Information

The technical presentations and dimensions in the illustrations and drawings are non-binding. We reserve the right to make changes to specifications at any time. We do not accept any responsibility for any errors which may occur in the production of this catalogue. All sizes in millimeter (mm).

The products in this list are the ones that are currently in the ENOX product range. Since our product range is updated frequently, please feel free contact us if you cannot find any particular information.

The printed colours indicating the surface finishes are not 100% true, but do provide a useful guide.

Pictures may show designs which are different to the scope of delivery.
ASSA ABLOY is the global leader in door opening solutions

Since its formation in 1994, ASSA ABLOY has grown rapidly over the last 20 years, from a regional company to an international Group with around 44,000 employees.

ASSA ABLOY is represented on both mature and emerging markets worldwide with leading positions in Europe, North America and Asia Pacific.

ASSA ABLOY's leading market presence in the Asia Pacific region is based on the industry's largest and most valuable brand portfolio.

ASSA ABLOY recently acquired major stake in ENOX Hardware India Private Limited, a privately owned company with deep rooted family values.

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**ENOX in brief**

ENOX as a brand is extensively used in mid level markets across all sectors of the industry like Hospitality, Commercial, Residential, Infrastructure and Healthcare. ENOX Hardware has a diversified product portfolio ranging from door controls' hardware to aluminum profiles to furniture fittings but our major business churning products are Glass Architectural Hardware and Glass Sliding Solutions. With the continuous support of and untiring efforts of our in-house product management team, we've developed an entire range of sliding systems be it manual or automatic, wood or glass.

ENOX in India, started its journey from selling door hardware in 2007 and now has successfully managed to grow exponentially with about 225 employees.

**Mission Statement**

Superior customer service, Quality and Commitment with Profitable Growth

**Vision**

-To be India's leading consumer company for Glass Hardware and Sliding Solutions
-To be the company that best understands and satisfies the product, service and self-fulfillment needs of our customers.
-To offer a pleasant working environment to our employees.
Contents

Overhead Door Closer

TS - 700 (EN 2 / 3 / 4)  ❌  Page 008
TS - 690 (EN 2 / 3 / 4)  ❌  Page 009
TS - 780 (EN 2 / 3)  ❌  Page 010
TS - 790 (EN 2 / 3)  ❌  Page 011
TS - 810 (EN 2 - 4)  ❌  Page 012
TS - 820 (EN 2 - 5)  ❌  Page 014
TS - 830 (EN 2 - 6)  ❌  Page 016
TS - 880 (EN 2 / 3 / 4)  ❌  Page 018
TS - 880 SHO (EN 2 / 3)  ❌  Page 019
TS - 980 (EN 2 / 3 / 4)  ❌  Page 020
TS - 980 SHO (EN 2 / 3)  ❌  Page 021
TS - 980 SHO Glass Clamp  ❌  Page 022
TS - 280 (EN 2 - 5)  ❌  Page 024
TS - 180 (EN 2 - 6)  ❌  Page 026
TS - 7900 (EN 2 - 5) Cam Action  ❌  Page 028

Concealed Door Closer

ITS - 960 (EN 2 - 4) Cam Action  ❌  Page 029
ITS - 120 (EN 2 - 4)  ❌  Page 030
ITS - 990 (EN 3 - 6)  ❌  Page 031
ITS - 6600 (EN 2 - 4) Cam Action  ❌  Page 032
ITS - 6900 (EN 2 - 5) Cam Action  ❌  Page 033
ITS - 3870 (EN 2 - 5)  ❌  Page 034
ITS - 3800 (EN 1 / 2 / 3)  ❌  Page 035

Floor Spring

FH - 100 (EN 3)  ❌  Page 037
FH - 842/843/844 (EN 2 / 3 / 4)  ❌  Page 038
FH - 942/943/944/944H (EN 2 / 3 / 4 / 6)  ❌  Page 040
FH - 742/743/744/744H (EN 2 / 3 / 4 / 6)  ❌  Page 042
EFS - 3080 (EN 2)  ❌  Page 044
ETC - 002/003/004 (EN 2 / 3 / 4)  ❌  Page 046

Accessories

Page 047
Door Closer

The door closers in this catalogue are divided into the following groups:
- Overhead door closers with slide channel, arm and as concealed version
- Floor springs

Door closer functions in the door operating range

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Backcheck
With backcheck, the swing of a forcefully opened door (manually or for example by gusts of wind) is reduced. Damage to the door or wall are therefore minimised or eliminated.

Closing speed
The exact setting of the closing speed guarantees a controlled closing of the door leaf.

Closing delay
The closing delay increases the closing time so that, for example, persons carrying luggage or bulky items, mothers with prams, elderly persons, etc. have sufficient time to walk through the door.

Latching action
The latching action controls the closing of the door and ensures, the lock closes reliably. Therefore the door closer increases the speed of the door. The hydraulic latching action is reducing the speed of the door to achieve a softer closing of the door.
Fixing types

Standard installation
(Door leaf installation) on the pull side

Overhead installation
(Transom fixing) on the push side

Standard installation
(Door leaf installation) on the pull side

Overhead installation
(Transom fixing) on the pull side

Standard installation
(Door leaf installation) on the push side

Overhead installation
(Transom fixing) on the push side
Standards relevant to the architectural hardware industry

Standards
There are two standards currently in existence for door closing devices:
EN 1154: 1997 - Mechanical closers
EN 1155: 1997 - Electronically controlled closers

These standards are shown in summary below in detail at the back of this catalogue. Attention should be paid to Digit 3, which deals with the power size and door width. Where applicable we have shown the relevant classification code using DHF graphic icons in this section.

EN 1154: 1997 - Controlled door closing devices - requirements and test methods.
Scope - The standard covers all controlled surface mounted, concealed, or transom mounted closers as well as both single and double action floor springs.

