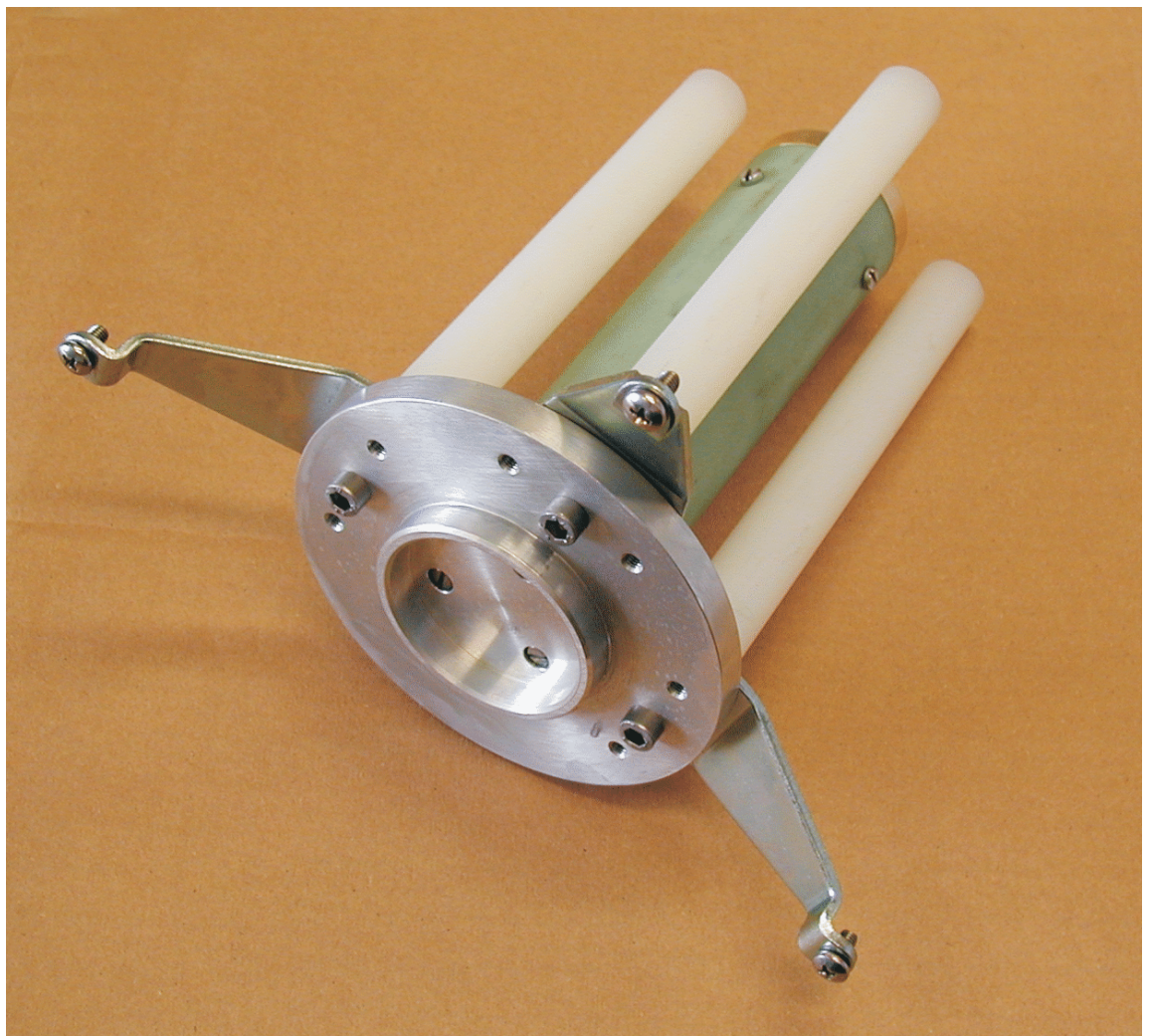


Cryogenic Extension series 0021S*1*** E



TECHNICAL INFORMATION



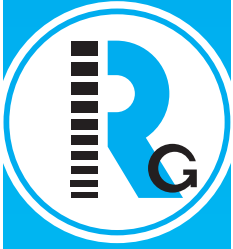
02/07

ROCHESTER GAUGES INTERNATIONAL S.A.

Z.I. WAVRE NORD - Av. Lavoisier, 6 - B-1300 WAVRE (Belgium)

