

Title:

The Fire Resistance
Performance of DA-66 / YD30
and SA-66 / YD30M Locks
When Fitted to Previously
Tested Doorsets

Report No:

366932 – Issue 4

Prepared for:

**Secure Access Technologies
Ltd.**

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Date:

7th June 2016

TABLE OF CONTENTS

SECTION	PAGE
FOREWORD	3
EXECUTIVE SUMMARY	4
INTRODUCTION	5
ASSUMPTIONS	5
PROPOSALS	6
BASIC TEST EVIDENCE	6
ASSESSED PERFORMANCE.....	8
CONCLUSIONS.....	12
REVIEW	13
VALIDITY.....	14
SUMMARY OF PRIMARY SUPPORTING DATA	15
DECLARATION BY SECURE ACCESS TECHNOLOGIES LTD.....	17
SIGNATORIES.....	18
REVISION HISTORY	19
APPENDIX A	20

Foreword

This assessment report has been commissioned by **Secure Access Technologies Ltd.** and relates to the fire resistance Performance of DA-66 / YD30 and SA-66 / YD30M Locks.

This assessment is for National Application and has been written in accordance with the general principles outlined in BS EN 15725: 2010; Extended application reports on the fire performance of construction products and building elements, as appropriate.

This assessment uses established empirical methods of extrapolation and experience of fire testing similar products, in order to extend the scope of application by determining the limits for the design based on the tested constructions and performances obtained. The assessment is an evaluation of the potential fire resistance performance, if the elements were to be tested in accordance with EN1634-1 or BS 476: Part 22: 1987.

This assessment has been written using appropriate test evidence generated at a UKAS accredited laboratory to the relevant test standard. The supporting test evidence has been deemed appropriate to support the manufacturer's products and is summarised within the assessment.

The defined scope presented in this assessment report relates to the behaviour of the proposed door hardware under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the door hardware in use.

This assessment has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the Guide to undertaking technical assessments of the fire performance of the fire performance of construction products based on fire test evidence – 2021. The aim of the PFPF guidelines is to give confidence to end-users that assessments that exist in the UK are of a satisfactory standard to be used in lieu of fire tests for building control and other purposes.

The PFPF guidelines are produced in association with the major fire testing, certification bodies and trade associations in the UK and are published by the PFPF, the representative body for the passive fire protection industry in the UK.

This report is not intended for use in support of EN 15269-2 or EN 15269-3 (Extended application of test results for fire resistance and/or smoke control for door, shutter, and openable window assemblies, including their elements of building hardware.), or CE Marking of Doorsets to EN 16034 (Pedestrian doorsets, industrial, commercial, garage doors and openable windows. Product standard, performance characteristics. Fire resisting and/or smoke control characteristics).

Executive Summary

Objective This report provides a considered opinion regarding the fire resistance performance of timber or mineral composite based doorsets, when fitted with DA-66 / YD30 and SA-66 / YD30M Locks electric locks.

Report Sponsor **Secure Access Technologies Ltd.**

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Summary of Conclusions Should the recommendations given in this report be followed, it can be concluded that previously fire tested (or assessed by Warringtonfire) timber or mineral composite based doorsets which have achieved 30 or 60 minutes integrity and insulation in accordance with BS 476: Part 22: 1987 or BS EN 1634-1, as discussed in this report, may be fitted with the proposed DA-66 / YD30 and SA-66 / YD30M Locks, without detracting from the overall performance of the doorset.

This assessment represents our opinion as to the performance likely to be demonstrated on a test in accordance with BS 476: Part 22: 1987 or BS EN 1634-1, on the basis of the evidence referred to herein. We express no opinion as to whether that evidence, and/or this assessment, would be regarded by any Building Control authority as sufficient for that or any other purpose. This assessment is provided to the client for its own purposes, and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.

Valid until 10th September 2026

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Introduction

This report presents an appraisal of the fire resistance performance of single-acting insulated timber or mineral composite based doorsets when fitted with the proposed DA-66 / YD30 or SA-66 / YD30M Locks. The doorset, onto which the proposed locks are to be fitted, may be of single-leaf or double-leaf configuration.

The proposed timber and mineral composite based doorsets are required to provide a fire resistance performance of 30 or 60 minutes integrity and where applicable insulation, with respect to BS 476: Part 22: 1987 or BS EN 1634-1, subject to the requirements and limitations detailed within this report.

FTSG/PFPF

The data referred to in the supporting data section has been considered for the purpose of this appraisal which has been prepared in accordance with the Fire Test Study Group Resolution No. 82: 2001 and the Passive Fire Protection Federation (PFPF) Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence - 2021.

Assumptions

Supporting wall

It is assumed that the construction of the wall, which supports the proposed doorsets, will have been the subject of a separate test and the performance of the wall is such that it will not influence the performance of the doorset for the required period.

Installation

It is assumed that the timber doorsets will be installed in a similar manner to that of the previously tested assembly by competent installers.

Clearance gaps

Door leaf to frame clearance gaps can have a significant effect on the overall fire performance of a doorset. It is therefore assumed that the leaf to leaf and leaf to frame clearance gaps will not exceed those measured for the relevant fire tested doorset. In addition, it is assumed that the door leaves will be in the fully closed position.

