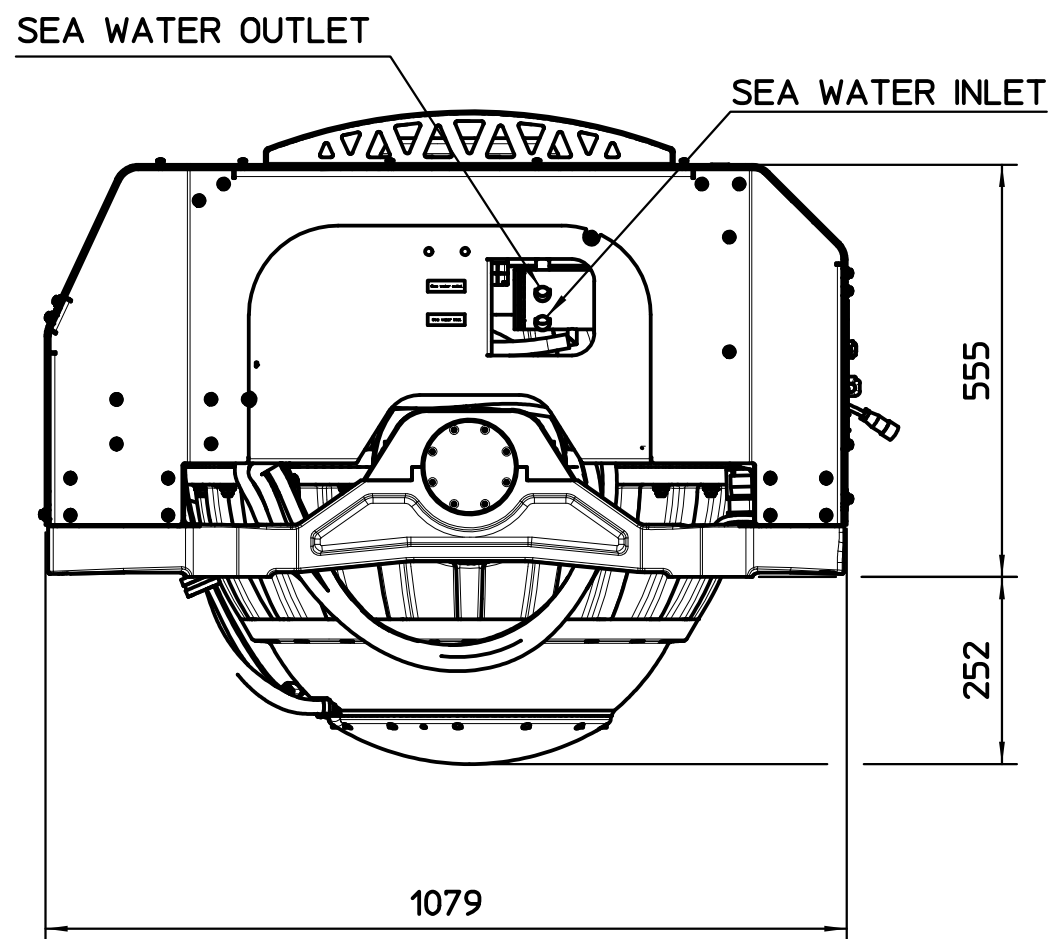
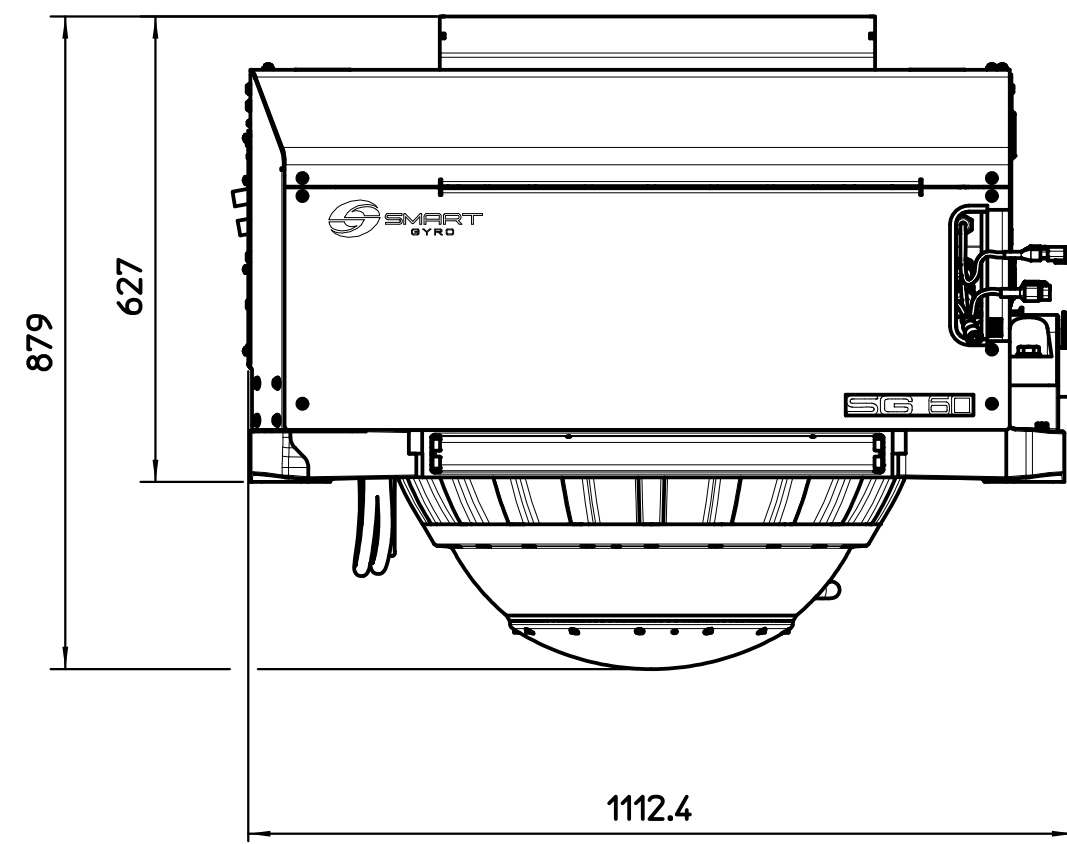