Tel. : ++32 (0)10/24.10.10 - Fax : ++32 (0)10/22.81.39

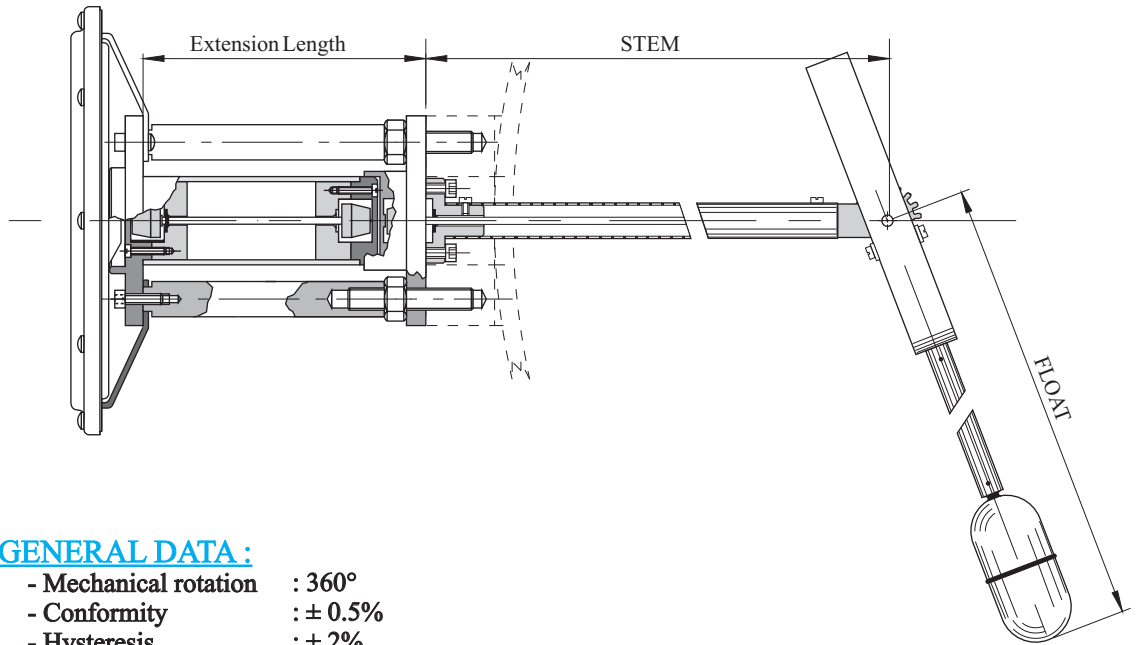
<http://www.rochester-gauges.be>



INSTALLATION GUIDELINE

DESCRIPTION :

This cryogenic extension is specifically designed for insulated tank containing low temperature liquified gas such as carbon dioxide. This extension consists of an insulated body including 2 powerful magnets mounted on a stainless steel shaft. This arrangement acts as a barrier to heat transfer from outside to inside the tank while maintaining the dial outside the insulation.



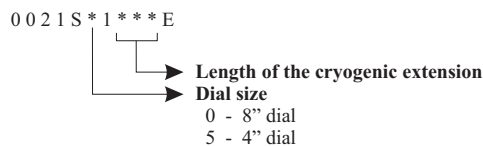
GENERAL DATA :

- Mechanical rotation : 360°
- Conformity : $\pm 0.5\%$
- Hysteresis : $\pm 2\%$

- Body material : Phenolic tube or Nylatron
- Pilars material : Nylatron

ORDERING INFORMATION :

- Specify model number
- Specify length of cryogenic extension (or insulation thickness)
- Specify type of gauge on which extension will be used (C or X)
- Specify the tread of pilars (M12 or 1/2" UNC)



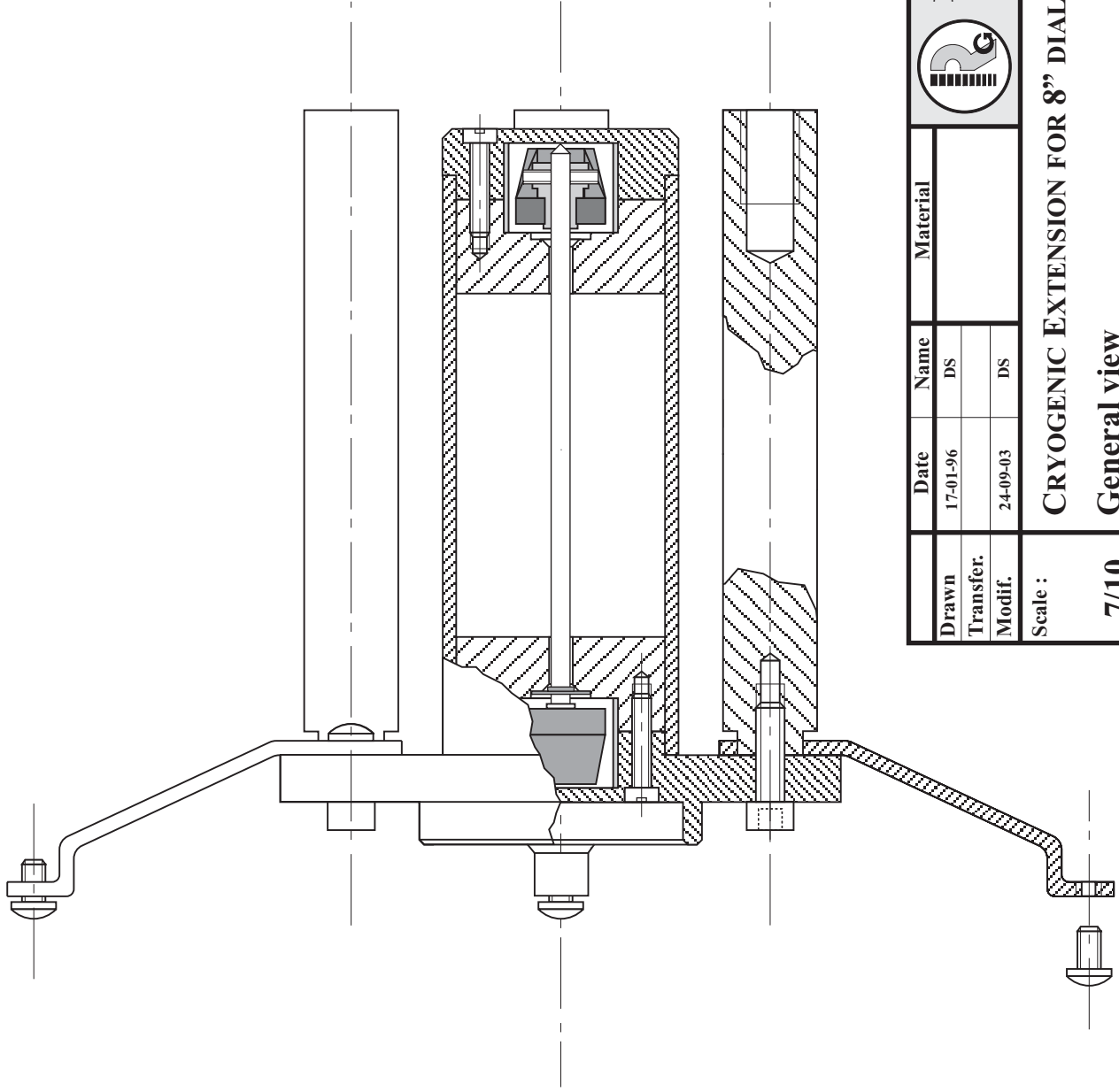
CRYOGENIC EXTENSION MOUNTING INSTRUCTION :


