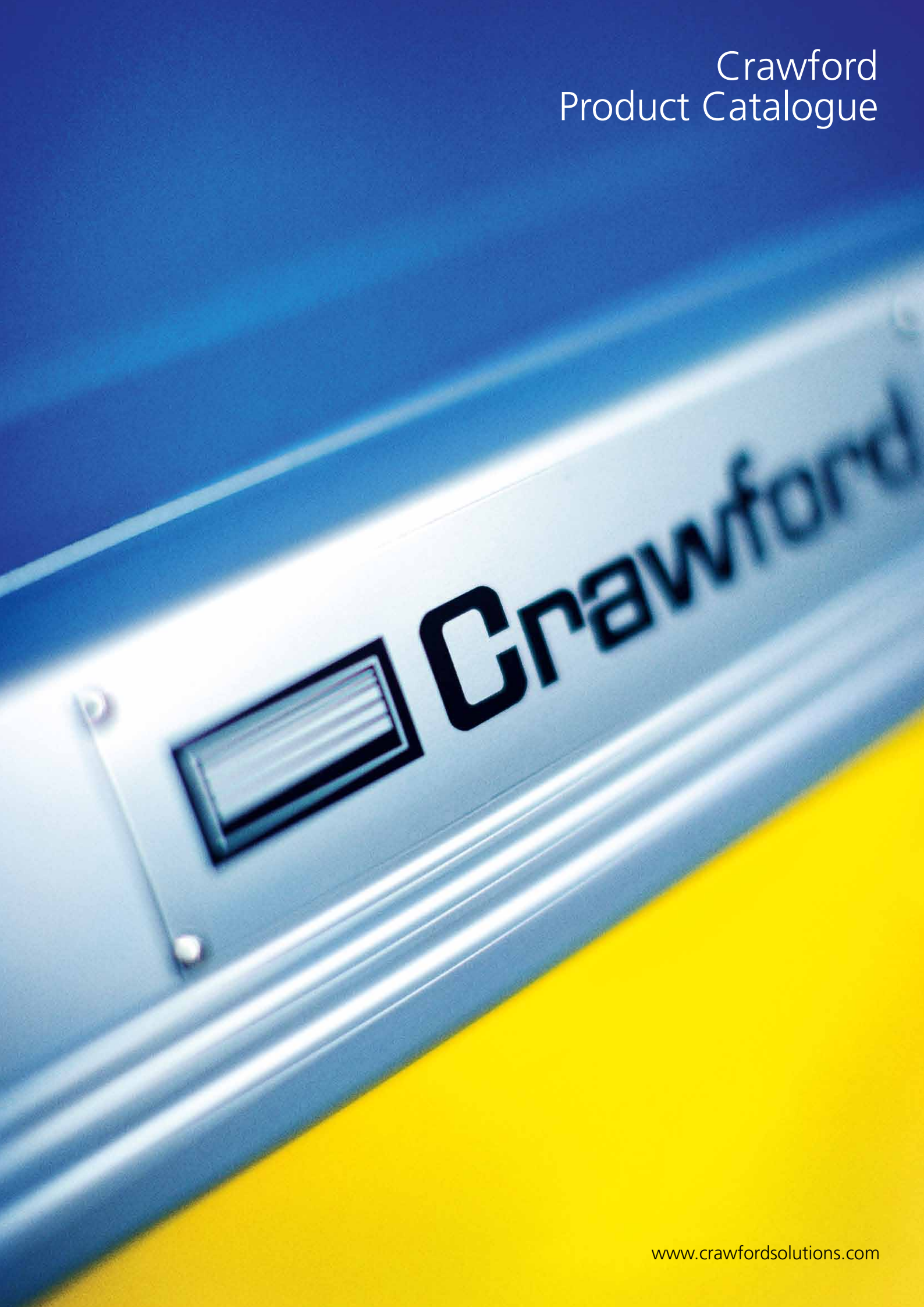
# Crawford
# Product Catalogue




www.crawfordsolutions.com

# Crawford Group. Leading the world in industrial doors, docking systems and service.

# Content



## Industrial doors



## Docking systems



## Service

# Your solutions provider for industrial doors, docking and service

*All operations, whether large or small, place some common, basic demands on products installed in and around the door opening: they must be safe, efficient and reliable, and provide accurate security against intruders.*

**Different needs – but a single supplier**

The single most important purpose of a door is to provide access when required, without fail.

A large, international logistics centre may require complete, centrally controlled docking solutions, providing security as well as safety while helping to expedite an intensive logistic flow. Everything – doors, levellers, shelters and monitoring – must function smoothly and without fail.

A smaller facility may need a less sophisticated solution, with robust well-insulated space-saving doors. Yet its demands for reliability and safety still remain high.

Pedestrian doors, providing vital access to busy public and commercial premises, must function without question and with complete safety for the individual.

Trouble-free operation is the heart of Crawford's business concept. It's the promise behind each of our industrial door and docking products, supported by our professional preventive maintenance and responsive service. And Crawford can serve all your door and docking needs.

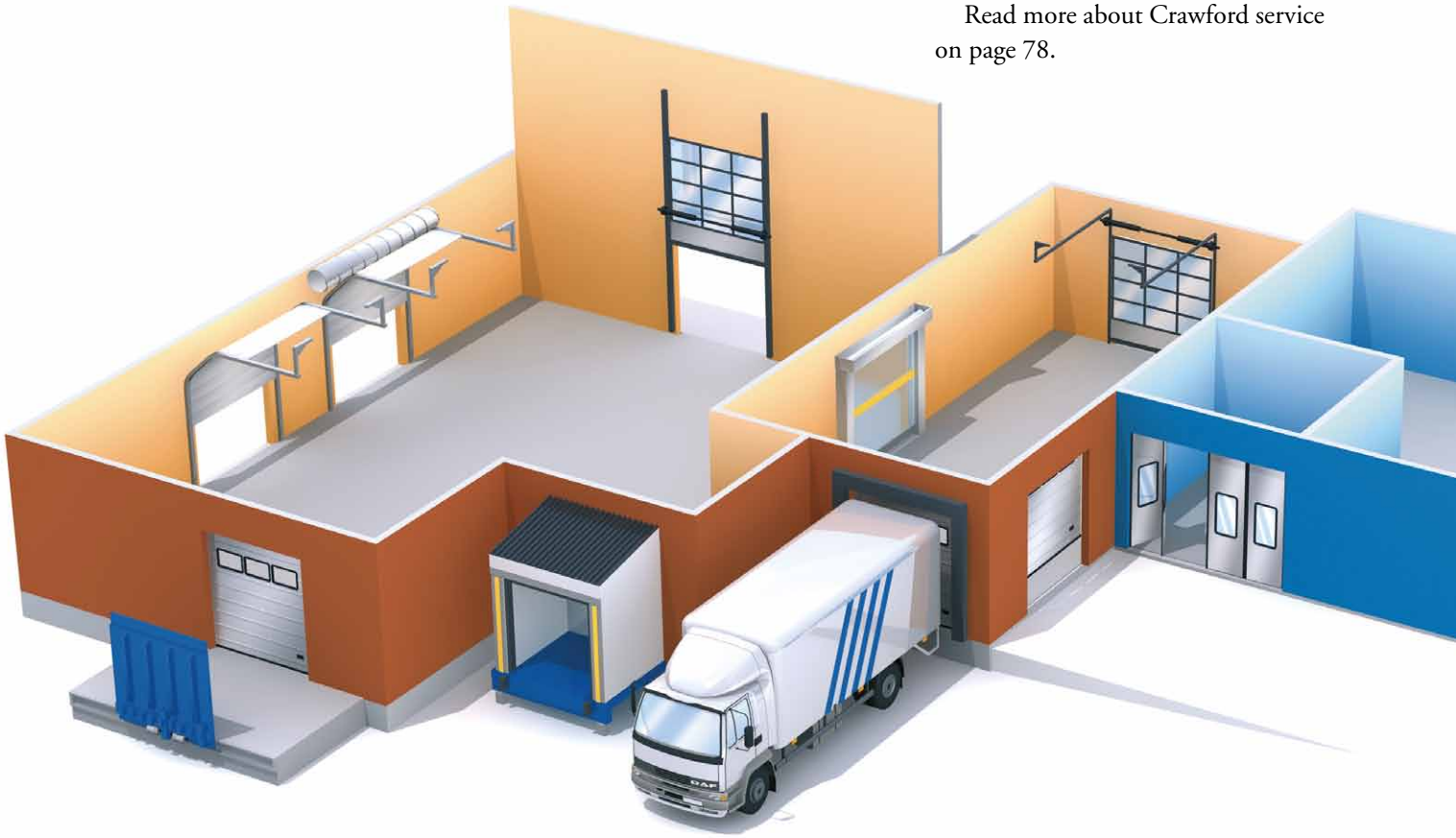
**Always at your service**

The paradox of doors is that, if they function perfectly, they're not there. Doors, levellers, shelters, etc. provide an immediate and invisible bridge – between production units, at the loading or receiving bay, or just between the indoors and the outdoors.