Doorset details

It is assumed that the lockset will be fitted to a doorset which has also been previously shown to be capable of providing the required fire resistance performance when tested in accordance with BS EN 1634-1 or BS 476: Part 22 in the proposed configuration i.e., single-leaf or double-leaf.

As the proposed electric locks are designed to fail unlocked, it is a requirement of this appraisal that they shall only be fitted to doorsets which are previously proven unlatched, or where the essential latching of the doorset is achieved by another means.

The proposed doorsets will include a surface mounted overhead door closer capable of returning the door leaf to the fully closed position overcoming the latch mechanism.

EN1634-1

EN1634-1 was issued originally in 2000, with amended versions issued in 2008, 2014 and 2018. The differences between each version are mainly procedural and are not considered to have a practical impact on the performance of the samples under test. On this basis this evaluation is considered applicable to all versions of EN1634-1 issued prior to the issue of this assessment.

Proposals

It is proposed that previously fire tested (or assessed by Warringtonfire) timber and mineral composite based doorsets which have achieved 30 minutes integrity or 60 minutes integrity and, where applicable, insulation performance, may be fitted with DA-66 / YD30 or SA-66 / YD30M Locks in accordance with recommendations given in this report without detracting from the overall performance of the doorset.

It is proposed that the doorsets may be of single or double-leaf configuration.

Basic Test Evidence

WF Test Report No. 365045

The test referenced WF No. 365045 included two small scale single-acting, single-leaf timber based doorsets. The doorsets were referenced as 'Doorset A' and 'Doorset B' for the purpose of the test.

Doorset A briefly had overall nominal dimensions 1490 mm high by 720 mm wide incorporating a section of door leaf with overall dimensions 1450 mm high by 653mm wide by 44 mm thick. The door leaf was of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges and was hung within a softwood frame on two stainless steel hinges.

Doorset B briefly had overall nominal dimensions 1490 mm high by 720 mm wide incorporating a section of door leaf with overall dimensions 1447 mm high by 648 mm wide by 54 mm thick. The door leaf was of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges and was hung within a hardwood frame on two stainless steel hinges.

Both doorsets were fitted with two DA-66 / YD30 electronic locks, one mortised into the frame at the head 100 mm in from the leading edge of the doorset with the strike plate mortised into the leaf, and one mortised into the leaf at mid-height of the leading edge of the doorset with the strike plate mortised into the frame.

Both DA-66 / YD30 electronic locks and strike plates were protected by a 1 mm intumescent around the lock case and 2 mm intumescent behind the forends and strike plates.

Both doorsets were orientated to simulate a full doorset that would open towards the heating conditions of the test.

Examination of the test report shows that there were no instances of sustained flaming or cotton pad failure associated with both locks fitted to the 30 minute doorset (Doorset A) for a test duration of 34 minutes, after which the door was sealed off to allow the test to continue.

Additionally, there were no instances of sustained flaming or cotton pad failure associated with both locks fitted to the 60 minute doorset (Doorset B) for a test duration of 69 minutes at which time the test was discontinued.

Test Report 180515001SHF- BP-1

The test referenced 180515001SHF-BP-1 included two single-acting, single-leaf Steel based doorsets. The doorsets were referenced as 'Doorset A' and 'Doorset B' for the purpose of the test.

Doorset A opened away from the furnace conditions and Doorset B opened towards the furnace conditions.

Doorset A and **Doorset B** briefly each had overall door leaf dimensions 2040 mm high by 836 mm wide by 45 mm thick. The door leaf comprised 2No 1.2 mm thick galvanised steel faces and an aluminium silicate fibre core with a stated density of 120kg/m³. The door constructions included steel stiffeners with overall dimensions 44 mm by 22 mm by 1.4 mm and edge channels with overall dimensions 44 mm by 22 mm 3 mm.

Both door leaves were hung within a 1.4 mm thick galvanised steel frame.

Both doorsets were fitted with a YD30 electronic lock, fitted within the lock edge frame jambs, nominally 80 mm down from the top edge of the door leaf with the strike plate mortised into the leaf.

Examination of the test report shows that there were no instances of sustained flaming or cotton pad failure associated with both locks fitted to the steel based doorsets (Doorset A and Doorset B) for a test duration of 260 minutes at which time the test was discontinued.

Doorset A achieved 18 minutes Insulation performance and Doorset B achieved 19 minutes insulation performance.

Test report review

The original test report used in support of this assessment has been reviewed and it has been concluded that the test data remains acceptable and the final result would be unchanged on the following basis:

- A comparison of the test procedures and performance criteria with the current standard has identified that any variations would have no detrimental impact on the performance of the doorset and hardware under test
- The client has confirmed that there has been no change to the design or material specification of the hardware tested originally other than those discussed in this appraisal (Issue 4).
- The reports are available in their entirety, the products are adequately referenced and linked to the products being considered for assessment, and the ownership of the test data has been confirmed as the assessment report holder.

Assessed Performance

Hardware Variant Specifications An appraisal of the hardware variants detailed in this report is based upon product information supplied by the hardware manufacturer. Warringtonfire have not inspected the devices being appraised and cannot be held responsible for the accuracy of the information provided.