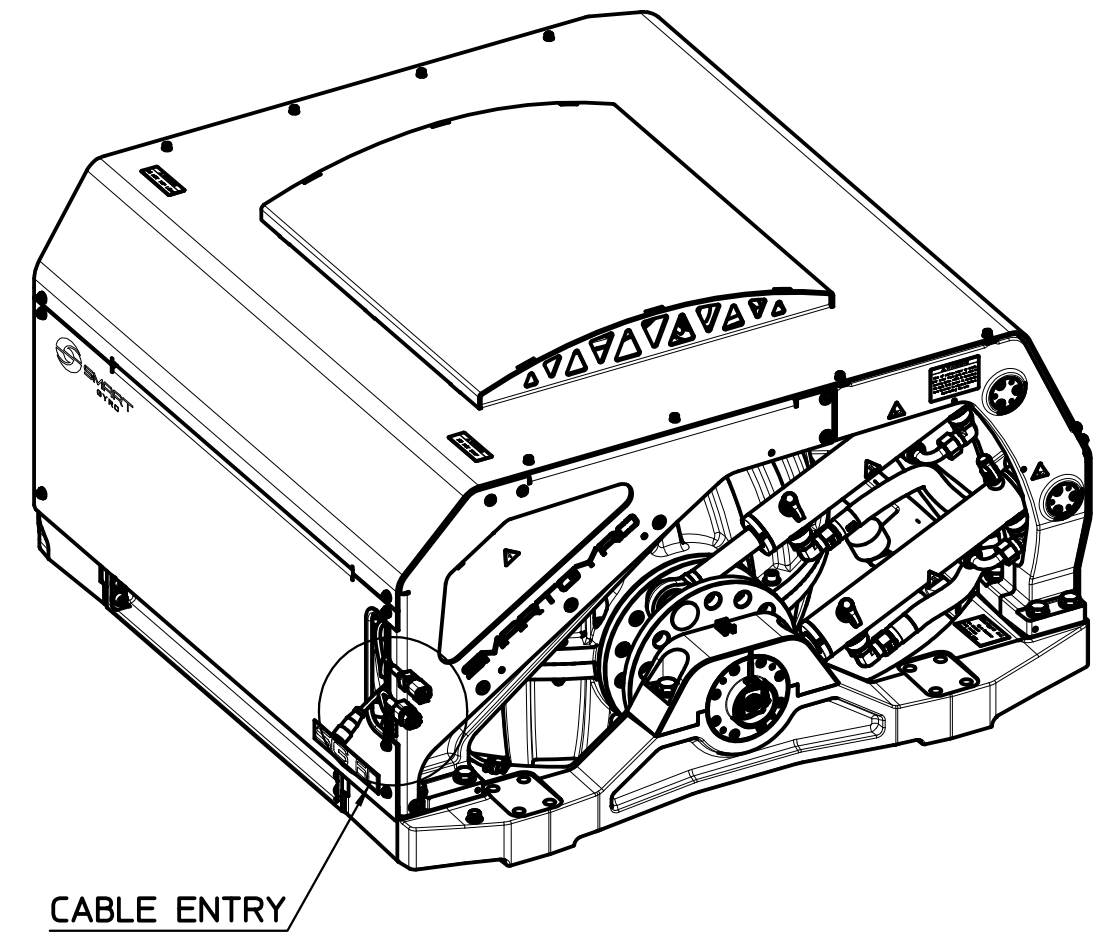
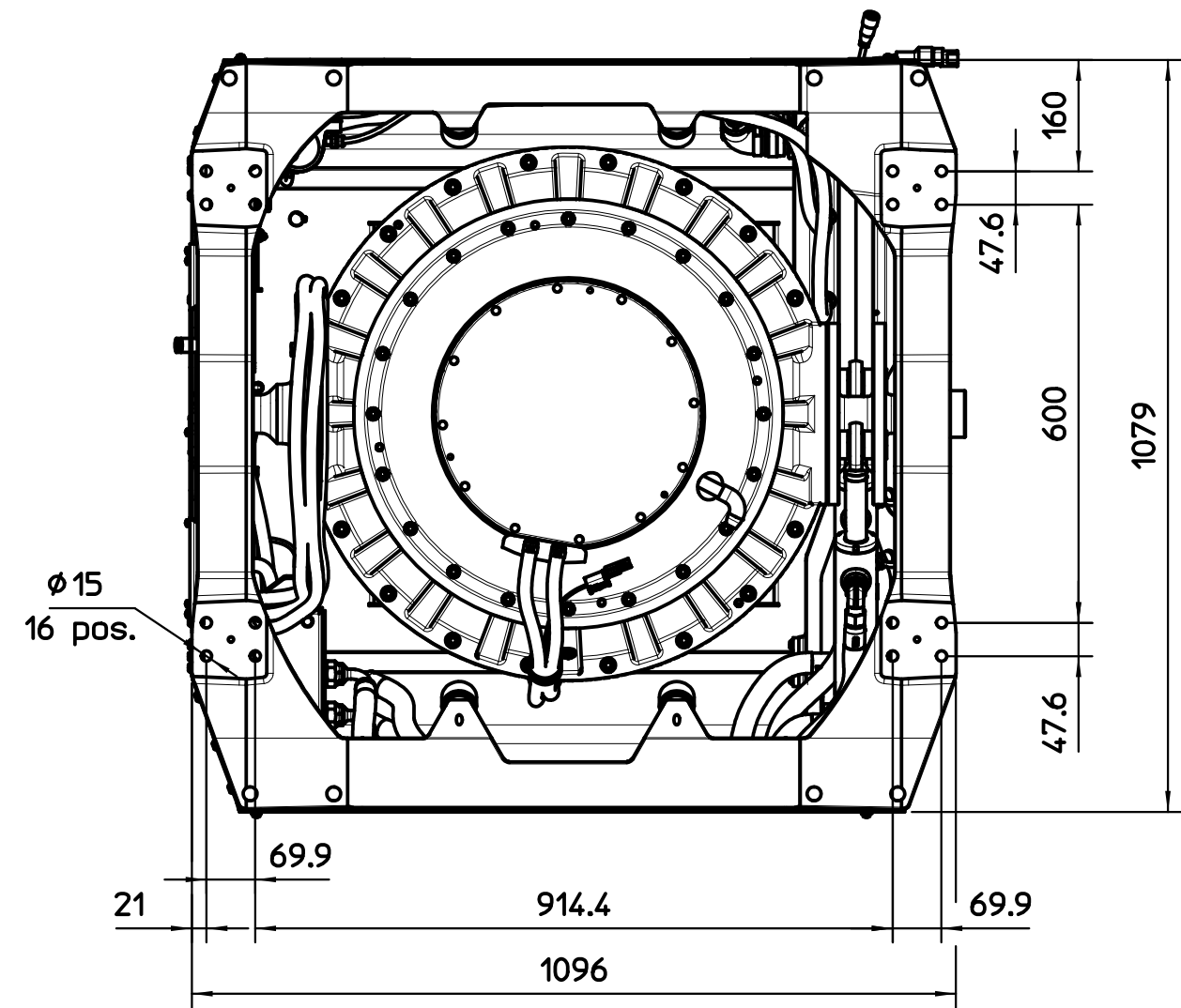


