

# **Declaration of Performance (DOP)**

No. 9174 002 DOP 2013-06-17

1. Unique identification code of the product-type:

#### Multi-wall chimney system type DW-KL 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 "conical" chimney system type DW-KL with 32 mm heat insulation<sup>1)</sup>

Model 1 DN ( 80-1000)	T200 – P1 – W – V2 – L50060 – O00
Model 2 DN ( 80- 300)	T200 – H1 – W – V2 – L50060 – O20
Model 2 DN (350- 450)	T200 – H1 – W – V2 – L50060 – O30
Model 2 DN (500- 600)	T200 – H1 – W – V2 – L50060 – O40
Model 2 DN (650-1000)	T200 – H1 – W – V2 – L50060 – O80
Model 3 DN ( 80- 300)	T400 – N1 – D – V3 – L50060 – G50
Model 3 DN (350- 450)	T400 – N1 – D – V3 – L50060 – G75
Model 3 DN (500- 600)	T400 – N1 – D – V3 – L50060 – G100
Model 3 DN (650-1000)	T400 – N1 – D – V3 – L50060 – G200
Model 4 DN ( 80- 300)	T400 – N1 – W – V2 – L50060 – O20
Model 4 DN (350- 450)	T400 – N1 – W – V2 – L50060 – O30
Model 4 DN (500- 600)	T400 – N1 – W – V2 – L50060 – O40
Model 4 DN (650-1000)	T400 – N1 – W – V2 – L50060 – O80
Model 5 DN ( 80- 300)	T400 – P1 – W – V2 – L50060 – O20
Model 5 DN (350- 450)	T400 – P1 – W – V2 – L50060 – O30
Model 5 DN (500- 600)	T400 – P1 – W – V2 – L50060 – O40
Model 5 DN (650-1000)	T400 – P1 – W – V2 – L50060 – O80
Model 6 DN ( 80- 300)	T450 - H1 - W - V2 - L50060 - O50
Model 6 DN (350- 450)	T450 - H1 - W - V2 - L50060 - O75
Model 6 DN (500- 600)	T450 - H1 - W - V2 - L50060 - O100
Model 6 DN (650-1000)	T450 - H1 - W - V2 - L50060 - O200
Model 7 DN ( 80- 300)	T600 – N1 – D – V3 – L50060 – G50
Model 7 DN (350- 450)	T600 – N1 – D – V3 – L50060 – G75
Model 7 DN (500- 600)	T600 – N1 – D – V3 – L50060 – G100
Model 7 DN (650-1000)	T600 – N1 – D – V3 – L50060 – G200
Model 8 DN ( 80- 300) Model 8 DN (350- 450) Model 8 DN (500- 600) Model 8 DN (650-1000) <sup>1)</sup> Manufacturer product identific	$\begin{array}{l} T600-H1-W-V2-L50060-G50\\ T600-H1-W-V2-L50060-G75\\ T600-H1-W-V2-L50060-G100\\ T600-H1-W-V2-L50060-G100\\ t600-H1-W-V2-L50060-G200\\ \hline tation DW-KL \end{array}$

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):



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 002 of the factory production control.