DA-66 / YD30 Electronic Lock The test referenced WF No. 365045 is cited to demonstrate the ability of the proposed DA-66 / YD30 electric lock to contribute to the performance of previously tested 30 and 60 minute fully insulated timber or mineral composite based doorsets.

The test comprised two, timber based doorsets. Doorset A was of a typical 30 minute construction comprising a chipboard based door leaf, 44 mm thick with hardwood lippings to its vertical edges and a softwood timber door frame. Doorset B was of a typical 60 minute construction comprising a chipboard based door leaf, 54 mm thick with hardwood lippings to its vertical edges and a hardwood timber door frame.

Both the 30 and 60 minute doorsets were fitted with two DA66 / YD30 electronic locks. One lock was fitted at the head of the door with the lock body morticed into the door frame and the strike plate morticed into the leaf, which is considered to be the typical installation detail. A second lock was also fitted at mid-height on the leading edge of doors, but with the lock body morticed into the leaf and the strike plate morticed into the frame to cover the alternative installation detail.

The locksets were provided with intumescent protection in the form of 1mm thick Interdens intumescent sheet material wrapped around the lock cases, with 2 mm thick Interdens intumescent sheet material provided as bedding for the strike plates and forends.

Examination of the test observations shows that the 30 minute doorset was blanked off after 34 minutes to allow the continuation of the test for the 60 minute door. However, there were no instances of sustained flaming or cotton pad failure at either of the lock locations on the 30 minute door for a duration of 34 minutes.

Further examination of the test observations show that there were no instances of sustained flaming or cotton pad failure at either of the lock locations on the 60 minute door for duration of 69 minutes.

Based on the performance achieved with both the 30 minute and 60 minute door assemblies, the DA66 electronic lock is positively appraised for use with previously proven timber or mineral composite based doorsets, subject to installation with the same level of intumescent protection detailed above, without detracting from the performance of the doorset.

It is further proposed that the DA66 / YD30 lock body may be fitted to the frame jamb at the mid-height position, with the strike plate morticed into the door leaf.

As previously stated, test report WF No. 365045 included a 30 and 60 minute doorset each fitted with a DA66 / YD30 electronic lock at the head of the door with the lock body morticed into the door frame and the strike plate morticed into the leaf.

The test of the DA66 / YD30 lock to the head of the door frame, complete with the strike plate to the top of the door leaf is considered to be more onerous than the proposal to include the lock body fitted to the frame jamb at the mid-height position.

It is therefore considered that this test evidence provides confidence in the use of the DA66 / YD30 locks being fitted in the proposed configuration.

Therefore, the proposed use of the DA66 / YD30 locks fitted with the lock body to the frame jambs at the mid-height position, would not be expected to have a deleterious impact on the required 30 and 60 minute integrity performance respectively and on this basis is positively appraised.

This positive appraisal relates to the use of the DA66 / YD30 lock body to the frame head, frame jamb (mid-height) and door leaf vertical edge (mid-height)

SA-66 / YD30M Electronic Lock

It is proposed that based on the performance demonstrated by the DA-66 / YD30 an additional lock, the SA-66 / YD30M may also be considered as suitable for 30 and 60 minute timber or mineral composite based doorsets applications. The critical aspects of the locks and latches in terms of their impact upon the performance of the doorset are considered to be the materials of construction, the lock case, strike and forend dimensions and the intumescent material incorporated around the lock.

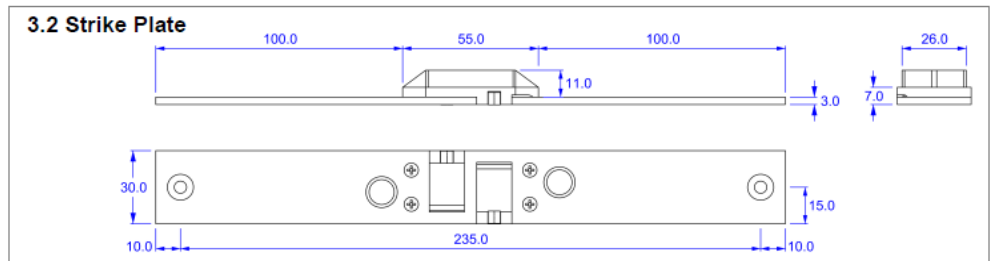
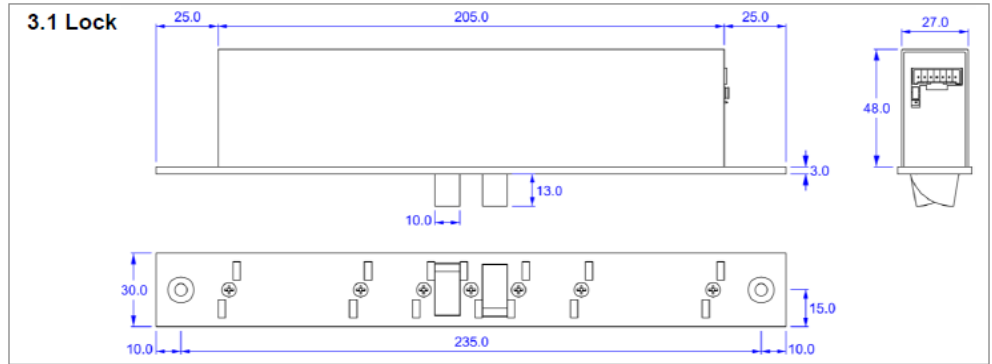
In terms of the materials of construction, it is critical that materials which are combustible or have a lower melting point are not utilised since materials which melt or ignite may advance the burn through of the leaf and therefore lead to a premature integrity failure.

