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OPERATION AND MAINTENANCE MANUAL

mcr ALPE EI 120

Edition 9
Gdańsk 11.03.2014

CLIENT:

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Company **ASSA ABLOY Mercor Doors sp. z o.o.** continues the activity of **Mercor SA** in the branch of fire partitions. In December 2013 it has become part of international group **ASSA ABLOY**, a world's leader in locking and doors systems.

With our highly qualified personnel, business know-how and strong technical expertise we offer professional customers service: from customized quotation, through manufacture, to delivery, installation and maintenance service.

The offer of **ASSA ABLOY Mercor Doors sp. z o.o.** includes:

- Steel hinged doors,
- Steel sliding gates,
- Steel and glass doors and partitions
- Wooden doors
- Fire curtains

Table of Contents

OPERATION AND MAINTENANCE MANUAL

1. MARKING OF PRODUCT	3
2. MARKING OF DOORS	3
3. SIZE OF DOORS.....	3
4. SAFETY REGULATIONS.....	3
5. TECHNICAL INSPECTIONS AND MAINTENANCE PROCEDURES	3
6. TERMS OF WARRANTY	4
7. INSTALLATION MANUAL FOR STEEL DOORS TYPE MCR ALPE	
7.1. START-UP ACTIVITY	4
7.2. INSTALLATION OF DOORS	4
7.3. INSTALLATION OF INTUMESCENT GASKET	6
7.4. ADJUSTING OF DOORS EQUIPPED WITH 3 D HINGES	6
7.5. REMOVAL OF PROTECTIVE FOIL	7
7.6. FLUSH BOLT IN PASSIVE LEAF	7
7.7. INSTALLATION OF HARDWARE	8
7.8. INSTALLATION OF DOOR STOPS	8
7.9. INSTALLATION OF DOOR CLOSER	8
7.10. ADDITIONAL VARNISHING	8

Producer: **ASSA ABLOY Mercor Doors sp. z o.o.**, ul. Arkońska 6, bud. A2, 80-387 Gdańsk,
Production facility in Dobrzeń Wielki: 46-081 Dobrzeń Wielki, ul. Namysłowska 113

Technical Approval: ITB AT-15-9005/2013 + Anex nr **1, 2, 3**

Certificate of Conformity: CZ ITB – 2277/W

National Declaration of Conformity: **16_KDZ**

1. MARKING OF PRODUCT:

mcr ALPE Sp 120-1

mcr ALPE Ss 120-1

mcr ALPE Sp 120-2

mcr ALPE Ss 120-2

mcr ALPE Sk 120-1

mcr ALPE Sk 120-1

where:

mcr ALPE: *name of product*

Sp: *full steel door*

Ss: *glazed steel door*

Sk: *steel hatches*

120: *fire rating in minutes*

1 or 2: *door type:*

1 – one leaf door

2 – double leaf door

Non-sparking doors are additionally marked with letter **N**

X- ray proof doors are additionally marked with letters **RTG**

2. IDENTIFICATION OF DOORS

Doors are equipped with an ID with the following information:

- name of company
- marking of door type
- fire rating
- number of Technical Approval
- number of Certificate

3. CLEAR PASSAGE SIZE- REGULATIONS

According to Regulations of Ministry of Infrastructure of 12th April 2002 clear passage of doors shall be understood as with door leaf open at 90°

Based on: Bill of Law of Ministry of Infrastructure „On technical conditions for buildings and their location”, Chapter 1, § 9. 1. (Dz.U. nr 75, poz. 690); coming into force on 16th December 2002 r.

4. SAFETY AT WORK

During installation, usage and repairs of fire resistant doors, generally applicable occupational health and safety at work regulations must be complied with.

PLEASE MIND:

Sun and humidity exposure of coating covered with protective film can cause permanent damage. Remove the protective film as soon as the door is fitted.

5. PERIODICAL INSPECTIONS AND MAINTENANCE ACTIVITY

In order to ensure correct operation of fire doors and maintain the rights resulting from the guarantee, the door should be periodically inspected and undergo maintenance at least once every 6 months.

Periodical inspection should consist of:

- Checking of the door operation
- Checking of the gap between the door leaf and the floor (the gap must not exceed 6 mm)
- Checking of the paint coat
- Checking and correcting the fitting of the locks, bolts etc. If necessary
- Checking of the intumescent seal
- Adjustment of door closers
- Lubrication of hinges and other movable elements
- Preparation of the maintenance service protocol

All the worn out or damaged parts should be repaired or replaced

PLEASE MIND: on external doors, at considerable temperature difference on both door sides, there can occur a liquefaction (water drops). This physical phenomenon is not a fault of the provided door and as such shall not undergo the conditions of guarantee.