Classification

Digit 1 - Category of use
For all internal and external doors for use by the public, and others with little incentive to take care, i.e. where there is some chance of misuse of the door.
Grade 3: For closing doors from at least 105° open
Grade 4: For closing doors from 180° open
Note 1: Grade 4 classification assumes standard installation according to the manufacturer’s instructions.
Note 2: For applications subject to extremes of abuse, or for particular limitations of opening angle, door closers incorporating a backcheck function or provision of a separate door stop should be considered.

Digit 2 - Number of test cycles
Only one test duration is identified for the door closing device manufactured to this standard: Grade 8: 500,000 cycles

Digit 3 - Test door mass/size
Seven test door mass grades and related door closer power sizes are identified according to below table of this standard. Where a door closer provides a range of power sizes both the minimum and maximum sizes shall be identified.

<table>
<thead>
<tr>
<th>Power size of closer</th>
<th>Max. mass of hinged leaf</th>
<th>Width of test door leaf</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20 kg</td>
<td>750 mm</td>
</tr>
<tr>
<td>2</td>
<td>40 kg</td>
<td>850 mm</td>
</tr>
<tr>
<td>3</td>
<td>60 kg</td>
<td>950 mm</td>
</tr>
<tr>
<td>4</td>
<td>80 kg</td>
<td>1100 mm</td>
</tr>
<tr>
<td>5</td>
<td>100 kg</td>
<td>1250 mm</td>
</tr>
<tr>
<td>6</td>
<td>120 kg</td>
<td>1400 mm</td>
</tr>
<tr>
<td>7</td>
<td>160 kg</td>
<td>1600 mm</td>
</tr>
</tbody>
</table>

Example
The following marking denotes a closer capable of opening to at least 105°, and with a range of power sizes from size 2 to size 5. Note that as the 4th digit is zero, such a closer would not be suitable for fire door use.
Fire resisting doors

EN 1154 makes the following recommendations as to the feature considered necessary for such devices when they are fitted to fire and smoke resisting doors.

a) The door closer when installed in accordance with the ENOX installation instruction shall be capable of closing the test door from any angle to which it may be opened.

b) Due to their low closing moments, door closers sizes 1 and 2 are not considered suitable for use on fire/smoke resisting door assemblies. Door closers with adjustable closing force shall be capable of adjustment to at least power size 3.

c) The door closer shall not include a hold open device unless it is electrically powered device in accordance with EN 1155.

d) Control regulators shall be either concealed or operable only by means of a tool.

e) The design of a door closer shall be such that it is not possible to inhibit its closing action in any way without the use of a tool.

f) Any incorporated delayed action function shall be capable of adjustment to less than 25 seconds between the door closing angle of 120° and the end of the delay zone.

g) The door closer representative of its model shall have been incorporated in a door assembly that has satisfied the appropriate criteria of a fire test. The test shall have been on a full size assembly in accordance with EN 1634-1

CE conformity

Where a door closing device has a CE certificate of conformity, this will be shown thus. It is stated in 8300 that all fire doors must have closing devices that are CE marked.

Fire resistance and smoke control

- Tested for fire resistant and smoke control doors.

- The use of a hold-open device on fire resistant and smoke control doors are not permitted or they are not tested for resistance and smoke control.
Door Control

Overhead Door Closer

TS - 700

Applicable door width - EN 2/3/4

Door Closer with selectable closing force EN 2/3/4

Specifications
- Hydraulic closing with two stage closing control.
- Closing force 2/3/4 according to EN (for door width up to 1100mm) adjustable by moving the door closer.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 53 mm.
- Maximum door weight - 80 kgs.
- Maximum door width - 1100 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

Classification Number of TS-700

3 8 4 1 1 3

Dimension detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 / 3 / 4

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

Closing force diagram, hinge side

Closing force diagram, hinge-opposite side

1. Closing speed
2. Latching speed

<table>
<thead>
<tr>
<th>Speed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast</td>
<td>15°</td>
</tr>
<tr>
<td>Slow</td>
<td>0°</td>
</tr>
</tbody>
</table>

Closing Speed
Continuously adjustable closing speed from approx. 15° to 15°.

Latching Speed
Continuously adjustable latching speed from 15° to 0° to ensure complete latching.
Door Control

Overhead Door Closer

TS - 690

Applicable door width - EN 2/3/4

Door Closer with selectable closing force EN 2/3/4

Specifications
- Hydraulic closing with two stage closing control.
- Closing force 2/3/4 according to EN (for door width up to 1100mm) adjustable by moving the door closer.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 53 mm.
- Maximum door weight - 80 kgs.
- Maximum door width - 1100 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

Dimension detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 / 3 / 4

Closing force diagram, hinge side

Closing force diagram, hinge-opposite side

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

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Door Control
Overhead Door Closer

TS - 780
Applicable door width - EN 2/3

Door Closer with selectable closing force EN 2/3

Specifications
- Hydraulic closing with two stage closing control.
- Closing force 2/3 according to EN (for door width up to 950mm) adjustable by moving the door closer.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 42 mm.
- Maximum door weight - 60 kgs.
- Maximum door width - 950 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

Dimension detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 / 3

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.
Door Control
Overhead Door Closer

TS - 790

Applicable door width - EN 2/3

Door Closer with selectable closing force EN 2/3

Specifications
- Hydraulic closing with two stage closing control.
- Closing force 2/3 according to EN (for door width up to 950mm) adjustable by moving the door closer.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 42 mm.
- Maximum door weight - 60 kgs.
- Maximum door width - 950 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

Dimension detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 / 3

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

Closing speed diagram, hinge side
Closing speed diagram, hinge-opposite side

- Closing Speed
Continuously adjustable closing speed from approx. 180° to 15°.
- Latching Speed
Continuously adjustable latching speed from 15° to 0° to ensure complete latching.

ASSA ABLOY Group Brand
Door Control
Overhead Door Closer
TS - 810

**TS - 810**
Applicable door width - EN 2-4

Door Closer with adjustable closing force EN 2-4

**Specifications**
- Hydraulic closing with two stage closing control.
- Adjustable closing force EN 2-4.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 60 mm.
- Maximum door weight - 80 kgs.
- Maximum door width - 1100 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

**Classification Number of TS-810**

```
4 8 4 1 1 3
```

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

**Closing force EN 2 - 4**
Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

For Standard Arm
Closing force diagram, hinge side
Continuously adjustable closing speed from approx. 15° to 170°.
Continuously adjustable latching speed from 15° to 0° to ensure complete latching.

