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4. Maintenance Instructions – Warranty
5. Declaration of Performance

Manufacturer :

**ATRITUBE HVAC PRODUCTS**

15<sup>th</sup> Street, Block 48A,  
Sindos Industrial Area,  
GR-57022, Thessaloniki Greece  
Tel. +30 2310 586999, Fax. +30 2310586998  
[www.atritube.gr](http://www.atritube.gr), [info@atritube.gr](mailto:info@atritube.gr)

Product :

**Single Wall System Chimneys / Flue Pipes**

made of stainless steel:  
1.4404 (AISI 316L); 1.4301 (AISI 304)

Commercial Name :

**ATRITUBE EX 316 CE<sup>®</sup>**  
**ATRITUBE EX 304 CE<sup>®</sup>**

Producer:

**ATRITUBE HVAC PRODUCTS**

Production Site: Sindos Industrial Area,  
GR-57022, Thessaloniki, Greece

**ATTENTION: Every Product of ATRITUBE HVAC PRODUCTS has a marking with the following information:**

- Product type
- Company name
- Batch number

1. Product Information

**DECLARATION OF PERFORMANCE & PRODUCT INFORMATION**  
**Requirements for metal chimneys**  
**EN 1856-1 &-2**

**Manufacturer:** **ATRITUBE HVAC PRODUCTS**  
 15<sup>th</sup> Street, Block 48A  
 Sindos Industrial Area,  
 GR-57022, Thessaloniki Greece

**Commercial name:** **ATRITUBE EX 316 CE<sup>®</sup>**

**Notified Body:** **“Dedal – Attestation and Certification” Ltd.**

**Certification No./ Year:** **Nr. 1922-CPR-0865**

**Labeling of accompanying documents acc. to EN 1856-1, Annex ZA:**

with gasket      EN 1856-1/2   T200   P1   W   V2 L50(040-060)   O(40)      Stainless Steel (AISI 316L) Single Wall System Chimneys/ Flue Liners /Connecting Flue Pipes

without gasket      EN 1856-1/2   T450   N1   D   V2 L50(040-060)   G(400)

**Part of a metal chimney system**  
**Compressive Strength:**

<b>Product</b>	
<b>Standard Number</b>	
<b>Temperature Level</b>	
<b>Pressure Level</b>	
<b>Condensate Resistance (W:wet, D:dry)</b>	
<b>Corrosion Resistance</b>	Corrosion Resistance Class Flue Liner Material Specification
<b>Sootfire Resistance (G:yes, O:no) &amp; Distance to Combustible Material (mm)</b>	

Annex A

**Fluid Dynamic Resistance:**

Mean value of roughness 1.0mm

**Thermal Resistance:**

1.8x10<sup>-5</sup> m<sup>2</sup>K/W

**Bending Resistance:**

Tensile Strength: Annex A

Non Vertical Installation:

3m under 45° slope

2m under 90° slope

**Wind load: maximum free standing:**

1.5m above last support

**Maximum support distance:**

2m

**Freeze-Thaw Resistance:**

Yes

**Distance to combustible material factor EN1856-1 (6.4 Sootfire resistance):**

DN 301-450 x1,5 i.e. 40->60 50->75

DN 451-600 x2 i.e. 40->80 50->100

A/A	Scope and Relevant requirement Clauses according to EN 1856-1	Instructions/ Information	Document	Additional Information
1.0	Nominal Dimensions(mm) Par: 4 and 5		Producer Declaration	Product Catalogue Annex A
2.0	Flue liner: Material Quality Nominal Thickness(minimum thickness) Par: 4, 5, 6.5.2	L500XX: AISI 316L/ 1.4404 0.4 mm (0,37 mm) 0.5 mm (0,47 mm) 0.6 mm (0.57 mm)	Producer Declaration MPA NRW Test	
	<b>Mechanical Strength Par: 6.1</b>			
3.0	Compressive strength Par: 6.1.1	Chimney height – Annex Dimensions and load – Annex	MPA NRW Test	Annex
4.0	Tensile strength Par: 6.1.2	Annex A	Producer Declaration	Annex
5.0	Wind load Par: 6.1.3.2	Chimney height and load data:  3. Maximum free standing height: 1.5m above the last support 4. Maximum distance between supports: 2m	MPA NRW Test	Annex
	<b>Bending Resistance</b>			
6.0	Maximum deviation Par: 6.1.3.1	90°	MPA NRW Test	Annex
7.1	Maximum non vertical installation under 45° Par: 6.1.3.1	3m	MPA NRW Test	
7.2	Maximum non vertical installation under 90° Par: 6.1.3.1	2m	MPA NRW Test	
8.0	Water tightness Par: 6.3.1	Pressure class:  P1<0.006 L/m <sup>2</sup> s N1<2.0 L/m <sup>2</sup> s	MPA NRW Test	
9.1	Distance from combustible material: T200: 0.1	<b>O(40)</b> Minimum distance for: 40mm With sealing silicone gasket	MPA NRW Test	Annex – Installation Instructions
9.2	Distance from combustible material: T450: 0.2	<b>G(400)</b> Minimum distance for: 400mm Without sealing silicone gasket	MPA NRW Test	Annex – Installation Instructions
10.0	Accidental human contact protection Par: 6.4.2	Warning signs in public areas	MPA NRW Test	For temperatures over 70°C
11.0	Thermal resistance Par: 6.4.3	1.8x10 <sup>-5</sup> m <sup>2</sup> K/W	Producer Declaration	
12.1	Condensate Resistance Par: 6.4.4, 6.4.5	D (for Dry conditions)		
12.2	Condensate Resistance (resistance to humidity) Par: 6.4.4, 6.4.5	W (for Wet conditions)	MPA NRW Test	Resistance to condensate leakage and penetration
13.0	Resistance to rain water penetration Par: 6.4.6	Suitable for outside installation. A drainage application must be installed	MPA NRW Test	Annex

A/A	Scope and Relevant requirement Clauses according to EN 1856-1	Instructions/ Information	Document	Additional Information
	<b>Fluid Dynamic Resistance</b>			
14.0	Chimney sections Par: 6.4.7.1	According to EN 13384-1		
15.0	Chimney elements Par: 6.4.7.2	According to EN 13384-1		
16.0	Fluid Dynamic Resistance	According to EN 13384-1	Producer Declaration	Annex
17.0	Rain water protection Par: 6.4.8.1		Producer Declaration	
18.0	Aerodynamic behavior Par: 6.4.8.2		Producer Declaration	
19.0	Corrosion resistance Par: 6.5.1	V2 (type and thickness of material)	Producer Declaration	
20.0	Freeze/ Thaw resistance Par: 6.5.3	According to EN 1856-1 (given)		
21.0	Hazardous substances		Safety Distance	
22.0	Typical chimney installation		Producer Declaration	Installation instructions
23.0	Assembly of chimney elements	Installation: Female (inner) muff facing towards top	Producer Declaration	Installation instructions
24.0	Assembly of chimney with supports and accessories		Producer Declaration	Installation instructions
25.0	Flue gas direction	According to arrow direction on the product	Producer Declaration	Installation instructions
26.0	Storage instructions	Not in a corrosive environment	Producer Declaration	Installation instructions
27.0	Installation of necessary insulation	The installation plate is placed by the installer and is not to be removed	Producer Declaration	Installation instructions
28.0	Installation instructions of insulated elements		Producer Declaration	Installation instructions
29.0	Minimum distance between chimney outer wall and shaft inner wall from non combustible materials	30cm	National Regulations for built-in installation	
30.0	Position of inspection box	Place the inspection box under the T-joint and in an easy to access position	Producer Declaration	Installation instructions
31.0	Place the installation plate by the chimney, on the tile or on the outer wall			
32.0	Designation/ limitation for tiles/ insulations	Only non combustible tiles/insulations	Producer Declaration	Installation Instructions
33.0	Cleaning method and cleaning tools	Avoid use of grinding tools that may scratch the surface and chemical detergents. Use water and brushes with plastic end	Producer Declaration	Installation Instructions
34.0	Tips for condensate drainage	Connect the condensate collector to a hose that leads to the sewerage. Periodical maintenance and cleaning is recommended	Producer Declaration	Installation Instructions