6. CONDITIONS OF GUARANTEE

1. ASSA ABLOY Mercor Doors provides a 12 month warranty for delivered goods, unless the warranty period is stated otherwise in a separate agreement.
2. In that period any identified defects preventing proper operation of the product will be removed within 21 working days from the notification date
3. The warranty will be automatically extended by the period counting from the day the complaint is made until the warranty period end.
4. Products under guarantee which have defects preventing them to be used shall be replaced.
5. the Guarantee does not cover activities which should be performed by the User and which are described in this Operation and Maintenance Manual.
6. In order to assure proper functionality of doors and retain the guarantee, the door should undergo periodical inspections and perform maintenance procedures at least every 6 months in all exploitation period. The technical inspections and maintenance activities must be performed by a company duly authorised by ASSA ABLOY Mercor Doors.
7. The manufacturer disclaims the warranty and all related obligations if:
 - periodical inspections and maintenance activities are not performed in dates defined in p.6, or are performed by unauthorised persons or service companies unauthorised by ASSA ABLOY Mercor Doors.
 - the products is mechanically damaged as result of improper operation by the User.
 - the User introduced structural changes on his own.
 - Defects occur as result of improper product maintenance (breaching the prescriptions of this manual)
 - Defects occur as result of improper storage and transport
 - Doors are not installed in concordance with this Manual.
 - The ID plate is removed.
8. Missing items and damaged elements shall not be subject to claim and /or to claimed cost, if caused by the User. The Manufacturer shall impose the cost of making and delivery of replaced elements on User, if applicable
9. ASSA ABLOY Mercor Doors gives its warranty for powder coating of produced doors only if the powder coating was completely performed in AAMD production facility. In case of purchase of zinc coated finish, AAMD does not give its warranty for paint coat layers.
Additionally, AAMD informs that products provided in zinc- coat finish only may be subject to damage during packing, transportation or installation. It is recommended to powder coat the products.
10. Warranty for more than 3 years can only be granted when service agreement is signed with ASSA ABLOY Mercor Doors.

7. INSTALLATION INSTRUCTION OF DOORS TYPE mcr ALPE EI 120

7.1. INITIAL ACTIVITY

Prior to door installation please check if the structural opening sizes conform with those stated on the packing list and check the floor level on the door leaf opening axis. If the floor is not finished, please keep the proper distance of installation gap (thickness of the floor finishing elements + 8 mm).

7.2. INSTALLATION OF DOORS

The door is delivered to the site already assembled (only large size doors are delivered in parts)

Before the installation please remove the connecting element placed at the bottom of door frame. Fit the door into the wall opening and fix it temporarily with wooden wedges and spacers.

Pay particular attention to horizontal and vertical position of door frame legs and their parallel position. Additionally, please check if the frame posts are not twisted around their vertical axis (the door leaf and appropriate surfaces of the frame must be parallel). The gap between the floor and lower edge of the door leaf should not exceed 9 mm.

It is recommended to make installation on a finished floor. In other case it is necessary to establish the level of final floor. Special attention is to be paid if door leaves are equipped with bottom automatic drop seal- the floor must be even and without any gaps, otherwise AAMD bears no responsibility for any damages of automatic drop down seal (not covered by the guarantee)

After the door frame has been settled, fit the frame in the wall with expansive studs. Expansive studs should be appropriately chosen for the wall material, according to manufacturer's instructions and principles of the building art. Use steel studs only, dia 10 mm, length 112 mm. The expansion studs are not included in delivery.

The door frame must be settled by wedges (distance blocks) placed between the frame and the wall. Particular attention should be placed to proper fixing of frame at its lower hinge- if the frame is not fixed stiffly enough, it may, among other things, result in door leaf falling down.

