

Declaration of performance (DOP)

No. 9174 008 DOP 2013-06-17

1. Unique identification code of the product-type:

Multi-wall chimney system type DW-ECO 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 DW-ECO with 25 mm heat insulation¹⁾

Model 1	DN (80- 300) T400 – N1 – W – V2 – L50050 – O30
Model 1	DN (350- 450) T400 – N1 – W – V2 – L50050 – O45
Model 1	DN (500- 600) T400 – N1 – W – V2 – L50050 – O60
Model 2	DN (80- 300) T400 – N1 – D – V3 – L50050 – G70
Model 2	DN (350- 450) T400 – N1 – D – V3 – L50050 – G105
Model 2	DN (500- 600) T400 – N1 – D – V3 – L50050 – G140
Model 3	DN (80- 300) T600 – N1 – W – V2 – L50050 – O50
Model 3	DN (350- 450) T600 – N1 – W – V2 – L50050 – O75
Model 3	DN (500- 600) T600 – N1 – W – V2 – L50050 – O100
Model 4	DN (80- 300) T600 – N1 – D – V3 – L50050 – G70
Model 4	DN (350- 450) T600 – N1 – D – V3 – L50050 – G105
Model 4	DN (500- 600) T600 – N1 – D – V3 – L50050 – G140

¹⁾ Manufacturer product identification DW-ECO

3. Intended use or uses of the construction product, in accordance with the applicable harmonised 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):

**Jeremias GmbH**
Opfenrieder Straße 11-14
DE-91717 Wassertrüdingen
Tel.: +49 9832 68 68 0
Fax: +49 9832 68 68 68
Email: info@jeremias.de

5. Where applicable, name and contact address of the authorised 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 CPD 9174 008 of the factory production control.

8. Declared performance:

	Essential Characteristics	Performance	Harmonized technical specification																								
8.1	Compressive strength Chimney sections, fittings and supports	<p><u>Sections and fittings:</u> Model 1 to 4 DN (80- 300): up to 15 m Model 1 to 4 DN (350- 450): up to 10 m Model 1 to 4 DN (500- 600): up to 10 m</p> <p><u>Supports:</u> n.p.d. For further information see the installation instruction DW-ECO</p>	EN 1856-1:2009																								
8.2	Resistance to fire	<p>(Resistance to fire from inside to outside)</p> <p>Model 1 DN (80- 300): T400 – O30 Model 1 DN (350- 450): T400 – O45 Model 1 DN (500- 600): T400 – O60 Model 2 DN (80- 300): T400 – G70 Model 2 DN (350- 450): T400 – G105 Model 2 DN (500- 600): T400 – G140 Model 3 DN (80- 300): T600 – O50 Model 3 DN (350- 450): T600 – O75 Model 3 DN (500- 600): T600 – O100 Model 4 DN (80- 300): T600 – G70 Model 4 DN (350- 450): T600 – G105 Model 4 DN (500- 600): T600 – G140</p> <p>Tested without cover, with back ventilated ceiling duct.</p>	EN 1856-1:2009																								
8.3	Gas tightness/ leakage	Model 1 to 4 DN (80- 600): N1	EN 1856-1:2009																								
8.4	Flow resistance of chimney sections, fittings and terminals	<p>According to EN 13384-1</p> <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>$\leq \varnothing 140 \text{ mm } 0,1 / \geq \varnothing 150 \text{ mm } 0,2$</td> </tr> <tr> <td>wind deflector:</td> <td>$\leq \varnothing 140 \text{ mm } 0,1 / \geq \varnothing 150 \text{ mm } 0,2$</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“:	$\leq \varnothing 140 \text{ mm } 0,1 / \geq \varnothing 150 \text{ mm } 0,2$	wind deflector:	$\leq \varnothing 140 \text{ mm } 0,1 / \geq \varnothing 150 \text{ mm } 0,2$	hurricane:	0,1	EN 1856-1:2009
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8.5	Thermal resistance	<p>Model 1 to 4 DN (80- 600): >0,26 m²K/W calculated for 200°C*</p> <p>* The thermal resistance is dependent on the nominal diameters of inner tubes see product information and mounting instructions DW-ECO</p>	EN 1856-1:2009																								
8.6	Thermal shock resistance Sootfire resistance	<p>Model 1 DN (80- 600): No²⁾ Model 2 DN (80- 600): Yes Model 3 DN (80- 600): No²⁾ Model 4 DN (80- 600): Yes ²⁾ Because designated O</p>	EN 1856-1:2009																								
8.7	Thermal performance under normal operating conditions	<p>Model 1 DN (80- 600): T400 Model 2 DN (80- 600): T400 Model 3 DN (80- 600): T600 Model 4 DN (80- 600): T600</p>																									