For Slide Rail
Closing force diagram, hinge side
Continuously adjustable closing speed from approx. 135° to 13°.
Latching Speed
Continuously adjustable latching speed from 13° to 0° to ensure complete latching.

Optional Accessories

<table>
<thead>
<tr>
<th>Special Features</th>
<th>TS ACC - 006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Force</td>
<td>Size according to EN</td>
</tr>
<tr>
<td>Door Width</td>
<td>Max. (in mm)</td>
</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Accessory Type</td>
<td>Slide Rail with hold open</td>
</tr>
</tbody>
</table>
**TS - 820**

Applicable door width - EN 2-5

Door Closer with adjustable closing force EN 2-5

**Specifications**
- Hydraulic closing with two stage closing control.
- Adjustable Closing force EN 2-5 (for door width up to 1250mm).
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 60 mm.
- Maximum door weight - 100 kgs.
- Maximum door width - 1250 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

**Classification Number of TS-820**

```
4 8 5 2 1* 1 3
```

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

**Closing force EN 2 - 5**

EN 2

EN 3 - 5
Door Control
Overhead Door Closer
TS - 820

Dimension detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge-opposite side

Closing force EN 2 - 4

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

For Standard Arm
Closing force diagram, hinge side
Closing force diagram, hinge-opposite side

For Slide Rail
Closing force diagram, hinge side
Closing force diagram, hinge-opposite side

Optional Accessories

<table>
<thead>
<tr>
<th>Special Features</th>
<th>TS ACC - 006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Force</td>
<td>Size according to EN</td>
</tr>
<tr>
<td>Door Width</td>
<td>Max. (in mm)</td>
</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Accessory Type</td>
<td>Slide Rail with hold open</td>
</tr>
</tbody>
</table>
**Door Control**

**Overhead Door Closer**

**TS - 830**

Applicable door width - EN 2-6

Door Closer with adjustable closing force EN 2-6

**Specifications**
- Hydraulic closing with two stage closing control.
- Adjustable closing force EN 2-6 (for door width up to 1400mm).
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 60 mm.
- Maximum door weight - 120 kgs.
- Maximum door width - 1400 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

**Classification Number of TS-830**

```
4 8 6 2 1* 1 4
```

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed

Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed

Head mounting, hinge-opposite side

**Closing force EN 2 - 6**

```
  215
  100
```

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Door Control
Overhead Door Closer

TS - 830

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

For Standard Arm
Closing force diagram, hinge side
- Closing Speed
  Continuously adjustable closing speed from approx. 130° to 13°.
- Latching Speed
  Continuously adjustable latching speed from 15° to 0° to ensure complete latching.

For Slide Rail
Closing force diagram, hinge side
- Closing Speed
  Continuously adjustable closing speed from approx. 130° to 13°.
- Latching Speed
  Continuously adjustable latching speed from 15° to 0° to ensure complete latching.

Optional Accessories

<table>
<thead>
<tr>
<th>Special Features</th>
<th>TS ACC - 007</th>
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</thead>
<tbody>
<tr>
<td>Closing Force</td>
<td>Size according to EN</td>
</tr>
<tr>
<td>Door Width</td>
<td>≤ 1250</td>
</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Accessory Type</td>
<td>Slide Rail with hold open</td>
</tr>
</tbody>
</table>
Door Control
Overhead Door Closer

TS - 880
Applicable door width - EN 2/3/4

Door Closer with selectable closing force EN 2/3/4

Specifications
• Hydraulic closing with two stage closing control.
• Closing force 2/3/4 according to EN (for door width up to 1100mm) adjustable by moving the door closer.
• With standard arm.
• Same version DIN left and DIN right.
• Mounting height only 58 mm.
• Maximum door weight - 80 kgs.
• Maximum door width - 1100 mm.
• Maximum angle of opening - 180°.
• Tested - 500,000 Cycles.
• Finish - Silver.

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Adjustment of Closing Speed.
• Turn the valves clockwise to decrease closing speed.
• Turn the valves counter clockwise to increase closing speed.

Optional Accessories

<table>
<thead>
<tr>
<th>Special Features</th>
<th>TS ACC - 002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Force</td>
<td>Size according to EN</td>
</tr>
<tr>
<td>Door Width</td>
<td>Max. (in mm)</td>
</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Accessory Type</td>
<td>Hold open arm</td>
</tr>
</tbody>
</table>
Door Control
Overhead Door Closer
TS - 880 SHO

TS - 880 SHO
Applicable door width - EN 2/3

Overhead Door Closer with slide arm selectable closing force EN 2/3

Specifications
• Hydraulic closing with two stage closing control.
• Closing force 2/3 according to EN (for door width up to 950mm) adjustable by moving the door closer.
• With slide rail.
• Same version DIN left and DIN right.
• Mounting height only 58 mm.
• Maximum door weight - 60 kgs.
• Maximum door width - 950 mm.
• Maximum angle of opening - 120°.
• Tested - 500,000 Cycles.
• Finish - Silver.

Dimension detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 / 3

Adjustment of Closing Speed.
• Turn the valves clockwise to decrease closing speed.
• Turn the valves counter clockwise to increase closing speed.

1. Closing speed
2. Latching speed

Closing force diagram, hinge side
Closing Speed
Continuously adjustable closing speed from approximately 15° to 15°.

Closing force diagram, hinge-opposite side
Latching Speed
Continuously adjustable latching speed from 15° to 3° to ensure complete latching.
**Door Control**

**Overhead Door Closer**

**TS - 980**

Applicable door width - EN 2/3/4

Door Closer with selectable closing force EN 2/3/4

**Specifications**
- Hydraulic closing with two stage closing control.
- Closing force 2/3/4 according to EN (for door width up to 1100mm) adjustable by moving the door closer.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 55 mm.
- Maximum door weight - 80 kgs.
- Maximum door width - 1100 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

**Adjustment of Closing Speed.**
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter-clockwise to increase closing speed.