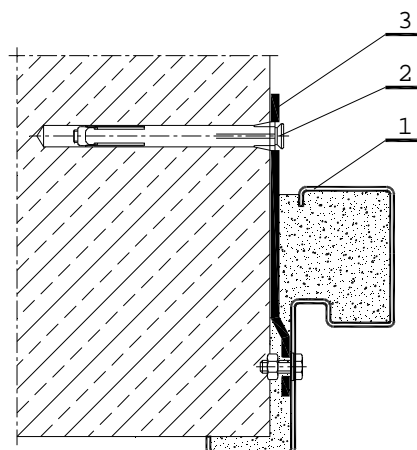
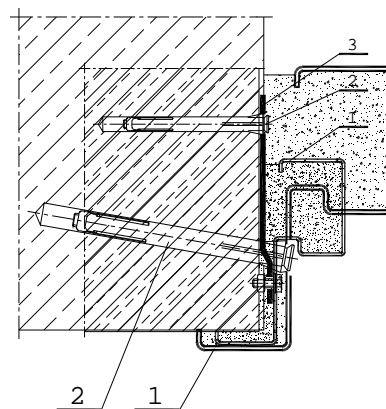
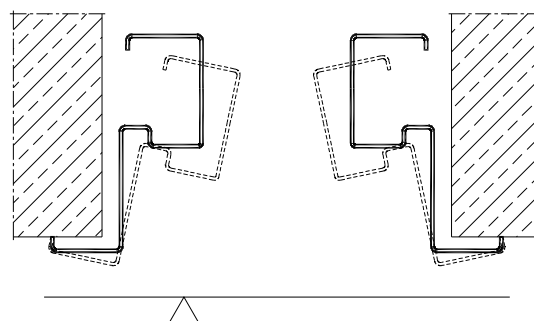
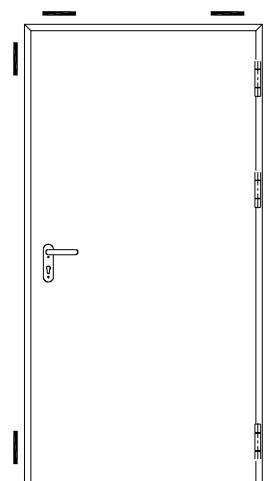
In the case that of necessity of moving the installation studs along the wall please use the anchoring plates. Screw them into the back of door frame, then fasten to the wall with plugs or screws. The anchoring plates are not standard equipment of the door.

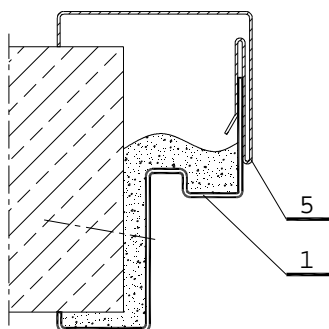
The single leaf door frames must be installed with at least 13 steel wall plugs (or 13 anchoring plates). As regards double leaf doors the frames must be installed with at least 15 steel wall plugs (or 15 anchoring plates).

The frames should be filled in with calcium-cement or cement mortar
The space between wall and frame should be tightly filled in with drywall glue

In embracing frame type, it is allowed to fill with mortar solely the fixed (corner) part of door frame. The embracing, adjustable element, not being the part of fire resistant partition, may be installed using a polyurethane mortar, adhesive glue, or other building materials

The frame has to be installed stiff and in such way that no deformation is possible .





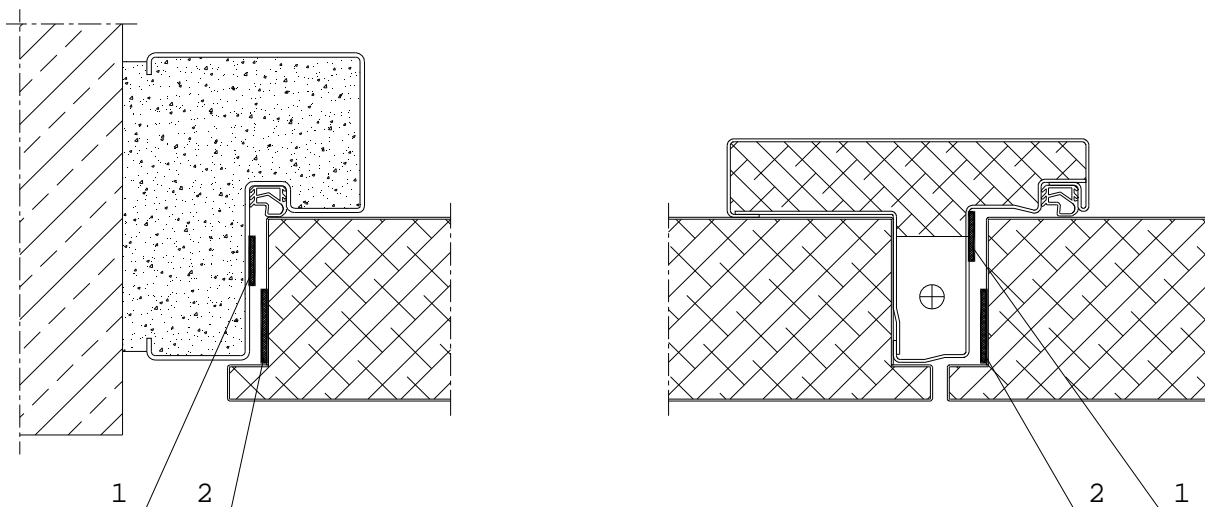
1 – steel frame, 2 – installation stud, 3 – anchoring plate, 4 – adjustable embracing frame