**DECLARATION OF PERFORMANCE & PRODUCT INFORMATION**  
**Requirements for metal chimneys**  
**EN 1856-1&-2**

**Manufacturer:** **ATRITUBE HVAC PRODUCTS**  
 15<sup>th</sup> Street, Block 48A  
 Sindos Industrial Area,  
 GR-57022, Thessaloniki Greece

**Commercial name:** **ATRITUBE EX 304 CE<sup>®</sup>**

**Notified Body:** **“Dedal – Attestation and Certification” Ltd.**

**Certification No./ Year:** **Nr. 1922-CPR-0865**

**Labeling of accompanying documents acc. to EN 1856-1, Annex ZA:**

with gasket EN 1856-1/2 T200 P1 W V2 L50(040-060) O(40)

Stainless Steel (AISI 304) Single  
 Wall System Chimneys/  
 Flue Liners /Connecting Flue Pipes

without gasket EN 1856-1/2 T450 N1 D Vm L20(040-060) G(400)

**Part of a metal chimney system**  
**Compressive Strength:**

Annex A

**Fluid Dynamic Resistance:**

Mean value of roughness 1.0mm

**Thermal Resistance:**

$1.8 \times 10^{-5} \text{ m}^2\text{K/W}$

**Bending Resisatnce:**

Tensile Strength: Annex A

Non Vertical Installation:

3m under 45° slope

2m under 90° slope

**Wind load: maximum free standing:**

1.5m above last support

**Maximum support distance:**

2m

**Freeze-Thaw Resistance:**

Yes

**Standard Number**

**Temperature Level**

**Pressure Level**

**Condensate Resistance (W:wet, D:dry)**

**Corrosion Resistance**

Corrosion Resistance Class

Flue Liner Material Specification

**Sootfire Resistance (G:yes, O:no) &  
 Distance to Combustible Material (mm)**

**Distance to combustible material factor EN1856-1 (6.4 Sootfire resistance):**

DN 301-450 x1,5 i.e. 40->60 50->75

DN 451-600 x2 i.e. 40->80 50->100

A/A	Scope and Relevant requirement Clauses according to EN 1856-1	Instructions/ Information	Document	Additional Information
1.0	Nominal Dimensions(mm) Par: 4 and 5		Producer Declaration	Product Catalogue Annex A
2.0	Flue liner: Material Quality Nominal Thickness(minimum thickness) Par: 4, 5, 6.5.2	L200XX: AISI 304 / 1.4301 0.4 mm (0,37 mm) 0.5 mm (0,47 mm) 0.6 mm (0,57 mm)	Producer Declaration MPA NRW Test	
	<b>Mechanical Strength Par: 6.1</b>			
3.0	Compressive strength Par: 6.1.1	Chimney height Dimensions and load	Controlled by MPA NRW	Annex
4.0	Tensile strength Par: 6.1.2	Annex A	Producer Declaration	Annex
5.0	Wind load Par: 6.1.3.2	Chimney height and load data:  3. Maximum free standing height: 1.5m above the last support 4. Maximum distance between supports: 2m	MPA NRW Test	Annex
	<b>Bending Resistance</b>			
6.0	Maximum deviation Par: 6.1.3.1	90°	MPA NRW Test	Annex
7.1	Maximum non vertical installation under 45° Par: 6.1.3.1	3m	MPA NRW Test	
7.2	Maximum non vertical installation under 90° Par: 6.1.3.1	2m	MPA NRW Test	
8.0	Water tightness Par: 6.3.1	Pressure class:  P1<0.006 L/m <sup>2</sup> s N1<2.0 L/m <sup>2</sup> s	MPA NRW Test	
9.1	Distance from combustible material: T200: 0.1	<b>O(40)</b> Minimum distance for: 40mm With sealing silicone gasket	MPA NRW Test	Annex – Installation Instructions
9.2	Distance from combustible material: T450: 0.2 (for single wall EX-304-CE)	<b>G(400)</b> Minimum distance for: 400mm Without sealing silicone gasket	MPA NRW Test	Annex – Installation Instructions
10.0	Accidental human contact protection Par: 6.4.2	Warning signs in public areas	MPA NRW Test	For temperatures over 70°C
11.0	Thermal resistance Par: 6.4.3	1.8x10 <sup>-5</sup> m <sup>2</sup> K/W	Producer Declaration	
12.1	Condensate Resistance Par: 6.4.4, 6.4.5	D (for Dry conditions)		
12.2	Condensate Resistance (resistance to humidity) Par: 6.4.4, 6.4.5	W (for Wet conditions)	MPA NRW Test	Resistance to condensate leakage and penetration
13.0	Resistance to rain water penetration Par: 6.4.6	Suitable for outside installation. A drainage application must be installed	MPA NRW Test	Annex