It's our goal to keep it that way. With a comprehensive range of doors, we will tailor the access solution that exactly matches your logistical needs. And we support it, throughout its operative life, with the world's most responsive and reliable service.

Regular maintenance secures functionality, increases product lifetime, increases safety and reduces operational costs. Damages and other malfunctions are repaired quickly and professionally. We have built the most extensive service organisation in the industry, with over 1000 skilled Crawford service engineers who are ready to provide scheduled preventive maintenance as well as urgent repairs.

Read more about Crawford service on page 78.



**Continuous development – unlimited possibility**

'Just-in-time' production methods, with an intense flow of goods, may require high-speed doors or especially robust doors. High demands on truck-bed utilisation often call for a dock leveller with telescopic lip. And operations in particularly harsh conditions, or with very large door openings, may make doors in special materials a necessity.

Only a supplier who controls the whole process – from product development and design to manufacture, installation and service – can fulfil such high requirements. Customer-specific solutions require a reliable, responsive supplier who can provide products, repair and maintenance, regardless of country – with a key-account approach.

Crawford offers you an almost unlimited range of solutions developed, delivered and supported by trained experts!

**Your partner – with global presence and local expertise**

Over one million customers choose us as their supplier for efficient and trouble-free operations.

The main reasons are Crawford's extensive program of doors and docking equipment, combined with our unbeatable responsiveness, service and support. Crawford is always close to you, represented in over 30 European countries, as well as in Asia, USA and the Middle East.

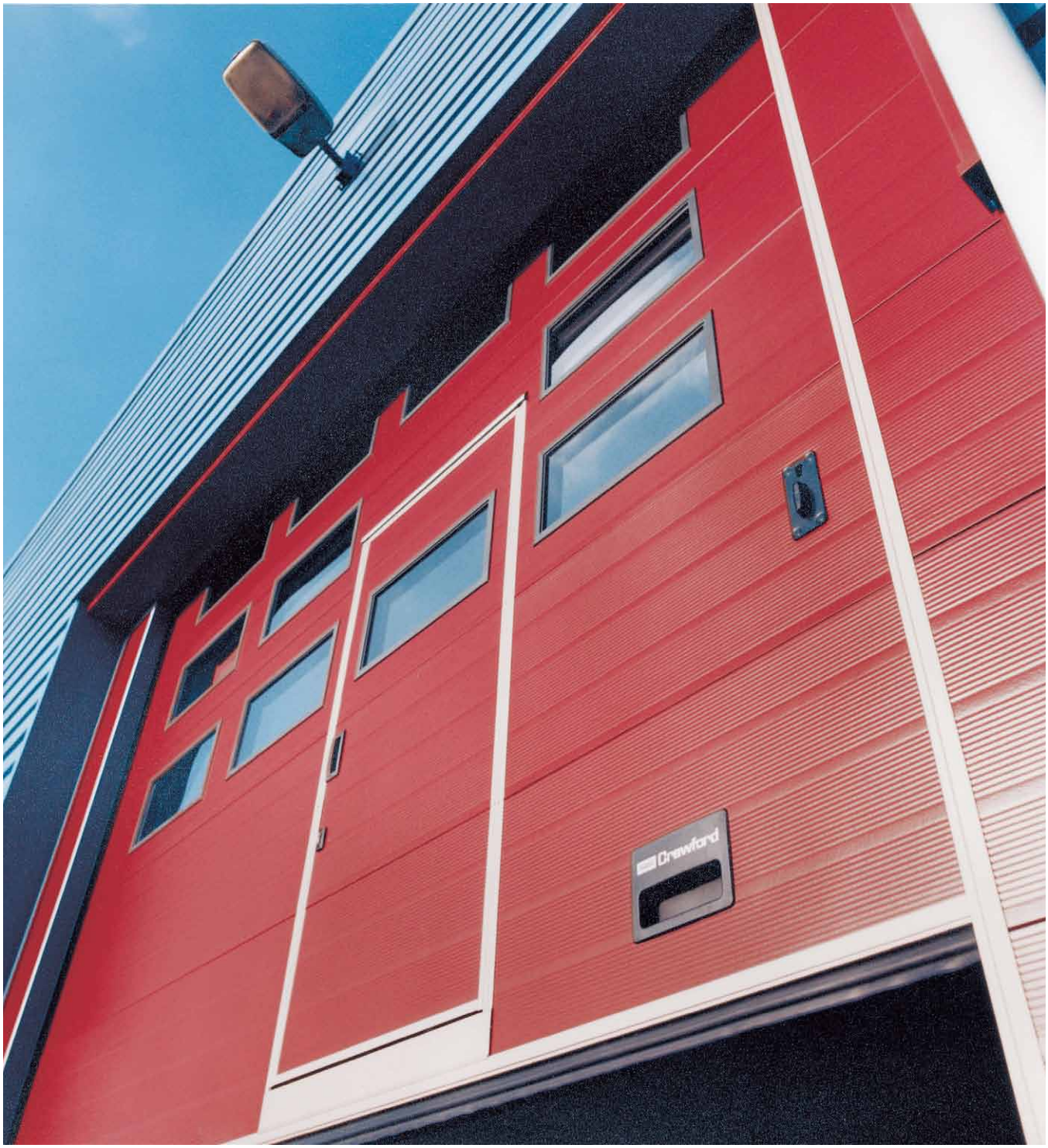
Our local teams always provide you with the right solutions, while our extensive service network ensures timely, responsive product support. Efficient manufacturing units and spare parts centres are strategically located around the world to serve our customers with high-quality products, custom-made solutions and short delivery times.

**Quality in focus**

Our most important manufacturing and sales units are certified under the ISO 9000 and ISO 9002 quality assurance systems. They are also successively being environmentally certified in accordance with ISO 14000 and ISO14001.

*Welcome to Crawford – your one-stop solutions provider in and around the door opening! Visit crawfordsolutions.com to see our latest solutions.*

# Industrial doors



# A quality door solution for every use

*The Crawford Industrial Doors product programme offers an extensive selection of door models to be used in several different environments. It includes doors for both outside and inside applications, like production plants, waste handling, warehouses, distribution centres, shipyards, airports, supermarkets and car dealers.*

All industrial door models offer several different options enabling you to have a door that can meet all the needs and requirements of your facility.

Crawford doors for industrial use are designed to be exposed to demanding operations and to meet high quality standards.

Traffic intensity, fleet variation, handling equipment and access control are some of the most common factors influencing your door choice. As your needs change or evolve, we offer a wide range of possibilities for upgrading your doors. The right choice of door has an impact on the annual user cost.

A basic door can have a higher annual user cost. An enhanced door design can, due to its construction, have a considerably lower user costs. The right door and operation at the right place have considerable effect on the cost efficiency of your site.

Crawford is dedicated to offering you optimal solutions to your needs.


# Crawford
# Overhead sectional doors

*Crawford offers a complete range of overhead sectional doors Crawford 542/242 overhead sectional doors. The Crawford 542 overhead sectional door, an insulated sandwich panel door, and Crawford 242 overhead sectional door, a glazed frame door, are both traditional sectional overhead doors, meaning that the entire door blade is moved during the opening process. All door types are designed to save as much space as possible around the door opening. They integrate with all industrial and commercial buildings. The doors provide good tightness and insulation. They can be supplied as fully covered or semi-glazed versions – or fully glazed for optimal daylight inlet or exposure possibilities.*

**Safety in use**

All Crawford overhead sectional doors comply with national safety regulations and applicable European Directives, and are CE-marked. The electrically operated doors have double safety functions. Manual doors are delivered with a "Manufacturer's Declaration", confirming that the door is prepared for upgrading with Crawford electric operators.

**New European safety standards**

The European Commission has issued a number of Directives concerning door function and safety.

The European Standardization Committee, CEN, has worked out new standards based on the Construction Products Directive.

These standards are mandatory within the European Union as from May, 2005.

The Crawford 542 and 242 overhead sectional doors fulfill the above requirements.

**Reliability**

All parts of the Crawford 542 and 242 overhead sectional doors are designed by and produced for Crawford, providing total quality control and optimal functioning. Sections can be individually exchanged if damaged.

The manufacturing units are certified in accordance with the ISO 9001 Quality Assurance System and the ISO 14001 Environmental Management System.

**Convenience**

The Crawford 542 and 242 overhead sectional doors are easy to open and close manually because the weight of the door is balanced by springs, individually made to order.