- Refer to attached drawing 0021S01***E for extension with 8" dial.
- Refer to attached drawing 0021S51***E for extension with 4" dial.

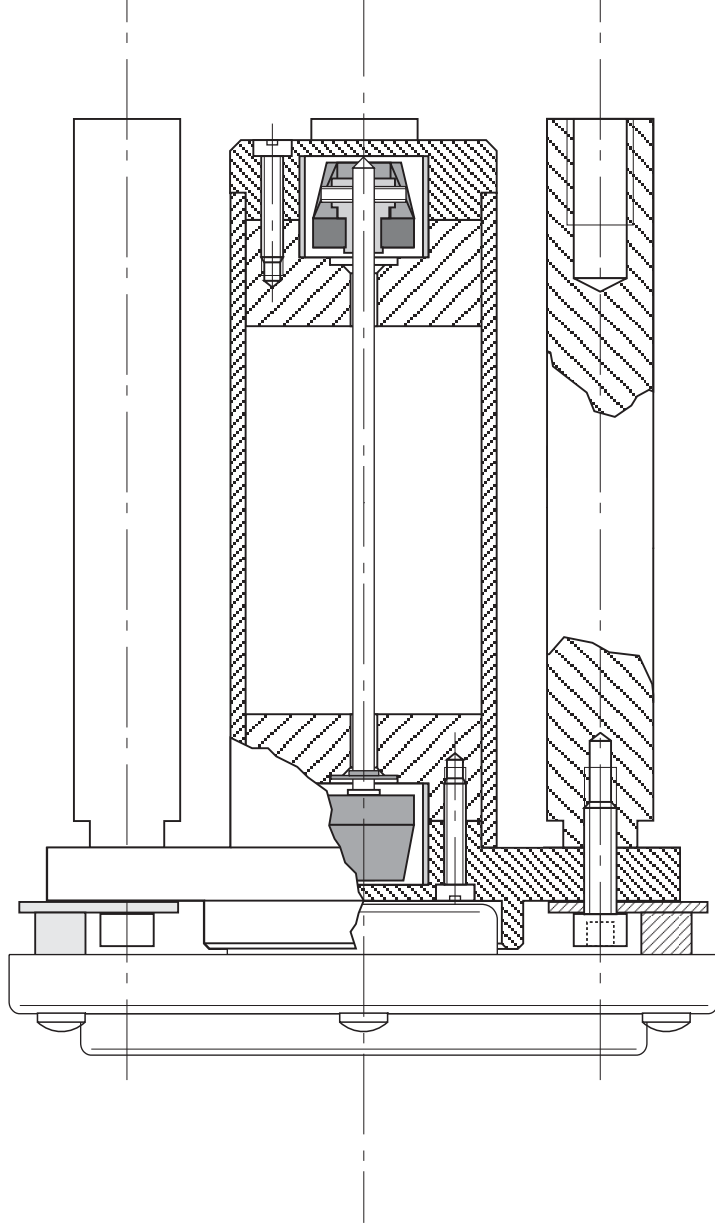
Remove the dial and dismount the three pylars from the extension. Install on the gauge head the three extended studs and the three nuts supplied in the mounting kit with the extension. Screw the three pylars on the extended studs. Place the extension on the three pylars and screw it with the three screws (M6x20mm DIN912). Mount the dial on its brackets and fix it with the two dial screws.


