Statement on influence of electromechanical swing door operator Abloy® DA460 to the fire resistance of fire doors

Requested by: Abloy Oy / Door Automatics

VTT TECHNICAL RESEARCH CENTRE OF FINLAND

Requested by

Abloy Oy
Door Automatics
P.O. Box 108
FIN-80101 JOENSUU, Finland

Order: Number 610415//627 on 16 October 2006 by Ms Sirkka Aihkisalo

Organisation undertaking statement

VTT Technical Research Centre of Finland
Fire testing
P.O. Box 1000 (Street address: Kivimiehentie 4, FI-02150Espoo, Finland)
FI-02044 VTT, Finland

Contact person: Mr Matti Immonen
Tel + 358 20 722 111, Fax + 358 20 722 4815, E-mail: matti.immonen@vtt.fi

Statement on influence of electromechanical swing door operator Abloy® DA460 to the fire resistance of fire doors

Request for comment

The client requested a statement concerning influence of electromechanical swing door operator Abloy® DA460 to the fire resistance of fire doors when electromechanical swing door operator Abloy® Modul 830 of the door is replaced with door operator Abloy® DA460 .

The client has delivered explanation including both differences between electromechanical swing door operators Abloy® DA460 and Abloy® Modul 830 and modifications to the electromechanical swing door operator Abloy® DA460

The client has also sent information that includes both drawings and installing and installing introduction of the door operator Abloy® DA460. Both drawings and installing and installing introduction of the door operator Abloy® DA460 are archived at VTT in the file of this statement.

Background information

Following three test reports of VTT Technical Research Centre of Finland support this statement:

- Test report number PAL90511a, 25 April 1990. Sponsor of the fire test was Metalliteollisuuden Keskusliitto. *"Fire resistance test on a steel door equipped with door operator"*

  A single leaf steel door equipped with Abloy 830 door operator was tested. The fire resistance test was carried out according to standard SFS 4815. Duration of the fire test was 121 minutes.

  At the fire test the door satisfied Finnish requirements during 121 minutes, when the closing face of the door was exposed to the fire.

- Test report number PAL90511b, 25 April 1990. Sponsor of the fire test was Metalliteollisuuden Keskusliitto. *"Fire resistance test on a steel door equipped with door operator"*

  A single leaf steel door equipped with Abloy 965 fire door closer was tested. The fire resistance test was carried out according to standard SFS 4815. Duration of the fire test was 121 minutes.

  At the fire test the door satisfied Finnish requirements during 121 minutes, when the closing face of the door was exposed to the fire.

- Test report number RTE730/04, 20 August 2004. Sponsor of the fire test was Abloy Oy. *"Fire resistance test on two single leaf hinged steel doors equipped with Abloy locking and closing systems"*

At the fire test two identical single leaf hinged steel doors equipped with ABLOY DA361 + DA147 door closing system were tested. The fire resistance test was carried out according to standard SFS-EN 1634-1. Duration of the fire test was 70 minutes.

At the fire the door opened to the fire met the requirements for integrity during 27 minutes and for insulation during 56 minutes. The door opened away from the fire met the requirements for integrity and insulation during 70 minutes.

Teknologiateollisuus ry (New name of Metalliteollisuuden Keskusliitto) has given declaration to use the test results of their test reports on the base of this statement to Abloy Oy.

Statement

We state as our opinion that the fire resistance of fire door does not decrease if the electromechanical swing door operator Abloy® Modul 830 of the door is replaced with door operator Abloy® DA460.

If any changes are made to the construction of the electromechanical swing door operator Abloy® DA460 this statement is not valid.

Espoo, 31 October 2006

Riitta Kajastila
Research Engineer

Matti Immonen
Research Engineer

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This is an English version of the original statement number VTT-S-9332-06 (dated 31 October 2006) written in Finnish.

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