A/A	Scope and Relevant requirement Clauses according to EN 1856-1	Instructions/ Information	Document	Additional Information
	<b>Fluid Dynamic Resistance</b>			
14.0	Chimney sections Par: 6.4.7.1	According to EN 13384-1		
15.0	Chimney elements Par: 6.4.7.2	According to EN 13384-1		
16.0	Fluid Dynamic Resistance	According to EN 13384-1	Producer Declaration	Annex
17.0	Rain water protection Par: 6.4.8.1		Producer Declaration	
18.0	Aerodynamic behavior Par: 6.4.8.2		Producer Declaration	
19.0	Corrosion resistance Par: 6.5.1	Vm (type and thickness of material)	Producer Declaration	
20.0	Freeze/ Thaw resistance Par: 6.5.3	According to EN 1856-1 (given)		
21.0	Hazardous substances		Safety Distance	
22.0	Typical chimney installation		Producer Declaration	Installation instructions
23.0	Assembly of chimney elements	Installation: Female (inner) muff facing towards top	Producer Declaration	Installation instructions
24.0	Assembly of chimney with supports and accessories		Producer Declaration	Installation instructions
25.0	Flue gas direction	According to arrow direction on the product	Producer Declaration	Installation instructions
26.0	Storage instructions	Not in a corrosive environment	Producer Declaration	Installation instructions
27.0	Installation of necessary insulation	The installation plate is placed by the installer and is not to be removed	Producer Declaration	Installation instructions
28.0	Installation instructions of insulated elements		Producer Declaration	Installation instructions
29.0	Minimum distance between chimney outer wall and shaft inner wall from non combustible materials	30cm	National Regulations for built-in installation	
30.0	Position of inspection box	Place the inspection box under the T-joint and in an easy to access position	Producer Declaration	Installation instructions
31.0	Place the installation plate by the chimney, on the tile or on the outer wall			
32.0	Designation/ limitation for tiles/ insulations	Only non combustible tiles/insulations	Producer Declaration	Installation Instructions
33.0	Cleaning method and cleaning tools	Avoid use of grinding tools that may scratch the surface and chemical detergents. Use water and brushes with plastic end	Producer Declaration	Installation Instructions
34.0	Tips for condensate drainage	Connect the condensate collector to a hose that leads to the sewerage. Periodical maintenance and cleaning is recommended	Producer Declaration	Installation Instructions

## 2. Transportation & Storage Instructions

Products from the **ATRITUBE EX CE** series are used in exhaust systems that convey the products of combustion from any appliance, using solid, liquid or gas fuels, to the outside atmosphere. They can be part of new installations or for replacing old ones. Also, they can be used in an inside or an outside installation.

Products from the **ATRITUBE EX CE** series pass the final quality control before their storage. They are stored in an enclosed area of the Factory. Every product has its corresponding Raw Material batch No. and its production date.

Prior to delivery to the customer or to the transporter, every product is re-checked for possible wearing, damage or other defects. The products are delivered packaged into cartons or heat-shrinking film with transportation and storage information printed on them.

The client is obliged to check first of all the condition of the packages. Torn, crumpled or wet cartons possibly result in the weathering of the products.

The client is also obliged to check the products he receives. The products should be used after the client ensures their good condition.

In case of doubt as to the quality of the products, a second inspection should take place by an experienced third party.

During the loading and unloading of the products from the client, all caution measures printed on the cartons must be kept. The client has to be particularly cautious in order to avoid possible crushing or stressing of the cartons, which may lead to cracks, crumples or even breakage.