Lock cases of larger dimensions require an increased mortice in the door leaf or frame which in turn means the removal of more leaf or frame material. This may lead to an earlier burn through of the leaf or frame. Increased strike/forend dimensions may lead to the penetration of flames/hot gases at the leaf edge due to further interruption of intumescent seals and an increase in conducted heat.

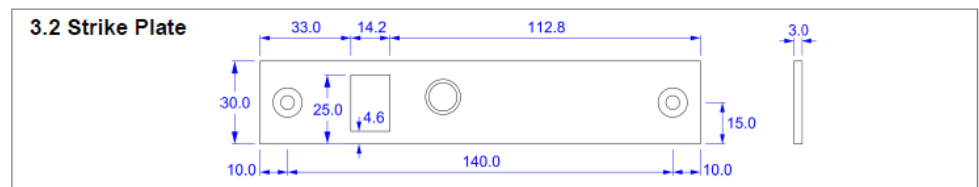
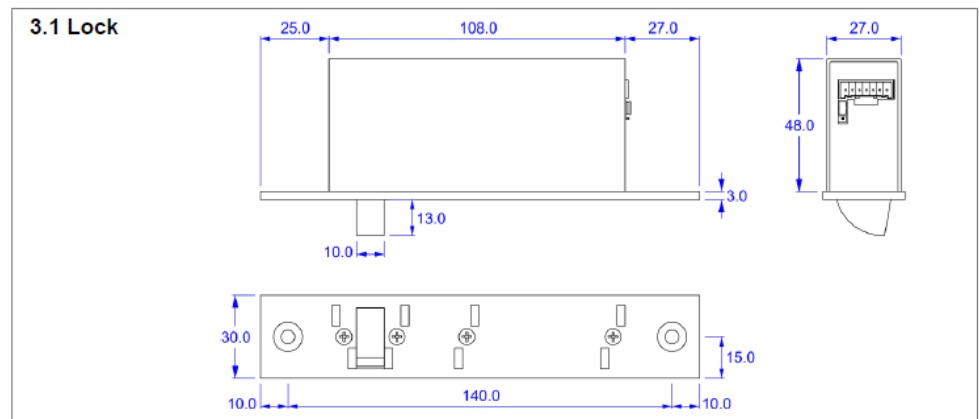
In terms of the intumescent protection, it is important that this is not reduced from that tested, as the reaction of this material when subjected to the heating conditions of the test is essential in limiting the burn through of the leaf and at the leaf to frame gap at the lock position.

The proposed SA-66 / YD30M is essentially the same construction in terms of materials as the DA-66 / YD30 but with reduced overall case, forend and strike plate dimensions compared to the tested lock.

The performance of the proposed lock is therefore considered acceptable as its reduced size would be expected to be less onerous than the tested model and subject to its installation with the same level of intumescent protection as that detailed for the tested lock, this model is positively appraised.



DA-66 / YD30



SA-66 / YD30M

This positive appraisal relates to the use of the AA66 / YD30M lock body to the frame head, frame jamb (mid-height) and door leaf vertical edge (mid-height)

It should be noted that this appraisal does not make any assumptions regarding the ability of the lock to provide an essential latching function to the doorset and so it is a requirement of this appraisal that the locks are only fitted to doorsets that are previously proven unlatched, when fitted with a suitable door closer, or where any required essential latching is provided by another means.

Suitable doorsets As stated in this report, the doorset, in the required configuration, will be previously tested (or assessed by Warringtonfire) and its performance is therefore not in doubt.

To enable the use of the DA-66 / YD30 or SA-66 / YD30M on a range of doorsets, it is necessary to address the available information on the proposed doorset. As this appraisal is intended to be used on a general basis and not restricted to any particular manufacturer of fire resisting doorsets, the following points are given to enable the locks to be used safely:

- The doorset shall carry valid certification or the doorset, including the door frame and associated ironmongery should have achieved 60 or 30 minutes integrity, as appropriate, when tested by a UKAS approved laboratory (or assessed by Warringtonfire) to BS EN 1634-1.
- If the proposed doorset is to be used in double-leaf configuration the test or assessment evidence should be applicable to double-leaf configuration.
- The leaves of the proposed doorset shall be of a minimum thickness of 53 mm for 60 minute doorsets and 43 mm thick for 30 minute doors
- The leaves should incorporate hardwood lippings of a minimum thickness of 6 mm and minimum density 650kg/m³.
- The door frame of 60 minute doorsets shall be of hardwood and have a minimum density of 650kg/m³ and for 30 minute doorsets the door frame will have a minimum density of 450kg/m³.
- The locks shall only be fitted in conjunction with the additional intumescent protection detailed in the relevant section of this report.