7.3. INSTALLATION OF INTUMESCENT GASKET

Apply self –adhesive intumescent gasket 2 x 20mm all along the perimeter of door frame, in line of fixings studs. Apply intumescent gasket 2 x 30 mm along door leaves, excluding the bottom edge. In double leaf doors the principles of gasket usage are the same as for one leaf doors, except that

in double leaf doors additional gasket 2 x 20 mm shall be attached to vertical rebate beam. Gasket should be applied on clean and grease- free surface.

NOTE: it is recommended to heat up the surface of door frame to room ambient temperature (max 30°C)



1 – intumescent gasket 2x20mm, 2 – intumescent gasket 2x30mm,

7.4. ADJUSTMENT OF 3D HINGES

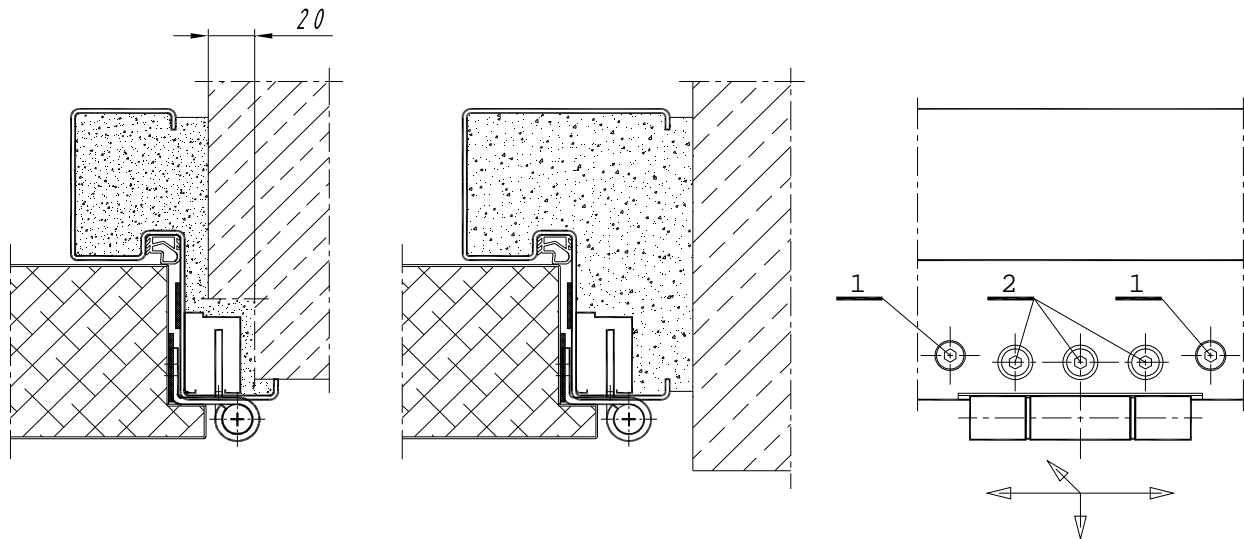
In doors equipped with adjustable hinges, after installation of the door frame, (as instructed in p.7), the hinges should be adjusted to achieve best door leaf position. It is achieved by moving by moving the hinge flange inside hinge pocket.

The flange of hinge is moved inside the pocket by tightening or loosening of screw no. 1, Screws no. 2 fasten the hinge in the pocket. After the screws no. 2 have been loosened, you may adjust the door leaf position in relation to the frame, adjusting the appropriate clearance and contact with the rubber seal.

The nominal vertical clearance between the door leaf and the frame equal to 8 ± 1 mm, between the upper frame crossbar and the door leaf: 6 ± 1 mm, whereas the bottom gap is 8 ± 1

The inside 3D hinge cassette is of size ca. 27 x 40 mm, therefore if installed in corner or embracing frame it is necessary to locally remove part of wall where the hinges are.

