Declaration of Performance (DOP)

No. 9174 001 DOP 2013-06-17

1. Unique identification code of the product-type:

   Multi-wall chimney system type DW-FU 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-FU with 32 mm heat insulation[1)]

Model 1	**DN (80- 300) T400 – N1 – D – V3 – L50060 – G50**
Model 1	**DN (350- 450) T400 – N1 – D – V3 – L50060 – G75**
Model 1	**DN (500- 600) T400 – N1 – D – V3 – L50060 – G100**
Model 1	**DN (650-1000) T400 – N1 – D – V3 – L50060 – G200**
Model 2	**DN (80- 300) T400 – N1 – W – V2 – L50060 – O20**
Model 2	**DN (350- 450) T400 – N1 – W – V2 – L50060 – O30**
Model 2	**DN (500- 600) T400 – N1 – W – V2 – L50060 – O40**
Model 2	**DN (650-1000) T400 – N1 – W – V2 – L50060 – O80**
Model 3	**DN (80- 300) T600 – N1 – D – V3 – L50060 – G50**
Model 3	**DN (350- 450) T600 – N1 – D – V3 – L50060 – G75**
Model 3	**DN (500- 600) T600 – N1 – D – V3 – L50060 – G100**
Model 3	**DN (650-1000) T600 – N1 – D – V3 – L50060 – G200**
Model 4	**DN (80- 300) T600 – N1 – W – V2 – L50060 – O50**
Model 4	**DN (350- 450) T600 – N1 – W – V2 – L50060 – O75**
Model 4	**DN (500- 600) T600 – N1 – W – V2 – L50060 – O100**
Model 4	**DN (650-1000) T600 – N1 – W – V2 – L50060 – O200**

[1)] Manufacturer product identification DW-FU

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
Phone: +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 001 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 4 DN (80- 300): **up to 38 m** Model 1 to 4 DN (350- 450): **up to 32 m** Model 1 to 4 DN (500- 600): **up to 21 m** Model 1 to 4 DN (650-1000): **up to 9 m** Supports: n.p.d For further information see the installation instruction DW-FU.	EN 1856-1:2009
8.2	Resistance to fire	(Resistance to fire from inside to outside) Model 1 DN (80- 300): T400 – **G50** Model 1 DN (350- 450): T400 – **G75** Model 1 DN (500- 600): T400 – **G100** Model 1 DN (650-1000): T400 – **G200** Model 2 DN (80- 300): T400 – **O20** Model 2 DN (350- 450): T400 – **O30** Model 2 DN (500- 600): T400 – **O40** Model 2 DN (650-1000): T400 – **O80** Model 3 DN (80- 300): T600 – **G50** Model 3 DN (350- 450): T600 – **G75** Model 3 DN (500- 600): T600 – **G100** Model 3 DN (650-1000): T600 – **G200** Model 4 DN (80- 300): T600 – **O50** Model 4 DN (350- 450): T600 – **O75** Model 4 DN (500- 600): T600 – **O100** Model 4 DN (650-1000): T600 – **O200** Tested without cover, with back ventilated ceiling duct.	EN 1856-1:2009
8.3	Gas tightness/leakage	Model 1 to 4 DN (80-1000): **N1**	EN 1856-1:2009
8.4	Flow resistance of chimney sections, fittings and terminals	According to EN 13384-1 **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 hurrican: 0.1	EN 1856-1:2009
8.5	Thermal resistance	Model 1 to 4 DN (80-1000): **0.501 m²K/W tested at 200°C**	EN 1856-1:2009
8.6	Thermal shock resistance Sootfire resistance	Model 1 DN (80-1000): **Yes** Model 2 DN (80-1000): **No** [2)] Model 3 DN (80-1000): **Yes** Model 4 DN (80-1000): **No** [2)] [2)] Because designated O	EN 1856-1:2009

8. Declared performance:

	Essential Characteristics	Performance	Harmonized technical specification
8.7	Thermal performance under normal operating conditions	Model 1 DN (80-1000): **T400** Model 2 DN (80-1000): **T400** Model 3 DN (80-1000): **T600** Model 4 DN (80-1000): **T600**	
8.8	Flexural tensile strength (only for means of connection for chimney sections and fittings)	Model 1 to 4 DN (80- 300): **up to 16 m** Model 1 to 4 DN (350- 450): **up to 13 m** Model 1 to 4 DN (500- 600): **up to 13 m** Model 1 to 4 DN (650-1000): **n.p.d.**	EN 1856-1:2009
8.9	Non vertical installation	Model 1 to 4 DN (80-1000): 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 4 DN (80- 600): Free standing height **3 m** above last support. Maximum spacing between lateral supports: **4 m.** Model 1 to 4 DN (650-1000): Free standing height **1.5 m** above last support. Maximum spacing between lateral supports: **4 m.**	EN 1856-1:2009
	Durability:		
8.11	Water and vapour diffusion resistance	Model 1 DN (80-1000): **No** Model 2 DN (80-1000): **Yes** Model 3 DN (80-1000): **No** Model 4 DN (80-1000): **Yes**	
8.12	Condensate penetration resistance	Model 1 DN (80-1000): **No** Model 2 DN (80-1000): **Yes** Model 3 DN (80-1000): **No** Model 4 DN (80-1000): **Yes**	EN 1856-1:2009
8.13	Against corrosion	Model 1 DN (80-1000): **V3** Model 2 DN (80-1000): **V2** Model 3 DN (80-1000): **V3** Model 4 DN (80-1000): **V2**	
8.14	Freeze thaw resistance	Model 1 to 4 DN (80-1000): **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
Phone.: +49 (0) 9832 / 68 68-50
Fax: +49 (0) 9832 / 68 68-68
Internet: www.jeremias.de
Email: info@jeremias.de