ABS Support Block (Issue 4)

Since the completion of test report No WF 365045, the construction of the hardware has been modified to include an ABS support block; all other aspects of the hardware are confirmed as being as originally tested.

In terms of the lock material, it is critical that materials which are combustible or have a lower melting point are not utilised since materials which melt or ignite may lead to a premature integrity failure.

BQT Solutions, the sponsor of test report 180515001SHF-BP-1, have advised that the test was undertaken on hardware models complete with the additional ABS support blocks, where previously there was a void.

To further support the addition of the ABS support block, details of the hardware tested as referenced within test report 180515001SHF-BP-1 have been provided by the client – see Appendix A.

Doorset A and B achieved an integrity performance of 260 minutes at which time the test was discontinued.

Doorset A achieved an insulation performance of 18 minutes and Doorset B achieved an insulation performance of 19 minutes

Whilst the modified hardware, complete with ABS support block was tested within an uninsulated steel door, it is considered that the test data has proven that the hardware modification did not result in flaming associated with or coincident to the lock position.

It is therefore considered that the modified hardware, complete with ABS support block as tested in test report 180515001SHF-BP-1, would not be deleterious to the required 30 and 60 minutes integrity performance when installed within timber based doorsets as previously discussed in this report and on this basis is positively appraised.

Conclusions

Timber or mineral composite based doorsets that have previously been successfully fire tested by a UKAS accredited laboratory (or assessed by Warringtonfire) which have achieved 60 or 30 minutes integrity in accordance with BS 476: Part 22: 1987 or BS EN 1634-1, as discussed in this report, may be fitted with the DA-66 / YD30 and SA-66 / YD30M electric locks, without detracting from the overall performance of the doorset.

This assessment represents our opinion as to the performance likely to be demonstrated on a test in accordance with BS 476: Part 22: 1987 or BS EN 1634-1, on the basis of the evidence referred to herein. We express no opinion as to whether that evidence, and/or this assessment, would be regarded by any Building Control authority as sufficient for that or any other purpose. This assessment is provided to the client for its own purposes, and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.

Review

It has been confirmed that there have been no changes to the specification, materials or manufacturing location of the door hardware considered in the original appraisal referenced WF Assessment Report No. 366932 issue 3 issued 17th May 2021 other than those discussed in this appraisal (Issue 4).

The original assessment has been written using appropriate test evidence generated at accredited test laboratories. The supporting test evidence has been deemed appropriate to support the manufacturers stated design.

The defined scope presented in the original assessment report relates to the behaviour of the proposed design under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the door hardware in use.

This revalidation has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the PFPF guidelines to undertaking assessments in lieu of fire tests. The aim of the PFPF guidelines is to give confidence to end-users that assessments that exist in the UK are of a satisfactory standard to be used in lieu of fire tests for building control and other purposes.

The PFPF guidelines are produced in association with the major fire testing, certification bodies and trade associations in the UK and are published by the PFPF, the representative body for the passive fire protection industry in the UK.

This revalidation represents our opinion as to the performance likely to be demonstrated, on the basis of the evidence referred to above. We express no opinion as to whether that evidence would be regarded by any Building Control authority as sufficient for that or any other purpose. This revalidation is provided to the client for its own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.

The data used for the original appraisal has been re-examined and found to be satisfactory. The procedures adopted for the original assessment have also been re-examined and are similar to those currently in use.

Therefore, with respect to the assessment of performance given in WF Assessment Report No. 366932 issue 4, the contents should remain valid for a further 5 years.

This review is based on information used to formulate the original assessment. No other information or data has been provided by the client, which could affect this review.

The original appraisal report was performed in accordance with the principles of the UK Fire Test Study Group Resolution 82: 2001. This review has therefore also been conducted using the principles of Resolution 82: 2001.

Validity

This assessment is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to Warringtonfire the assessment will be unconditionally withdrawn and Secure Access Technologies Ltd will be notified in writing. Similarly, the assessment should be re-evaluated, if the assessed construction is subsequently tested since actual test data is deemed to take precedence. The assessment is valid initially for a period of five years i.e. until 10th August 2026, after which time it is recommended that it be returned for re-evaluation.

The appraisal is only valid provided that no other modifications are made to the tested construction other than those described in this report.

Summary of Primary Supporting Data

WF Test Report No. 365045

The test referenced WF No. 365045 included two single-acting, single-leaf timber based doorsets. The doorsets were referenced as 'Doorset A' and 'Doorset B' for the purpose of the test.

Doorset A briefly had overall nominal dimensions 1490 mm high by 720 mm wide incorporating a section of door leaf with overall dimensions 1450 mm high by 653mm wide by 44 mm thick. The door leaf was of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges and was hung within a softwood frame on two stainless steel hinges.

Doorset B briefly had overall nominal dimensions 1490 mm high by 720 mm wide incorporating a section of door leaf with overall dimensions 1447 mm high by 648 mm wide by 54 mm thick. The door leaf was of a solid graduated density chipboard construction, with 8 mm hardwood lippings to the vertical edges and was hung within a hardwood frame on two stainless steel hinges.