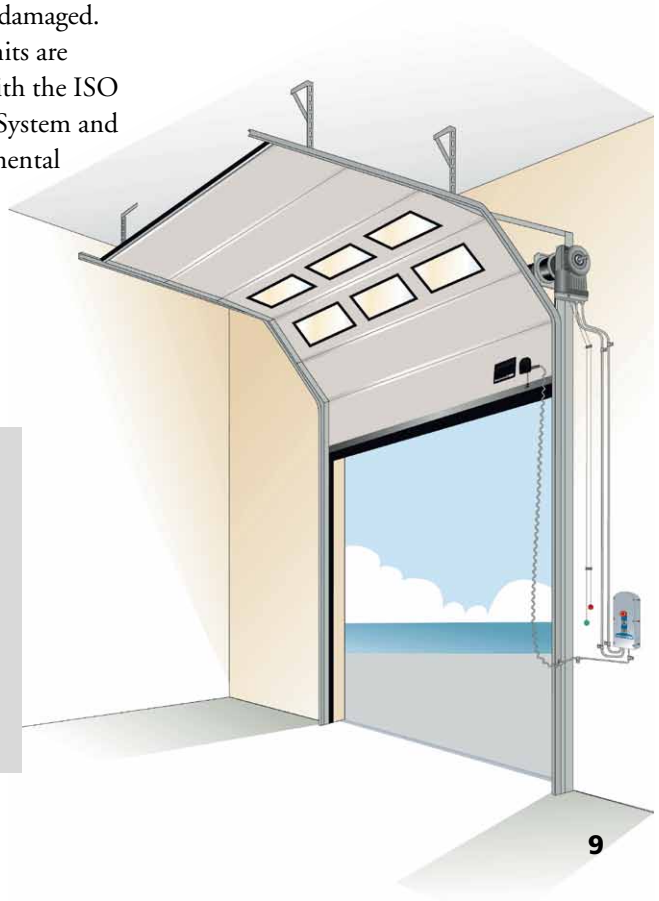
Crawford develops and manufactures its own electrical door operators. Complete sets are delivered comprising motor, cabling and individual control units.

All Crawford manual doors can be upgraded to electric operation.

**Service and repair**

Regular maintenance is needed on all doors regardless of application, simply to obtain optimal functionality and safety at all times and to reduce the number of unnecessary repairs.

Crawford's service organisation takes care of urgent problems in an efficient way with a minimum of delay for the customer.



***History spot***

*The overhead sectional door concept has long been the preferred choice among architects, building contractors and industrial purchasers. The overhead sectional door, introduced by Crawford on the US market more than 70 years ago, disappears up under the roof when opened, thereby giving free space in and around the door opening. In 1960, Crawford introduced the overhead sectional door for industrial and commercial use on the European market. To date Crawford has sold almost 1.5 million doors for Industrial use in Europe.*

# Crawford
# 542 Overhead sectional doors

### Customer needs in focus

The Crawford 542 overhead sectional door is an overhead sectional door designed to be used in applications like warehouses, logistics centres and all kinds of production plants. The design is optimal for customers who need robust, well-insulated and space-saving doors in the outer walls of industrial premises.

The sectional door slides up under the roof when opened, allowing free space around the door opening and leaving it completely free.

A high quality, 42 mm thick, sandwich panel provides good insulation values and corrosion protection. This, together with a number of operational options, means that the Crawford 542 overhead sectional door meets practically every individual demand.

In addition, the Crawford 542 overhead sectional door is de-signed to meet all operational and safety requirements in the European Directives and the standards issued by the European Standardization Committee, CEN.

### Modern panel design

The Crawford 542 overhead sectional door sandwich panel has a microrilled design, which in combination with a glossy colour finish gives the door a modern, attractive and unique appearance.

### Colours

The Crawford 542 overhead sectional door is available in 8 standard colours.

The inside standard colour is off-white (RAL 9002). Optional colours are available on request.

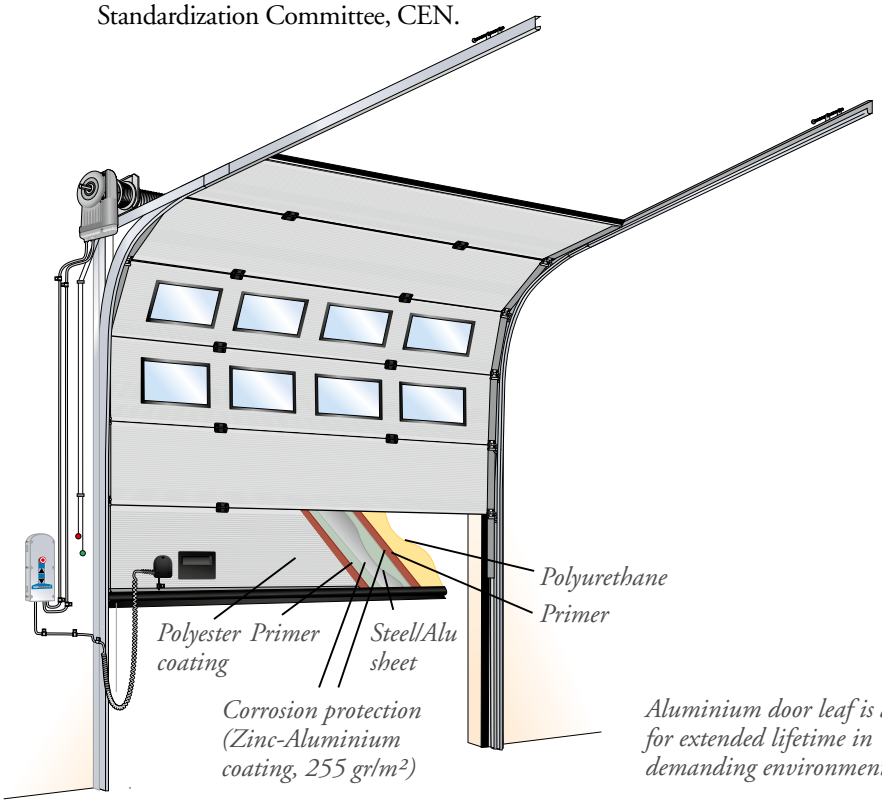
### Glazing

Glazing alternatives vary from full-vision panels to individual windows in a rectangular or oval shape. The windows are available in acrylic or hardened glass.

### Pedestrian traffic

For safety reasons we recommend separating pedestrian and vehicle traffic by installing a pass-door next to the overhead door.

Should building space not permit such a separation, an integrated pass-door is available.

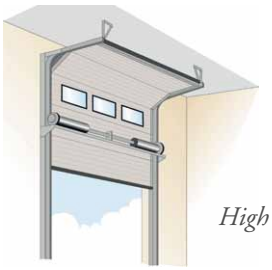



| Technical Data | |
|---|---|
| Standard size up to (W x H)[1] | 5500 x 5500 |
| Panel thickness | 42 mm |
| Colour outside | 8 Standard |
| Colour inside | RAL 9002 |
| Windows | optional |
| Pass-door | optional |
| Access and Automation | optional |
| Wind load, EN12 424[2]<br>Class 3 DLW<br>Class 2 DLW | <br>< 4250<br>> 4250 |
| Thermal transmittance[3] EN12 428 | |
| Full panel (steel) door | 1,0 W/(m²K) |
| Full panel (aluminium) door | 1,1 W/(m²K) |
| Water penetration, EN12 425[4] class 3 | |
| Air permeability, EN12 426[4] class 2 | |

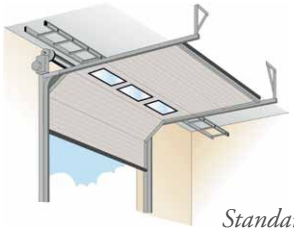
[1] Other sizes on request
[2] With or without pass-door. Higher wind load classification on request
[3] Door size 4000 x 4000
[4] With or without pass-door

# Crawford
# 542 Overhead sectional doors

*Vertical lift*



*High lift*



*Standard lift*

*Low lift*

**Security**
The Crawford 542 overhead sectional door is equipped with a lock bolt, prepared for a padlock, as standard. Cylinder locks as well as various other security features are available as options.

**Inside – no protruding parts**
The inside of the Crawford 542 overhead sectional door has no protruding parts where tools could be misplaced, causing injuries when the door is opened.

When inside reinforcements are re-quired, e.g. when a pedestrian pass-door is integrated in the main door, the design of the reinforcement is made in such a way that the risks above are reduced.

**Finger pinch protection**
The horizontal joints between the door sections are designed in such a way that fingers cannot be pinched during door movement.

**Drop-down protection**
Crawford 542 overhead sectional door is equipped with two special anti-drop devices as standard. They prevent the door from coming down in case of a spring or cable break.

**Hardware**
Hardware is the collective name for the wall and roof tracks. Different types of hardware are available to accommodate the best installation at your site.

Standard lift is suitable for most buildings. Vertical and high lift designs utilise excess height of the wall above the door opening to save internal height in the building. Low lift is suitable for doors with limited headroom above the door opening.