		CHIMINET STSTEMS	
	Essential Characteristics	Performance	Harmonized technical specification
8.1	Compressive strength Chimney sections, fittings and supports	Sections and fittings:           Model 1 to 8 DN ( 80- 300): up to 38 m           Model 1 to 8 DN (350- 450): up to 32 m           Model 1 to 8 DN (500- 600): up to 21 m           Model 1 to 8 DN (650-1000): up to 9 m           Supports: n.p.d.           For further information see the installation instruction DW-KL	EN 1856-1:2009
8.2	Resistance to fire	(Resistance to fire from inside to outside) Model 1 DN ( 80-1000): T200 – <b>O00</b> Model 2 DN ( 80- 300): T200 – <b>O20</b> Model 2 DN (350- 450): T200 – <b>O30</b> Model 2 DN (500- 600): T200 – <b>O40</b> Model 2 DN (650-1000): T200 – <b>O40</b> Model 3 DN ( 80- 300): T400 – <b>G50</b> Model 3 DN ( 80- 300): T400 – <b>G75</b> Model 3 DN (500- 600): T400 – <b>G70</b> Model 3 DN (650-1000): T400 – <b>G200</b> Model 4 DN ( 80- 300): T400 – <b>O20</b> Model 4 DN ( 80- 300): T400 – <b>O20</b> Model 4 DN ( 80- 300): T400 – <b>O30</b> Model 4 DN ( 80- 300): T400 – <b>O40</b> Model 5 DN ( 80- 300): T400 – <b>O30</b> Model 5 DN (650-1000): T400 – <b>O30</b> Model 5 DN (650-1000): T400 – <b>C30</b> Model 6 DN ( 80- 300): T400 – <b>C40</b> Model 5 DN (650-1000): T400 – <b>C30</b> Model 6 DN ( 80- 300): T400 – <b>C30</b> Model 6 DN ( 80- 300): T450 – <b>C50</b> Model 6 DN ( 80- 300): T450 – <b>C50</b> Model 6 DN ( 80- 300): T450 – <b>C50</b> Model 6 DN ( 80- 300): T600 – <b>G50</b> Model 7 DN ( 80- 300): T600 – <b>G50</b> Model 8 DN (500- 600): T600 – <b>G50</b> Model 8 DN (500- 1000): T600 – <b>G200</b> Tested without cover, with back ventilated ceiling duct	EN 1856-1:2009
8.3	Gas tightness/leakage	Model 1       DN (80-1000): P1         Model 2       DN (80-1000): H1         Model 3       DN (80-1000): N1         Model 4       DN (80-1000): N1         Model 5       DN (80-1000): P1         Model 6       DN (80-1000): H1         Model 7       DN (80-1000): N1         Model 8       DN (80-1000): H1	EN 1856-1:2009



	Essential Characteristics	Performance	Harmonized technical specification	
8.4	Flow resistance of chimney sections fittings and terminals	According to EN 13384-1		
		single resistances		
		pipe tee 87°: 1.14		
		pipe tee 45°: 0.35		
		pipe bend 87°:         0.40           pipe bend 45°:         0.28	EN 1856-1:2009	
		pipe bend 30°: 0.20	LIN 1030-1.2009	
		pipe bend 15°: 0.10		
		Terminals: (only for operation in negative pressure)		
		rain cap: 1.0		
		fin cap type "Hubo": $\leq \emptyset$ 140 mm 0.1/ $\geq \emptyset$ 150 mm 0.2		
		wind deflector: $\leq \emptyset$ 140 mm 0.1/ $\geq \emptyset$ 150 mm 0.2		
		hurrican: 0.1		
8.5	Thermal resistance	Model 1 to 8 DN (80-1000): 0.501 m²K/W tested at 200°C	EN 1856-1:2009	
8.6	Thermal shock resistance Sootfire resistance Thermal performance under normal operating conditions	Model 1 DN (80-1000): No <sup>2)</sup> Model 2 DN (80-1000): No <sup>2)</sup> Model 3 DN (80-1000): Yes Model 4 DN (80-1000): No <sup>2)</sup> Model 5 DN (80-1000): No <sup>2)</sup> Model 6 DN (80-1000): No <sup>2)</sup> Model 7 DN (80-1000): Yes <sup>(2)</sup> because designated O Model 1 DN (80-1000): T200 Model 2 DN (80-1000): T200 Model 3 DN (80-1000): T400 Model 4 DN (80-1000): T400 Model 5 DN (80-1000): T400 Model 5 DN (80-1000): T400 Model 6 DN (80-1000): T400 Model 7 DN (80-1000): T400 Model 7 DN (80-1000): T400	EN 1856-1:2009	
8.8	Flexural tensile strength (only for means of connection for chimney sections and fittings)	Model 1 to 8 DN ( 80- 300): up to 16 m Model 1 to 8 DN (350- 450): up to 13 m Model 1 to 8 DN (500- 600): up to 13 m Model 1 to 8 DN (650-1000): n.p.d.	EN 1856-1:2009	
8.9	Non vertical installation	Model 1 to 8 DN (80-1000): Maximum offset between supports <b>3 m at 90°</b> (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 8 <b>DN ( 80- 600):</b> Free standing height <b>3 m</b> above last support. Maximum spacing between lateral supports: <b>4 m.</b> Model 1 to 8 <b>DN (650-1000):</b> Free standing height <b>1.5 m</b> above last support. Maximum spacing between lateral supports: <b>4 m.</b>	EN 1856-1:2009	