Both doorsets were fitted with two DA-66 / YD30 electronic locks, one mortised into the frame at the head 100 mm in from the leading edge of the doorset with the strike plate mortised into the leaf, and one mortised into the leaf at mid-height of the leading edge of the doorset with the strike plate mortised into the frame.

Both DA-66 / YD30 electronic locks and strike plates were protected by a 1 mm intumescent around the backset of the locks and with 2 mm intumescent behind the forends and strike plates.

Both doorsets were orientated to simulate a full doorset that would open towards the heating conditions of the test.

The specimen formed the front vertical face of a 1.5 metre wide by 1.5 metre high by 2 metre deep gas fired furnace chamber, the temperature rise of which was controlled to conform to the relationship given in BS EN 1363-1:2012.

The test was discontinued after a period of 69 minutes.

Test date : 21st May 2016

Test Sponsor : Secure Access Technologies Ltd.

Test Report
180515001SHF-
BP-1

The test referenced 180515001SHF-BP-1 included two single-acting, single-leaf Steel based doorsets. The doorsets were referenced as 'Doorset A' and 'Doorset B' for the purpose of the test.

Doorset A opened away from the furnace conditions and Doorset B opened towards the furnace conditions.

Doorset A and **Doorset B** briefly each had overall door leaf dimensions 2040 mm high by 836 mm wide by 45 mm thick. The door leaf comprised 2No 1.2 mm thick galvanised steel faces and an aluminium silicate fibre core with a stated density of 120kg/m³. The door constructions included steel stiffeners with overall dimensions 44 mm by 22 mm by 1.4 mm and edge channels with overall dimensions 44 mm by 22 mm 3 mm.

Both door leaves were hung within a 1.4 mm thick galvanised steel frame.

Both doorsets were fitted with a YD30 electronic lock, fitted within the lock edge frame jambs, nominally 80 mm down from the top edge of the door leaf with the strike plate mortised into the leaf.

Examination of the test report shows that there were no instances of sustained flaming or cotton pad failure associated with both locks fitted to the steel based doorsets (Doorset A and Doorset B) for a test duration of 260 minutes at which time the test was discontinued.

Doorset A achieved 18 minutes Insulation performance and Doorset B achieved 19 minutes insulation performance.

Test date : 30th July 2018

Test sponsor : BQT Solutions (SEA) PTE Ltd.

(Permission has been provided for the information to be utilised for the purpose of this appraisal)

Declaration by Secure Access Technologies Ltd.

We the undersigned confirm that we have read and complied with the obligations placed on us by the Passive Fire Protection Forum (PFPF) Guide to undertaking technical assessments and engineering evaluations based on fire test evidence – 2021.

We confirm that the component or element of structure, which is the subject of this assessment, has not to our knowledge been subjected to a fire test to the Standard against which the assessment is being made.

We agree to withdraw this assessment from circulation should the component or element of structure be the subject of a fire test to the Standard against which this assessment is being made.

We understand that this assessment is based on test evidence and will be withdrawn should evidence become available that causes the conclusion to be questioned. In that case, we accept that new test evidence may be required.

We are not aware of any information that could adversely affect the conclusions of this assessment.

If we subsequently become aware of any such information we agree to cease using the assessment and ask Warringtonfire to withdraw the assessment.

(In accordance with the principles of FTSG Resolution 82)

Signature:

Name:

Position:

Company:

Date:

Signatories



Responsible Officer (Issue 4)

M Tolan* - Senior Certification Engineer



Approved (Issue 4)

R Anning* - Principal Certification Engineer

* For and on behalf of Warringtonfire.

Report Issued: 7th June 2016

The assessment report is not valid unless it incorporates the declaration duly signed by the applicant.

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Revision History

Issue No: 1	Issue Date: 7 th June 2016
Authored By: S. Gilfedder	Approved By: A. Kearns

Issue No: 2	Re-issue Date: 24 th October 2017
Revised By: T. Benyon	Approved By: A. Kearns
Reason for Revision: Assessment of the lock body to the frame jamb at mid-height.	

Issue No: 3	Re-issue Date: 17 th May 2021
Revised By: M. Tolan	Approved By: R. Anning
Reason for Revision: Assessment of the lock body to the frame jamb at mid-height.	

Issue No: 4	Re-issue Date: 14 th September 2021
Revised By: M. Tolan	Approved By: R. Anning
Reason for Revision: Modification regarding ABS support block & revalidation.	

