Raccorderia da vuoto per discendente

Si richiede la quotazione per la realizzazione delle parti di seguito descritte:

Dis. N°:

ESS-AT-02.02.00 (Complessivo)

ESS-AT-02.02.01 (Particolari)

La fornitura deve comprendere **SOLO**:

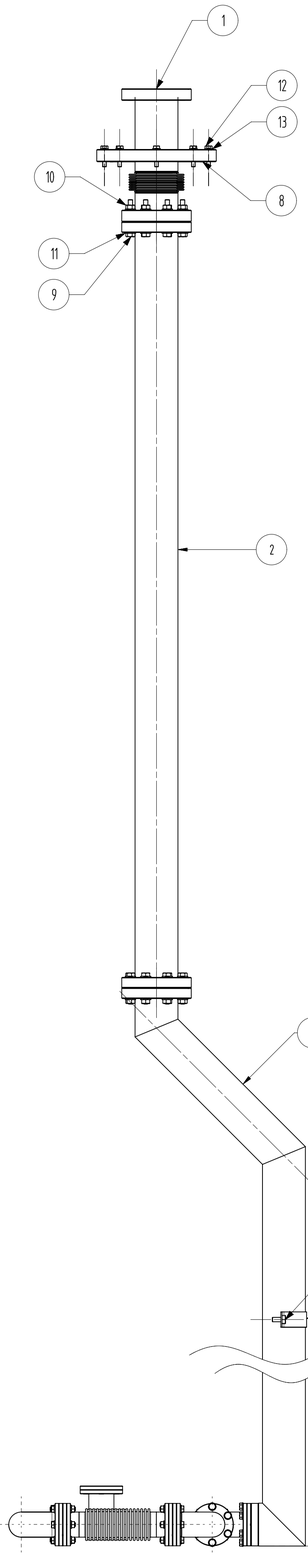
- **la realizzazione delle pos. 2-3-4 (N°1 pezzo per ognuna)**
- **le posizioni 17-18-19 (N° 2 pezzi per ognuna)**
- **le parti unificate pos. 7-9-10-11-14-15 materiale A4 (viti, rondelle, dadi ecc.) (quantità come da tavola)**

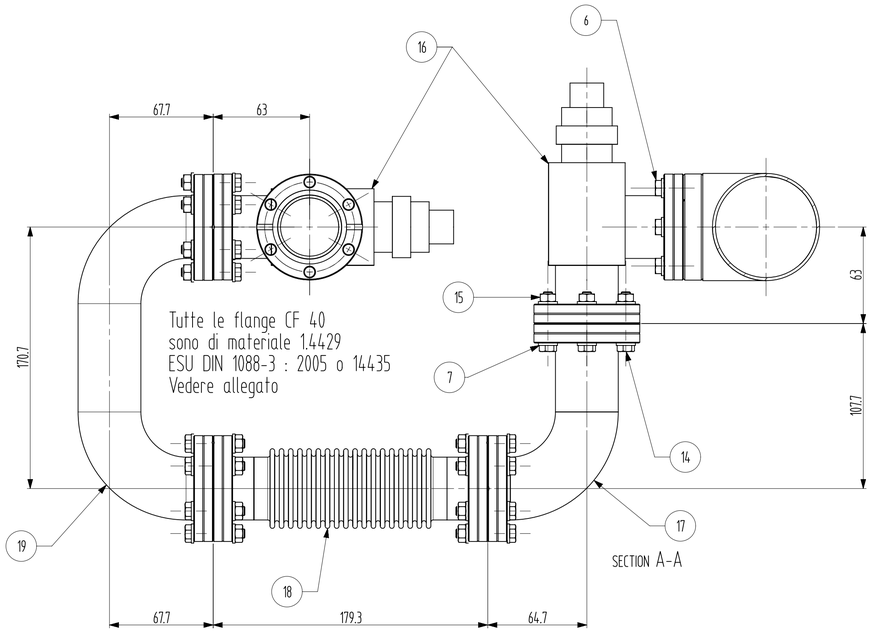
Descrizione:

Raccorderia da vuoto, parte alta flangiata CF63 e bassa CF40

Materiali come da tavole allegate.

