



**PAVUS, a.s.**  
Notified Body No. 1391  
Prosecká 412/74, 190 00 Praha 9 - Prosek  
Decision No. 27/2013-CPR of 13<sup>th</sup> December 2013

## CERTIFICATE OF CONSTANCY OF PERFORMANCE

**No. 1391-CPR-2016/0123**

In compliance with Regulation 305/2011/EU of European Parliament and of the Council of 9 March 2011 (the Construction Product regulation or CPR), this certificates applies to the construction product:

### Smoke control damper MSD

EI 120 (v<sub>ew</sub>-h<sub>ow</sub>-l<sub>→o</sub>) S1500C<sub>10000</sub> AAmulti  
EI 90 (v<sub>ew</sub>-h<sub>ow</sub>-l<sub>→o</sub>) S1500C<sub>10000</sub> HOT400/30AAmulti  
EI 90 (h<sub>od</sub>-l<sub>→o</sub>) S1500C<sub>10000</sub> HOT400/30AAmulti  
EI 120 (v<sub>ed</sub>-l<sub>→o</sub>) S1500C<sub>10000</sub> HOT400/30AAmulti  
EI 120 (v<sub>edw</sub>-h<sub>odw</sub>-l<sub>→o</sub>) S1500C<sub>10000</sub> HOT400/30AAmulti

Multi compartment smoke control dampers that are to be used in smoke and heat control systems at 600°C or under fire conditions.

placed on the market under the name or trade mark of:

**MANDÍK, a.s.**  
**Dobříšská 550, 267 24 Hostomice, Czech republic, ID 26718405**

and produced in the manufacturing plant:

**MANDÍK, a.s.**  
**Dobříšská 550, 267 24 Hostomice, Czech republic**

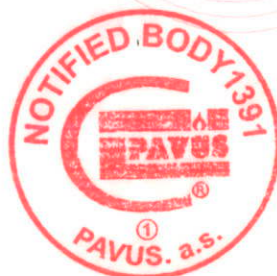
This Certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard

### EN 12101- 8:2011

under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the  
**constancy of performance of the construction product.**

This Certificate was first issued on 13<sup>th</sup> March 2015 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body. This Certificate replaces and cancels Certificate of Constancy of Performance No. 1391-CPR-2015/0057 of 13<sup>th</sup> March 2015 issued by NB 1391.

Prague, 27<sup>th</sup> October 2016



  
**Jaroslav Dufek**  
Managing Director PAVUS, a.s.  
Notified Body No.1391



**Technical parametres of the product \*)**

- External dimension of the element: - circular from min. diameter 180 mm to max. 630 mm  
 - square from min. (160 x 180) mm to max. (1 500 x 800) mm
- Construction length: from 375 mm to 500 mm
- Starting devices and drives: - Belimo  
 - Schischek
- Material versions: - galvanized sheet metal  
 - stainless sheet metal  
 - painted sheet metal
- Leak tightness of the damper according to EN 1751:  
 - circular over blade min. class 2, diameters from 560 mm to 630 mm min. class 3  
 - square over blade min. class 2, for max. dimension 1 500 x 800 mm min. class 3  
 - over case min. class C

The classification according to EN 13501-4:2007+A1:2009 \*):

- circular **EI 120 (v<sub>ew</sub>-h<sub>ow</sub>-i↔o) S1500C<sub>10000</sub> AAmulti**  
**EI 90 (v<sub>ew</sub>-h<sub>ow</sub>-i↔o) S1500C<sub>10000</sub> HOT400/30AAmulti**  
 square **EI 90 (h<sub>od</sub>-i↔o) S1500C<sub>10000</sub> HOT400/30AAmulti**  
**EI 120 (v<sub>ed</sub>-i↔o) S1500C<sub>10000</sub> HOT400/30AAmulti**  
**EI 120 (v<sub>edw</sub>-h<sub>odw</sub> - i↔o) S1500C<sub>10000</sub> HOT400/30AAmulti**

**Assessing product performances**

Essential characteristics	Requirement clauses in EN 12101-8	Findings	Conformity Assessment
Nominal activation conditions/sensitivity	4.2.1.3	Closure/opening during the test in right time during right period.	Conforms
Response delay(response time)	4.2.1.4	< 60 s	Conforms
Operational reliability	4.4.2.2	C 10 000	Conforms
<b>Fire resistance</b>			
- integrity (E)	4.1.1 a), 4.4.1	E 120, E 90 < 360 m <sup>2</sup> /(h.m <sup>2</sup> )	Conforms
- insulation (EI)	4.1.1 b), 4.4.1	EI 120, EI 90	Conforms
- smoke leakage (EIS)	4.1.1 c), 4.4.1	EIS 120, EIS 90 < 200 m <sup>2</sup> /(h.m <sup>2</sup> )	Conforms
- mechanical stability (under E)	4.1.1 d)	120/90 min	Conforms
- maintenance of cross-section (under E)	4.1.1 e)	120/90 min	Conforms
- high operational temperature	4.1.1 f), 4.4.1	HOT 400/30	Conforms
<b>Durability</b>			
- of response delay	4.4.2.1	< 60 s	Conforms
- of operational reliability	4.4.2.2	C 10 000, < 120 s	Conforms

\*) Detailed technical parametres and conditions of final classification according to EN 13501-4+A1 are stated in the Assessment report of performance of the construction product No. P-1391-CPR-2016/0123 of 27<sup>th</sup> October 2016.

The smoke control damper MSD fulfils also all the prescribed requirements of the standard ÖNORM H 6033.

<b>CE</b>
1391 MANDIK a.s., Dobříšská 550, 267 24 Hostomice, Czech rep. 16 1391 – CPR - 2016/0123
EN 12101-8 Smoke control damper type/model: Smoke control damper MSD
Classification EI 120 (v <sub>ew</sub> -h <sub>ow</sub> -i↔o) S1500C <sub>10000</sub> AAmulti EI 90 (v <sub>ew</sub> -h <sub>ow</sub> -i↔o) S1500C <sub>10000</sub> HOT400/30AAmulti EI 90 (h <sub>od</sub> -i↔o) S1500C <sub>10000</sub> HOT400/30AAmulti EI 120 (v <sub>ed</sub> -i↔o) S1500C <sub>10000</sub> HOT400/30AAmulti EI 120 (v <sub>edw</sub> -h <sub>odw</sub> - i↔o) S1500C <sub>10000</sub> HOT400/30AAmulti



*Jaroslav Dufek*  
**Jaroslav Dufek**  
 Managing Director PAVUS, a.s.  
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