If it is not possible, when ordering the door, please define wall opening as smaller by 40 mm in width. The 3D hinge cassettes installed in internal frame fit completely. It is therefore recommended to install doors with internal frame / 3D hinges in places, holes where it is not possible to interfere with the wall structure.



7.5. REMOVAL OF PROTECTIVE FOIL

Exposure of paint coat covered with a protective film to sun and moisture may damage the coat permanently. Therefore, the protective film should be removed immediately after the door has been installed.

7.6. FLUSH BOLT IN PASSIVE DOOR LEAF (IN DOUBLE LEAF DOORS)

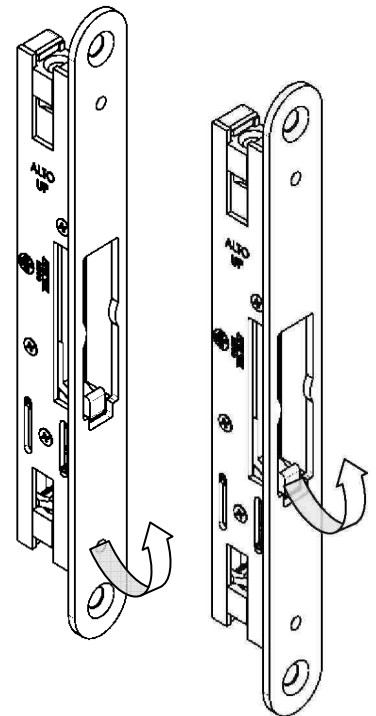
After the double leaf door has been installed, a sleeve for flush bolt should be installed in floor.

Close the passive leaf, and fasten in (in closing axis) , Mark the place on the floor where the vertical rod touches the floor. Drill a hole of appropriate diameter in the floor and fix the floor sleeve with cement mortar, or an adhesive commonly used in building industry. Finally check the correctness of total door closing.

Not installing the floor sleeve may cause door leaf damage. Defects occurring to missing sleeve are not covered by the guarantee.

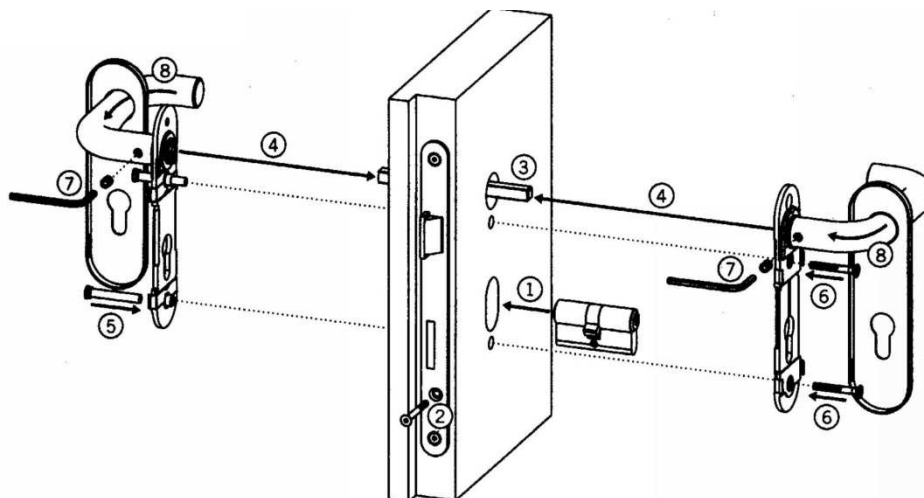
After the flus bolt in passive leaf has been unlocked , door leaf cannot be opened by pulling the rod – it may cause damage to whole mechanism.

Note: the automatic flush bolt is unlocked when the rod is tilted almost to the horizontal position (90°), Further pulling the rod upwards may cause damage to the flush bolt.

