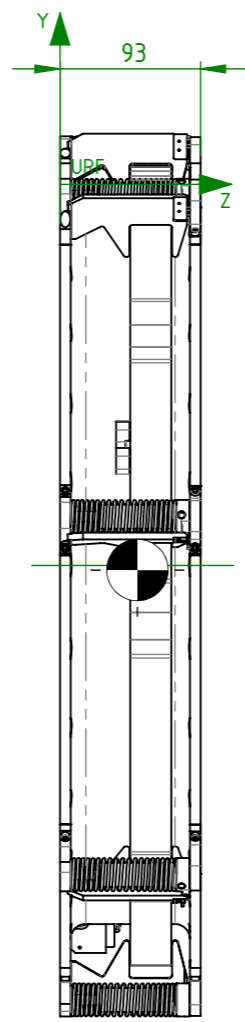
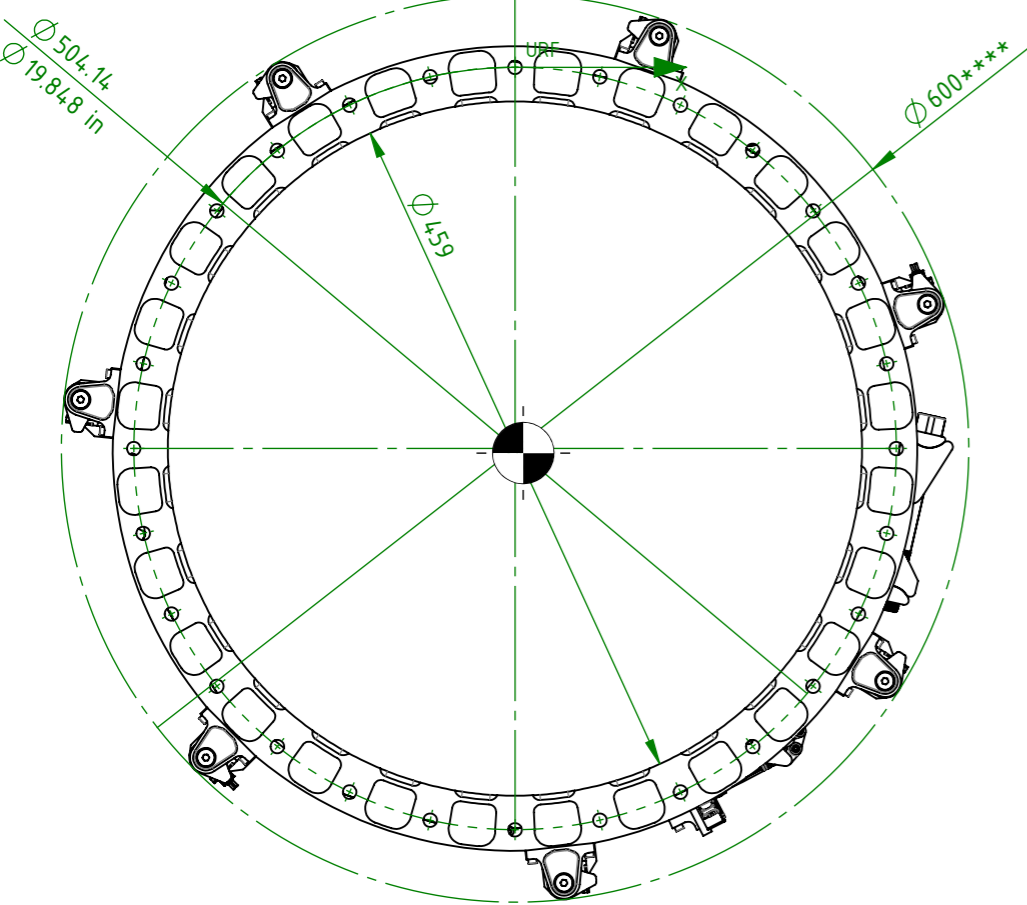
## Version Change History