**Optional Accessories**

<table>
<thead>
<tr>
<th>Special Features</th>
<th>TS ACC - 002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Force</td>
<td>Size according to PN</td>
</tr>
<tr>
<td>Door Width</td>
<td>Size according to PN</td>
</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Accessory Type</td>
<td>Hold open arm</td>
</tr>
</tbody>
</table>
Door Control
Overhead Door Closer

TS - 980 SHO

Applicable door width - EN 2/3

Overhead Door Closer with slide arm selectable closing force EN 2/3

Specifications
- Hydraulic closing with two stage closing control.
- Closing force 2/3 according to EN (for door width up to 950mm) adjustable by moving the door closer.
- With slide rail.
- Same version DIN left and DIN right.
- Mounting height only 35 mm.
- Maximum door weight - 60 kgs.
- Maximum door width - 950 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

Dimension detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

Dimension detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force diagram, hinge side
- Closing Speed
  Continuously adjustable closing speed from approx. 120° to 15°.
- Latching Speed
  Continuously adjustable latching speed from 15° to 3° to ensure complete latching.

Closing force diagram, hinge-opposite side
- Closing Speed
  Continuously adjustable closing speed from approx. 120° to 35°.
- Latching Speed
  Continuously adjustable latching speed from 15° to 0° to ensure complete latching.
Glass Clamp
for TS - 980 SHO
**TS 980 SHO Glass Clamp**

**Specifications**
- Use for Sliding Arm Door Closer TS-980 SHO.
- Material: Aluminium.
- Glass thickness 10 to 12mm.
- Finish: Silver.

**Top View**

![Top View Diagram](image)

**Front View**

![Front View Diagram](image)

**Glass Cut-out**

![Glass Cut-out Diagram](image)
Door Control
Overhead Door Closer

TS - 280
Applicable door width - EN 2-5

Door Closer with selectable closing force EN 2-5

Specifications
- Hydraulic closing with two stage closing control.
- Closing force 2 - 5 according to EN (for door width up to 1250mm) adjustable by force adjustment.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 60 mm.
- Maximum door weight - 100 kgs.
- Maximum door width - 1250 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

Dimensions detail of Hinge Side
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

Dimensions detail of Hinge-opposite Side
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 - 5
Door Control
Overhead Door Closer

**TS - 280**

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 - 4

Adjustment of Closing Speed.
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

Adjustable power screw

**For Standard Arm**
Closing force diagram, hinge side

- Closing Speed
  Continuously adjustable closing speed from approx. 130° to 15°.
- Latching Speed
  Continuously adjustable latching speed from 15° to 0° to ensure complete latching.

**For Slide Rail**
Closing force diagram, hinge side

- Closing Speed
  Continuously adjustable closing speed from approx. 120° to 15°.
- Latching Speed
  Continuously adjustable latching speed from 15° to 0° to ensure complete latching.

Optional Accessories

<table>
<thead>
<tr>
<th>Special Features</th>
<th>TS ACC - 001</th>
<th>TS ACC - 003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Force</td>
<td>Size according to EN</td>
<td>2 - 4</td>
</tr>
<tr>
<td>Door Width</td>
<td>Max. (in mm)</td>
<td>≤ 1100</td>
</tr>
<tr>
<td>Accessory Type</td>
<td>Slide Rail with hold open</td>
<td>Hold open arm</td>
</tr>
</tbody>
</table>

An ASSA ABLOY Group Brand
Door Control

Overhead Door Closer

**TS - 180**

Applicable door width - EN 2-6

Door Closer with selectable closing force EN 2-6

**Specifications**

- Hydraulic closing with two stage closing control.
- Closing force 2 - 6 according to EN (for door width up to 1400mm) adjustable by force adjustment.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 62 mm.
- Maximum door weight - 120 kgs.
- Maximum door width - 1400 mm.
- Maximum angle of opening - 180°.
- Tested - 500,000 Cycles.
- Finish - Silver.

---

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

**Closing force EN 2 - 6**
Door Control
Overhead Door Closer

TS - 180

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

Closing force EN 2 - 4

**Adjustment of Closing Speed.**
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

**For Standard Arm**
Closing force EN 2 - 4
Closing force diagram, hinge side

**For Slide Rail**
Closing force diagram, hinge side

**Optional Accessories**

<table>
<thead>
<tr>
<th>Special Features</th>
<th>TS ACC - 001</th>
<th>TS ACC - 003</th>
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<tr>
<td>Closing Force</td>
<td>2 - 4</td>
<td>2 - 6</td>
</tr>
<tr>
<td>Door Width</td>
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<td>≤ 1400</td>
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<tr>
<td>Door Weight</td>
<td>80</td>
<td>120</td>
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<tr>
<td>Accessory Type</td>
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<td>Hold open arm</td>
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</table>
Door Control

Overhead Door Closer

TS - 7900

**TS - 7900 (Cam Action)**

Applicable door width - EN 2-5

Overhead Door Closer with slide arm selectable closing force EN 2-5

**Specifications**
- Hydraulic closing with two stage closing control.
- Closing force 2 - 5 according to EN (for door width up to 1250mm) adjustable by force adjustment.
- With slide rail.
- Same version DIN left and DIN right.
- Mounting height only 62 mm.
- Maximum door weight - 100 kgs.
- Maximum door width - 1250 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.
- Double action.

**Dimension detail of Hinge Side**
DIN left-door, DIN right laterally reversed
Standard mounting, hinge side

**Dimension detail of Hinge-opposite Side**
DIN left-door, DIN right laterally reversed
Head mounting, hinge-opposite side

**Adjustment of Closing Speed.**
- Turn the valves clockwise to decrease closing speed.
- Turn the valves counter clockwise to increase closing speed.