GENERAL TOLERANCES	-30	30-120	120-315	315-1.000	1.000-2.000	2000-4000	4000-8000	8000-12000	12000-16000	16000-20000	20000-		
FOR PLATES WORKING	± 1	± 2	± 2	± 3	± 4	± 6	± 8	± 10	± 12	± 14	± 16		
FOR MECHANICAL MACHINING OF SIZE WITHOUT CLEREANCE	-6	6-30	30-120	120-315	315-1000	1000-2000	2000-4000	4000-	ANG. DIM.	-6°	6° -30°	30° -120°	120° -
TOLERANCES NOT SPECIFIED	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8	± 1.2	± 2	± 3		± 1°	± 30'	± 20'	± 10'
WORKING SURFACES ROUGHNESS	ISO	N 10	N 9	N 8	N 7	N 6	N 5	N 4	N 3	N 2			
	N LCA	18	17	16	15	14	13	12	11	10			
	Ra	12.5	6.3	3.2	1.6	0.8	0.4	0.2	0.1	0.05			





Leak test minore uguale
di 1 x 10^{-10} mbar L / sec

Pos.	Part Name	Qty	Material	Drawing	Note	Weight
19	Doppio giunto-DN-40-CF	1	AISI 316 L			
18	Soffietto-DN-40-CF	1	AISI 316 L			
17	Curva-DN-40-CF	1	AISI 316 L			
16	Valvola-CF-40	2				
15	Dado-M6-UNI-5588	24	A4			
14	VTE-M6x35-UNI-5627	24	A4			
13	Rosetta-6.4x12.5-UNI-6592	8	A4			
12	VTE-M6x30-UNI-5627	8	A4			
11	Rosetta-8.4x17-UNI6592	32	A4			
10	Dado-M8-UNI-5588	16	A4			
9	VTE-M8x50-UNI-5627	16	A4			
8	ORM-1400-40- ∅ 145x ∅ 4	1	NBR			
7	Rosetta-6.4x12.5-UNI-6592	48	A4			
6	VTE-M6x20-UNI-5627	6	A4			0
4	Collare	1	AISI-316 L	ESS-AT-02.02.01		0
3	Assy-Tubo-vuoto-2	1	AISI-316 L	ESS-AT-02.02.01		6
2	Assy-Tubo-vuoto-1	1	AISI-316 L	ESS-AT-02.02.01		0
1	Assy-Tubo-vuoto-flangia	1	AISI-316 L	ESS-AT-02.02.01		

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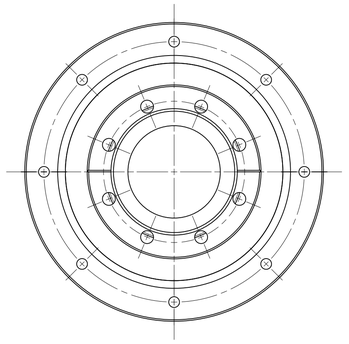
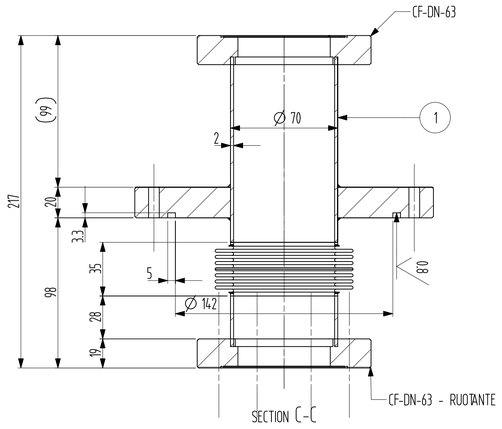
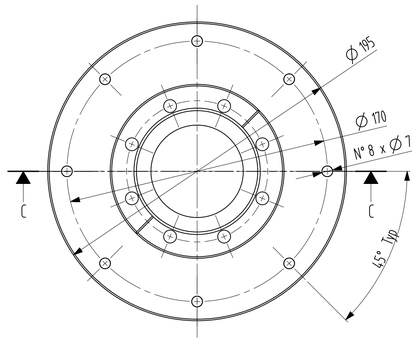
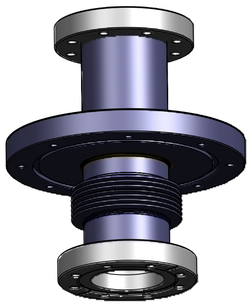
INFN Milano - LASA
via Fratelli Cervi, 201
20090 Segrate (MI)

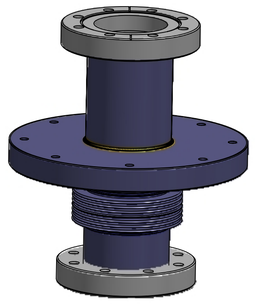
Size: A1	DWG: DWG2-ASSY_Discendente_ESS-MB ESS-AT-02.02.00		Revision: 1
Drawn by: M. Bonezzi		Date: 2015/11/19	Sheet 1
Experience: ESS	Checked by:	Scale: 1:2/1:5/1:10	
Object: Discendente-MB-Assy-vuoto	Approved by: P. Michelato	Units: mm	
3D part: ASSY_Discendente_ESS-MB	File name: R:\Project\ESS\ESS_Discendente-MB\DWG2-ASSY_Discendente_ESS-MB.prt		