IMPORTANT NOTE :

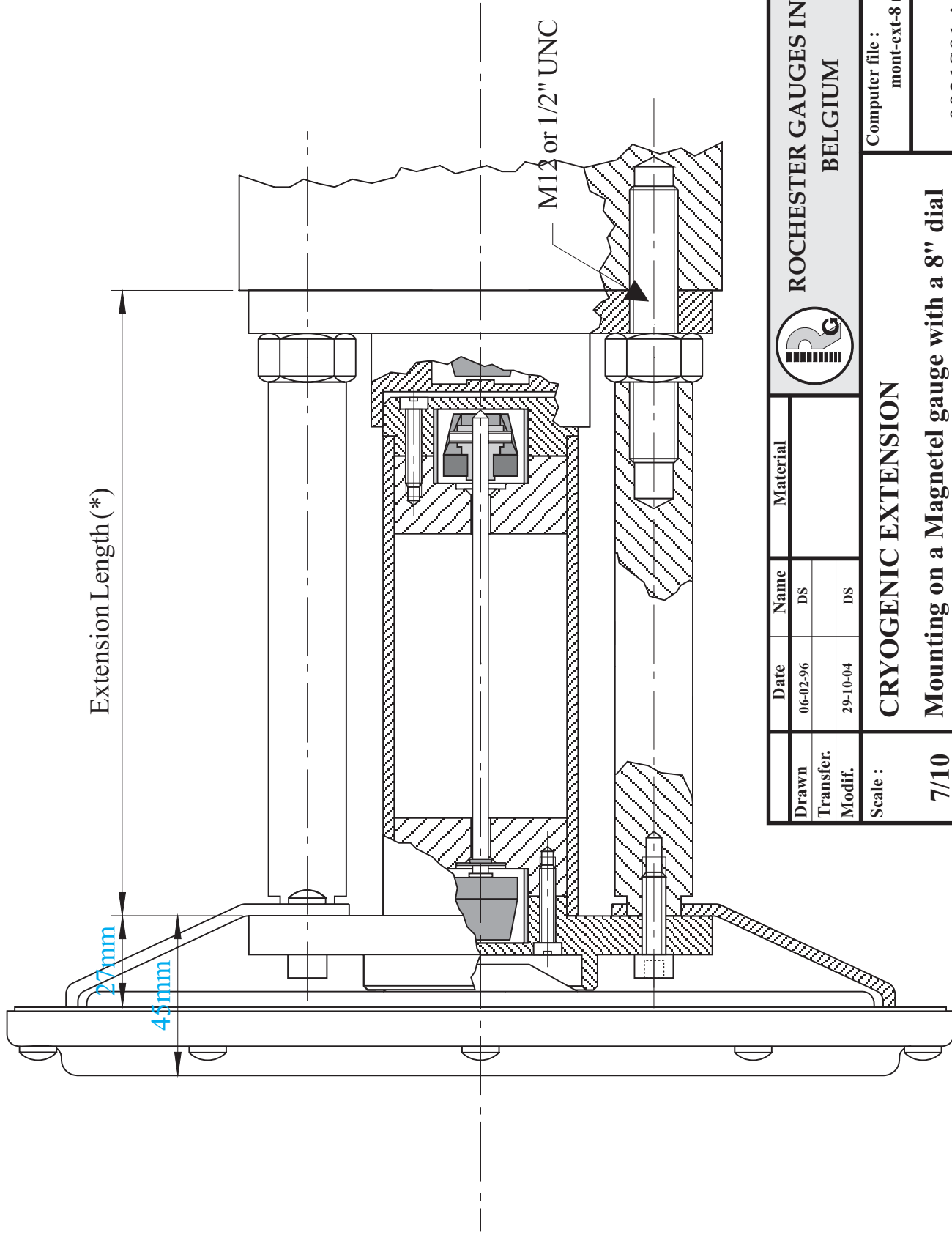
The opening of the cryogenic extension is forbidden. It will automatically induce the loss of the warranty. The mounting has to be made by authorized people following the guidelines concerning each type of cryogenic extension. This equipment can not be modified. It must be repaired only by the builder "ROCHESTER GAUGES International".




		ROCHESTER GAUGES INT. S.A. BELGIUM	
CRYOGENIC EXTENSION FOR 8" DIAL General view Top cut view		0021S01---E	
Scale : 7/10		D PC	
Drawn Transfer. Modif.	Date 17-01-96 24-09-03	Name DS DS	Material



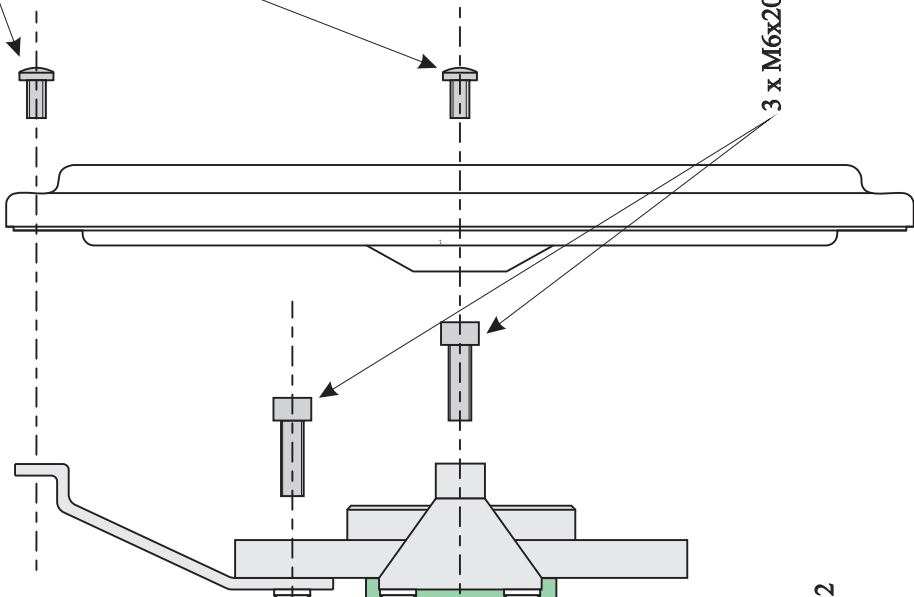
		ROCHESTER GAUGES INT. S.A. BELGIUM	
Drawn Transfer. Modif.	Date 19-09-03	Name DS	Material
Scale : 7/10		CRYOGENIC EXTENSION WITH 4" DIAL General view Top cut view	
Computer file : EXT-CRYO 4 (A).cdr			0021S51---E
			PC



