



Declaration of Performance

No. DOP: 0432-CPR-00095-115



0432

1. Unique identification code of the product types:

**Rigid liners and connecting flue pipes made of stainless steel
"System MKKS" EN 1856-2: 2009**

2. Identification of the construction product, in accordance with Article 11 § 4:

System MKKS

Version 1	T450 – N1 – D – V2	– L50060 – G NM	DN(060- 400)
		– L50080 – G NM	DN(450- 500)
Version 2	T450 – N1 – W – V2	– L50060 – O NM	DN(060- 400)
		– L50080 – O NM	DN(450- 500)
Version 3	T450 – N1 – D – V3	– L50060 – G NM	DN(060- 400)
		– L50080 – G NM	DN(450- 500)
Version 4	T450 – N1 – D – V2	– L50050 – G NM	DN(060- 250)
Version 5	T450 – N1 – W – V2	– L50050 – O NM	DN(060- 250)
Version 6	T450 – N1 – D – V2	– L99050 – G NM	DN(060- 250)
		– L99060 – G NM	DN(300- 400)
		– L99080 – G NM	DN(450- 500)
Version 7	T450 – N1 – W – V2	– L99050 – O NM	DN(060- 250)
		– L99060 – O NM	DN(300- 400)
		– L99080 – O NM	DN(450- 500)
Version 8	T450 – N1 – D – Vm	– L20050 – G NM	DN(060- 250)
		– L20060 – G NM	DN(300- 400)
		– L20080 – G NM	DN(450- 500)
Version 9	T450 – N1 – W – Vm	– L20050 – O NM	DN(060- 250)
		– L20060 – O NM	DN(300- 400)
		– L20080 – O NM	DN(450- 500)
Version 10	T200 – P1 – W – V2	– L50060 – O NM	DN(060- 400)
		– L50080 – O NM	DN(450- 500)
Version 11	T200 – P1 – W – V2	– L50050 – O NM	DN(060- 250)
Version 12	T200 – P1 – W – V2	– L99050 – O NM	DN(060- 250)
		– L99060 – O NM	DN(300- 400)
		– L99080 – O NM	DN(450- 500)
Version 13	T200 – P1 – W – V2	– L99040 – O NM	DN(060- 100)
Version 14	T200 – P1 – W – Vm	– L20050 – O NM	DN(060- 250)
		– L20060 – O NM	DN(300- 400)
		– L20080 – O NM	DN(450- 500)
Version 15	T200 – P1 – W – Vm	– L20040 – O NM	DN(060- 100)

NM – not measured value means 3 x nominal diameter at least 375 mm

3. Use or intended use of the construction product in accordance with the relevant harmonized technical specification as provided by the manufacturer:

**Evacuation of combustion products from the furnace to the outside atmosphere
(positive and negative pressure)**

4. Name, company name or trademark and contact address of the manufacturer, in accordance with Article 11 § 5:

MK Sp. z o.o.

ul. Wiśniowa 24

PL 68-200 Żary

Tel: +48684581919; Fax: +48684581914

e-mail: sekretariat@mkzary.pl

5. Name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12 §2:

not applicable

6. The system or systems of assessment and verification of constancy of performance of construction product in accordance with Annex V:

System 2+ and System 4

7. Notified body certifying the factory production control **No 0432**



has carried the initial inspection of the factory and control of factory production and performs the continuous surveillance, assessment and approval of factory production control and on the 15.04.2016 has issued the compliance certificate **Nr 0432-CPR-00095-115** for the factory production control.

8. **Declared performance in accordance with EN 1856-2:2009, annex ZA**


Essential characteristics	Performance	Comments
Materials and sheet thicknesses		
Exhaust pipe	Version 1, 2, 3 and 10 DN (60-400) 1.4404; 1.4571 from 0,6 mm (minimum 0,54 mm) DN (450 – 500) 1.4404; 1.4571 from 0,8 mm (minimum 0,72 mm) Version 4, 5 and 11 DN (60-250) 1.4404; 1.4571 0,5 mm (minimum 0,45 mm) Version 6, 7 and 12 DN (60-250) 1.4521 0,5 mm (minimum 0,45 mm) DN (300-400) 1.4521 0,6 mm (minimum 0,54 mm) DN (450-500) 1.4521 0,8 mm (minimum 0,72 mm) Version 8, 9 and 14 DN (60-250) 1.4301 0,5 mm (minimum 0,45 mm) DN (300-400) 1.4301 0,6 mm (minimum 0,54 mm) DN (450-500) 1.4301 0,8 mm (minimum 0,72 mm) Version 13 DN (60-100) 1.4521 0,4 mm (minimum 0,36 mm) Version 15 DN (60-100) 1.4301 0,4 mm (minimum 0,36 mm)	
Thermal insulation	Version 3 30 mm pipe section insulation [density: minimum 105 kg/m ³]	
Mechanical strength		
Compressive strength Segments of the chimney, fittings and supports	Version 1 - 9 DN (60-250): to 30 m DN (300-500): to 20 m DN (600-1000): to 15 m	For more information, see the manual
Non-vertical installation	Version 1 - 9 3 m at 45°	The maximum distance between two supports
Working conditions		
Fire resistance	Version 1, 3, 4, 6, 8: YES DN (060-500): to T450 – G NM 3 x DN , at least 375 mm Version 2, 5, 7, 9: NOT DN (060-500): to T450 – O NM 3 x DN , at least 375 mm	NM – not measured

	Version 10 - 15: NOT DN (060-500) : do T200 – O NM 3 x DN , at least 375 mm	
Tightness	Version 1 – 9 N1 Version 10 – 15 P1	Working in negative pressure Working in positive pressure
Flow resistance Fittings and terminals	According to EN 13384-1, R = 1 mm	Normative value: see the method of calculation
Thermal resistance	Version 3 0,56 m ² K/W	Specified at 200 °C
Resistance to thermal shock		
Heat load at nominal temperature	Version 1 – 9 T450 Version 10 – 15 T200	Test temperature 550°C Test temperature 250°C
Sootfire resistance	Version 1, 3, 4, 6, 8: YES (designation G)	Tested at 1000°C (30 min.)
	Version 2, 5, 7, 9 - 15: NOT (designation O)	Tested at nominal temperature
Durability		
Water vapor diffusion and water resistance	Version 2, 5, 7, 9 - 15 YES	
Condensate penetration resistance	Version 2, 5, 7, 9 - 15 YES	
Corrosion resistance	Version 3: V3	For gas, fuel oil and solid fuels (dry running)
	Version 1, 2, 4, 5, 6, 7, 10-13: V2	For gas, fuel oil and wood (open furnace)
	Version 8, 9, 14 and 15: Vm	For gas
Freeze-thaw resistance	YES	
Additional information		
Carrying away of condensate	(D) M251 instruction of Sewage Disposal Methods Association	Necessary neutralization of sewage
Storage conditions	Do not store in corrosive environment	
Methods of cleaning	Do not use the tools of black steel	
Position of cleaning openings	(D): According to DIN 18 160	Observe the national regulations
Identification of flue systems	(D): According to DIN 18 160 Durable plate, mounted on installation, housing or casing	Observe the national regulations
Protection against contact	Labeling or spacers at temperatures ≥ 70 °C	EN 1856-1
Direction of flow	Core pipe female socket upwards	
Installation and assembly	Follow the instructions	

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

On behalf of the manufacturer signed:


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Kinga Pachnik – Managing Director


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Ireneusz Koman – Plant Director

Żary 09-05-2016