# SG60 OUTLINE

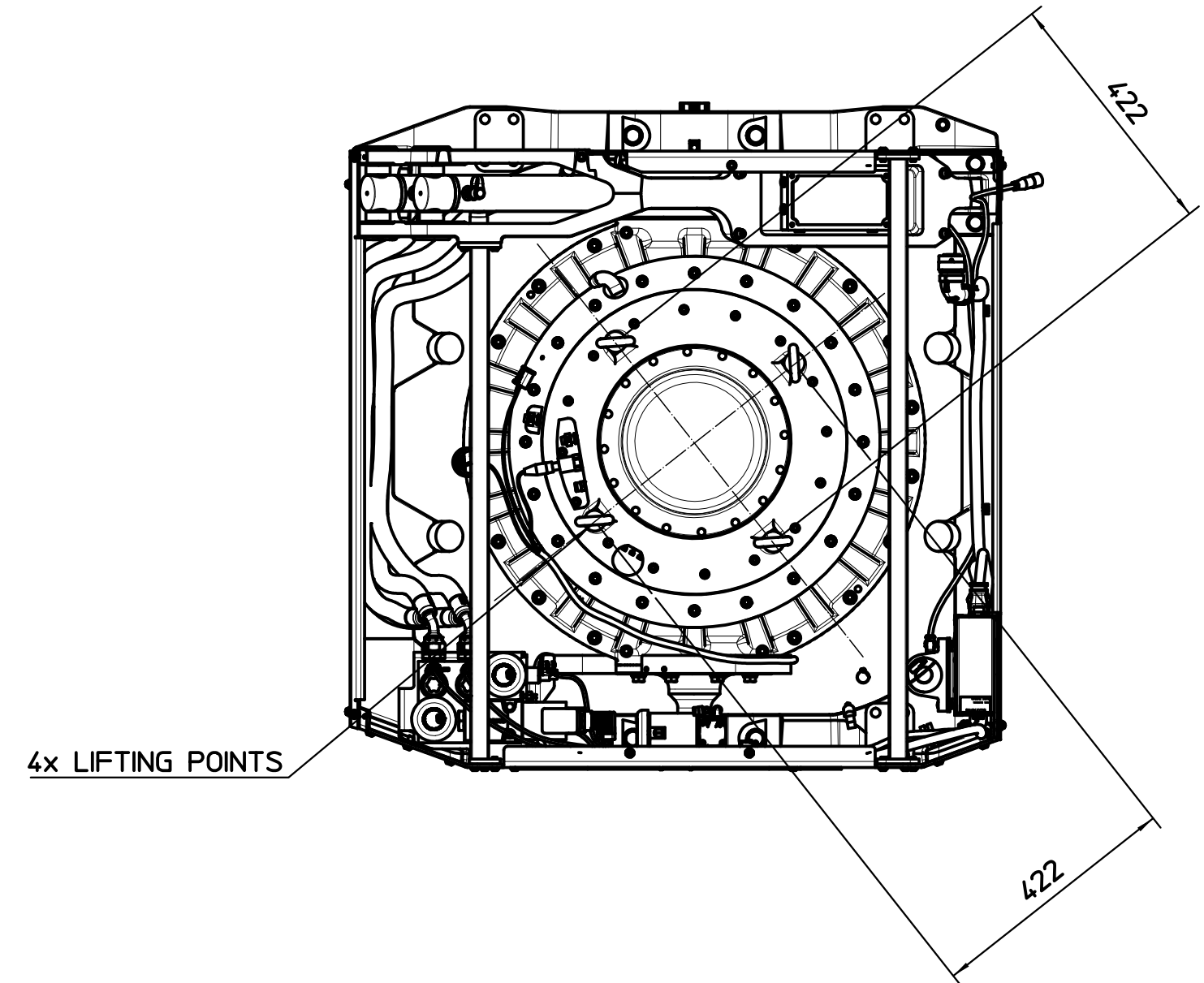


REV.	DATA / DATE	DESCRIZIONE REVISIONE / REVISION DESCRIPTION		DISEGNATO / DRAWN BY	VERIFICATO / CHECKED BY	APPROVATO / APPROVED BY
		DISEGNATO / DRAWN BY	VERIFICATO / CHECKED BY	APPROVATO / APPROVED BY	MATERIALE / MATERIAL	
FIRMA / SIGN	C.NOSEI				TRATTAMENTO TERMICO / HEAT TREATMENT	
DATA / DATE	29/09/22				RIVESTIMENTO SUPERFICIALE / SURFACE TREATMENT	
QUOTE SENZA INDICAZIONE DI TOLLERANZA / DIMENSIONS WITHOUT TOLERANCE INDICATIONS				RIVESTIMENTO SUPERFICIALE / SURFACE TREATMENT		A2
ISO 2768-mK				DENOMINAZIONE / DESCRIPTION		
SMUSSI NON QUOTATI / NOT DIMENSIONED CHAMFER : 0.3x45°				RIPRODUZIONE E/O DIFFUSIONE VIETATA / REPRODUCTION AND/OR DISCLOSURE IS FORBIDDEN		FOGLIO / SHEET
RAGGI NON QUOTATI / NOT DIMENSIONED RADI : 0.3				DISEGNO NR. / DRAWING NR.		
				106ID401		PESO / WEIGHT
				1 / 5		SCALA / SCALE
						1:10