Version	Zone	Change Description	Date
01	--	Initial version	26.10.2023



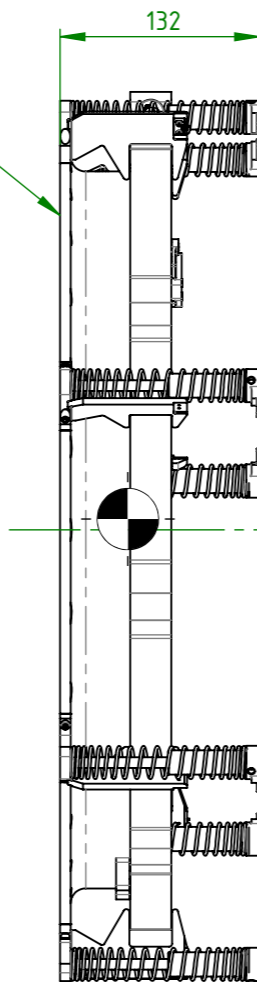
STATUS	NAME	DATE	MASS:
DESIGN	K. Gawin		5634.52 g
DRAWN	P. Torchała	26.10.2023	
CHECKED	J. Marcinowski	26.10.2023	SCALE:
PA APV	M. Ossowski	26.10.2023	1:5
PROJECT:	ASSEMBLY NAME:	PROJECTION:	
AM-SM	Separation Mechanism_ICD_		
 www.astronika.pl	ASSEMBLY NUMBER & VERSION:	SIZE:	
	SM-AST-ICD-001_v01.01	A4	
			PAGE:
			1/2

Stowed

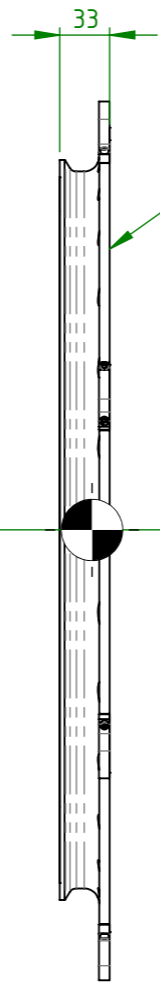


Deployed

S/C Side



Launcher Side



Separation mechanism Connectors				
No	Name	Function	Q-ty	Type
1	Main connector	4 wires HDRM 4 wires sensors		TBD

SM Center of Gravity wrt URF ( $\pm 10\%$ )

Stowed	
X	9.09 mm
Y	-255.55 mm
Z	51.37 mm
Deployed S/C side	
X	11.88 mm
Y	-256.61 mm
Z	44.92 mm
Deployed Launcher side	
X	-0.01 mm
Y	-252.07 mm
Z	-13.39 mm*

SM Attachment Pads Surface

Structure material	Aluminium 7075-T73
Surface coating	Alodine 1200
Roughness [um]	Ra < 3.2
Flatness [mm]	$\pm 0.1$ per 100 mm
Total area [mm <sup>2</sup> ]	30067**

SM Moments of Inertia at CoG wrt URF ( $\pm 10\%$ )

Stowed					
Ixx	216335 kg*mm <sup>2</sup>	Iyy	228128 kg*mm <sup>2</sup>		
Ixy	-4059 kg*mm <sup>2</sup>	Iyz	98 kg*mm <sup>2</sup>	Izz	434857 kg*mm <sup>2</sup>
Ixz	419 kg*mm <sup>2</sup>				
Deployed S/C side					
Ixx	167375 kg*mm <sup>2</sup>	Iyy	179014 kg*mm <sup>2</sup>		
Ixy	-3994 kg*mm <sup>2</sup>	Iyz	-58 kg*mm <sup>2</sup>	Izz	338823 kg*mm <sup>2</sup>
Ixz	827 kg*mm <sup>2</sup>				
Deployed Launcher side					
Ixx	48100 kg*mm <sup>2</sup>	Iyy	48104 kg*mm <sup>2</sup>		
Ixy	2 kg*mm <sup>2</sup>	Iyz	0 kg*mm <sup>2</sup>	Izz	95836 kg*mm <sup>2</sup>
Ixz	0 kg*mm <sup>2</sup>				

General remarks:

- Unit fasteners:  
28 x M8 holes for each side
- SM total mass: 6946 g\*\*\*  $\pm 10\%$  (excluding harness and connector)  
S/C side mass: 5317 g  $\pm 10\%$  (excluding harness and connector)  
Launcher side mass: 1629 g  $\pm 10\%$

General tolerances:

ISO 2768-mK (PN-EN 22768-1:1999-mK)  
PN-EN ISO 286-1:2011, PN-EN ISO 286-2:2010

STATUS	NAME	DATE	SCALE:
DRAWN	P. Torchała	26.10.2023	1:5
PROJECT:	ASSEMBLY NAME:		PROJECTION:
AM-SM	Separation Mechanism_ICD_		
ASSEMBLY NUMBER & VERSION:			SIZE:
SM-AST-ICD-001_v01.01			A3
			PAGE:
			2/2

URF - Unit Reference Frame  
\* measured from Launcher surface  
\*\* per side  
\*\*\* do not include interface bolts  
\*\*\*\* envelope during operation