	Essential Characteristics	Performance	Harmonized technical specification	
	Durability:			
8.11	Water and vapour diffusion	Model 1 DN (80-1000): <b>Yes</b>		
	resistance	Model 2 DN (80-1000): Yes		
		Model 3 DN (80-1000): <b>No</b>		
		Model 4 DN (80-1000): <b>Yes</b>		
		Model 5 DN (80-1000): <b>Yes</b>		
		Model 6 DN (80-1000): <b>Yes</b>		
		Model 7 DN (80-1000): No		
		Model 8 DN (80-1000): <b>Yes</b>		
8.12	Condensate penetration	Model 1 DN (80-1000): <b>Yes</b>		
	resistance	Model 2 DN (80-1000): <b>Yes</b>		
		Model 3 DN (80-1000): <b>No</b>	EN 1856-1:2009	
		Model 4 DN (80-1000): Yes		
		Model 5 DN (80-1000): <b>Yes</b>		
		Model 6 DN (80-1000): <b>Yes</b>		
		Model 7 DN (80-1000): <b>No</b>		
		Model 8 DN (80-1000): <b>Yes</b>		
8.13	Against corrosion	Model 1 DN (80-1000): <b>V2</b>		
	0	Model 2 DN (80-1000): V2		
		Model 3 DN (80-1000): V3		
		Model 4 DN (80-1000): V2		
		Model 5 DN (80-1000): V2		
		Model 6 DN (80-1000): V2		
		Model 7 DN (80-1000): V3		
		Model 8 DN (80-1000): <b>V2</b>		
8.14	Freeze thaw resistance	Model 1 to 8 DN (80-1000): <b>Yes</b>		
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

Stefan Engelhardt Geschäftsführer / 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

TÜV SÜD Industrie Service GmbH

Stefan Engelhardt CEO

**DW-KL** (Double wall "conical" chimney system with 32 mm heat insulation)

Product trade name:

Certification office:

Name and position of the responsible person: Identification of accompanying documentation

0.1 Metal chimney EN 1856-1 T200 **P1** w V2-L50060 000 80 - 1000 Double wall chimney system, moisture resistant, with 32 mm heat insulation, ventilated through the whole length, without covering. Operation mode in positive pressure up to 200 Pa. H1 80 - 300 0.2 Metal chimney FN 1856-1 T200 w V2-L50060 020 Double wall chimney system, moisture resistant, with 32 mm heat insulation, ventilated through the whole length, without O30 350 - 450 O40 500 - 600 covering. Operation mode in positive pressure / high pressure up to 5000 Pa. 080 650 - 1000 0.3 Metal chimney EN 1856-1 T400 N1 D V3-L50060 G50 80 - 300 Double wall chimney system, sootfire resistant, with 32 mm 350 - 450 heat insulation, ventilated through the whole length, without G75 covering. Operation mode in negative pressure. G100 500 - 600 G200 650 - 1000 0.4 Metal chimney EN 1856-1 T400 **N1** w V2-L50060 020 80 - 300 Double wall chimney system, moisture resistant, with 32 mm 350 - 450 heat insulation, ventilated through the whole length, without O30 covering. Operation mode in negative pressure. 500 - 600 O40 080 650 - 1000 EN 1856-1 **P1** w V2-L50060 020 80 - 300 0.5 Metal chimnev T400 Double wall chimney system, moisture resistant, with 32 mm O30 350 - 450 heat insulation, ventilated through the whole length, without O40 500 - 600 covering. Operation mode in positive pressure up to 200 Pa. 650 - 1000 080 V2-L50060 80 - 300 Double wall chimney system, moisture resistant, with 32 mm 0.6 EN 1856-1 T450 H1 w 050 Metal chimney heat insulation, ventilated through the whole length, without 075 350 - 450 covering. Operation mode in positive pressure / high 500 - 600 0100 pressure up to 5000 Pa. O200 650 - 1000 0.7 Metal chimney EN 1856-1 T600 N1 D V3-L50060 G50 80 - 300 Double wall chimney system, sootfire resistant, with 32 mm heat insulation, ventilated through the whole length, without G75 350 - 450 covering. Operation mode in negative pressure. 500 - 600 G100 G200 650 - 1000 0.8 Metal chimnev EN 1856-1 T600 H1 w V2-L50060 G50 80 - 300 Double wall chimney system, moisture resistant or sootfire G75 350 - 450 resistant, with 32 mm heat insulation, ventilated through the 500 - 600 whole length, without covering. Operation mode in positive G100 pressure / high pressure up to 5000 Pa. G200 650 - 1000 Properties of a multi-wall metal chimney system Product description Compressive strength: Standard number Maximum load (see installing instructions)

