

Declaration of Performance



No. 91323 007 DoP 2015-02-23 · Declaration of Performance (DoP)

1. Unique identification code of the product-type:

Multi-wall chimney system type TEC-DW-DESIGN according to EN 1856-1:2009

2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4):

Double wall chimney system type TEC-DW-DESIGN with 32 mm heat insulation¹⁾

Model 1 DN (80- 300) T600 – N1 – D – V3 – L50050 – G50

Model 2 DN (80- 300) T400 – N1 – W – V2 – L50050 – O20

Model 3 DN (80- 300) T450 – N1 – W – V2 – L50050 – O50

¹⁾ Manufacturer product identification

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

Convey the products of combustion from heating appliances to the outside atmosphere

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

**TECNOVIS GmbH
Lessingstr. 20
DE-63110 Rodgau**

5. Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2):

Not applicable

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:

System 2+ and System 4

7. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

Notified factory production control certification body no. 0036 performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control and issued the certificate of conformity 0036 CPR 91323 007 of the factory production control.

8. Declared performance:



	ESSENTIAL CHARACTERISTICS	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION																								
8.1	Compressive strength Chimney sections, fittings and supports	Sections and fittings: Model 1 to 3 DN (80- 300): up to 14 m For further information see the installing instruction TEC-DW-DESIGN	EN 1856-1:2009																								
8.2	Resistance to fire	(Resistance to fire from inside to outside) Model 1 DN (80- 300): T600 – G50 Model 2 DN (80- 300): T400 – O20 Model 3 DN (80- 300): T450 – O50 Tested without cover, with back ventilated ceiling duct.	EN 1856-1:2009																								
8.3	Gas tightness / leakage	Model 1 to 3 DN (80- 300): N1	EN 1856-1:2009																								
8.4	Flow resistance of chimney sections, fittings and terminals	According to EN 13384-1 <table border="1"> <thead> <tr> <th>component:</th> <th>ζ (Zeta-value) single resistances</th> </tr> </thead> <tbody> <tr> <td>pipe tee 87°:</td> <td>1.14</td> </tr> <tr> <td>pipe tee 45°:</td> <td>0.35</td> </tr> <tr> <td>pipe bend 87°:</td> <td>0.40</td> </tr> <tr> <td>pipe bend 45°:</td> <td>0.28</td> </tr> <tr> <td>pipe bend 30°:</td> <td>0.20</td> </tr> <tr> <td>pipe bend 15°:</td> <td>0.10</td> </tr> <tr> <td colspan="2">Terminals: (only for operation in negative pressure)</td> </tr> <tr> <td>rain cap:</td> <td>1.0</td> </tr> <tr> <td>fin cap type „Hubo“:</td> <td>≤ Ø 140 mm 0.1/ ≥ Ø 150 mm 0.2</td> </tr> <tr> <td>wind deflector:</td> <td>≤ Ø 140 mm 0.1/ ≥ Ø 150 mm 0.2</td> </tr> <tr> <td>hurricane:</td> <td>0.1</td> </tr> </tbody> </table>	component:	ζ (Zeta-value) single resistances	pipe tee 87°:	1.14	pipe tee 45°:	0.35	pipe bend 87°:	0.40	pipe bend 45°:	0.28	pipe bend 30°:	0.20	pipe bend 15°:	0.10	Terminals: (only for operation in negative pressure)		rain cap:	1.0	fin cap type „Hubo“:	≤ Ø 140 mm 0.1/ ≥ Ø 150 mm 0.2	wind deflector:	≤ Ø 140 mm 0.1/ ≥ Ø 150 mm 0.2	hurricane:	0.1	EN 1856-1:2009
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hurricane:	0.1																										
8.5	Thermal resistance	Model 1 to 3 DN (80- 300): 0.5 m²K/W tested at 200°C	EN 1856-1:2009																								
8.6	Thermal shock resistance Sootfire resistance	Model 1 DN (80- 300): Yes Model 2 DN (80- 300): No ²⁾ Model 3 DN (80- 300): No ²⁾ ²⁾ Because designated O	EN 1856-1:2009																								
8.7	Thermal performance under normal operating conditions	Model 1 DN (80- 300): T600 Model 2 DN (80- 300): T400 Model 3 DN (80- 300): T450																									
8.8	Flexural tensile strength (only for means of connection for chimney sections and fittings)	Model 1 DN (80- 300): n.p.d. Model 2 DN (80- 300): n.p.d. Model 3 DN (80- 300): n.p.d.	EN 1856-1:2009																								
8.9	Non vertical installation	Model 1 to 3 DN (80- 300): Maximum offset between supports 3 m at 90° (inclined run: maximum distance between two fixations, supports at non vertical installation)	EN 1856-1:2009																								
8.10	Components subject to wind load	Model 1 to 3 DN (80- 250): Free standing height 3 m above last support. Maximum spacing between lateral supports: 4 m.	EN 1856-1:2009																								