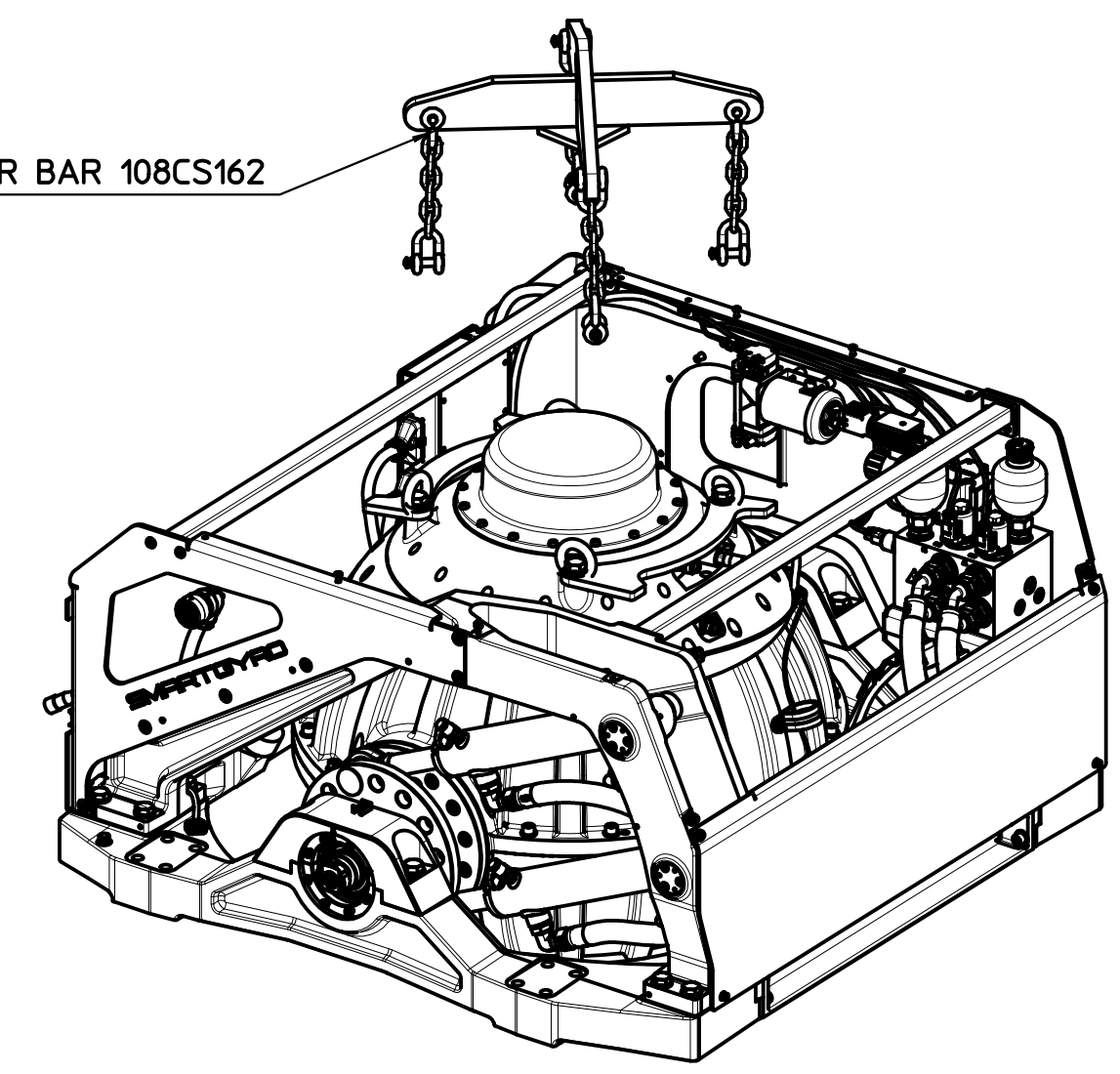


SG60 Installation details

# SG60 GYRO LIFTING



SPREADER BAR 108CS162

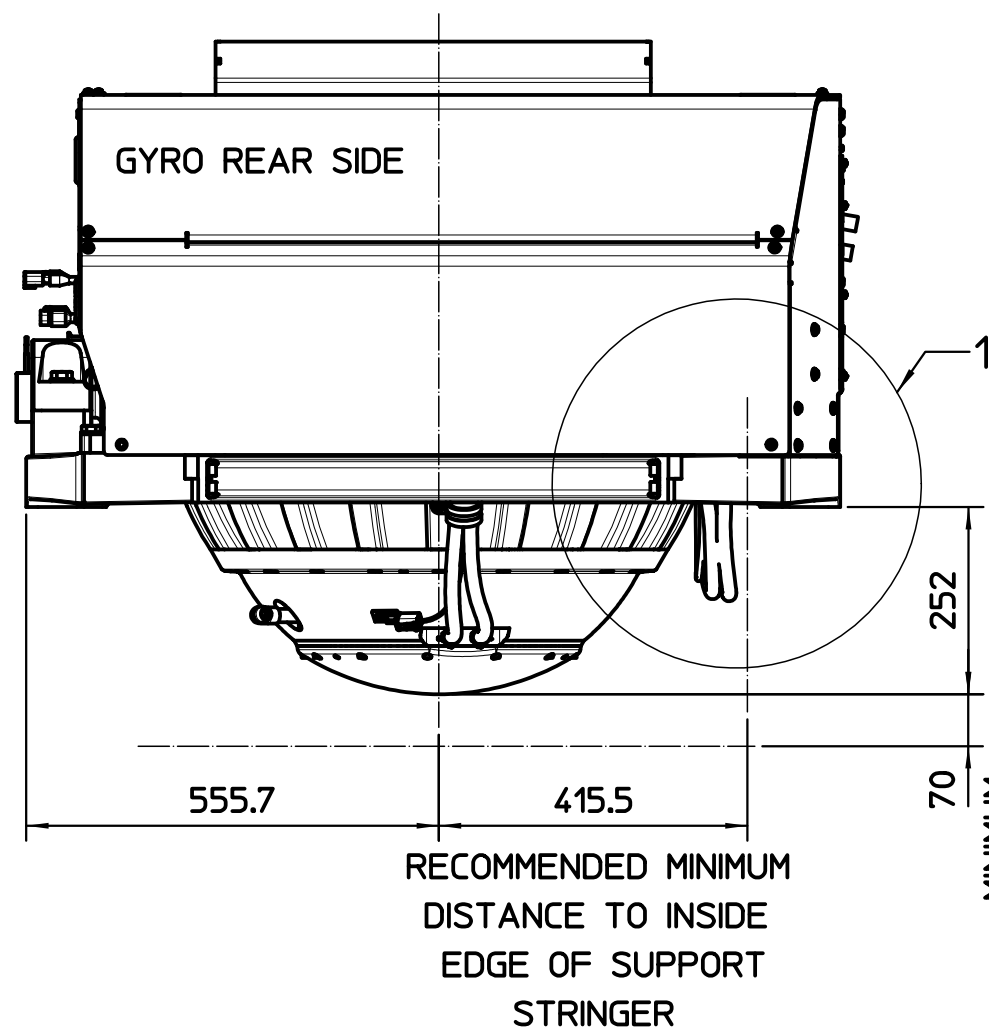


**NOTES:**

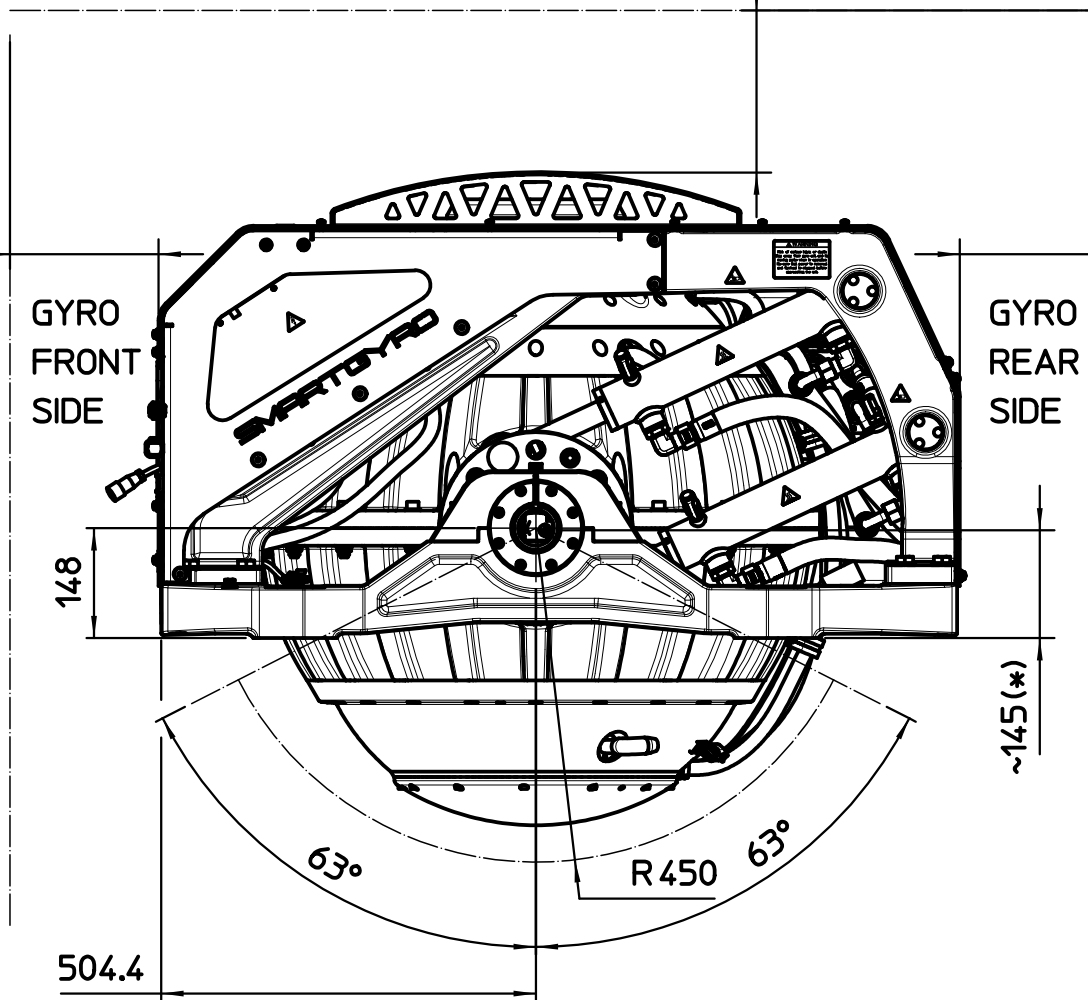
- SG60 assembly weight: 910 Kg
- For vertical lifting use spreader bar 108CS162 or similar tool.
- Ensure to use all of the four eyebolts for gyro lifting and that lifting straps/chains remain vertical during operation.
- The four eyebolts are placed at 90° on the same circumference.

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		DISEGNATO / DRAWN BY	VERIFICATO / CHECKED BY	APPROVATO / APPROVED BY	MATERIALE / MATERIAL	
FIRMA / SIGN	C.NOSEI				TRATTAMENTO TERMICO / HEAT TREATMENT	
DATA / DATE	29/09/22				RIVESTIMENTO SUPERFICIALE / SURFACE TREATMENT	
QUOTE SENZA INDICAZIONE DI TOLLERANZA DIMENSIONS WITHOUT TOLERANCE INDICATIONS				DENOMINAZIONE / DESCRIPTION		A2
ISO 2768-mK				SG60 Installation details		
SMUSI NON QUOTATI / NOT DIMENSIONED CHAMFER : 0.3x45° RAGGI NON QUOTATI / NOT DIMENSIONED RADI : 0.3				DISEGNO NR. / DRAWING NR.		FOGLIO / SHEET
RIPRODUZIONE E/O DIFFUSIONE VIETATA REPRODUCTION AND/OR DISCLOSURE IS FORBIDDEN				106ID401		PESO / WEIGHT
				2 / 5		SCALA / SCALE
						1:10