**Closing force diagram, hinge side**
- Closing Speed
  Continuously adjustable closing speed from approx. 30° to 7°.
  Latching Speed
  Continuously adjustable latching speed from 7° to 9° to ensure complete latching.

**Closing force diagram, hinge-opposite side**
- Closing Speed
  Continuously adjustable closing speed from approx. 30° to 7°.
  Latching Speed
  Continuously adjustable latching speed from 7° to 9° to ensure complete latching.
**Door Control**

**Concealed Door Closer**

**ITS - 960**

**ITS - 960 (Cam Action)**

Applicable door width - EN 2-4

Concealed Door Closer with adjustable closing force EN 2 - 4

**Specifications**
- Hydraulic closing with two stage closing control.
- Adjustable closing force EN 2 - 4.
- With concealed slide rail.
- Same version DIN left and DIN right.
- Mounting height only 42 mm.
- Maximum door weight - 80 kgs.
- Maximum door width - 1100 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

---

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<thead>
<tr>
<th>Classification Number of ITS-960</th>
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<tbody>
<tr>
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**Special Features**

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<tr>
<td>Closing Force</td>
<td>Size according to EN</td>
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<tr>
<td>Door Width</td>
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<tr>
<td>Size according to EN</td>
<td>≤ 650</td>
</tr>
<tr>
<td></td>
<td>≤ 1100</td>
</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>2 - 4</td>
</tr>
<tr>
<td>including mounting plate</td>
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<td>Slide Arm</td>
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<tr>
<td>Slide Arm &amp; Hold Open Arm</td>
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<tr>
<td>Hold Open Arm</td>
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<tr>
<td>Closing Speed (adjustable)</td>
<td>-</td>
</tr>
<tr>
<td>Latching Speed (adjustable)</td>
<td>-</td>
</tr>
<tr>
<td>Back - check (adjustable)</td>
<td>-</td>
</tr>
<tr>
<td>Delay Action</td>
<td>-</td>
</tr>
<tr>
<td>Single Action</td>
<td>-</td>
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<tr>
<td>Tested According to EN</td>
<td>-</td>
</tr>
<tr>
<td>Certified according to EU-Directive</td>
<td>-</td>
</tr>
</tbody>
</table>

- Yes
- Option
- No
**ITS - 120**

Applicable door width - EN 2-4

Concealed Door Closer with adjustable closing force EN 2 - 4

**Specifications**
- Hydraulic closing with two stage closing control.
- Adjustable closing force EN 2 - 4.
- With concealed slide rail.
- Same version DIN left and DIN right.
- Mounting height only 45 mm.
- Maximum door weight - 80 kgs.
- Maximum door width - 1100 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

<table>
<thead>
<tr>
<th>Special Features</th>
<th>ITS 120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Force</td>
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<tr>
<td>Door Width</td>
<td>≤ 850</td>
</tr>
<tr>
<td></td>
<td>≤ 650</td>
</tr>
<tr>
<td></td>
<td>≤ 1100</td>
</tr>
<tr>
<td>Door Weight</td>
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<td>MM Depth 32</td>
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<tr>
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<td>MM Height 45</td>
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<tr>
<td>Arm</td>
<td>Standard -</td>
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<td>Parallel Arm Bracket -</td>
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<tr>
<td></td>
<td>Slide Arm ○</td>
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<td></td>
<td>Slide Arm &amp; Hold Open Arm ●</td>
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<td>Hold Open Arm -</td>
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<td>●</td>
</tr>
<tr>
<td>Latching Speed (adjustable)</td>
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</tr>
<tr>
<td>Back - check (adjustable)</td>
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<tr>
<td>Delay Action</td>
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<tr>
<td>Single Action</td>
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</tbody>
</table>

- Yes  ○ Option  - No
Door Control
Concealed Door Closer

ITS - 990
Applicable door width - EN 3-6

Concealed Door Closer with
adjustable closing force EN 3 - 6

Specifications
- Hydraulic closing with two stage closing control.
- Adjustable closing force EN 3 - 6.
- With concealed slide rail.
- Same version DIN left and DIN right.
- Mounting height only 53 mm.
- Maximum door weight - 120 kgs.
- Maximum door width - 1400 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

<table>
<thead>
<tr>
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<th>ITS 990</th>
</tr>
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<tbody>
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<tr>
<td>Door Width</td>
<td>≤ 950</td>
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<td></td>
<td>≤ 1100</td>
</tr>
<tr>
<td></td>
<td>≤ 1250</td>
</tr>
<tr>
<td></td>
<td>≤ 1400</td>
</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>MM Length</td>
</tr>
<tr>
<td>including mounting plate</td>
<td>MM Depth</td>
</tr>
<tr>
<td></td>
<td>MM Height</td>
</tr>
<tr>
<td>Arm</td>
<td>Standard</td>
</tr>
<tr>
<td></td>
<td>Parallel Arm Bracket</td>
</tr>
<tr>
<td></td>
<td>Slide Arm</td>
</tr>
<tr>
<td></td>
<td>Slide Arm &amp; Hold Open Arm</td>
</tr>
<tr>
<td></td>
<td>Hold Open Arm</td>
</tr>
<tr>
<td>Closing Speed (adjustable)</td>
<td>●</td>
</tr>
<tr>
<td>Latching Speed (adjustable)</td>
<td>●</td>
</tr>
<tr>
<td>Back - check (adjustable)</td>
<td>-</td>
</tr>
<tr>
<td>Delay Action</td>
<td>-</td>
</tr>
<tr>
<td>Single Action</td>
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<tr>
<td>Tested According to EN</td>
<td>●</td>
</tr>
<tr>
<td>Certified according to EU-Directive</td>
<td>●</td>
</tr>
</tbody>
</table>

● Yes   ○ Option   - No
**ITS - 6600 (Cam Action)**

Applicable door width - EN 2-4

Concealed Door Closer with adjustable closing force EN 2 - 4

**Specifications**
- Hydraulic closing with two stage closing control.
- Closing force 2 - 4 according to EN (for door width up to 1100mm) adjustable by force adjustment.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 59 mm.
- Maximum door weight - 80 kgs.
- Maximum door width - 1100 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