Appendix A

TCFYD30.005-01 1/2

YD30 Lock and Long Sqr Hole Strike - YNL200H

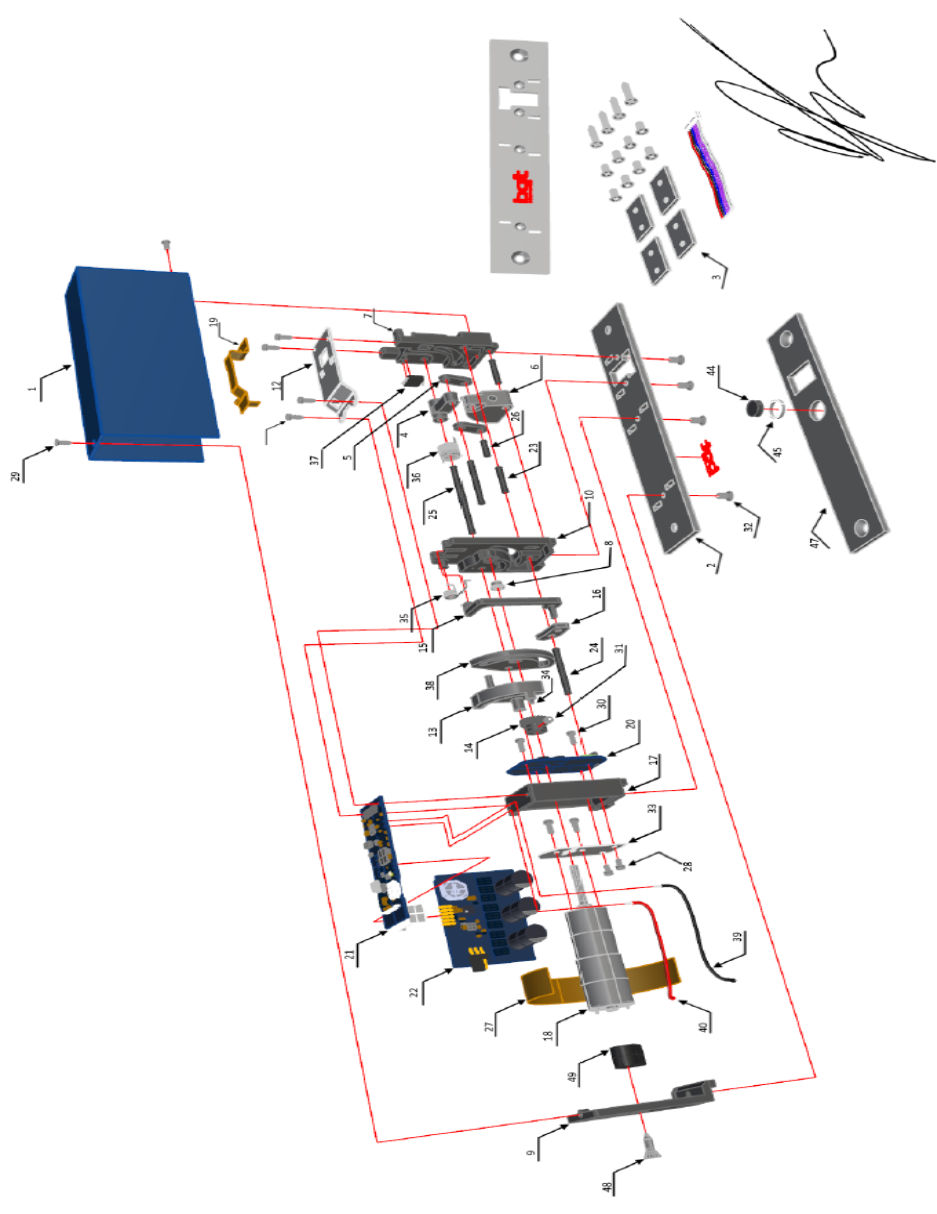
#	Part Number	Description
1	MA001370	sa, cover, 27x48x205mm, YNL20xx, laserred, generic
2	MA001365	sa, faceplate, 3x30x255mm, YNL20xx, laserred, generic
3	MA001004	sa, hardware packs, 12-screws 4-tabs
4	MP001014	bolt linkage, long, 6x12x22mm, SS304L (rev 3)
5	MP001015	bolt linkage, short, 2x6x16mm, SS304L
6	MP001011	bolt pin, quadrant, 10mm thick, SS17-4PH (rev 3)
7	MP001007	bolt wall, SS304L (rev 4)
8	MP001037	bush, ID: 2x13.5mm, POM M90 white
9	MP001004	connector wall, SS304L (rev 4)
10	MP001006	drive wall, SS304L (rev 4)
11	MP001008	end wall, SS304L (rev 4)
12	MP001003	flexi guide, 2x492mm, 1mm aluminium (rev 3)
13	MP001010	gear cam, SS304L, with pin removed and slot added (rev 4)
14	MP001016	gear, 20T, SS304L
15	MP001012	latch linkage, long, 10x12x34mm, SS304L (rev 4)
16	MP001013	latch linkage, short, 2.5x9x19mm, SS304L (rev 3)
17	MP001005	motor wall, SS304L (rev 4)
18	MP001373	motor, 4.5VDC, OD16/17mm, 3SRPM
19	MP001041	PCB, flexi (rev 1.0.2)
20	MP001407	PCBA, 1x2x37mm, switch board (rev 1.0.7)
21	MP001038	PCBA, 1x2x3x9mm, micro board (rev 1.0.2)
22	MP001039	PCBA, 1x39x54mm, cap board (rev 1.0.2)
23	MP001020	pin, OD3xL16mm, bolt pivot, S45C hardened (rev 2)
24	MP001021	pin, OD3xL25.9mm, latch/capture, S45C hardened (rev 2)
25	MP001023	pin, OD3xL43.1mm, spring, S45C hardened (rev 2)
26	MP001019	pin, OD3xL9.5mm, linkage, S45C hardened (rev 3)
27	MP001417	tape, polyimide, 12.7mm x 33m
28	MP001403	screw, M2x3 Nylok, pair, phillips, machine
29	MP001186	screw, M2x5, csk, phillips, tapitte, C1012 zinc plated
30	MP001187	screw, M2x5, pan, phillips, tapitte, C1012 zinc plated
31	MP001320	screw, M3x3, set, flat point
32	MP001031	screw, M3x6, csk, phillips, machine, SS304
33	MP001374	spring, motor plate, 6.7mm hole
34	MP001379	spring, tension, 2mmOD, 0.36mm wire
35	MP001025	spring, torsion, 5 coils, hard drawn steel wire
36	MP001258	spring, torsion, 9 coils, 9mmOD
37	MP001043	switch, micro, 2.5x7.5x10mm, no wires
38	MP001009	unlock cam, SS304L
39	MP001351	wire, 2xAWG, black, 100mm long
40	MP001350	wire, 2xAWG, red, 100mm long
41	MP001028	bearing, 2x5x2.5mm, stainless steel
42	MP001027	pin, OD2xL14mm, strike roller, S45C hardened
43	MP001018	strike box, SS316L
44	MP001026	magnet, OD10xL3mm, NdFeb, N35
45	MP001255	ring, magnet, dummy from MP001177
46	MP001192	screw, M3x6, csk, phillips, machine, SS304
47	MP001001	strike plate, 3x30x255mm, sqr ends, sqr holes, SS304 (rev 2)
48	MP001418	screw, m3x6, csk, phillips, plastite, SS304
49	MP001416	support block, ABS, black