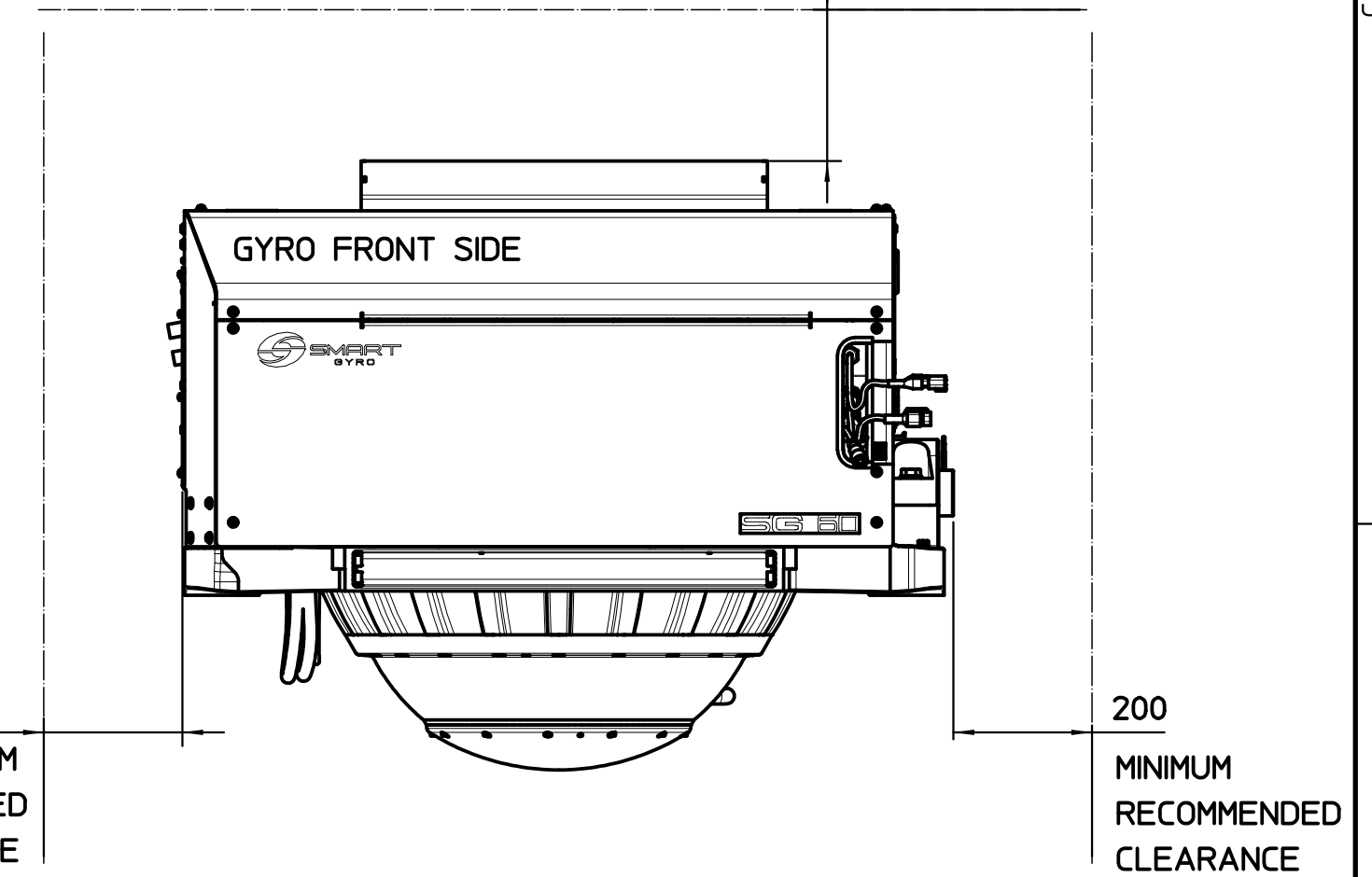
# SG60 RECOMMENDED CLEARANCES



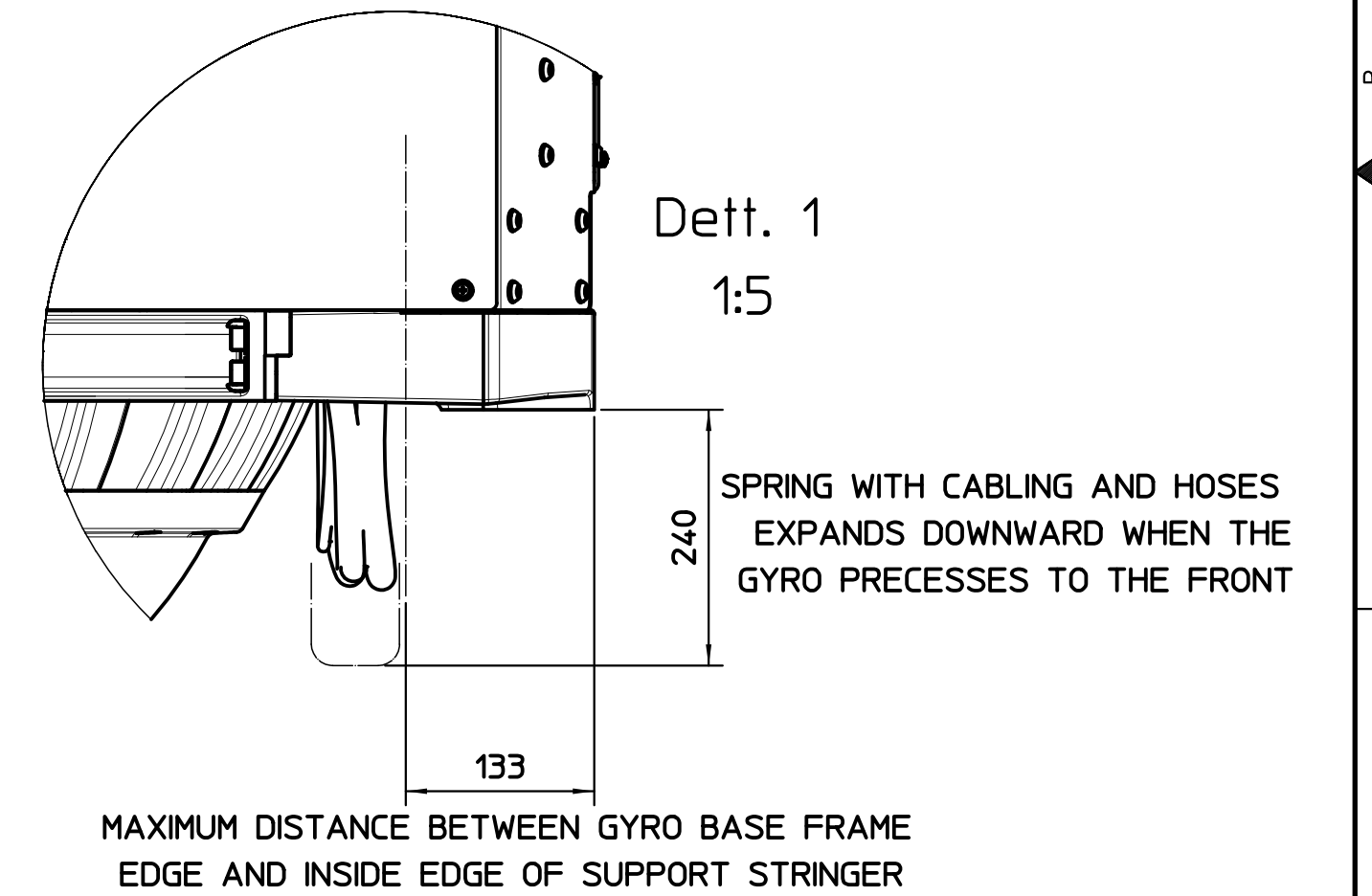
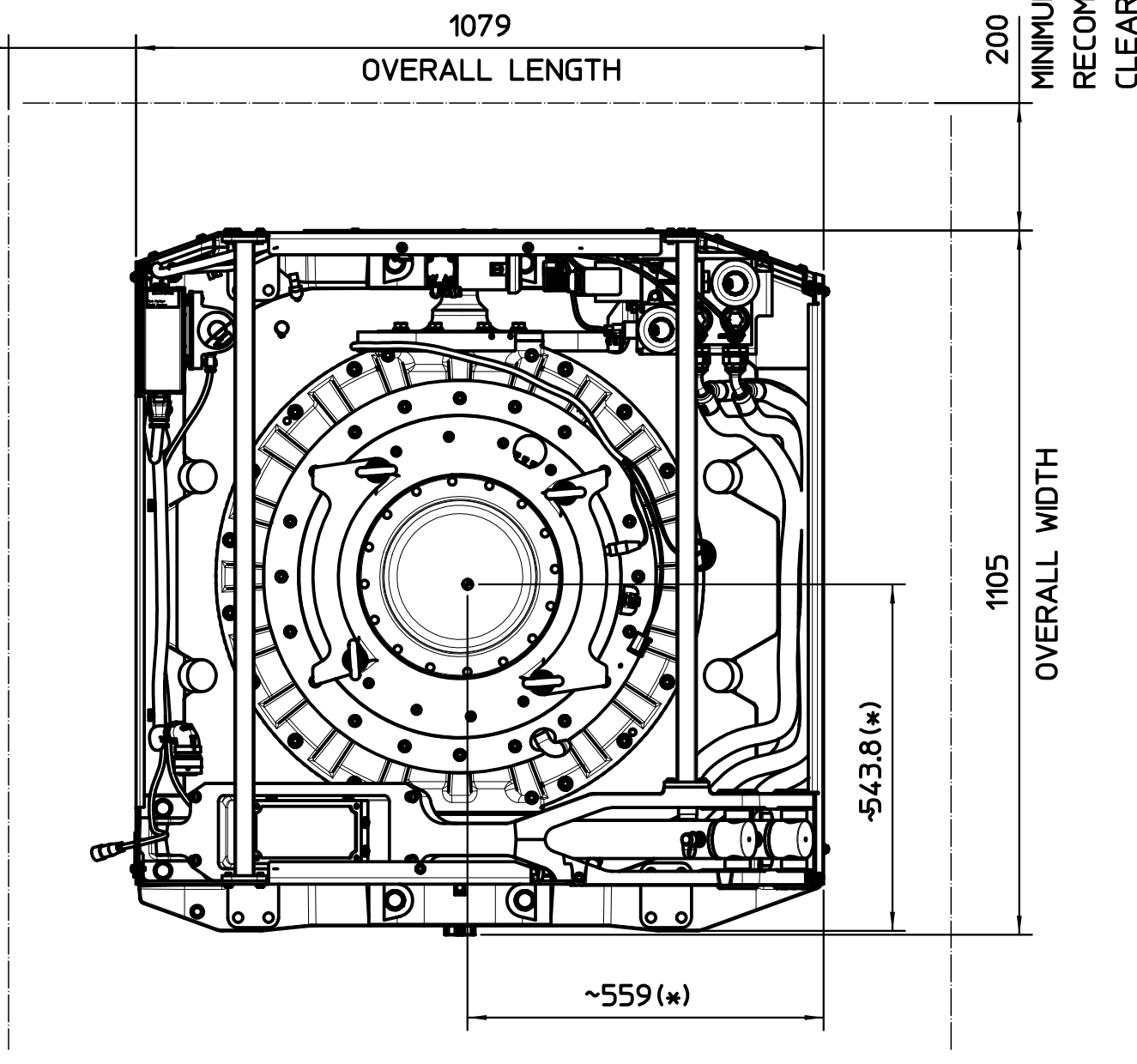
200  
MINIMUM  
RECOMMENDED  
CLEARANCE