### Special Features

<table>
<thead>
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<th>IT5 6600 (CAM ACTION)</th>
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<tbody>
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<tr>
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</tr>
<tr>
<td><strong>Door Width</strong></td>
</tr>
<tr>
<td>≤ 850</td>
</tr>
<tr>
<td>≤ 1100</td>
</tr>
<tr>
<td><strong>Door Weight</strong></td>
</tr>
<tr>
<td>80</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
</tr>
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<td>MM Length</td>
</tr>
<tr>
<td>MM Depth</td>
</tr>
<tr>
<td>MM Height</td>
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<td><strong>Arm</strong></td>
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<tr>
<td>Parallel Arm Bracket</td>
</tr>
<tr>
<td>Slide Arm</td>
</tr>
<tr>
<td>Slide Arm &amp; Hold Open Arm</td>
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<tr>
<td>Hold Open Arm</td>
</tr>
<tr>
<td><strong>Closing Speed (adjustable)</strong></td>
</tr>
<tr>
<td><strong>Latching Speed (adjustable)</strong></td>
</tr>
<tr>
<td><strong>Back - check (adjustable)</strong></td>
</tr>
<tr>
<td><strong>Delay Action</strong></td>
</tr>
<tr>
<td><strong>Double Action</strong></td>
</tr>
<tr>
<td><strong>Tested according to EN</strong></td>
</tr>
<tr>
<td><strong>Certified according to EU-Directive</strong></td>
</tr>
</tbody>
</table>

● Yes     ○ Option     ▬ No
**ITS - 6900 (Cam Action)**

Applicable door width - EN 2-5

**Concealed Door Closer with adjustable closing force EN 2 - 5**

**Specifications**
- Hydraulic closing with two stage closing control.
- Closing force 2 - 5 according to EN (for door width up to 1250mm) adjustable by force adjustment.
- With slide rail.
- Same version DIN left and DIN right.
- Mounting height only 62 mm.
- Maximum door weight - 100 kgs.
- Maximum door width - 1250 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

<table>
<thead>
<tr>
<th>Special Features</th>
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<td>Size according to EN</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Door Weight</td>
<td>Max. (in kgs)</td>
</tr>
<tr>
<td>Dimensions including mounting plate</td>
<td>MM Length</td>
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<td>MM Depth</td>
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<tr>
<td>Latching Speed (adjustable)</td>
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<td>Back - check (adjustable)</td>
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<td>Delay Action</td>
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<td>Double Action</td>
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<td>Tested According to EN</td>
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</tbody>
</table>

● Yes    ○ Option    ● No
**ITS - 3870**

Applicable door width - EN 2-5

Concealed Door Closer with adjustable closing force EN 2 - 5

**Specifications**
- Hydraulic closing with two stage closing control.
- Closing force 2 - 5 according to EN (for door width up to 1250mm) adjustable by force adjustment.
- With standard arm.
- Same version DIN left and DIN right.
- Mounting height only 61 mm.
- Maximum door weight - 100 kgs.
- Maximum door width - 1250 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

**Special Features**

<table>
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<th>Feature</th>
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<tbody>
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<td>Slide Arm</td>
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<td>Slide Arm &amp; Hold Open Arm</td>
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</tr>
<tr>
<td>Latching Speed (adjustable)</td>
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<td>Back - check (adjustable)</td>
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<td>Delay Action</td>
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<td>Tested According to EN</td>
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</tr>
<tr>
<td>Certified according to EU-Directive</td>
<td>-</td>
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</tbody>
</table>

● Yes  ○ Option  = No
**ITS - 3800**

Applicable door width - EN 1/2/3

**Concealed Door Closer with selectable closing force EN 1/2/3**

**Specifications**
- Hydraulic closing with two stage closing control.
- Closing force 1/2/3 according to EN (for door width up to 950mm) adjustable by moving the door closer.
- With slide rail.
- Same version DIN left and DIN right.
- Mounting height only 57 mm.
- Maximum door weight - 60 kgs.
- Maximum door width - 950 mm.
- Maximum angle of opening - 120°.
- Tested - 500,000 Cycles.
- Finish - Silver.

<table>
<thead>
<tr>
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<td>Door Width EN 2</td>
<td>≤ 850</td>
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<td>Door Width EN 3</td>
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<tr>
<td>Slide Arm</td>
<td>☐</td>
</tr>
<tr>
<td>Slide Arm &amp; Hold Open Arm</td>
<td>☐</td>
</tr>
<tr>
<td>Hold Open Arm</td>
<td>☐</td>
</tr>
<tr>
<td>Closing Speed (adjustable)</td>
<td>☐</td>
</tr>
<tr>
<td>Latching Speed (adjustable)</td>
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<td>Tested According to EN</td>
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</tbody>
</table>

- ☐ Yes  ☒ Option  ☒ No
FLOOR SPRING
Door Control System
FH - 100
Applicable door width - EN 3

Hydraulic Floor Hinge
closing force EN 3

Specifications
• Floor hinge for double action swing door.
  Installation in the floor.
• Max. door opening angle in each direction : 120°.
• Hold open angle : 90°
• Suitable glass thickness - 8 to 13mm.
• Maximum door width - 950mm ~ 1000mm.
• Maximum door weight - 60kgs ~ 80kgs.
• Tested - 100,000 Cycles.
• Finish : Satin Stainless Steel.

Installation Dimension

Closing force diagram, hinge side

No.2 Latching Speed
No.1 Closing Speed

Speed adjusting valve

Fast  Slow

Closing Speed
Continuously adjustable closing speed from regulation valve
(120° to 15°).

Latching Speed
Increases the closing speed and thus the safe closing
of 15° to 0° the door, for example to overcome door seals,
door locks and high air pressure.

Hold Open
Hold open at position 90°.