If the products are to be stored for retail they should not be removed from their packages. Products should be stored indoor. Products should not be stored in a corrosive or oxidizing environment.

**USE OF CORRODED, CRACKED, TORN OR WARPED PRODUCTS IS PROHIBITED.**



### 3. Installation, Assembly & Usage Instructions

For the installation of a chimney that will incorporate products from the **ATRITUBE EX CE series**, only the appropriate **CERTIFIED accessories** (supports, rain end pieces, condensate collectors, clamps etc) from the **ACCESSORIES series** must be used.

The installation of the chimney must be carried out only by **SPECIALIZED PERSONNEL**.

During the installation of the chimney, the Installer **MUST** take all necessary measures for the **SAFETY AND PROTECTION** of the personnel in charge of the procedure.

The installation of a chimney takes place as follows:

- a. At the bottom of the chimney the product **AC-HWT-EX** or **AC-HWT-CH** (triangular wall support for the corresponding chimney system) from the **ACCESSORIES** series is fixed onto the wall. The triangular wall support must be fixed firmly with metal wads M8x75mm, leveled and with no horizontal deviation and by using the appropriate load (in Nm) to tighten the bolts and secure a correct connection of the elements during installation.
- b. Over the triangular support are placed the linear chimney elements (chimney fittings), depending on the height of the installation.
- c. The chimney fittings are supported every 2m maximum with the products **AC-HHW-SS** (strengthened wall support) from the **ACCESSORIES** series, again with the use of the appropriate load.
- d. When a displacement of the chimney from its initial vertical axis is required, 45 and 90 degree elbows are used.
- e. All chimney elements are placed with their (inner) female edge (socket) **FACING UPWARDS**.
- f. All chimney elements must be placed with a sealing silicone gasket inside the female edge. In stove/fireplace applications the gaskets must be removed from the first 5m of the chimney at least, due to the high temperatures of exhaust fumes.
- g. The male edge of the elements locks into the female. The male edge must be placed all the way inside the socket.
- h. On top of the chimney is placed a rain end piece from the **ACCESSORIES** series (**AC-CUF-XX, AC-CAF-XX, AC-VLC-XX, AC-STR-XX**).

- i. A T-element with a condensate collector is placed under the triangular support.
- j. The T- element is connected to the heating appliance with a connecting flue pipe (chimney linear single or double wall) section.
- k. Around every connection are placed clamps (**AC-COS-SS**) from the **ACCESSORIES** series.
- l. When horizontal sections are necessary to be installed, they must have an upward direction. Long horizontal parts and the excessive use of elbows must be avoided to ensure the efficiency of the chimney.
- m. If the free standing height of the chimney has to be longer than 1.5m, it must be supported with an extra metal construction
- n. The distance from combustible materials must be maintained on all occasions as described by the manufacturer, especially when the chimney goes through walls, ceiling holes or other structural elements

In general, all chimneys installed outside of buildings must be insulated. This prevents the quick condensation of the flue gas and soot concentration inside the inner wall that leads to corrosion and induces fire risk. Hence, a chimney from **ATRITUBE EX CE** series that incorporates products from **ATRITUBE EX CE** series must be externally insulated in order to ensure its efficiency, its proper function and the protection of its users.

Use of elements from the **ATRITUBE EX CE** series together with non CE certified products from other series is prohibited.

It is prohibited to use products from the **ATRITUBE EX CE** series in exhaust systems with a temperature of exhaust fumes over 200° C while using the sealing gaskets and a minimum distance of 40mm from combustible materials. Without the sealing gaskets and the distance to combustible materials at 400mm, the maximum temperature should be 450° C.