		ROCHESTER GAUGES INT. S.A. BELGIUM	
		Computer file : mont-ext-8 (D).cdr	
Drawn Transfer. Modif.	Date 06-02-96 29-10-04	Name DS DS	Material
Scale : 7/10		CRYOGENIC EXTENSION Mounting on a Magnetel gauge with a 8" dial Drawn cut view	
		0021S01 *** E	
		D	
		PC	

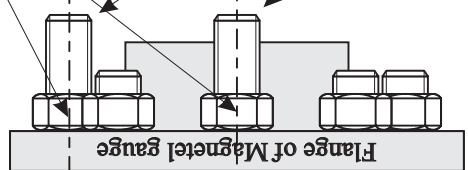
(*) in this case : extension length 160mm

3 x n°10-32 x 3/8"



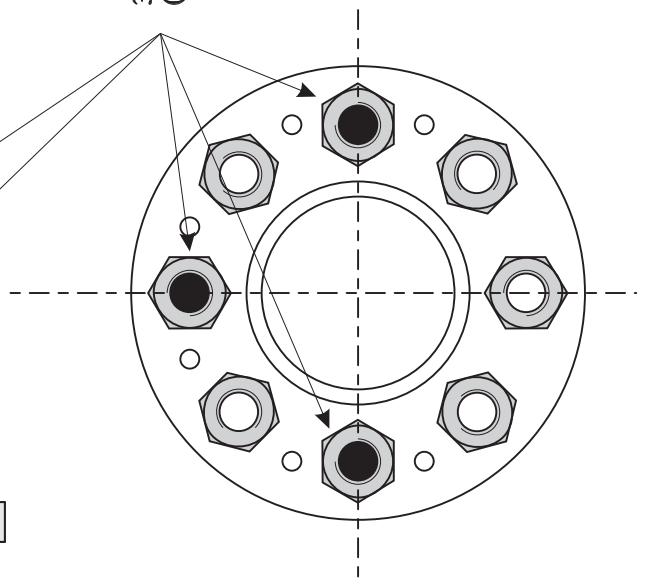
3 x M6x20mm DIN912

Nuts : ASTM A194 GR.2H



Flange of Magnetel gauge

3 x Extended studs 1/2" UNC x 2" 3/4 or M12
(ASTM A193 GR.B7)



Date	Name	Material
17-01-96	DS	
28-03-02	DS	


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 BELGIUM

Computer file :
INST/C8-AN (D).cdr

CRYOGENIC EXTENSION

Installation with a Magnetel "C" and a 8" dial

Installation note

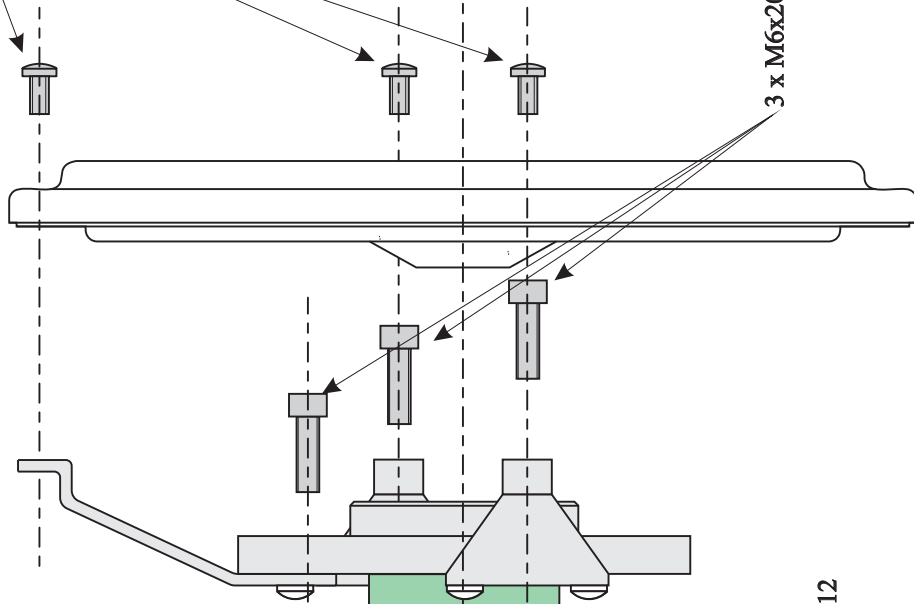
1/2

0021S01 * E**

D

PC

3 x n°10-32 x 3/8"