Adjustment of Closing Speed
Two regulating valves " and ".
\[\text{decrease closing speed}\]
\[\text{increase closing speed}\]
**FH - 842 / 843 / 844**

Applicable door width - EN 2/3/4

Floor Spring
closing force EN 2/3/4

**Specifications**
- The FH 842/843/844/844H floor door closer is distinguished by its particularly flat design which makes it the ideal door closer for single-leaf latching and swinging doors.
- The overall height of only 40mm enables easy installation.
- The FH is available in size EN 2/3/4.
- Tested acc. to EN 1154 A

**Classification Number of FH-843**

| 3 | 8 | 3 | 1* | 1 | 3 |

**Classification Number of FH-844**

| 3 | 8 | 4 | 1* | 1 | 3 |

**Special Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>FH 842</th>
<th>FH 843</th>
<th>FH 844</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Force Size according to EN</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Door Width ≤ 850</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Door Width ≤ 950</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Door Weight Max (in lugs)</td>
<td>70</td>
<td>105</td>
<td>150</td>
</tr>
<tr>
<td>Dimensions MM Length</td>
<td>306</td>
<td>306</td>
<td>306</td>
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<tr>
<td>Dimensions MM Depth</td>
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<td>108</td>
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<tr>
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<tr>
<td>Hold Open 90°</td>
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<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Door Opening Angle</td>
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<td>130°</td>
<td>130°</td>
</tr>
<tr>
<td>Closing Speed (adjustable)</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Latching Speed (adjustable)</td>
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<tr>
<td>DIN Left / Right</td>
<td>●</td>
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</table>

**Tested According to EN**

EN 1154 A

Suitable for fire and smoke control doors (not permitted when used with hold-open)

Certified according to EU-Directive

● Yes  ○ Option  – No
Door Control

Floor Spring

FH - 842/843/844

Installation Dimension

Illustration DIN left-door, DIN right laterally reversed

Floor spring
Door closer for single-leaf single action doors / double swing door. Installation in the floor incl. accessory set containing

Dimensions: 306 / 106 / 40 mm
Closing force: 3 or 4, not adjustable
Closing speed: adjustable 105° to 15°
Latching speed: adjustable 105° to 0°
Opening angle: 130°
Hold-open as option 90°

Closing force diagram, hinges side

15°
195°

Closing Speed
Continuously adjustable closing speed from regulation valve 0° to 195°.
Latching Speed
Increases the closing speed and thus the safe closing of 135° to 90°. The door, for example, to overcome door seals, door locks and high air pressure.
Hold Open
Hold-open as position 90°.
Adjustment of Closing Speed
Two regulating valves 6 and 7.
6 Decrease closing speed.
7 Increase closing speed.

EFS ACC - 003
Top & bottom strip for wooden panel
Heavy duty
FH - 942 / 943 / 944 / 944H

Applicable door width - EN 2/3/4/6

Floor Spring with selectable closing force EN 2/3/4/6

Specifications
- Floor spring for single-leaf single action / double action swing door. Installation in the floor.
- High quality cast iron mechanism body.
- Provided with door stop function and explosion proof device. Suitable for wooden, glass and alu etc. all kinds of door.
- Max. door opening angle in each direction: 130°.
- Controllable closing angle: 90° +15° -0°.
- The width inside the frame can be adjusted by 10mm, length by 7mm and height 4mm.
- Maximum door width: 850mm / 950mm / 1100mm / 1400mm.
- Maximum door weight: 70kgs / 105kgs / 150kgs / 250kgs.
- Tested: 500,000 Cycles.
- Cover plate finish: Satin Stainless Steel.

<table>
<thead>
<tr>
<th>Special Features</th>
<th>FH 942</th>
<th>FH 943</th>
<th>FH 944</th>
<th>FH 944 H</th>
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<tr>
<td>Closing Force</td>
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<td>≤ 1400</td>
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<td>●</td>
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<td>Interchangeable Spindle</td>
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<tr>
<td>Tested According to EN</td>
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<td>Certified according to EU-Directive</td>
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</table>

- Yes □  Option ○ — No
Floor Spring

FH - 942/943/944/944H

Installation Dimension

**Floor spring**
Door closer for single-leaf single action doors / double swing door. Installation in the floor incl. accessory set containing:

- A - Fixing Screw
- B - Height adjustment screw
- C - Regulation valve 120° -15°
- D - Regulation valve 15° - 0°
- E - Height adjustment screw
- F - Fixing Screw

**Closing force diagram, hinges side**

- CLOSING SPEED
  - Continuously adjustable closing speed from regulation valve:
    - 15° to 120°
  - Locking Speed
    - Increases the closing speed and thus the safe closing of 15° to 90°, for example to overcome door seals, door locks and high air pressure.
  - Hold Open
    - Hinge opens as portion 90°
  - Adjustment of Closing Speed
    - Two regulating valves and:
      - 1) Increase closing speed,
      - 2) Decrease closing speed

**EFS ACC - 003**
Top & bottom strip for wooden panel
Heavy duty

An ASSA ABLOY Group Brand
FH - 742 / 743 / 744 / 744H

Applicable door width - EN 2/3/4/6

Floor Spring with selectable closing force EN 2/3/4/6

Specifications
- Floor spring for single-leaf single action / double action swing door. Installation in the floor.
- High quality cast iron mechanism body.
- Provided with door stop function and explosion proof device.
  Suitable for wooden, glass and alu etc. all kinds of door.
- Max. door opening angle in each direction : 130°.
- Controllable closing angle : 90° +15° -0°.
- The width inside the frame can be adjusted by 10mm, length by 7mm and height 4mm.
- Maximum door width - 850mm / 950mm / 1100mm / 1400mm.
- Maximum door weight 70kgs / 105kgs / 150kgs / 300kgs.
- Tested - 500,000 Cycles.
- Cover plate finish : Satin Stainless Steel.