Temperature level

Pressure level

Condensate resistance (W: wet / D: drv)

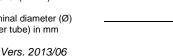
Corrosion resistance

Flue liner material specification

Sootfire resistance (G: yes / O: no) and distance to combustible material (in mm)

(inner tube) in mm

Nominal diameter (Ø)



Cleaning:

Flow resistance:

Flexural strength:

Angular assembly:

Average roughness: 1.0 mm,

Freeze-thaw resistance: Yes

(see installing instructions)

Zeta-values according to DIN EN 13384-1

Maximum length between two supports: 3 m at 90°

Wind load: free standing end above last fixation:

Maximum distance between vertical supports: 4 m

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

Tensile strength: See installing instructions

Thermal resistance: 0.501 m<sup>2</sup>K/W

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

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# **Declaration of Performance (DOP)**

No. 9174 041 DOP 2013-06-17

1. Unique identification code of the product-type:

## Rigid connecting pipe type DW-KL 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 "conical" metal connecting pipe type DW-KL <sup>1)</sup>					
Model 1	DN (80- 600) T200 – P1 – W – V2 – L50060 – O00 M <sup>3)</sup>				
Model 2	DN (80- 600) T200 – H1 – W – V2 – L50060 – O20 M <sup>3)</sup>				
Model 3	DN (80- 600) T450 – H1 – W – V2 – L50060 – O50 M <sup>3)</sup>				
Model 4	DN (80- 600) T600 – N1 – D – V3 – L50060 – G100 M $^{3)}$				
Model 5	DN (80- 600) T600 – H1 – W – V2 – L50060 – G100 M $^{3)}$				

<sup>1]</sup> Manufacturer product identification

<sup>21</sup> Not Measured (NM) means 3 times the Nominal Diameter with a minimum of 375 mm <sup>31</sup> 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):



DE-91717 Wassertrüdinger Tel.: +49 9832 68 68 0 Fax: +49 9832 68 68 68 Email: <u>info@jeremias.de</u>

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 concering 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 041 of the factory production control



	Essential Characteristics	Performance	Harmonized technical specification
8.1	Compressive strength	Model 1 to 5 DN ( 80- 300): <b>up to 38 m</b> Model 1 to 5 DN (350- 450): <b>up to 32 m</b> Model 1 to 5 DN (500- 600): <b>up to 21 m</b>	
8.2	Tensile strength	Model 1 to 5 DN (80- 600): <b>n.p.d.</b>	EN 1856-2:2009
8.3	Non vertical installation	Model 1 to 5: Horizontal <b>4 m between supports*</b> * Please pay attention to the mounting instructions, an incline, all incline has to be arranged for where applicable.	
8.4	Resistance to fire	(Resistance to fire from inside to outside) Model 1 DN (80- 600): <b>O00 M</b> Model 2 DN (80- 600): <b>O20 M</b> Model 3 DN (80- 600): <b>O50 M</b> Model 4 DN (80- 600): <b>G100 M</b> Model 5 DN (80- 600): <b>G100 M</b>	EN 1856-2:2009
8.5	Gas tightness/ leakage	Model 1 DN (80- 600): P1 Model 2 DN (80- 600): H1 Model 3 DN (80- 600): H1 Model 4 DN (80- 600): N1 Model 5 DN (80- 600): H1	EN 1856-2:2009
8.6	Flow resistance of chimney sections and fittings	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	EN 1856-2:2009
8.7	Sootfire resistance Thermal performance under normal operating conditions	pipe bend 15°:         0.10           Model 1 DN (80- 600): No <sup>2)</sup> Model 2 DN (80- 600): No <sup>2)</sup> Model 3 DN (80- 600): No <sup>2)</sup> Model 4 DN (80- 600): Yes           Model 5 DN (80- 600): Yes <sup>2)</sup> because designated O           Model 2 DN (80- 600): T200*           Model 3 DN (80- 600): T450*           Model 4 DN (80- 600): T600*           Model 5 DN (80- 600): T600*           *(Heating strain at nominal operating temperature)	EN 1856-2:2009