8. Declared performance:

	Essential Characteristics	Performance	Harmonized technical specification
8.8	Flexural tensile strength (only for means of connection for chimney sections and fittings)	Model 1 to 4 DN (80- 300): up to 9 m Model 1 to 4 DN (350- 450): n.p.d. Model 1 to 4 DN (500- 600): n.p.d.	EN 1856-1:2009
8.9	Non vertical installation	Model 1 to 4 DN (80- 600): Maximum offset between supports 3 m at 90° <small>(inclined run, maximum distance between two fixations, supports at non vertical installation)</small>	EN 1856-1:2009
8.10	Components subject to wind load	Model 1 to 4 DN (80- 300) : Free standing height 3 m above last support. Maximum spacing between lateral supports: 4 m Model 1 to 4 DN (350- 400) : Free standing height 2,5 m above last support. Maximum spacing between lateral supports: 4 m Model 1 to 4 DN (450- 600) : Free standing height 1,5 m above last support. Maximum spacing between lateral supports: 4 m	EN 1856-1:2009
8.11	Durability: Water and vapour diffusion resistance	Model 1 DN (80- 600): Yes Model 2 DN (80- 600): No Model 3 DN (80- 600): Yes Model 4 DN (80- 600): No	EN 1856-1:2009
8.12	Condensate penetration resistance	Model 1 DN (80- 600): Yes Model 2 DN (80- 600): No Model 3 DN (80- 600): Yes Model 4 DN (80- 600): No	
8.13	Against corrosion	Model 1 DN (80- 600): V2 Model 2 DN (80- 600): V3 Model 3 DN (80- 600): V2 Model 4 DN (80- 600): V3	
8.14	Freeze thaw resistance	Model 1 to 4 DN (80- 600): 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:

Wassertrüdingen, 17th June 2013



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Stefan Engelhardt CEO

Product information

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

Manufacturer’s identification:

jeremias GmbH
Opfenrieder Str. 11-14
91717 Wassertrüdingen
 Tel.: +49 (0) 9832 / 68 68-50
 Fax: +49 (0) 9832 / 68 68-68
 Internet: www.jeremias.de
 E-Mail: info@jeremias.de

Product trade name:

DW-ECO (Double wall chimney system with 25 mm heat insulation)

Certification office:

TÜV SÜD Industrie Service GmbH

Name and position of the responsible person:

Stefan Engelhardt CEO



Identification of accompanying documentation

0.1	Metal chimney	EN 1856-1	T400	N1	W	V2-L50050	O30 O45 O60	80 - 300 350 - 450 500 - 600	Double wall chimney system, moisture resistant, with 25 mm heat insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure
0.2	Metal chimney	EN 1856-1	T400	N1	D	V3-L50050	G70 G105 G140	80 - 300 350 - 450 500 - 600	Double wall chimney system, sootfire resistant, with 25 mm heat insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure
0.3	Metal chimney	EN 1856-1	T600	N1	W	V2-L50050	O50 O75 O100	80 - 300 350 - 450 500 - 600	Double wall chimney system, moisture resistant, with 25 mm heat insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure
0.4	Metal chimney	EN 1856-1	T600	N1	D	V3-L50050	G70 G105 G140	80 - 300 350 - 450 500 - 600	Double wall chimney system, sootfire resistant, with 25 mm heat insulation, ventilated throughout the whole length, without covering. 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 (Ø) (inner tube) in mm	

Properties of multi-wall metal chimney system

Compressive strength:

Maximum load (see encl. H-1 Installing instructions)

Flow resistance:

Average roughness: 1,0 mm, Zeta-values according to DIN EN 13384-1 (see encl. H-1 Installing instructions)

Thermal resistance: >0,26 m²K/W

Flexural strength:

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

Tensile strength:

See encl. H-1 Installing instructions

Wind load: free standing end above last fixation:

≤3 m ≤Ø300 mm (0,5 mm wall thickness)
 ≤2,5 m Ø350 – ≤Ø400 mm (0,5 mm wall thickness)
 ≤1,5 m Ø450 – ≤Ø600 mm (0,6 mm wall thickness)

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.