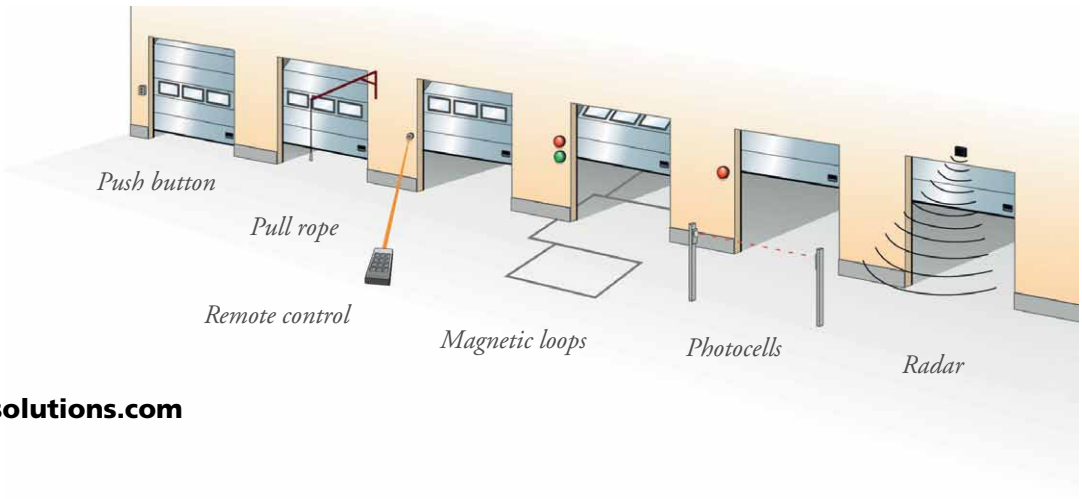
**Access and automation**
Access to a building can be arranged in different ways: general or limited – permanent or temporary.

A number of manual and automatic control systems for opening and closing commands are manufactured and supplied by Crawford.

The safety level in these systems is determined by the environment in which they shall be installed.

**Improved working environment**
The top seal, bottom seal, side seals and intermediate seals between the door sections provide good tightness, thus lowering energy costs and improving the inside working environment.

**Colours**
The Crawford 542 overhead sectional door is available in 8 standard colours. The inside standard colour is off-white (RAL 9002) Optional special colours are made to order.



*Finger pinch protection*

*Panel design*

*Spring break device*

*Cable break device*

*Lock bolt*

**Logistic application**

Crawford provides you with complete dock loading solutions, including the door for logistic applications, dock levellers and shelters, load houses and the control systems adherent to them.

Logistic facilities are the heart of the distribution network. Security is vital.

Crawford offers a number of security options, eg antilift device and narrow window to prevent burglary.

**Colour guide**

PS 24W /RAL 3002

PS 28W /RAL 1021

PS 20W /RAL 5010

PS 38W /RAL 7016

PS 21W /RAL 9010

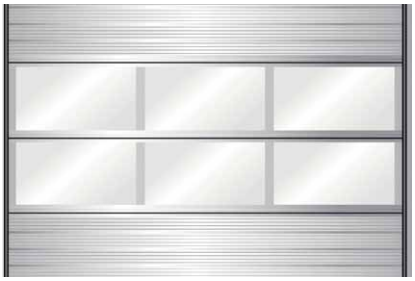
PS 23W /RAL 9002

PS 25W /RAL 9006

PS 29W /RAL 6005

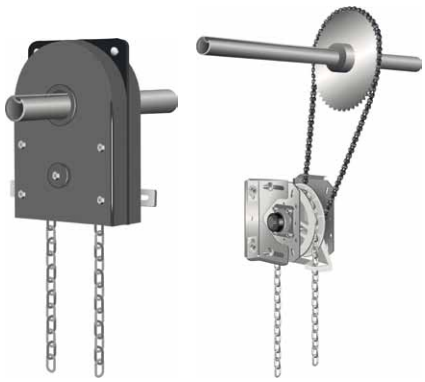
# Crawford
# 542 Overhead sectional doors
## Options

**Pass-door**
An integrated pass-door is available in the same colours as for the Crawford 542 overhead sectional door. Windows can be inserted. The pass-door can be equipped with various types of cylinder locks.



**Full vision panels with windows**
Several different types of windows in single or double acrylic (frosted or tinted) or hardened glass are available.

**Windows**
Several variations of windows in different materials with burglar resistant frames are available.



**Assisted manual operation**
Two different types of chain hoist are available, depending on door weight.

*Cylinder*

*Electrical*

**Cylinder/Electrical locks**
Complete lock including handle and cylinder for both sides or inside only. Any door equipped with an electrical lock can be remotely locked by means of a switch or via a PC. Lock mode can be monitored.

# Crawford
# 242 Overhead sectional doors

### Customer needs in focus

The Crawford 242 overhead sectional door is a glazed door, designed to be used when there is a need for light, exposure, or vision. Typical applications are show-rooms, fire stations, or other applications where optimal daylight inlet and/or exposure possibilities are desirable.

The overhead sectional door slides up under the roof when opened, allowing free space around the door opening and leaving it completely free.

The glazed sections are made of extruded, anodised or painted aluminium and are equipped with single or double acrylic windows (frosted or tinted) or hardened glass.

In addition, the Crawford 242 overhead sectional door is designed to meet all operational and safety requirements in the European Directives and the standards issued by the European Standardization Committee, CEN.

### Modern section design

The aluminium frames of the Crawford 242 overhead sectional door are anodised or painted. The door can be fully glazed or delivered with a micro-rilled bottom panel which gives the door a modern, attractive and unique appearance.

### Glazing

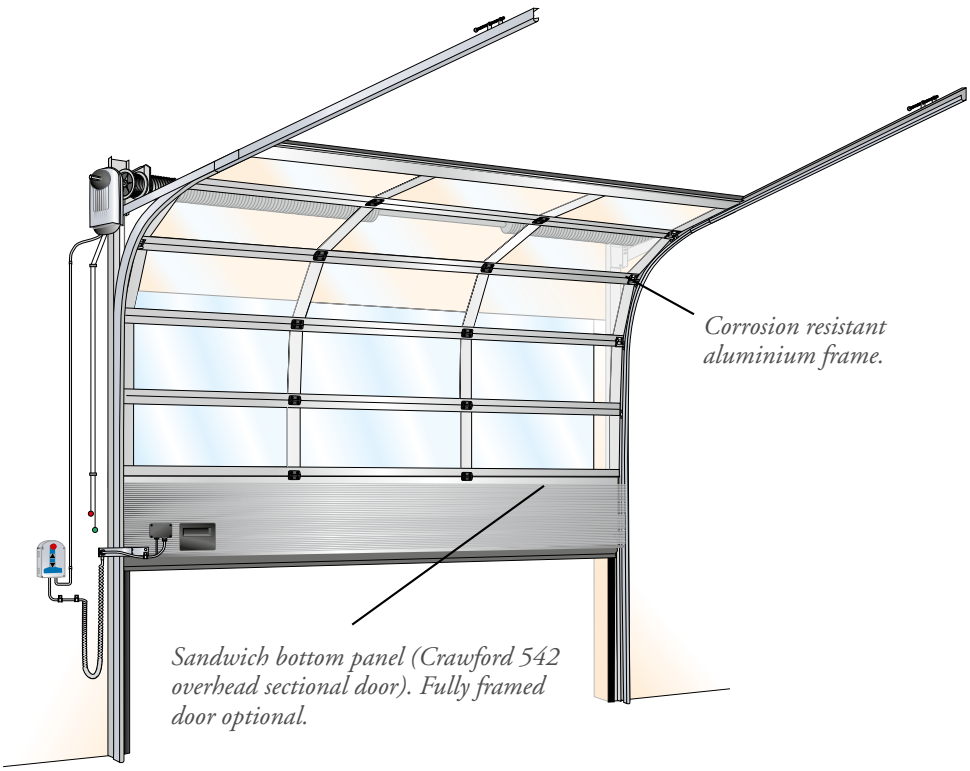
The frame construction can be filled with windows or sandwich panels.

The bottom section is available either as a sandwich panel or frame construction.

### Pedestrian traffic

For safety reasons we recommend separating pedestrian and vehicle traffic by installing a pass-door next to the overhead door.

Should building space not permit such a separation, an integrated pass-door is available.



*Corrosion resistant aluminium frame.*

*Sandwich bottom panel (Crawford 542 overhead sectional door). Fully framed door optional.*

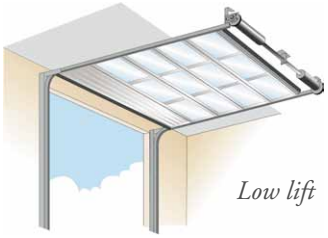
| Technical Data | |
|---|---|
| Standard size up to (W x H)[1] | 5500 x 5500 |
| Frame thickness | 42 mm |
| Filling thickness | 27 mm |
| Bottom section thickness | 42 mm |
| Colour: Standard anodised, aluminium optional unlimited | |
| Windows: Single or double, in acrylic or hardened glass | |
| Pass-door | optional |
| Access and Automation | optional |
| Wind load, EN12 424[2]<br>Class 3 DLW<br>Class 2 DLW | <br>< 4050 x 4500<br>> 4050 x 4500 |
| Thermal transmittance EN12 428[3] 3.3 W/m²K | |
| Water penetration, EN12 425[4] class 3 | |
| Air permeability, EN12 426[4] class 2 | |
| [1] Other sizes on request<br>[2] With or without pass-door.<br>Higher wind load classification on request<br>[3] Door size 4000 x 4000, double glazing without pass-door<br>[4] With or without pass-door | |

# Crawford
# 242 Overhead sectional doors

*Vertical lift*

*High lift*

*Standard lift*



*Low lift*

**Security**
The Crawford 242 overhead sectional door is equipped with a lock bolt, prepared for a padlock, as standard. Cylinder locks as well as various other security features are available as options.