200  
MINIMUM  
RECOMMENDED  
CLEARANCE



200  
MINIMUM  
RECOMMENDED  
CLEARANCE

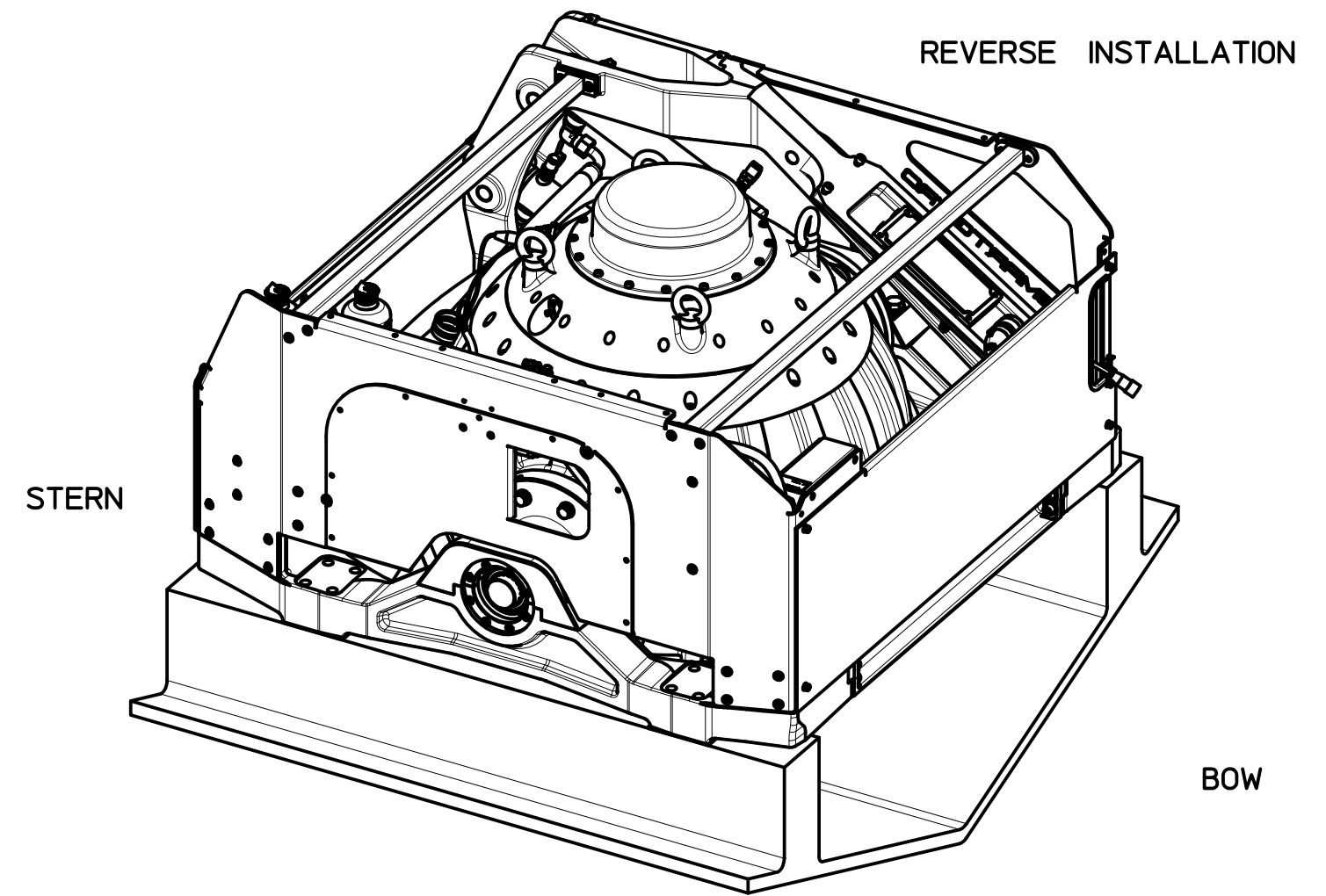
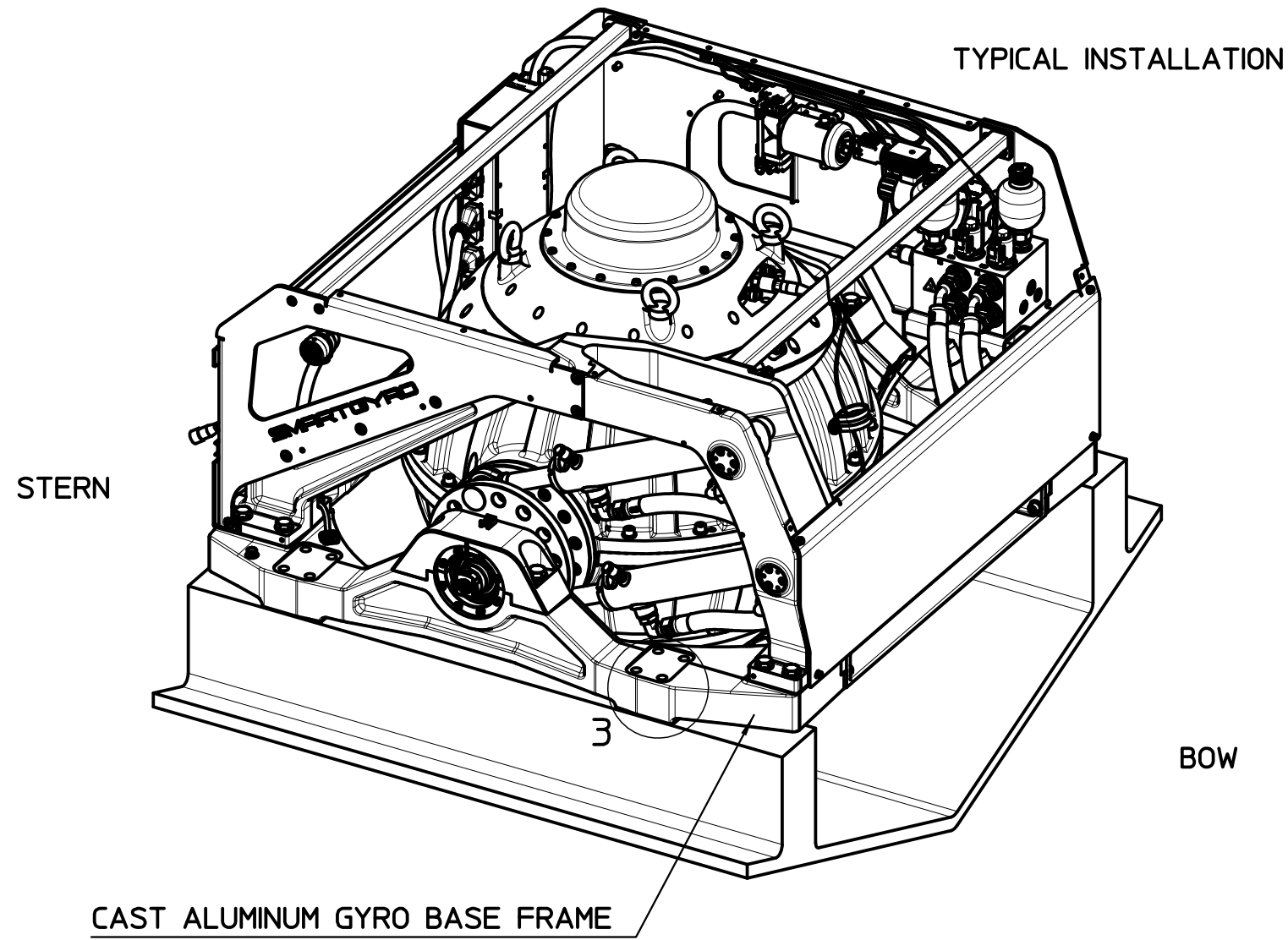