Product trade name: **DW-FU** (Double wall chimney system with 32 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**	**D**	**V3-L50060**	**G50** **G75** **G100** **G200**	**80 – 300** **350 – 450** **500 – 600** **650 – 1000**	Double wall chimney system, sootfire resistant, with 32 mm heat insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure.
0.2	**Metal chimney**	**EN 1856-1**	**T400**	**N1**	**W**	**V2-L50060**	**O20** **O30** **O40** **O80**	**80 – 300** **350 – 450** **500 – 600** **650 – 1000**	Double wall chimney system, moisture resistant, with 32 mm heat insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure.
0.3	**Metal chimney**	**EN 1856-1**	**T600**	**N1**	**D**	**V3-L50060**	**G50** **G75** **G100** **G200**	**80 – 300** **350 – 450** **500 – 600** **650 – 1000**	Double wall chimney system, sootfire resistant, with 32 mm heat insulation, ventilated throughout the whole length, without covering. Operation mode in negative pressure.
0.4	**Metal chimney**	**EN 1856-1**	**T600**	**N1**	**W**	**V2-L50060**	**O50** **O75** **O100** **O200**	**80 – 300** **350 – 450** **500 – 600** **650 – 1000**	Double wall chimney system, moisture resistant, with 32 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 a multi-wall metal chimney system

Compressive strength:

Maximum load (see installing instructions)

Flow resistance:

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

Thermal resistance: 0.501 m²K/W

Flexural strength:

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

Tensile strength:

See installing instructions

Wind load: free standing end above last fixation:

≤ 3 m up to Ø600 mm (see installing instructions)
≤ 1.5 m Ø650 – Ø1000mm (see installing instructions)

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 (DOP)

No. 9174 047 DOP 2013-06-17

1. Unique identification code of the product-type:

   Double wall connecting pipe type DW-FU 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 DW-FU with 32 mm heat insulation[1)]

Model 1	**DN (80- 600)**	**T450 – N1 – W – V2 – L50060 – O50M [3)]**
Model 2	**DN (80- 600)**	**T600 – N1 – D – V3 – L50060 – G100M [3)]**
Model 3	**DN (80- 600)**	**T600 – N1 – W – V2 – L50060 – O100M [3)]**

   [1] Manufacturer product identification DW-FU 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 harmonised 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):

   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+

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 047 of the factory production control.

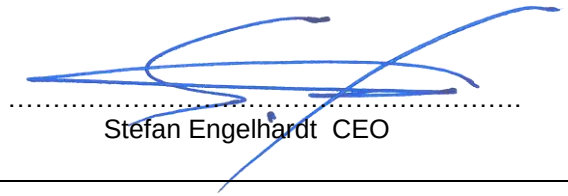
8. Declared performance:

	Essential Characteristics	Performance	Harmonized technical specification
8.1	Compressive strength	Model 1 to 3 DN (80- 600): **up to 9 m**	EN 1856-2:2009
8.2	Tensile strength	Model 1 to 3 DN (80- 600): **up to 13 m**	
8.3	Non vertical installation	Model 1 to 3 DN (80- 600): 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- 600): **O50 M** Model 2 DN (80- 600): **G100 M** Model 3 DN (80- 600): **O100 M**	EN 1856-2:2009
8.5	Gas tightness/ leakage	Model 1 to 3 DN (80- 600): **N1**	EN 1856-2:2009
8.6	Flow resistance of chimney sections and fittings	According to EN 13384-1 **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
8.7	Sootfire resistance	Model 1 DN (80- 600): **No** [2)] Model 2 DN (80- 600): **Yes** Model 3 DN (80- 600): **No** [2)] [2)] because designated O	EN 1856-2:2009
8.8	Thermal performance under normal operating conditions	Model 1 DN (80- 600): **T450*** Model 2 DN (80- 600): **T600*** Model 3 DN (80- 600): **T600*** *(Heating strain at nominal operating temperature)	
	Durability:		EN 1856-2:2009
8.9	Water and vapour diffusion resistance	Model 1 DN (80- 600): **Yes** Model 2 DN (80- 600): **No** Model 3 DN (80- 600): **Yes**	
8.10	Condensate penetration resistance	Model 1 DN (80- 600): **Yes** Model 2 DN (80- 600): **No** Model 3 DN (80- 600): **Yes**	
8.11	Against corrosion	Model 1 DN (80- 600): **V2** Model 2 DN (80- 600): **V3** Model 3 DN (80- 600): **V2**	
8.12	Freeze thaw resistance	Model 1 to 3 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 2:
Metal flue liners and connecting flue pipes" DIN EN 1856-2:2009

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-FU 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: **Stefan Engelhardt** CEO

Identification of accompanying documentation

Rigid double wall connecting pipe DW-FU	**0.1**	**EN 1856-2**	**T450**	**N1**	**W**	**V2-L50060**	**O50 M**	**80 - 600**	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).
	0.2	**EN 1856-2**	**T600**	**N1**	**D**	**V3-L50060**	**G100 M**	**80 - 600**	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).
	0.3	**EN 1856-2**	**T600**	**N1**	**W**	**V2-L50060**	**O100 M**	**80 - 600**	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

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)

M = tested distance
NM = calculated distance

Nominal diameter (Ø) inner tube in mm

Rigid connecting pipe of metal

Compressive strength:

>21 m over the connections of the elements

Flexural strength:

No vertical installation:
≤ 3 m between two fixations or supports.

Maximal distance between vertical supports:

≤ 4 m between two fixations

Coefficient for flow resistance:

Average roughness: 1.0 mm,
Zeta-values according to EN 13384-1

Thermal resistance:

0.501 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.