### Special Features

<table>
<thead>
<tr>
<th></th>
<th>FH 742</th>
<th>FH 743</th>
<th>FH 744</th>
<th>FH 744 H</th>
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<tr>
<td><strong>Closing Force</strong></td>
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<td></td>
</tr>
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<td>≤ 1100</td>
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<tr>
<td>≤ 1400</td>
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<td>Offset</td>
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<td>○</td>
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</tr>
<tr>
<td><strong>Hold Open 90° or 105°</strong></td>
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<td>●</td>
<td>●</td>
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<td>120°</td>
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<td><strong>Closing Speed (adjustable)</strong></td>
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<td>●</td>
</tr>
<tr>
<td><strong>Latching Speed (adjustable)</strong></td>
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<td>●</td>
<td>●</td>
</tr>
<tr>
<td><strong>Back Check</strong></td>
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<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td><strong>Interchangeable Spindle</strong></td>
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<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td><strong>Tested According to EN</strong></td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td><strong>Certified according to EU-Directive</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

- Yes  ○ Option  - No
Floor Spring

Installation Dimension

Floor spring
Door closer for single-leaf single action doors / double swing doors. Installation in the floor incl. accessory set containing:

A - Fixing Screw
B - Height adjustment screw
C - Regulation valve 120° -15°
D - Regulation valve 15° -0°
E - Height adjustment screw
F - Fixing Screw

Closing force diagram, hinges side

- Closing Speed: Continuously adjustable closing speed from regulation valve.
- Latching Speed: Increases the closing speed and thus the safe closing of 15° to 90°, for example, to overcome door snags, door locks and high air pressure.
- Hold Open: Hold open as position 90°.
- Adjustment of Closing Speed: Two regulating valves C and D:
  1. Increase closing speed.
  2. Decrease closing speed.

EFS ACC - 003
Top & bottom strip for wooden panel
Heavy duty

An ASSA ABLOY Group Brand
EFS - 3080
Applicable door width - EN 2

Floor Spring closing force EN 2

Specifications
- This cylinder is made of high quality cast iron.
- The closing force, door-closer speed and blocking action are stepless adjustable.
- Provided with door stop function and explosion-proof device. Suitable for wooden, glass and alu etc. all kinds of doors.
- Max. opening angle in each direction: 120°
- Controllable closing angle: 90° +15° -0°
- The width inside the frame can be adjusted by 2.5mm, length by 10mm and height 10mm.
- It adopts low temperature anti-freezing hydraulic oil and the application ambient temperature can reach: -30°C – +50°C.

<table>
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<td>2</td>
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<tr>
<td>(with closing force display, continuously adjustable)</td>
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<tr>
<td>Door Width</td>
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<tr>
<td>Size according to EN</td>
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<td>Hold Open 90° or 105°</td>
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<td>* Not fire rated (continuously adjustable)</td>
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<td>Back Check</td>
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<td>DIN Left / Right</td>
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<tr>
<td>Tested According to EN</td>
<td>—</td>
</tr>
</tbody>
</table>

- Yes    ☐ Option    ☐ No
Installation Dimension

Illustration DIN left-door, DIN right laterally reversed

1. Speed adjusting screw: can be adjusted to suitable closing speed within first speed range (80 ° - 15°).
2. Speed adjusting screw: can be adjusted to suitable latching speed within second speed range (15° - 0°).

Precautions:
- At completion of erection, the door closing speed can be adjusted by regulating screw 1: left turning for high speed and right turning for low speed.
- After the front, rear, left and right position of floor spring, tighten the floor spring, otherwise floor spring may shake during use.
- During speed regulation, do not push or pull the door by force to avoid damage of door or floor spring.

EFS-ACC-001
Top Pivot

EFS-ACC-002
Bottom Arm

Dimensions: 250 / 110 / 50 mm
Closing speed: adjustable 120° to 15°
Latching speed: adjustable 15° to 15°
Opening angle: 120°
Hold-open as option, 90°
ETC - 002 / 003 / 004
Applicable door width - EN 2/3/4

Floor Spring with force EN 2/3/4

Specifications
- Transom for single-leaf single action / double action swing door. Installation in the floor.
- High quality cast iron mechanism body.
- Provided with door stop function and explosion proof device. Suitable for wooden, glass and alu etc. all kinds of door.
- Max. door opening angle in each direction: 130°.
- Controllable closing angle: 90° +15° -0°.
- The width inside the frame can be adjusted by 10mm, length by 7mm and height 4mm.
- Maximum door width - 850mm / 950mm / 1100mm.
- Maximum door weight 70kgs / 105kgs / 150kgs.
- Tested - 500,000 Cycles.
- Cover plate finish: Satin Stainless Steel.

<table>
<thead>
<tr>
<th>Special Features</th>
<th>ETC 002</th>
<th>ETC 003</th>
<th>ETC 004</th>
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Certified according to EU-Directive

● Yes    ○ Option    ● No
### Optional Accessories

<table>
<thead>
<tr>
<th>TS ACC - 001</th>
<th>Sliding Track with Hold Open</th>
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<th>Standard Arm with Hold Open for TS - 280 &amp; TS - 180</th>
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<th>Hold open device for ITS 3800/ITS 3870</th>
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<td>Mechanical locking device for slide arm</td>
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<th>TS ACC - 005</th>
<th>Hold open device for ITS 6600/ITS 6900/ITS 7900</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Mechanical locking device for slide arm</td>
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<table>
<thead>
<tr>
<th>TS ACC - 006</th>
<th>Standard Arm with Hold Open for TS - 810 &amp; TS - 820</th>
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<td>Finish - Silver</td>
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<table>
<thead>
<tr>
<th>TS ACC - 007</th>
<th>Standard Arm with Hold Open for TS - 830</th>
</tr>
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<tbody>
<tr>
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<td>Finish - Silver</td>
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## Optional Accessories

<table>
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<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>EFS ACC - 001</td>
<td>Top Pivot</td>
</tr>
<tr>
<td>EFS ACC - 002</td>
<td>Bottom Arm</td>
</tr>
<tr>
<td>EFS ACC - 003</td>
<td>Top &amp; bottom strip for wooden panel Heavy duty</td>
</tr>
<tr>
<td>EFS ACC - 004 R/L</td>
<td>Offset arm Accessories Option - Left / Right</td>
</tr>
</tbody>
</table>
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