ALWAYS ENSURE OVERHEAD ACCESS AND SUFFICIENT CLEARANCE FOR POSSIBLE FUTURE GYRO REMOVAL OR RE-INSTALLATION

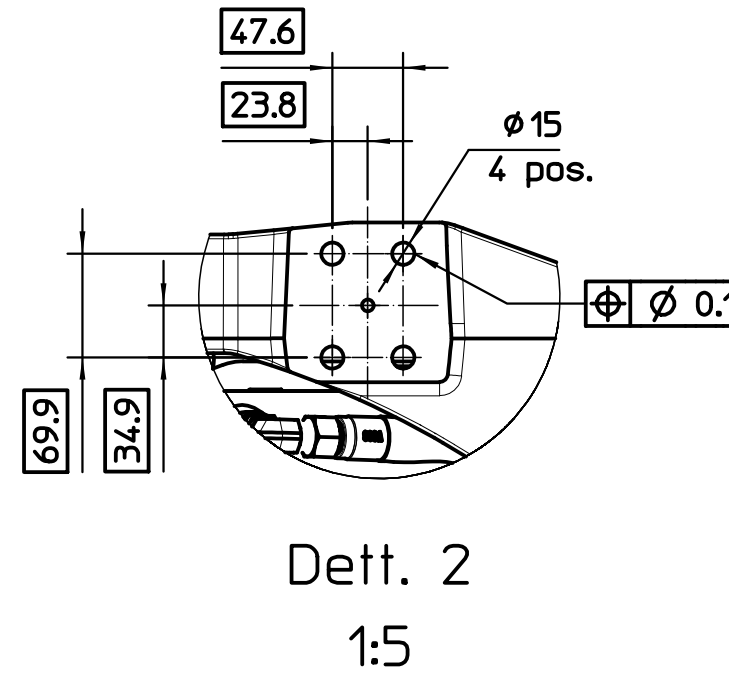
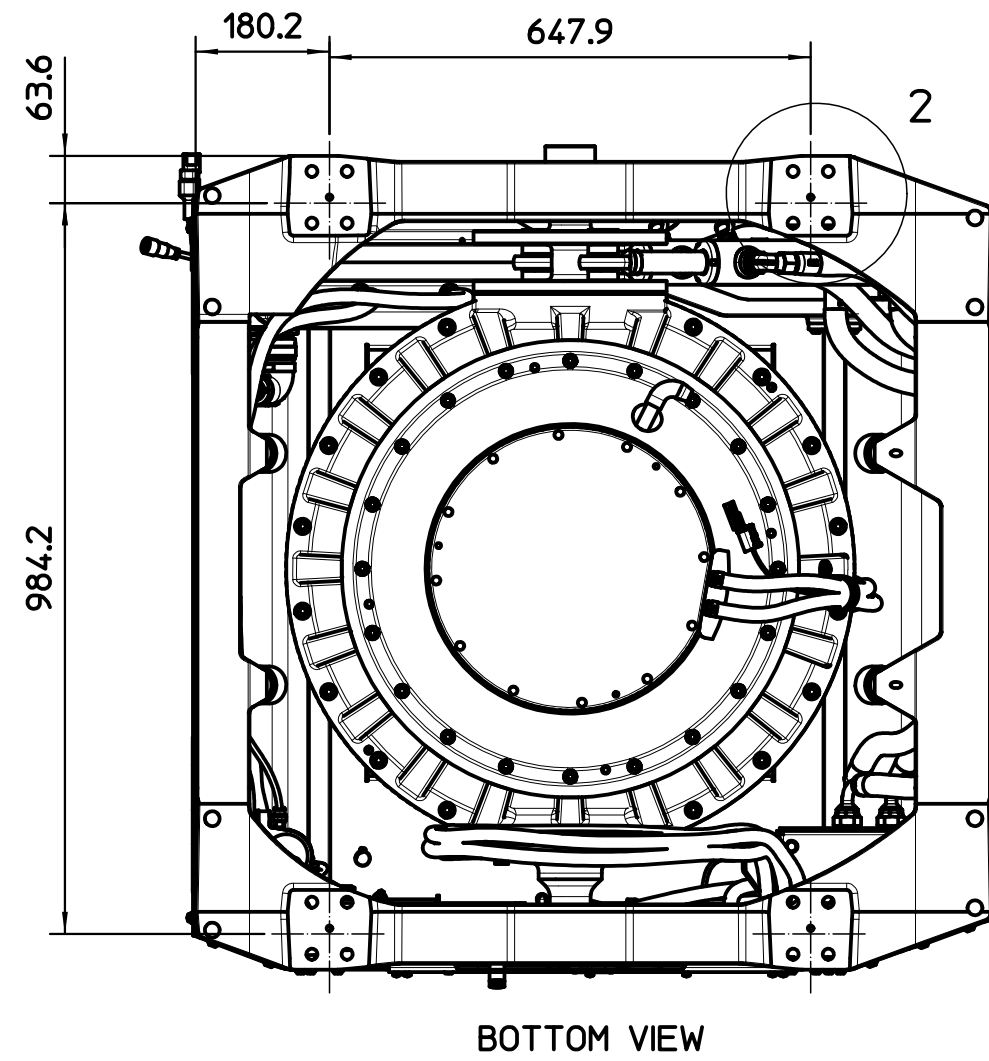
Dimensions with asterisk (\*) refer to the position of the center of mass