Michael McGurk
 Mechatronics Engineer
 BQT Solutions
 09 August 2018

TCFYD30.005-01 2/2

YD30M Lock and Long Sqr Hole Strike - YNL210H

#	Part Number	Description
1	MA001371	sa, cover, 27x48x108mm, YNL21xx, lasered, generic
2	MA001360	sa, faceplate, 3x30x160mm, YNL21xx, lasered, generic
3	MA001004	sa, hardware packs, 12-screws 4-tabs
4	MP001014	bolt linkage, long, 6x12x22mm, SS304L (rev 3)
5	MP001015	bolt linkage, short, 2x6x16mm, SS304L
6	MP001011	bolt pin, quadrant, 10mm thick, SS17-4PH (rev 3)
7	MP001007	bolt wall, SS304L (rev 4)
8	MP001037	bush, ID3.2xL3.5mm, POM M90 white
9	MP001004	connector wall, SS304L (rev 4)
10	MP001006	drive wall, SS304L (rev 4)
12	MP001057	flexi guide, 24x51mm, 1mm aluminium (rev 2)
13	MP001010	gear cam, SS304L, with pin removed and slot added (rev 4)
14	MP001016	gear, 20T, SS304L
15	MP001012	latch linkage, long, 10x12x34mm, SS304L (rev 4)
16	MP001013	latch linkage, short, 2.5x9x19mm, SS304L (rev 3)
17	MP001005	motor wall, SS304L (rev 4)
18	MP001373	motor, 4.5VDC, ODI16/17mm, 35RPM
19	MP001256	PCB, flexi mini (rev 1.0.2)
20	MP001407	PCBA, 1x23x37mm, switch board (rev 1.0.7)
21	MP001038	PCBA, 1x23x59mm, micro board (rev 1.0.2)
22	MP001039	PCBA, 1x39x54mm, cap board (rev 1.0.2)
23	MP001020	pin, OD3xL16mm, bolt pivot, S45C hardened (rev 2)
24	MP001021	pin, OD3xL25.9mm, latch/capture, S45C hardened (rev 2)
25	MP001023	pin, OD3xL43.1mm, spring, S45C hardened (rev 2)
26	MP001019	pin, OD3xL9.5mm, linkage, S45C hardened (rev 3)
27	MP001417	tape, polyimide, 12.7mm x 33m
28	MP001403	screw, M2x3 Nylok, pan, phillips, machine
29	MP001186	screw, M2x4, csk, phillips, taptitte, C1012 zinc plated
30	MP001187	screw, M2x5, pan, phillips, taptitte, C1012 zinc plated
31	MP001320	screw, M3x3, set, flat point
32	MP001031	screw, M3x6, csk, phillips, machine, SS304
33	MP001374	spring, motor plate, 6.7mm hole
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38	MP001009	unlock cam, SS304L
39	MP001351	wire, 24AWG, black, 100mm long
40	MP001350	wire, 24AWG, red, 100mm long
44	MP001026	magnet, OD10xL3mm, NdFeb, N35
45	MP001255	ring, magnet, dummy from MP001177
47	MP001055	strike plate, 3x30x160mm, sqr ends, sqr hole, SS304 (rev 2)
48	MP001418	screw, m3x6, csk, phillips, plastite, SS304
49	MP001416	support block, ABS, black



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9th August 2018