8. Declared performance:



	ESSENTIAL CHARACTERISTICS	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION
8.11	Durability: Water and vapour diffusion resistance	Model 1 DN (80- 300): No Model 2 DN (80- 300): Yes Model 3 DN (80- 300): Yes	EN 1856-1:2009
8.12	Condensate penetration resistance	Model 1 DN (80- 300): No Model 2 DN (80- 300): Yes Model 3 DN (80- 300): Yes	
8.13	Against corrosion	Model 1 DN (80- 300): V3 Model 2 DN (80- 300): V2 Model 3 DN (80- 300): V2	
8.14	Freeze thaw resistance	Model 1 to 3 DN (80- 300): Yes	

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Rodgau, 23rd February 2015



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Attila Kovacs CEO

Product information



"Chimneys – Requirements for metal chimneys – Part 1: System chimney products" EN 1856-1:2009

Manufacturer's identification:

TECNOVIS GmbH
Lessingstr. 20
DE-63110 Rodgau

Product trade name:

TEC-DW-DESIGN
(Double wall chimney system with 32 mm heat insulation)

Certification office:

TÜV SÜD Industrie Service GmbH

Name and position of the responsible person:

Attila Kovacs CEO

Identification of accompanying documentation

0.1	Metal chimney	EN 1856-1	T600	N1	D	V3-L50050	G50	80 - 300	Double wall chimney system, sootfire resistant with 32 mm heat insulation, ventilated throughout the whole length, without covering. Connected elements, joints without locking bands. Operation mode in negative pressure.
0.2	Metal chimney	EN 1856-1	T400	N1	W	V2-L50050	O20	80 - 300	Double wall chimney system, moisture resistant with 32 mm heat insulation, ventilated throughout the whole length, without covering. Connected elements, joints without locking bands. Operation mode in negative pressure.
0.3	Metal chimney	EN 1856-1	T450	N1	W	V2-L50050	O50	80 - 300	Double wall chimney system, moisture resistant with 32 mm heat insulation, ventilated throughout the whole length, without covering. Connected elements, joints without locking bands. Operation mode in negative pressure.

Product description	
Standard number	
Temperature level	
Pressure level	
Condensate resistance (W: wet / D: dry)	
Corrosion resistance	
Flue liner material specification	
Sootfire resistance (G: yes / O: no) and distance to combustible material (in mm)	
Nominal diameter (∅) (Inner tube) in mm	

Properties of a multi-wall metal chimney system

Compressive strength:

Maximum load (see installing instruction)

Flow resistance:

Average roughness: 1.0 mm,
Zeta-values (see installing instruction)
according to EN 13384-1

Thermal resistance: 0.5 m²K/W

Bending strength:

Angular assembly:
Maximum length between two supports 3 m at 90°

Tensile strength:

n.p.d.

Wind load: free standing end above last fixation:

Up to ∅250 mm ≤ 3 m

Maximum distance between vertical supports: 4 m

Freeze-thaw resistance: Yes

Cleaning:

The chimney system is only allowed to be cleaned
with cleaning devices made of plastic or rust-
resistant stainless steel

Declaration of Performance



No. 91323 008 DoP 2015-02-23 · Declaration of Performance (DoP)

1. Unique identification code of the product-type:

Rigid, double wall connecting pipe type TEC-DW-DESIGN according to EN 1856-2:2009

2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4):

Rigid, double wall connecting pipe type TEC-DW-DESIGN with 32 mm heat insulation¹⁾

Model 1 DN (80- 300) T450 – N1 – D – V3 – L50050 – G100M³⁾

Model 2 DN (80- 300) T450 – N1 – W – V2 – L50050 – O50M³⁾

¹⁾ Manufacturer product identification connecting pipe

²⁾ Not Measured (NM) means 3 times the Nominal Diameter with a minimum of 375 mm

³⁾ Measured (M)

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

Convey the products of combustion from heating appliances to the chimney

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

**TECNOVIS GmbH
Lessingstr. 20
DE-63110 Rodgau**

5. Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2):

Not applicable

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:

System 2+

7. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

Notified factory production control certification body no. 0036 performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control and issued the certificate of conformity 0036 CPR 91323 008 of the factory production control.