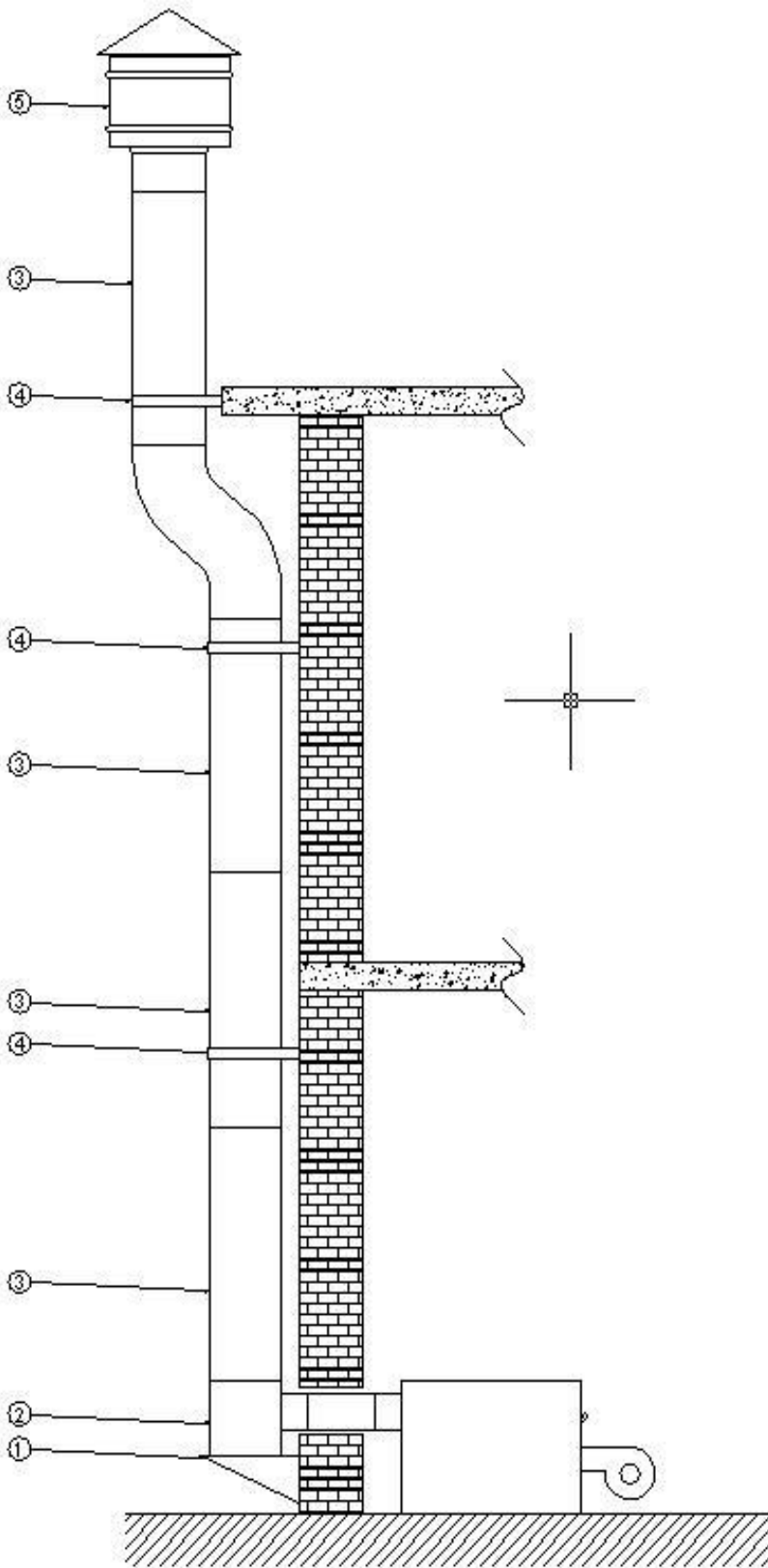
When the exhaust fumes are a product of solid and liquid fuel burning with sulphur (S) concentration above 0.2% IT IS RECOMMENDED that the flue liner is produced using AISI 316L stainless steel.

Stainless steel chimneys should not be installed in areas with a high concentration of halogen gases and vapors (F, Cl, Br, I). Therefore, extra attention should be paid when installing chimneys near printing shops, industrial laundries/ dry cleaners, hairdressing salons and galvanizing factories. If so, the chimney's warranty is

void. Special measures should be taken to filter the air used for the combustion from the halogen gases.