REV.	DATA / DATE	DESCRIZIONE REVISIONE / REVISION DESCRIPTION	DISEGNATO / DRAWN BY	VERIFICATO / CHECKED BY	APPROVATO / APPROVED BY
FIRMA / SIGN	C.NOSEI				
DATA / DATE	29/09/22				
QUOTE SENZA INDICAZIONE DI TOLLERANZA DIMENSIONS WITHOUT TOLERANCE INDICATIONS <b>ISO 2768-mK</b>			RIVESTIMENTO SUPERFICIALE / SURFACE TREATMENT DENOMINAZIONE / DESCRIPTION		
SMUSSI NON QUOTATI / NOT DIMENSIONED CHAMFER : 0.3x45° RAGGI NON QUOTATI / NOT DIMENSIONED RADI : 0.3			A2		
RIPRODUZIONE E/O DIFFUSIONE VIETATA REPRODUCTION AND/OR DISCLOSURE IS FORBIDDEN			DISEGNO NR. / DRAWING NR. <b>106ID401</b>		FOGLIO / SHEET <b>3 / 5</b>
			PESO / WEIGHT (kg)		SCALA / SCALE <b>1:10</b>

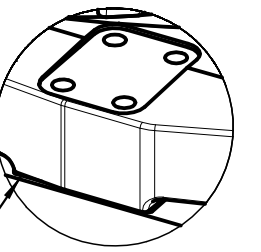
# SG60 INSTALLATION MODES



EXTERNAL QUOTES REFERENCED TO THE BASE FRAME



In case of dissimilar metals between gyro base frame and supporting structure use isolation gaskets 108CS159

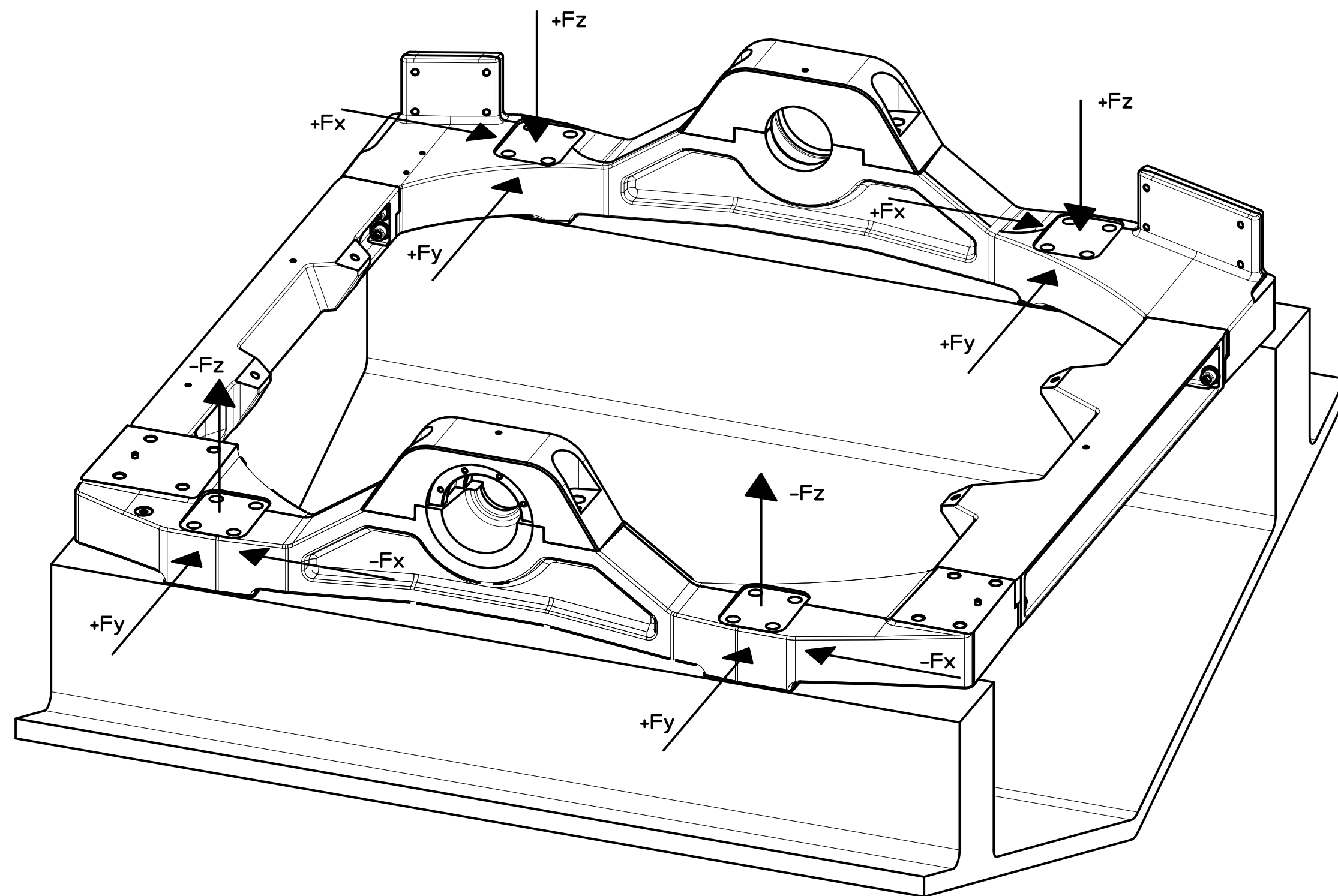


Det. 3  
1:5

- SG60 gyro may be mounted in both typical and reverse installation modes, depending on the best accessibility for maintenance and service.
- In case of reverse installation refer to installation manual MSG80 for software setting on control display.
- For the correct positioning of the mounting holes on the supporting structure use the installation kit 108AS157 and follow installation manual MSG60.
- For gyro fixing to the supporting structure use the provided bolts M14 and washers.
- Recommended torque for fixing bolts is 130 Nm.

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DATA / DATE	29/09/22				
QUOTE SENZA INDICAZIONE DI TOLLERANZA DIMENSIONS WITHOUT TOLERANCE INDICATIONS <b>ISO 2768-mK</b>			RIVESTIMENTO SUPERFICIALE / SURFACE TREATMENT DENOMINAZIONE / DESCRIPTION		<b>A2</b>
SMUSSI NON QUOTATI / NOT DIMENSIONED CHAMFER: 0.3x45° RAGGI NON QUOTATI / NOT DIMENSIONED RADI: 0.3			<b>SG60 Installation details</b>		
RIPRODUZIONE E/O DIFFUSIONE VIETATA REPRODUCTION AND/OR DISCLOSURE IS FORBIDDEN			DISEGNO NR. / DRAWING NR. <b>106ID401</b>	FOGLIO / SHEET <b>4 / 5</b>	PESO / WEIGHT (kg) <b>1:10</b>

# SG60 EXERTED LOADS ON HULL STRUCTURE



- The SG60 gyro generates moments and forces to the hull structure in roll, pitch and yaw directions.

- Their resulting combined effect can be expressed as forces applied at each of the four mounting points as detailed below.

$F_x = 12000 \text{ N}$

$F_y = 1900 \text{ N}$

$F_z = 22000 \text{ N}$

- These forces should be considered as acting simultaneously, fully reversing and applied in a cyclic way that repeats endlessly.

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FIRMA / SIGN	C.NOSEI				TRATTAMENTO TECNICO / HEAT TREATMENT	
DATA / DATE	29/09/22				RIVESTIMENTO SUPERFICIALE / SURFACE TREATMENT	
QUOTE SENZA INDICAZIONE DI TOLLERANZA / DIMENSIONS WITHOUT TOLERANCE INDICATIONS				DENOMINAZIONE / DESCRIPTION		A2
ISO 2768-mK				SG60 Installation details		
SMUSI NON QUOTATI / NOT DIMENSIONED CHAMFER : 0.3x45°				RIPRODUZIONE E/O DIFFUSIONE VIETATA / REPRODUCTION AND/OR DISCLOSURE IS FORBIDDEN		
RAGGI NON QUOTATI / NOT DIMENSIONED RADI : 0.3				DISEGNO NR. / DRAWING NR.	FOGLIO / SHEET	PESO / WEIGHT
				106ID401	5 / 5	(kg)
						SCALA / SCALE
						1:5