**Inside – no protruding parts**
The inside of the Crawford 242 overhead sectional door has no protruding parts where tools could be misplaced, causing injuries when the door is opened.

When inside reinforcements are required, e.g. when a pedestrian pass-door is integrated in the main door, the design of the reinforcement is made in such a way that the risks above are reduced.

**Finger pinch protection**
The horizontal joints between the door sections are designed in such a way that fingers cannot be pinched during door movement.

**Drop-down protection**
Crawford 242 overhead sectional door is equipped with two or more special anti-drop devices as standard. They prevent the door from coming down in case of a spring or cable break.

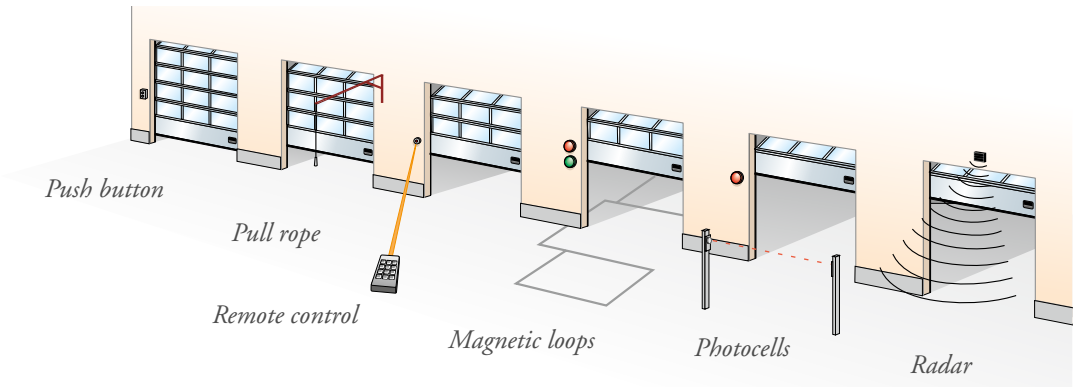
**Hardware**
Hardware is the collective name for the wall and roof tracks. Different types of hardware are available to accommodate the best installation at your site.

Standard lift is suitable for most buildings. Vertical and high lift are designed to utilise excess height of the wall above the door opening to save internal height in the building and low lift for premises with limited headroom above the door opening.

**Access and automation**
Access to a building can be arranged in different ways: general or limited – permanent or temporary.

A number of manual and automatic control systems for opening and closing commands are manufactured and supplied by Crawford.

The safety level in these systems is determined by the environment in which they shall be installed.



*Finger pinch protection*

*Hinge design*

*Spring break device*

*Cable break device*

*Lock bolt*

**Improved working environment**
The top seal, bottom seal, side seals and intermediate seals between the door sections provide good tightness, thus lowering energy costs and improving the inside working environment.

**Colours**
The outside and inside standard colour of the Crawford 242 overhead sectional door fully glazed sections is anodised aluminium. The choice of optional colours is unlimited.

**Colour guide**

PS 24W /RAL 3002

PS 28W /RAL 1021

PS 20W /RAL 5010

PS 38W /RAL 7016

PS 21W /RAL 9010

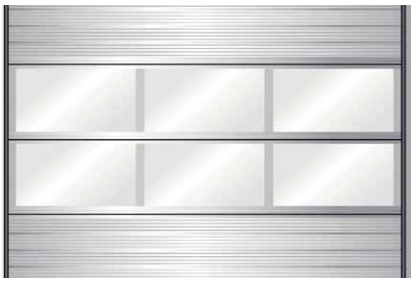
PS 23W /RAL 9002

PS 25W /RAL 9006

PS 29W /RAL 6005

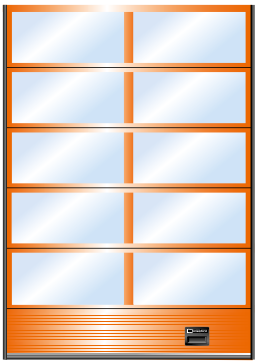
# Crawford
# 242 Overhead sectional doors
## Options

**Pass-door**
An integrated pass-door is available in the same colours and windows as for the Crawford 242 overhead sectional door. The pass-door can be equipped with various types of locks, electrical and cylinder.

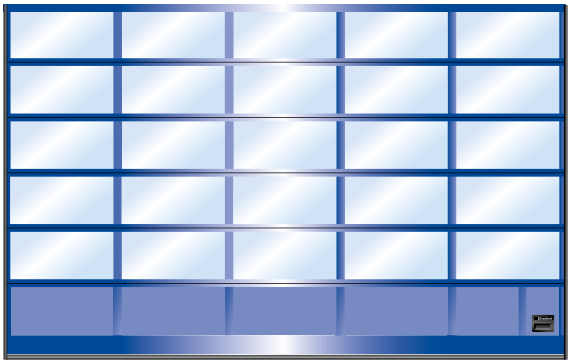


**Windows**
Different types of windows in single or double acrylic (frosted or tinted) or hardened glass are available.

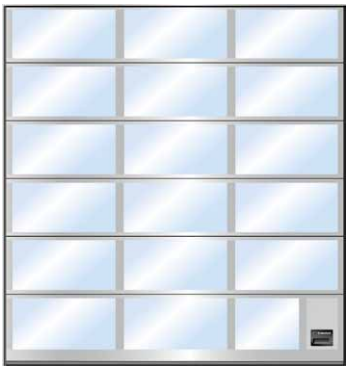
**Alternative window solutions**



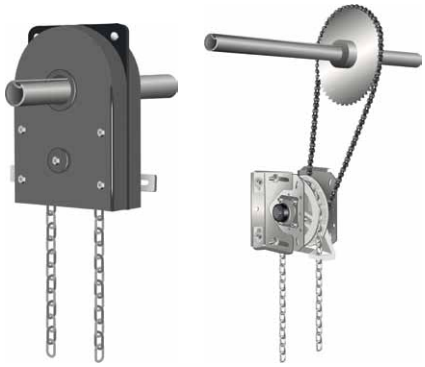
With sandwich bottom panel.



Frame door with pane fillings in bottom section.



Fully glazed frame door.



**Assisted manual operation**
Two different types of chain hoist are available depending on door weight. More about Access and Automation.

*Inside* *Outside*

**Cylinder locks**
Complete lock including handle and cylinder for both sides or only inside.

# Crawford
# Folding doors

*Horizontally moving folding doors are intended for premises with limited space around the door opening. They minimise the roof space required inside the building. The entire opening process is visible, making passages safer. There are few moving parts, which contributes to high reliability. Crawford's folding door program includes models for use in normal industrial environments as well as special applications. The Crawford, 521 and 220 folding doors are all well insulated, tight and robust.*

**Reliability**

The Crawford folding door program has been developed with focus on both performance and aesthetics.

Crawford designs all parts of the doors, providing optimized quality control and function.

Frequent quality controls guarantee the Crawford quality. Our manufacturing units are certified in accordance with the ISO 9001 Quality Assurance System and the ISO 14001 Environmental Management System.

**Low maintenance costs**

The Crawford folding doors contain few moving parts, which means less wear and tear and, consequently, less maintenance.

Electrically operated doors have a soft start and stop function which extends product lifetime and reduces service demands.

**High safety and security**

Crawford makes no compromises when it comes to user safety.

The folding door program fulfills all requirements in the harmonized European standards.

The entire door opening process is visible, reducing the risk for unnecessary collisions.

A pedestrian pass-door can be integrated in any section of the main door. The pass-door can be equipped for emergency exits.

Manual doors are supplied with integrated Cremone lock bolt and handle inside as standard. Cylinder locks are available as options.

**Working environment and ergonomics**

The safety features together with a high insulation value, contribute to a safe and good working environment. Manual doors are easy to operate, thanks to the ergonomic design in the small details.

**Crawford service organisation – your operational partner**

Doors, like machines, require regular maintenance for optimal functionality, safety and product lifetime.

Crawford service organisation is your professional partner for maintenance, repair and upgrade.

Needs of the individual user are often defined and agreed in the form of a Key Customer Service Agreement – the best way of limiting operational disturbances to a minimum!