	Essential Characteristics	Performance	Harmonized technical specification				
	Durability:						
8.9	Water and vapour diffusion resistance	Model 1 DN (80- 600): Yes Model 2 DN (80- 600): Yes Model 3 DN (80- 600): Yes Model 4 DN (80- 600): No Model 5 DN (80- 600): Yes					
8.10	Condensate penetration resistance	Model 1 DN (80- 600): Yes Model 2 DN (80- 600): Yes Model 3 DN (80- 600): Yes Model 4 DN (80- 600): No Model 5 DN (80- 600): Yes	EN 1856-2:2009				
8.11	Against corrosion	Model 1 DN (80- 600): V2 Model 2 DN (80- 600): V2 Model 3 DN (80- 600): V2 Model 4 DN (80- 600): V3 Model 5 DN (80- 600): V2					
8.12	2 Freeze thaw resistance Model 1 to 5 DN (80- 600): Yes						
<ol> <li>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.</li> </ol>							
Signed for and on behalf of the manufacturer by:							
Wassertrüdingen, 17 <sup>th</sup> June 2013 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: <u>www.jeremias.de</u> E-Mail: <u>info@jeremias.de</u>				

Product trade name:

**DW-KL connecting pipe** (rigid double wall "conical sealed" connecting pipe with 32 mm insulation)

Certification office:

TÜV SÜD Industrie Service GmbH

Name and position of the responsible person: Identification of accompanying documentation Stefan Engelhardt CEO

	0.1	EN 1856-2	T200	P1	w	V2-L50060	000 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 positive pressure up to 200 Pa. (oil, gas).
cting pipe	0.2	EN 1856-2	T200	H1	w	V2-L50060	O20 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 high pressure up to 5000 Pa. (oil, gas).
Double wall rigid connecting pipe DW-KL	0.3	EN 1856-2	T450	H1	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 high pressure up to 5000 Pa. (oil, gas).
ble wall ri	0.4	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).
Dou	0.5	EN 1856-2	T600	H1	w	V2-L50060	G100 M	80 - 600	Double wall, sootfire resistant connecting piece or moisture resistant connecting pipe, composed of rigid pipes and elements, ventilated along the whole length, without covering. Operation mode in high pressure up to 5000Pa. (oil, gas or solid fuels).
									Rigid connecting pipe of metal
Product de Standard r									Compressive strength: >21 m above the connections of the elements
Temperatu		-							Flexural strength:
Pressure I									No vertical installation: ≤ 3 m between two fixations or supports.
Condensa (W: wet / [		stance							<u>Maximum distance between vertical supports:</u> ≤ 4 m between two supports
Corrosion		ince —							Flow resistance:
Flue liner i		al							Average roughness: 1.0 mm, Zeta-values according to DIN EN 13384-1
specificatio									<u>Thermal resistance:</u> 0.501 m²K/W
Sootfire re (G: yes / C	): no) a	and							Sootfire resistance: Yes
distance to material (in	n mm)								Freeze-thaw resistance: Yes
without ra protection									Cleaning:
M = teste NM = calcu									The connecting pipe is only allowed to be cleaned with cleaning devices made of plastic or rust-
Nominal di inner tube		· · /							resistant stainless steel.