8. Declared performance:



	ESSENTIAL CHARACTERISTICS	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION														
8.1	Compressive strength	Model 1 to 2 DN (80- 300): >10 m of fittings	EN 1856-2:2009														
8.2	Tensile strength	Model 1 to 2 DN (80- 300): n.p.d.															
8.3	Non vertical installation	Model 1 to 2 DN (80- 300): Horizontal 3 m between supports* *Please pay attention to the mounting instructions, an incline, all incline has to be arranged for where applicable.															
8.4	Resistance to fire	Model 1 DN (80- 300): G100 M Model 2 DN (80- 300): O50 M	EN 1856-2:2009														
8.5	Gas tightness/ leakage	Model 1 to 2 DN (80- 300): N1	EN 1856-2:2009														
8.6	Flow resistance of chimney sections and fittings	According to EN 13384-1 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">component:</th> <th style="width: 50%;">ζ (Zeta-value) single resistances</th> </tr> </thead> <tbody> <tr> <td>pipe tee 87°:</td> <td>1.14</td> </tr> <tr> <td>pipe tee 45°:</td> <td>0.35</td> </tr> <tr> <td>pipe bend 87°:</td> <td>0.40</td> </tr> <tr> <td>pipe bend 45°:</td> <td>0.28</td> </tr> <tr> <td>pipe bend 30°:</td> <td>0.20</td> </tr> <tr> <td>pipe bend 15°:</td> <td>0.10</td> </tr> </tbody> </table>	component:	ζ (Zeta-value) single resistances	pipe tee 87°:	1.14	pipe tee 45°:	0.35	pipe bend 87°:	0.40	pipe bend 45°:	0.28	pipe bend 30°:	0.20	pipe bend 15°:	0.10	EN 1856-2:2009
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pipe bend 15°:	0.10																
8.7	Sootfire resistance	Model 1 DN (80- 300): Yes Model 2 DN (80- 300): No ²⁾ ²⁾ because designated O	EN 1856-2:2009														
8.8	Thermal performance under normal operating conditions	Model 1 to 2 DN (80- 300): T450* *(Heating strain at nominal operating temperature)															
8.9	Durability: Water and vapour diffusion resistance	Model 1 DN (80- 300): No Model 2 DN (80- 300): Yes	EN 1856-2:2009														
8.10	Condensate penetration resistance	Model 1 DN (80- 300): No Model 2 DN (80- 300): Yes															
8.11	Against corrosion	Model 1 DN (80- 300): V3 Model 2 DN (80- 300): V2															
8.12	Freeze thaw resistance	Model 1 to 2 DN (80- 300): Yes															

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Rodgau, 23rd February 2015

A handwritten signature in blue ink, appearing to read 'Attila Kovacs', written over a horizontal dotted line. The signature is stylized and cursive.

Attila Kovacs CEO

Product information



"Chimneys – Requirements for metal chimneys - Part 2: Metal flue liners and connecting flue pipes" EN 1856-2:2009

Manufacturer's identification:

TECNOVIS GmbH
Lessingstr. 20
DE-63110 Rodgau

Product trade name:

TEC-DW-DESIGN connecting pipe
(rigid connecting pipe, double wall with 32 mm insulation)

Certification office:

TÜV SÜD Industrie Service GmbH

Name and position of the responsible person:

Attila Kovacs CEO

Identification of accompanying documentation

Double wall, rigid connecting pipe TEC-DW-DESIGN	0.1	EN 1856-2	T450	N1	D	V3-L50050	G100 M	80 - 300	Double wall, sootfire resistant connecting pipe, composed of rigid pipes and elements, ventilated along the whole length, without covering. Operation mode in negative pressure (solid fuels).
	0.2	EN 1856-2	T450	N1	W	V2-L50050	O50 M	80 - 300	Double wall, moisture resistant connecting pipe, composed of rigid pipes and elements, ventilated along the whole length, without covering. Operation mode in negative pressure (oil, gas).

Product description	
Standard number	EN 1856-2
Temperature level	T450
Pressure level	N1
Condensate resistance (W: wet / D: dry)	D
Corrosion resistance	V3-L50050
Flue liner material specification	G100 M
Sootfire resistance (G: yes / O: no) and Distance to combustible material (in mm) M = tested distance NM = calculated distance	80 - 300
Nominal diameter(∅) inner tube in mm	

Rigid connecting pipe of metal

Compressive strength:

Maximum load >10 m over the elements and connections of the elements

Flexural strength:

Tensile strength: n.p.d.

Angular mounting:

Not vertical installation:
≤ 3 m between two supports or fixations

Coefficient for flow resistance:

Average roughness: 1.0 mm,
Zeta-values acc. EN 13384-1

Thermal resistance:

0.5 m²K/W

Sootfire resistance:

Yes

Freeze-thaw resistance:

Yes

Cleaning:

The connecting pipe is only allowed to be cleaned with cleaning devices made of plastic or rust-resistant stainless steel.