# Crawford
# Folding doors


## Crawford
## 521 Folding door – for demanding, industrial applications

The Crawford 521 folding door is a robust door. With extra strong frame construction and the thick, insulated door panels, it is suitable for use in more demanding industrial environments.

| **Technical data** | | |
|---|---|---|
| Max size (W x H) [1] | | 7590 x 6000 |
| Thickness | | 50 mm |
| Colours | standard | 8 |
| | optional | Unlimited |
| Windows | | Rectangular in 3 different sizes |
| Thermal transmittance EN12428 [2] | | 1,7 W/m²K |
| Wind load EN12424 [3] | | Class 2 |
| Air permeability EN12426 | | Class 2 |
| Water penetration EN12425 | | Class 2 |

1) Other sizes on request
2) 4000 x 4000, 2+2
3) Higher wind load classification on request

## Crawford

## 220 Folding door – for daylight inlet and product exposure

The Crawford 220 folding door is an insulated, frame-built and glazed aluminium door for use in premises with high daylight inlet demands or buildings used for product exposure, e.g. showrooms. Several glazing alternatives are available.

| Technical data | | |
|---|---|---|
| Max size (W x H) [1] | | 7590 x 6000 |
| Thickness | | Frame 50 mm |
| Filling | | Acrylic/glass/panels |
| Colours frame | standard | Anodized RAL 9006 |
| | optional | Unlimited |
| panel fillings | standard | 8 |
| | optional | Unlimited |
| Thermal transmittance EN12428 [2] | | 3,75 W/m²K |
| Wind load EN12424 [3] | | Class 2 |
| Air permeability EN12426 | | Class 2 |
| Water penetration EN12425 | | Class 2 |

1) Other sizes on request
2) 4000 x 4000, 2 + 2, 2 rows windows type DAD/DAS
3) Higher wind load on request


## Crawford
## 220C Folding door – the ideal door for car washes

The Crawford 220C folding door is a door especially designed to cope with the harsh and humid environment in car wash halls or similar applications. Made in an insulated and frame-built, anodised aluminium design with special anti-corrosive features and glazing alternatives, it offers excellent functionality and look-through possibilities. The side-going movements eliminates dripping. Power operated doors can be connected to the washing machine.

| Technical data | |
|---|---|
| Max size (W x H) | 5020 x 5000 |
| Thickness | Frame 50 mm |
| Filling | Glass/panels |
| Colours | Anodized RAL 9006 |
| Thermal transmittance EN12428 [1] | 4,30 W/m²K |
| Windload EN12424 [2] | Class 2 |
| Air permeability EN12426 | Class 2 |
| Water penetration EN12425 | Class 2 |

1) 3000 x 3000, 2+2, 2 rows windows type DH4S
2) Higher wind load classification on request

# Crawford Folding doors

**Electrical operation increases efficiency**

The Crawford folding doors can be operated manually or electrically. By adding an operator to the door, the efficiency in the logistic flow can be increased.

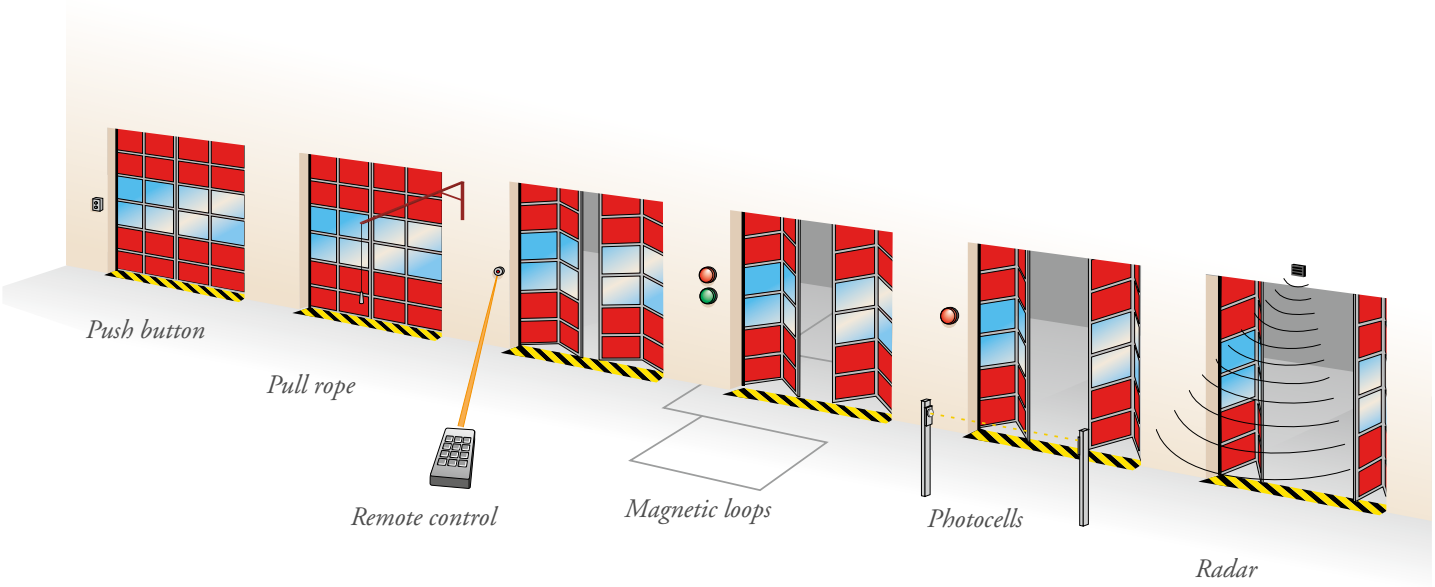
**Access and automation**

Crawford offers a comprehensive range of opening and closing solutions for electrically operated doors. From push button and pull ropes for low frequency passages to remote control and magnetic loops with automatic closing for high traffic intensity. Building access can be made general or limited, depending on individual needs. Existing solutions can be upgraded or altered as needs change.

**Colour guide**

RAL 1021 RAL 3002 RAL 7016 RAL 9002

RAL 5010 RAL 6005 RAL 9006 RAL 9010



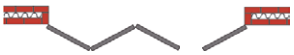
**Optimal flexibility in door leaf combination**

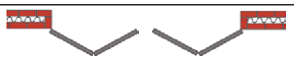
All Crawford folding doors offer optimal flexibility in the combination of door leaf sections.

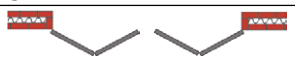
**Pedestrian traffic**

A pedestrian pass-door can be integrated in any section of the main door. The pass-door can be equipped for emergency exits.

Manual doors are supplied with integrated Cremone lock bolt and handle inside as standard. Cylinder locks are available as options.

| DLW (Daylight width) | Leaf arrangement – 521/220 Manual | |
|---|---|---|
| **1020 - 2460** | 2+0 |  |
| **2461 - 3750** | 2+1 |  |
| **3751 - 5020** | 2+2 |  |
| | 3+1 |  |
| **5021 - 6320** | 3+2 |  |
| **6321 - 7590** | 3+3 |  |

| DLW | Leaf arrangement – 521/220 Operated | |
|---|---|---|
| **1600 - 2460** | 2+0 |  |
| **2461 - 5020** | 2+2 |  |

| DLW | Leaf arrangement – 220C Manual | |
|---|---|---|
| **2300 - 5020** | 2+2 |  |

| DLW | Leaf arrangement – 220C Operated | |
|---|---|---|
| **2300 - 5020** | 2+2 |  |

# Megadoor

*The Megadoor is a vertical fabric folding door with very high reliability and minimal need for maintenance. The safety level is high with a built-in safety monitoring system. The Megadoor is extremely wind resistant due to its unique design and structure.*

*The product range includes Standard doors, Special doors and Hangar doors where there are almost no size limitations thanks to the Megadoor swing-up-mullion system.*