### **Legend (according to EN 1856-1, Figure 1):**

1. **Triangular support, load-bearing** (3.40 according to EN 1856-1, Figure 1)
2. **Tee-joint component with cleaning lid** (3.4 according to EN 1856-1, Fig. 1)
3. **Chimney fitting, 1m length** (3.7 according to EN 1856-1, Figure 1)
4. **Wall support, fix to structure** (3.40 according to EN 1856-1, Figure 1)
5. **Terminal** (3.42 according to EN 1856-1, Figure 1)
6. **Connecting flue pipe** (3.9 according to EN 1856-1, Figure 1)
7. **Appliance outlet** (3.1 according to EN 1856-1, Figure 1)
8. **Heating appliance** (3.20 according to EN 1856-1, Figure 1)
9. **Joint** (3.23 according to EN 1856-1, Figure 1)
10. **Deviation, 45°** (3.6 according to EN 1856-1, Figure 1)



#### 4. Maintenance Instructions - Warranty

The following maintenance procedures must be carried out once a year:

Internal cleaning of the chimney by a SPECIALIZED PERSONNEL. **A clean chimney extends the life span of the heating system and affects positively its efficiency.**

Inspection of the stability of the chimney's free standing part and rain hat.

Visual control for possible oxidization, corrosion, cracks, loosened connections of elements.

If the chimney runs along the exterior of the building, it is vital that every year a stability control takes place.

Once every year a Specialized Personnel is necessary to maintain and survey the combustion System of the chimney to ensure its longevity.

**ATRITUBE HVAC PRODUCTS offers two (2) years warranty from the date of installation, for chimneys that include products from the ATRITUBE EX 304 CE® & five (5) years for ATRITUBE EX 316 CE® series.**

We declare that our company will replace any part or accessory of the chimney system, if after our control is proven to be defective.

The warranty concerns the replacement of only the defective part and in no way does it imply the replacement of the whole chimney system.

Any replacement of a defective part does not extend the warranty period.

The manufacturer/ retailer should not be held responsible for any danger or damage that rises from improper installation, use or maintenance of the products or from overlooking the instructions that are handed to the final user or because of absence of the necessary inspections, repairs or maintenances. More specifically, the warranty does not cover:

- Malfunctions or damages due to improper installation, wrong support, bad use and/ or insufficient chimney maintenance.
- Possible damages that may occur because of any intervention or alteration of the chimney parts.
- Replacement services of a defective part or accessory.
- The necessary maintenance, carried out with the owner's responsibility.
- The responsibility of the warrantor is strictly limited to the function of the product under the warranty and only and consequently the warrantor is not to be held responsible for any damages caused by the financial or other use or utilization of the product (loss of income etc).

5. Declaration of Performance

## CE – DECLARATION OF PERFORMANCE

Issued in compliance with the Construction Products Regulation 305/2011/EU

Manufacturer : **ATRITUBE HVAC PRODUCTS**  
15<sup>th</sup> Street, Block 48A,  
Sindos Industrial Area,  
GR-57022, Thessaloniki Greece

Product : **Single Wall System Chimneys /  
Flue Liners /Connecting Flue Pipes**  
made of stainless steel:  
1.4404 (AISI 316L); 1.4301 (AISI 304)

Commercial Name : **ATRITUBE EX 316 CE<sup>®</sup>  
ATRITUBE EX 304 CE<sup>®</sup>**

Producer: **ATRITUBE HVAC PRODUCTS**  
Production Site: Sindos Industrial Area,  
GR-57022, Thessaloniki, Greece

We hereby declare that the above mentioned products meet all provisions and terms concerning the requirements of the CE marking, according to the Annex ZA of the following harmonized standards:

**EN 1856-1:2009**  
**EN 1856-2:2009**

For the assessment of the conformity all procedures mentioned in Table ZA.4 were carried out.

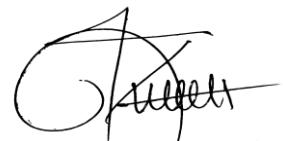
The certification of Factory Production Control was performed by the Notified Body:



**“Dedal – Attestation and Certification” Ltd.**  
Mladost #50, 8230 Nesebar  
Bulgaria [www.dedal-bg.net](http://www.dedal-bg.net)  
No. 1922

Certificate of conformity of the factory production control Nr. **1922-CPR-0865**

Thessaloniki, 06.07.2017



George Ioannidis  
General Manager