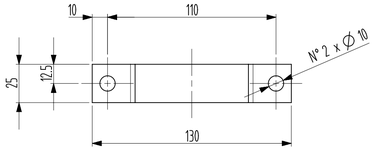


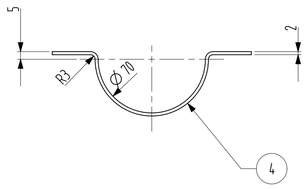


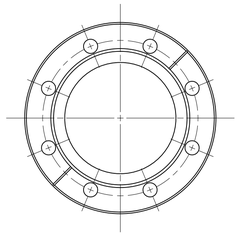


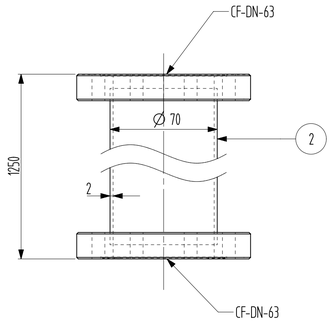


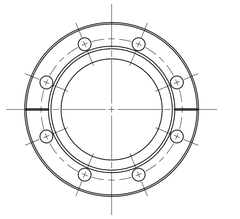












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FOR PLATES WORKING	± 1	± 2	± 2	± 3	± 4	± 6	± 8	± 10	± 12	± 14	± 16		
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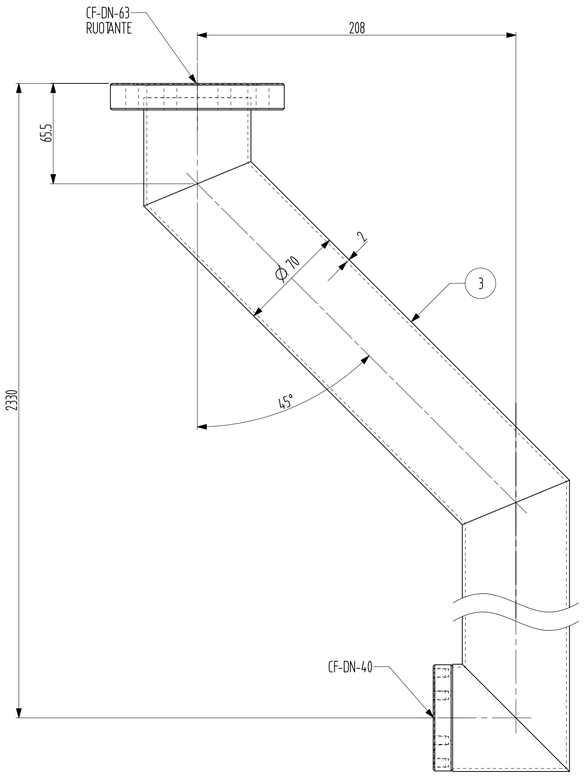
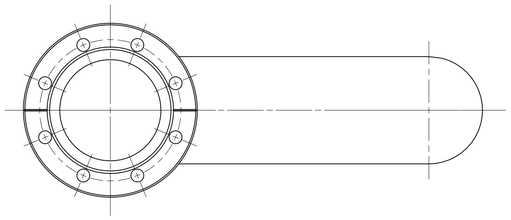
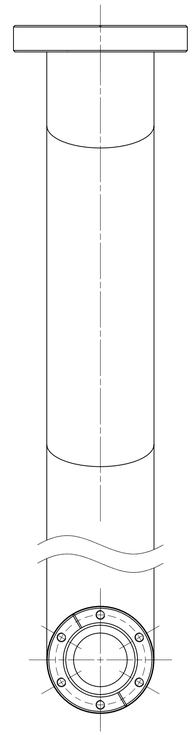
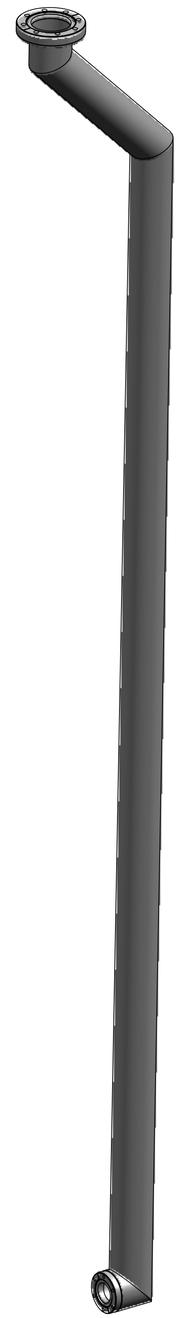
	N LCA	18	17	16	15	14	13	12	11	10			
	Ra	12.5	6.3	3.2	1.6	0.8	0.4	0.2	0.1	0.05			









Pos.	Part Name	Qty	Material	Drawing	Note	Weight
4	Collare	2	AISI-316 L			
3	Assy-Tubo-vuoto-2	1	AISI-316 L			
2	Assy-Tubo-vuoto-1	1	AISI-316 L			
1	Assy-Tubo-vuoto-flangia	1	AISI-316 L			