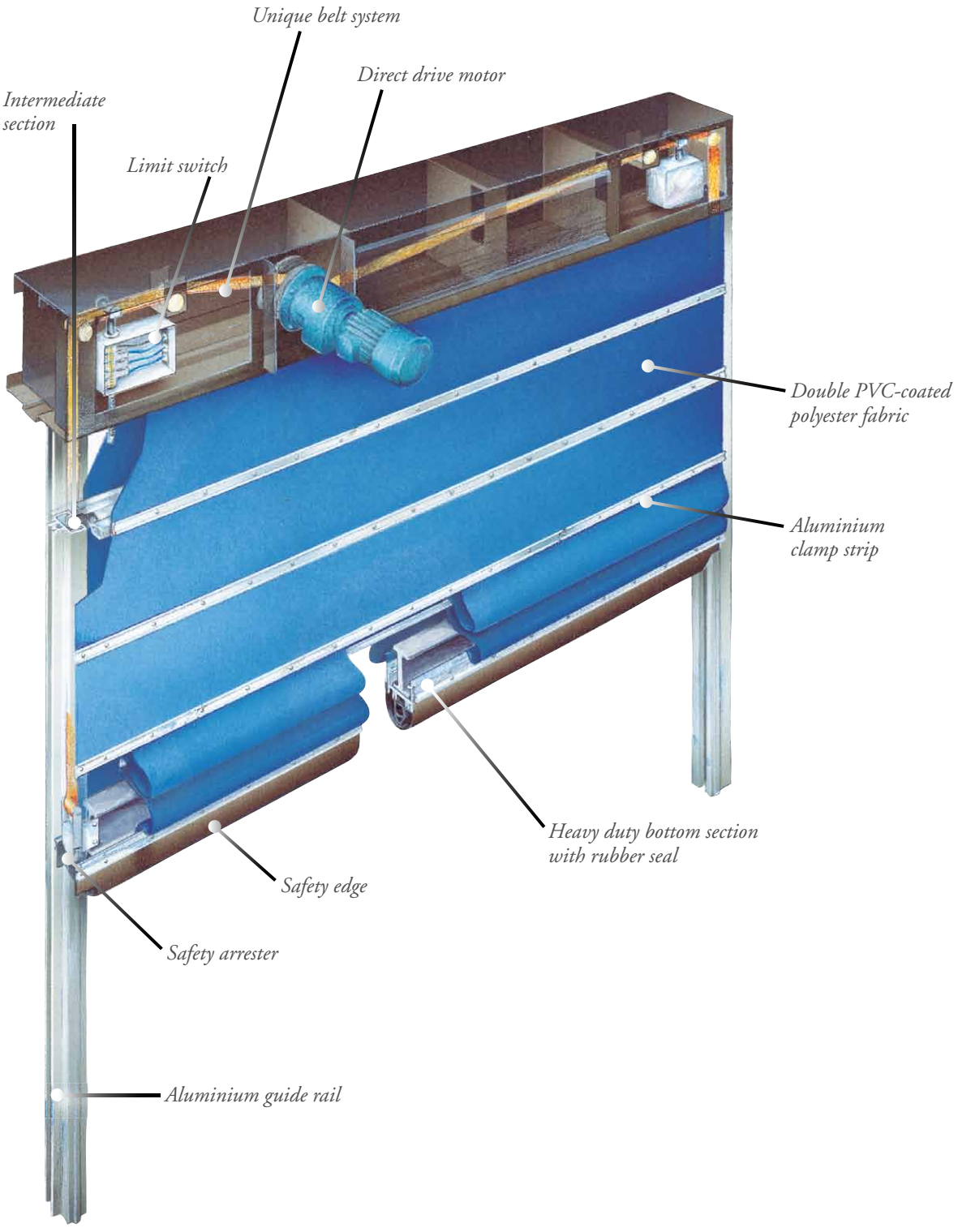
**The Megadoor concept**

Megadoor vertical fabric folding doors are designed for industrial environments where doors are exposed to moisture, cold and dust or where the door opening is very large. Megadoor is particularly suitable in steel and melting industries, mineral processing, shot blasting and paint facilities, recycling, energy plants, garbage handling, shipyard docks, pulp and paper plants, crane ways and aircraft hangars.

***History spot***

*The Megadoor vertical fabric folding door is a unique door concept. It was originally developed for a very rough and corrosive industrial environment – timber drying kilns. With temperature differences between the inside and outside of those buildings of up to more than 100 degrees Celsius, traditional industrial doors simply could not cope with normal performance requirements. The Megadoor is thus well suited for other harsh industrial environments. By introducing the "multiple mullion" solution, the Megadoor can be built in almost unlimited sizes, making it an ideal door for very large openings like aircraft hangars and shipyard docks.*

# Megadoor


Unique belt system
Direct drive motor
Intermediate section
Limit switch
Double PVC-coated polyester fabric
Aluminium clamp strip
Heavy duty bottom section with rubber seal
Safety edge
Safety arrester
Aluminium guide rail

**Basic construction**
Megadoor is an electrically operated vertical fabric folding door. Two sheets of PVC-coated polyester fabric are supported by horizontal, extruded aluminum sections, which are fitted to the fabric with aluminum clamp strips. The door is constructed with solid, heavy duty and corrosion resistant components and a reliable electric system. The Megadoor complies with the requirements in the harmonized European standards.

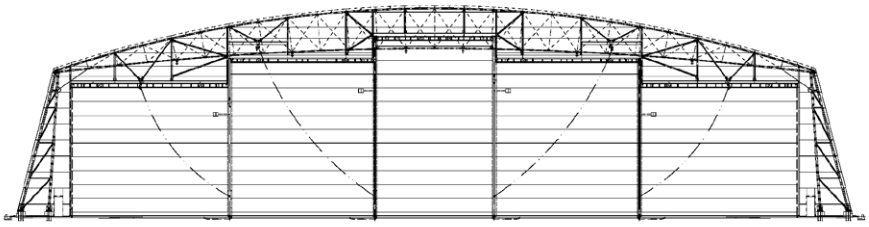
**Function**
The Megadoor slides up and down in weather-sealed vertical guides, which are attached to the building structure. It operates by lifting the bottom section upwards, thereby stacking the intermediate sections one on top of the other. The fabric folds into pleats on both sides. Opening and closing speed is dependent on model and varies between 0.1-0.6 m/s.
The Megadoor is designed with few moving parts and requires very little maintenance. Thanks to the unique design it is particularly suitable for environments with strong winds - the horizontal sections transfer the wind load to the vertical guides, which are attached to the building structure. The door can therefore be designed to withstand almost any wind load by varying the size and spacing of the intermediate sections.

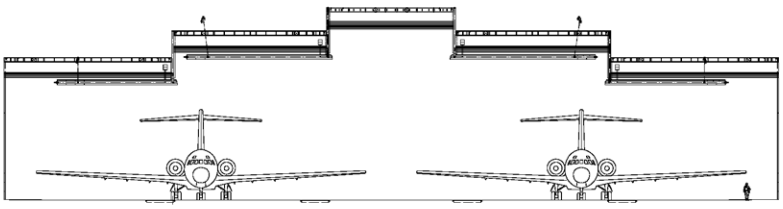
**Multiple door systems**
For certain applications and very large openings, it may be advantageous to split the door opening into two or more smaller openings using the Megadoor swing-up mullion system.

This multiple door system offers increased flexibility in many building designs.

**Service and repair**
Regular maintenance is needed on all doors regardless of application, simply to obtain optimal functionality at all times and to reduce the number of unnecessary repairs.

Crawford's service organisation will take care of maintenance as well as urgent repairs in an efficient way with a minimum of delay for the customer.





*This hangar door is controlled by a PLC based control system.*

*Each door leaf is lifted by 2 gear motors. The fabric is white on the inside and grey on the outside. Door leaves are 290 mm thick. Thanks to the Megadoor mullion system the door can be partially or fully opened, depending on the actual need.*

# Megadoor
# S800 and S1000 Vertical fabric folding doors

*Megadoor S800 and S1000 vertical fabric folding doors are standardised for medium and large openings in industrial environments where doors are exposed to moisture, cold, heavy wind loads or dust. They comply with the requirements in the harmonized European standards.*

*Waste handling/recycling is a suitable application for the Megadoor. This photo is from a power plant that uses garbage for energy and electricity production.*

# Megadoor S800

**Dimensions**
Door leaf thickness 100 mm. Designed for daylight width up to 8.0 m and daylight height up to 12 m.

**Opening and closing speed**
0.2 - 0.3 m/s. Double opening speed available as option (0.4-0.6 m/s).

# Megadoor S1000

**Dimensions**
Door leaf thickness 160 mm. Designed for daylight width up to 14 m and daylight height up to 16 m.

**Opening and closing speed**
0.2 - 0.3 m/s.

**Door control**
A reliable PLC based control system with self-diagnostic functions.

**Option examples**
A number of manual and automatic control systems for opening and closing are available.

The door leaf can be provided with different fabrics for extreme heat, cold, sound reduction or security.

Vision panels, stainless steel parts for extremely corrosive environments, etc.

**Standard colours**
White, blue, red, grey, yellow, tan, green and translucent white.

**Customer benefits**
- Reliable in operation
- Minimum of maintenance
- Works in tough environments
- High air tightness
- Long lifetime
- High safety level
- Easy to repair
- Low operating costs
- No floor tracks

**Colour guide**

RAL 3001 | RAL 5005 | RAL 7004 | RAL 6009

RAL 9016 | RAL 1001 | RAL 1003 | TRANSLUCENT

# Megadoor
# S1500 Special doors

Megadoor S1500 special doors are designed for individual customer needs, such as big opening size requirements. Typical applications are shipyards, heavy mechanical industries and crane ways.

The doors can be dimensioned for almost any wind load. In multiple door design, dimension possibilities are almost unlimited. Numerous reference objects are available on request.

The Megadoor S1500 special doors comply with the requirements in the harmonized European standards.

### Dimensions

Door leaf thickness 290 and 580 mm. Almost no limitation to size or configuration. In multiple door design daylight widths are unlimited.

### Opening and closing speed

Up to 0.2 m/s.

### Standard colours

White, blue, red, grey, yellow, tan, green and translucent white.

### Option examples

A number of manual and automatic control systems for opening and closing are available.