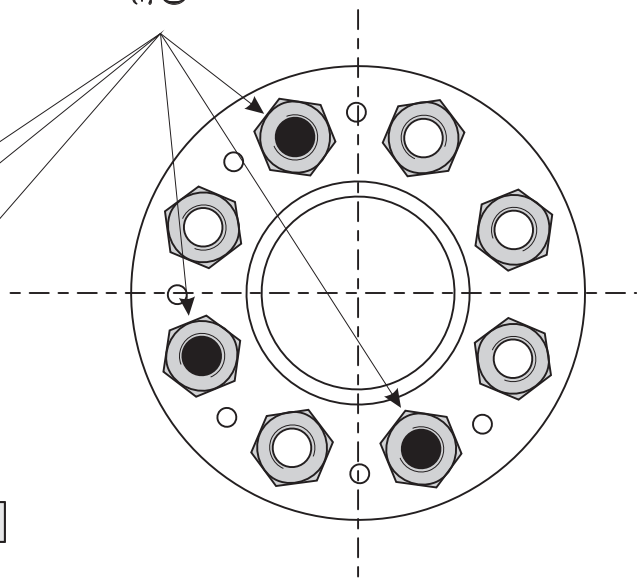



3 x M6x20mm DIN912

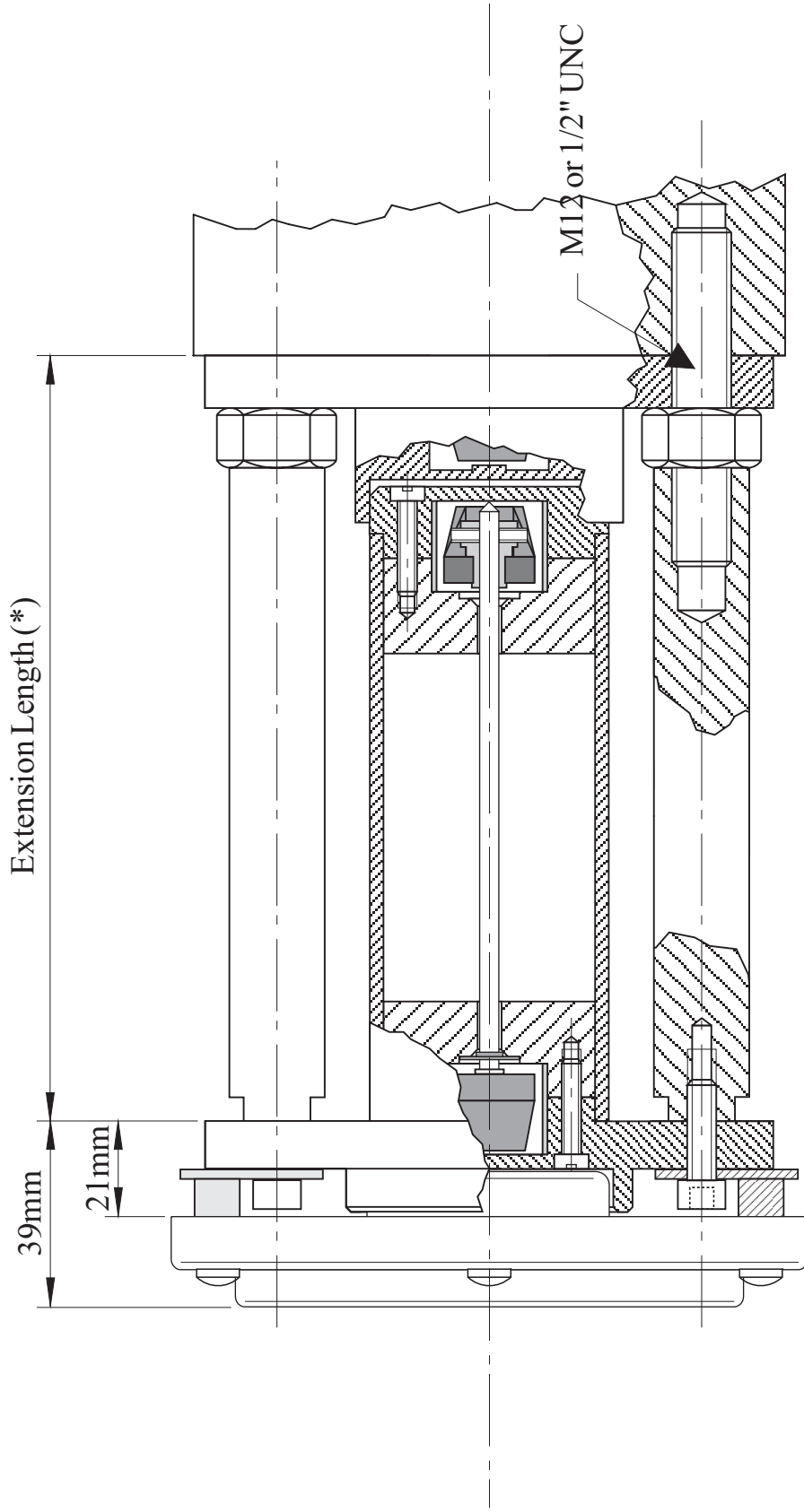
Nuts : ASTM A194 GR.2H


Flange of Magnetel gauge

3 x Extended studs 1/2" UNC x 2" 3/4 or M12
(ASTM A193 GR.B7)