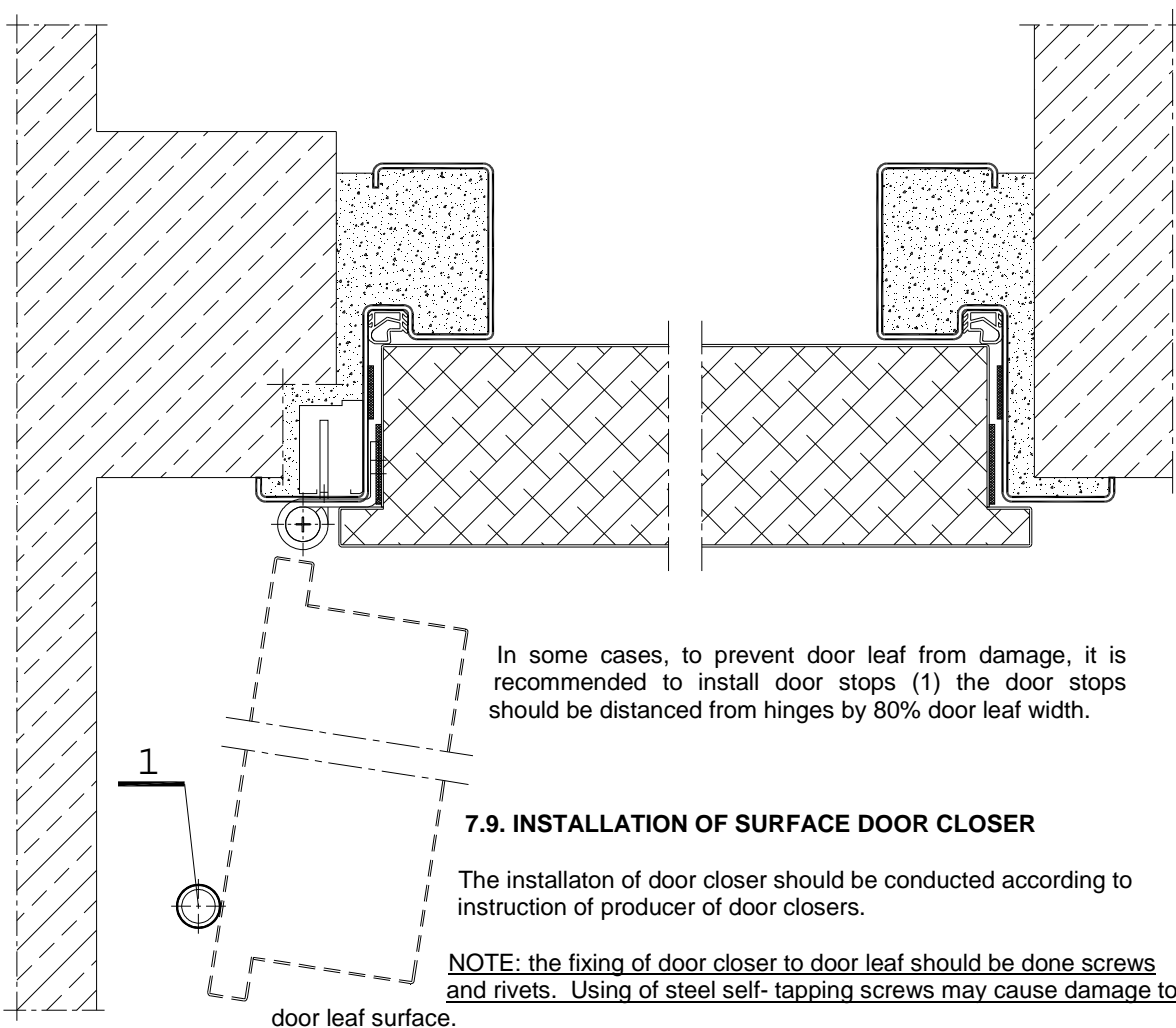


7.7. INSTALLATION OF IRONMONGERY

Insert the cylinder into hole of the lock (1), then fasten it with a screw (2). Put the pin of handle through the lock (3) – if needed, cut it to required length. Mount the steel under-shields of the handles (4) and connect them tightly with sets of 2 connectors (threaded pin, threaded sleeve)- (5),(6). Block the handle pin in handle lever by mounting the hexagonal socket head screw (Alley key head) (7). Put steel covers on handle shields. The handles should be firmly tightened, not reclining off door surface.



7.8. INSTALLATION OF DOORSTOPS



In some cases, to prevent door leaf from damage, it is recommended to install door stops (1) the door stops should be distanced from hinges by 80% door leaf width.

7.9. INSTALLATION OF SURFACE DOOR CLOSER

The installation of door closer should be conducted according to instruction of producer of door closers.

NOTE: the fixing of door closer to door leaf should be done screws and rivets. Using of steel self- tapping screws may cause damage to door leaf surface.

7.10. ADDITIONAL POWDER COATING

In case the door should be painted again, it is necessary to clean the door surface and grind it with low- grind sand paper (for example 180). Polyurethane paints are recommended .

NOTE: some brands of paints may lead to damage of original coat flaking.

To check the new kind of paint before it is used you should perform a painting test on a small and hidden leaf surface.

In order to proof new paint before it is used please perform a painting test on a small hidden are of leaf surface