# DEPARTMENT OF CIVIL ENGINEERING FACULTY OF ENGINEER KING MONGKUT'S INSTITUE OF TECHNOLOGY

TYPE OF TEST

FIRE ENDURANCE TEST FOR FIRE DAMPER

TEST SPECIMEN

FIRE DAMPER TYPE: FD

The Specimen is 390 mm. Width and 593 mm.

Height with 3 blades. The material is galvanize steel

BRAND

STREAM AIR

CLIENT

P.C.J. INDUSTRIES Co.,Ltd.

DATE OF TEST

October, 31, 2001

TEST EQUIPMENT

Large - scale furnace at Ceramic Laboratory.

Department of Industrial Design. Faculty of

Architecture, KMITL.

TEST METHOD

SOME PART OF UL 555

TEST RESULTS

The elements of Fire Damper still workable

Integrity 195 minutes

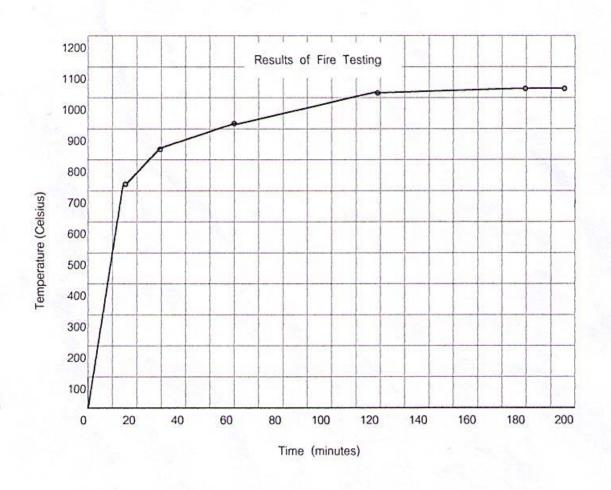
#### Note:

- 1. CERTIFICATION APPLIES TO TEST SAMPLE ONLY.
- 2. NO ERASURE OR ALTERATIONS.

Tested By Manit Buppachart

Engineer By Supoj Srinil

## DEPARTMENT OF CIVIL ENGINEERING FACULTY OF ENGINEER KING MONGKUT'S INSTITUE OF TECHNOLOGY



Tested By

Manit Buppachart

Engineer By Supoj Srinil



#### DEPARTMENT OF CIVIL ENGINEERING FACULTY OF ENGINEERING KING MONGKUT'S INSTITUTE OF TECHNOLOGY LARDKRABANG BANGKOK THAILAND.

TYPE OF TEST

: Air Leakage Test and Fire Endurance Test for Rectangular

Fire / Smoke Damper

TEST SPECIMEN

: Rectangular Fire / Smoke Damper, Type : FSD

The Specimen is 300 mm. Width and 500 mm. Height with 3 blades. The material is galvanized steel sheet.

BRAND

: STREAM AIR

CLIENT

: PCJ INDUSTRIES CO., LTD.

DATE OF TEST

: 21/06/2004

TEST MACHINES : Wind Turnel (AEROTECH)

Tilting Multitube Manometer

TEST METHOD

: SOME PART OF UL 555 and UL 555S

TEST RESULTS

: Integrity 180 minutes

Conformed to UL555, 3 Hours Fire Rating, and Leakage 7.49 CFM/ft<sup>2</sup> at 1 inche water gauge Leakage 18.62 CFM/ft<sup>2</sup> at 4 inches water gauge

Conformed to UL555S, Class II

#### REMARK :-

- 1) CERTIFICATION APPLIES TO TEST SAMPLES ONLY.
- NO ERASURE OR ALTERATIONS.

APPROVED BY:

G LAOKHONGTHAVORN) Civil Engineering Laboratory



#### DEPARTMENT OF CIVIL ENGINEERING

#### FACULTY OF ENGINEERING, KING MONGKUT'S INSTITUTE OF TECHNOLOGY

#### LARDKRABANG BANGKOK THAILAND. TEL. 0 - 2326 - 4216

Project:

RETANGULAR FIRE/SMOKE DAMPER

Ref. No. :

47745

"STREAM AIR" Type: FSD

Sample From:

PCJ INDUSTRIES CO., LTD.

Submitted Date:

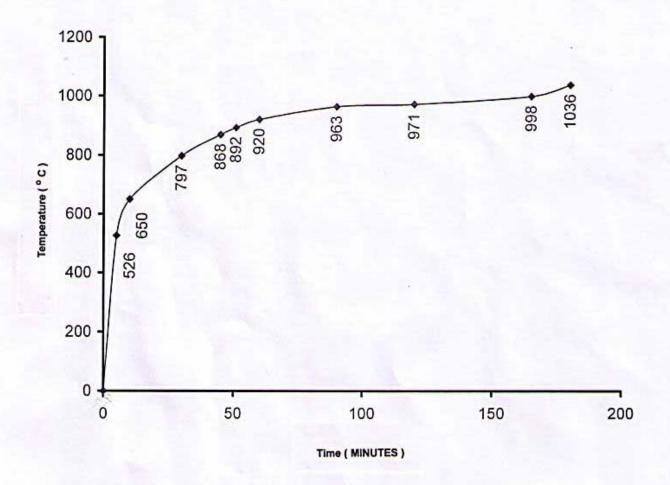
22/07/2004

Method of testing:

Some Part of UL555

Date:

21/06/2004



REMARKS :-

Note: 1) CERTIFICATION APPLIES TO TEST SAMPLES ONLY.

APPROVED BY:

2) NO ERASURE OR ALTERATIONS.

MIN LACHTHOUG LAOKHONGTHAVORN)



#### DEPARTMENT OF CIVIL ENGINEERING

### FACULTY OF ENGINEERING, KING MONGKUT'S INSTITUTE OF TECHNOLOGY

LARDKRABANG BANGKOK THAILAND. TEL. 0 - 2326 - 4216

Project:

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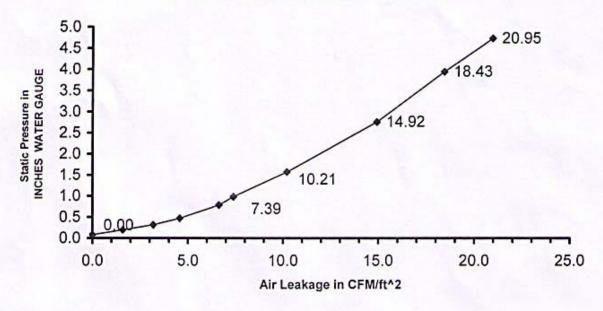
Method of testing:

Some Part of UL555S

Date:

21/06/2004

#### Air Leakage - DAMPER Type:FSD



#### REMARKS :-

Note: 1) CERTIFICATION APPLIES TO TEST SAMPLES ONLY.

2) NO ERASURE OR ALTERATIONS.

APPROVED BY:

A MAITHONG LAOKHONGTHAVORN)

Civil Engineering Laboratory