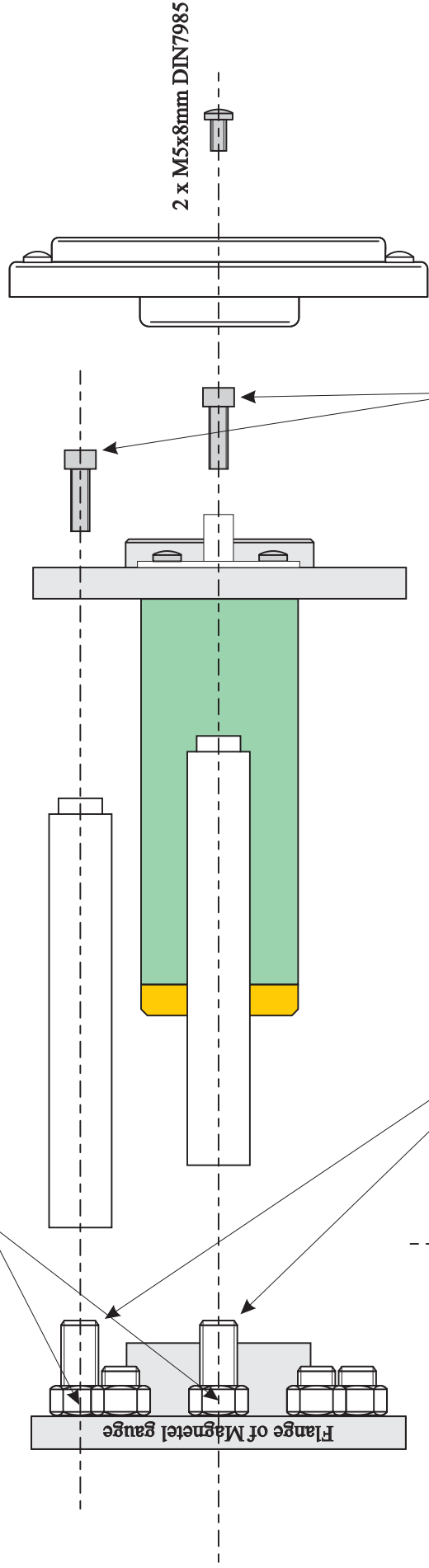
		ROCHESTER GAUGES INT. S.A. BELGIUM		
		Date	Name	Material
Drawn	28-03-02	DS		
Transfer.				
Modif.				
Scale :		CRYOGENIC EXTENSION Installation with a Magnetel "X" and a 8" dial Installation note		
1/2		Computer file : INST/X8-AN (A).cdr 0021S01 *** E		
				PC



		ROCHESTER GAUGES INT. S.A. BELGIUM	
		Computer file : mont-ext-4 (B).cdr	
Drawn Transfer. Modif.	Date 24-09-03 29-10-04	Name DS DS	Material
Scale : 7/10		CRYOGENIC EXTENSION Mounting on a Magnetel gauge with a 4" dial Drawn cut view	
		0021S51 *** E	
		B PC	

(*) in this case : extension length 160mm

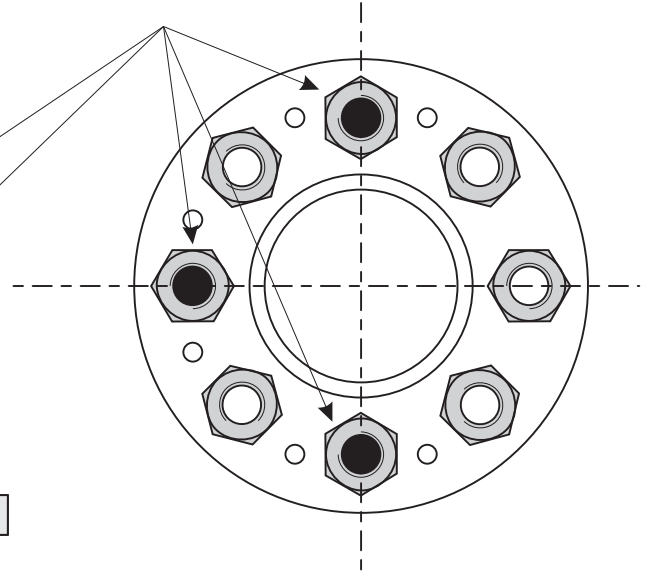
Nuts : ASTM A194 GR.2H



3 x M6x20mm DIN912

3 x Extended studs 1/2" UNC x 2" 3/4 or M12
(ASTM A193 GR.B7)