INFN Istituto Nazionale di Fisica Nucleare	INFN Milano - LASA via Fratelli Cervi, 201 20090 Segrate (MI)	Size: A1	DWG: DWG2-ASSY_Discendente_ESS-MB ESS-AT-02.02.01	Revision: 2
		Drawn by: M. Bonezzi	Date: 2015/11/19	Sheet 2
Experience: ESS		Checked by:	Scale: 1:2/1:5	
Object: Discendente-MB-Part-vuoto		Approved by: P. Michelato	Units: mm	
3D part: ASSY_Discendente_ESS-MB		File name: R:\Project\ESS\ESS_Discendente-MB\DWG2-Assy_Discendente_ESS-MB.prt		

Technical Specification for Materials

Technical Specification

No.: Vacuum 002/2008

Version 1.2 / 07.11.2008

Forged blanks made of Material

1.4429 / ESU (316LN / ESR)

(Vacuum Applications)

FS-BT and MVS

Contents

1. Introduction

The aim of this material specification is to determine a suitable iron and steel works technology and to define an adequate manufacturing process matching the criteria as required in paragraph 4. for products applied in UHV-technology. It is mandatory for this process to include an electro-slag remelting process with the supplement **forged multidirectionally / solution-annealed**!

2. Applied Standards

DIN EN 10088-1-2-3:2005	Stainless steels
DIN EN 10204:2005-01	Metallic products: Types of inspection documents
ASTM E112-96(2004)	Standard method for determining average grain size
DIN 50602	Microscopic examinations of stainless steels for non-metallic inclusions

3. Material Properties

Material No.:	1.4429 **ESU** DIN EN 10088-1-2-3 (US standard 316 LN **ESR**) **ESR** = Electro-Slag-Remelting **forged multidirectionally / solution-annealed**
Material test:	APZ 3.1 inspection certificate according to DIN EN 10204
Special restrictions:	The following elements are restricted in deviation from the material standard mentioned above: Si ≤ 0.50 % P ≤ 0.03 % S ≤ 0.005 % N = 0.15 – 0.22 % Ni ≥ 12.0 %

Structure:	After solution annealing the structure shall be completely austenitic. In accordance with the standard ASTM E112-96 (2004), the grain size shall be between 3 and 4.
Inclusions:	Non-metallic inclusions according to DIN 50602 - K1 ≤ 2.0
Mechanical properties:	At room temperature, after solution annealing:

Tensile Strength	R_m	≥	600 N/mm^2
Yield stress	$R_{p\ 0.2}$	≥	300 N/mm^2
Breaking elongation	A_5	≥	35 %
Brinell Hardness	HB	=	160-200

Magnetic properties: The relative magnetic permeability after solution annealing and at room temperature shall be $\mu_{rel} \leq 1.005$ at 1000 Oe.

4. Labeling

Each blank shall be marked with the following label (chemically engraved or impact stamped):

- Serial number (with reference to material report).
- Name of supplier.
- Material number with annex DESY (example: DESY/1.4429/ESU).
- Delivery date in the format month/year (example: 03/08).

5. Documents

The supplier needs to provide each delivery with written documents for the analysis of the material, the structure and inclusions as described in paragraph 3.
All documents provided have to conform to the actual standards.

Technical Specification for Materials

Technical Specification

No.: Vacuum 002/2008

Version 1.2 / 07.11.2008

Forged blanks made of Material

1.4435 / ESU (316L / ESR)

(Vacuum Applications)

FS-BT and MVS

Contents

1. Introduction

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DIN 50602	Microscopic examinations of stainless steels for non-metallic inclusions

3. Material Properties

Material No.:	1.4435 **ESU** DIN EN 10088-1-2-3 (US standard 316 L **ESR**) **ESR** = Electro-Slag-Remelting **forged multidirectionally / solution-annealed**
Material test:	APZ 3.1 inspection certificate according to DIN EN 10204
Special restrictions:	None
Structure:	After solution annealing the structure shall be completely austenitic. In accordance with the standard ASTM E112-96 (2004), the grain size shall be between 3 and 4.

Inclusions:	Non-metallic inclusions according to DIN 50602 - K1 ≤ 2.0			
Mechanical properties:	At room temperature, after solution annealing:			
	Tensile Strength	R_m	≥	600 N/mm^2
	Yield stress	$R_{p\,0.2}$	≥	300 N/mm^2
	Breaking elongation	A_5	≥	35 %
	Brinell Hardness	HB	=	160-200
Magnetic properties:	The relative magnetic permeability after solution annealing and at room temperature shall be μ_{rel} ≤ 1.005 at 1000 Oe.			

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