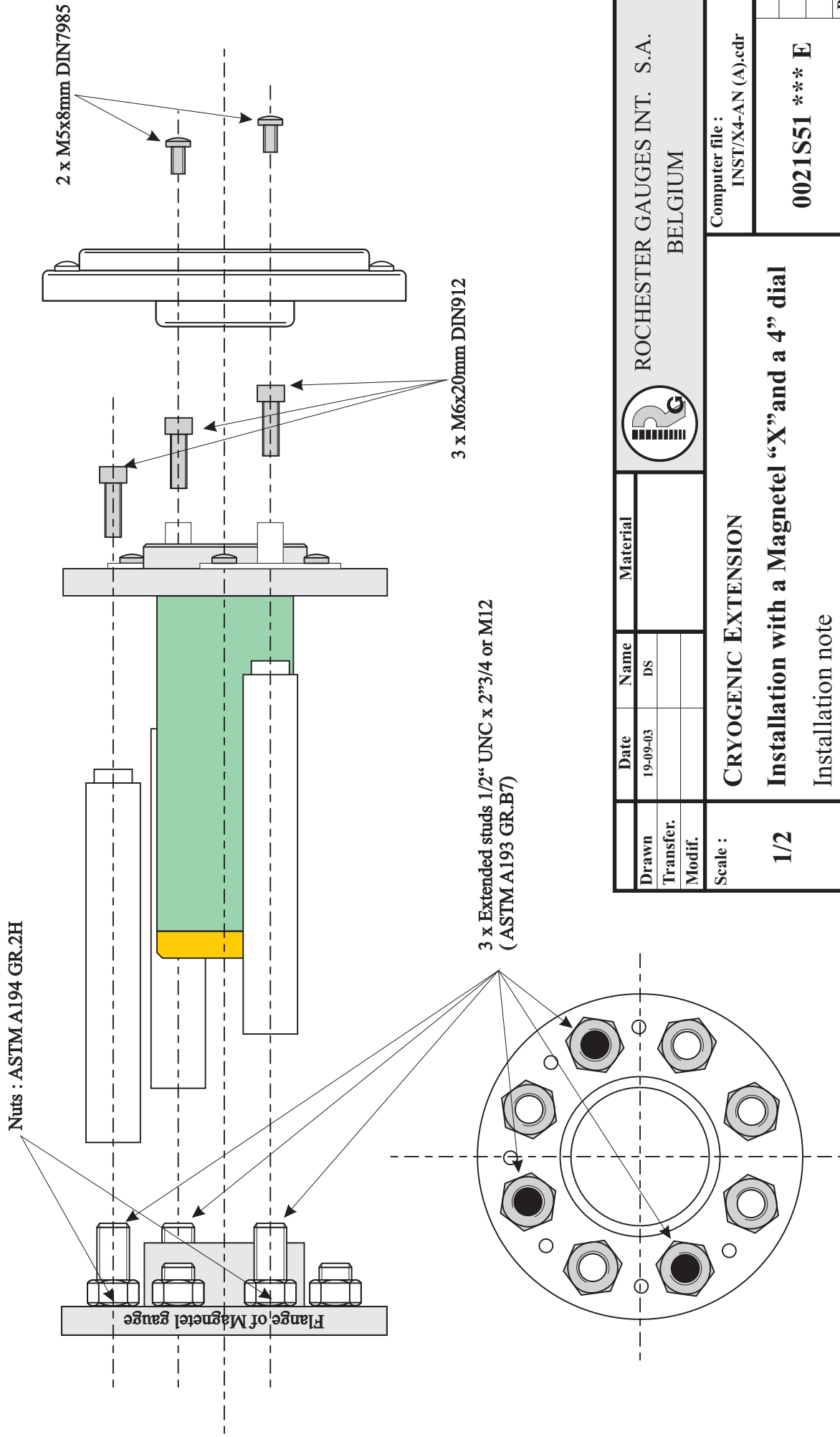
2 x M5x8mm DIN7985




Date	Name	Material
19-09-03	DS	
Drawn		
Transfer.		
Modif.		
<p>Scale : 1/2</p>		
<p>CRYOGENIC EXTENSION</p> <p>Installation with a Magnetel "C" and a 4" dial</p> <p>Installation note</p>		
<p>Computer file : INST/C4-AN (A).cdr</p>		
<p>0021S51 *** E</p>		
<p>PC</p>		



ROCHESTER GAUGES INT. S.A.
BELGIUM



Date	Name	Material
19-09-03	DS	
Drawn		
Transfer.		
Modif.		
Scale :		
1/2		
		
ROCHESTER GAUGES INT. S.A. BELGIUM		
Computer file : INST/X4-AN (A).cdr		
CRYOGENIC EXTENSION Installation with a Magnetel "X" and a 4" dial Installation note		
0021S51 *** E		
PC		

0056S00030E MOUNT. PART 8"/CRYOGENIC EXTENSION

For mounting a 8" dial on a standard cryogenic extension.

MOUNTED ON EACH CRYOGENIC EXTENSION WITH 8" DIAL.

3	Screws 10-32 3/8" UNF Inox A2	0040-51002E
6	Screws M5/8mm INOX A2 DIN7985	0040-50802E
3	8 inch Dial Brackets	0093-00403

0060S00030E MOUNT. PART 4"/CRYOGENIC EXTENSION

For mounting a 4" dial (5016S00445) on a cryogenic extension.

MOUNTED ON EACH CRYOGENIC EXTENSION WITH 4" DIAL.

6	Screws M5/8mm INOX A2 DIN7985	0040-50802E
2	Screws M5/9mm INOX A2 DIN963	0040-50905E
2	Nylon spacers M5/15mm	0070-50315E
2	4 inch Dial Brackets	0093S10000
1	4 inch Dial 5016S00445	5016S00445

0056S00031E MOUNT. PART CRYO /HEAD MAGN UNC

For mounting a cryogenic extension on a standard Magnetel with UNC studbolts.

3	Extended Studbolts 1/2x2"3/4 UNC AcZn (ASTM A193 grade B7) and 1 Nut 13 UNC AcZn (ASTM A194 grade 2H)	0056-00010E
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0056S00035E MOUNT. PART CRYO/HEAD MAGN M12

For mounting a cryogenic extension on a standard Magnetel with M12 studbolts.

3	Extended Studbolts M12/75mm AcZn (ASTM A193 grade B7) DIN976A and 1 Nut M12 AcZn (ASTM A194 grade 2H)	0056-00020E
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