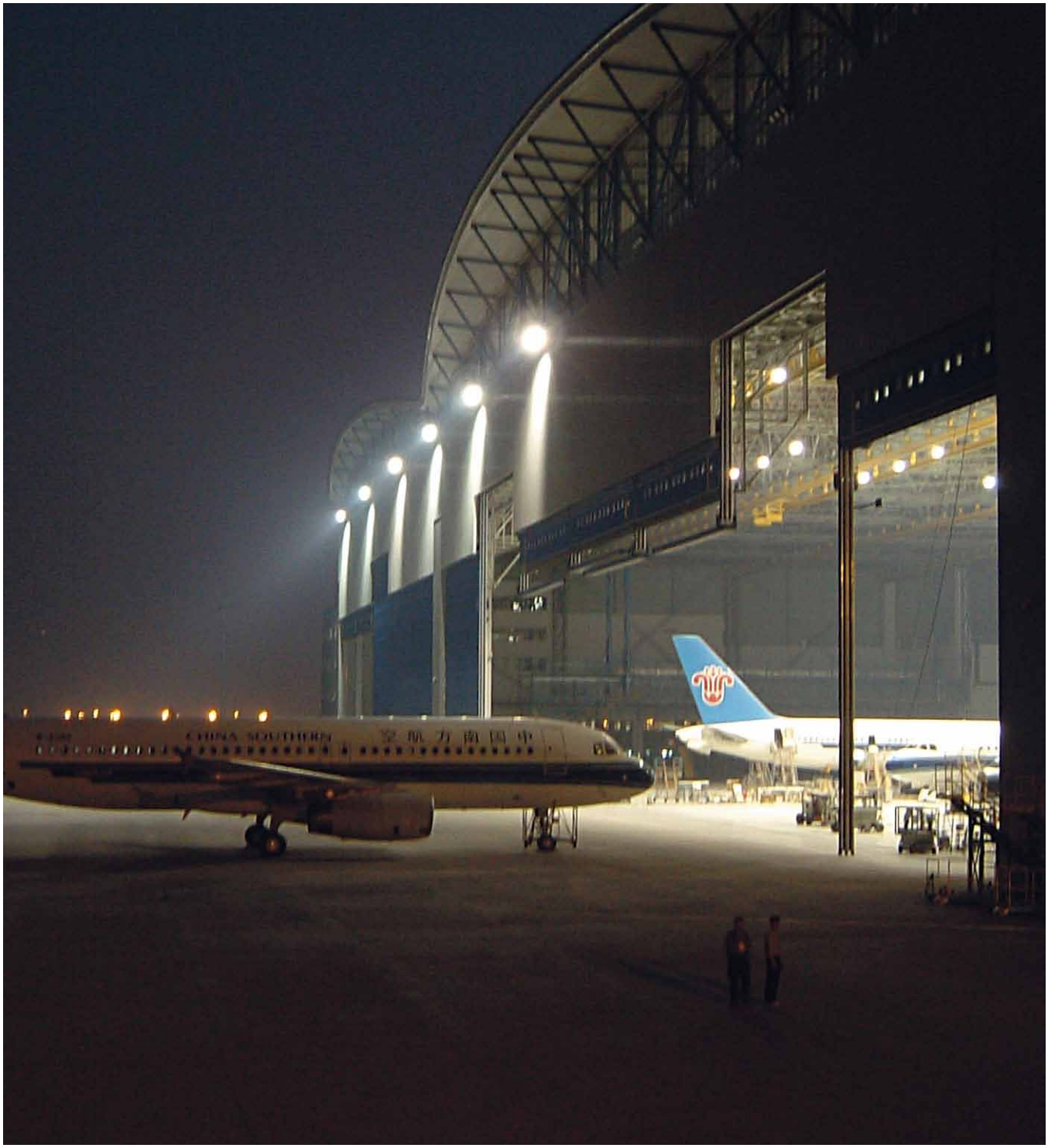
The door leaf can be provided with different fabrics for extreme heat, cold, sound reduction or security. Vision panels, stainless steel parts for extremely corrosive environments, etc.

### Customer benefits

- Reliable in operation
- Minimum of maintenance
- Works in tough environments
- High air tightness
- Long lifetime
- High safety level
- Easy to repair
- Low operating costs
- Withstands high wind load
- Flexible door opening
- No floor tracks

# Megadoor
# Hangar doors

MEGADOOR



Megadoor Hangar doors are designed for individual customer needs, normally extreme size requirements. The simple, compact design and light weight of the Megadoor reduces the size and structural requirements of the building, thus dramatically reducing the overall building costs. The flexibility allows innovative hangar design.

The construction of a hangar can be reduced to a minimum around the aircraft shape (shaped hangar design). The doors can be dimensioned for almost any wind load. In multiple door design, dimension possibilities are almost unlimited – 3 multiple Megadoor systems delivered for one single maintenance hangar in China had the dimensions: width 96/144/95 m and maximum height 26 m. Numerous reference objects from civil aviation, military aviation and the aerospace industry are available on request.

The Megadoor Hangar doors comply with the requirements in the harmonized European standards.

**Dimensions**
Door leaf thickness 290 and 580 mm, depending on size, windload etc. Almost no limitation to size or configuration. In multiple door design daylight widths are unlimited.

**Opening and closing speed**
Up to 0.2 m/s.

**Standard colours**
White, blue, red, grey, yellow, tan, green and translucent white.

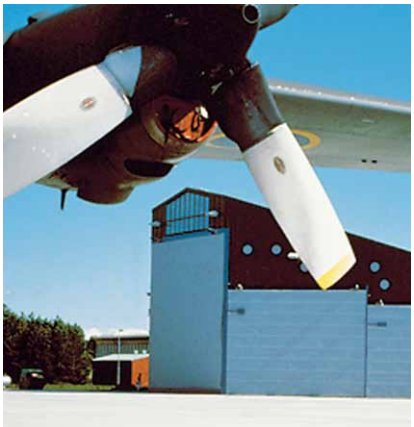
**Options examples**
A number of manual and automatic control systems for opening and closing are available.

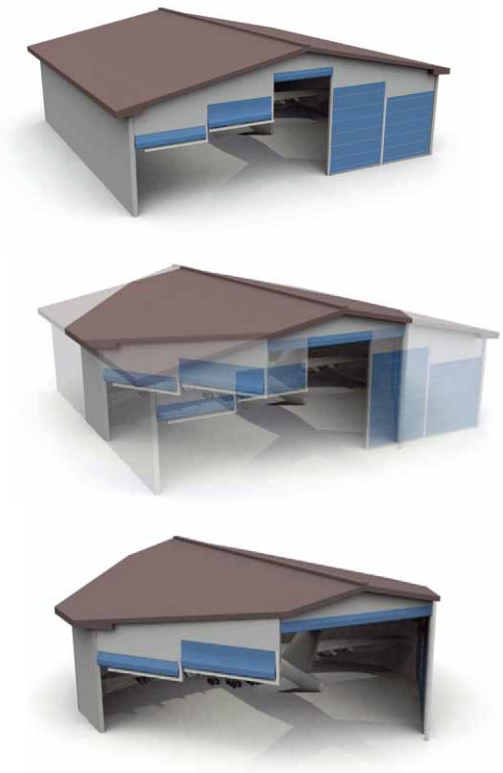
The door leaf can be provided with different fabrics for extreme heat, cold, sound reduction or security.

Other options are vision panels, pass-doors, self-diagnostic PLC control systems, stainless steel parts for extremely corrosive environments and more.

**Customer benefits**
- Reliable in operation
- Minimum of maintenance
- Works in tough environments
- High air tightness
- Long lifetime
- High safety level
- Easy to repair
- Low operating costs
- Withstands high wind load
- Flexible door opening
- No floor tracks

**Shaped hangars**
With Megadoor multiple door systems it is possible to shape the hangar around the aircraft and so reduce the floor area by up to 30% and the volume by up to 50% in comparison to a conventional hangar. The cost savings are substantial.





# Crawford
# Access and Automation

# Increase your efficiency, safety and comfort!

*All manual Crawford doors can be upgraded with operators and automation. To facilitate quick access, a wide range of options are available, such as push buttons, pull ropes, transmitters, magnetic loops, photocells, radar or automatic closing.*

**Customer needs in focus**

The demand for efficient logistic flow is one of the most important factors in the manufacturing and distribution industry. With a remote control, radar or other access options, drivers do not have to leave their vehicles. This increases the efficiency of the material handling process.

The smooth action of doors also extends door lifetime by reducing mechanical wear and tear and contributes to a pleasant working environment. Automated opening of bigger doors means preventing exposure of the human body to unnecessary strain. Automation also reduces energy costs by limiting the time the door is open to the absolute minimum.

**Door economy**

Electrically operated doors save money. Doors equipped with remote control, radar or other access options are a valuable investment. Not only do they save money, they improve the working environment and increase safety as well as efficiency. Very often, the purchase price is brought into focus while less attention is paid to the user cost.

The user cost can be broken down into:

- floor area costs
- down time costs
- maintenance costs
- repair costs
- passage costs
- costs for heat losses
- capital costs

Of these costs, the passage costs represent between 30-50% while costs for heat losses and capital account for a much smaller part. Automation is the major cost cutting factor in door economy and an investment with rapid payback time.

**Safety and access**

Doors equipped with automation options offers a high level of safety and an improved working environment as every operation is controlled. Crawford 's long experience of power-driven doors has resulted in an extensive and well-tested safety systems.

A series of safety devices for stopping, reversing, locking, monitoring and controlled operating ensures high safety when the door is in use.

Crawford has a number of solutions for limiting access. Our automation program allows the user to choose any level of access, from low-level applications to highly restricted entry, with a personal code opening procedure.

In the event of a power cut, the operator unit can easily be disengaged and the door operated manually.

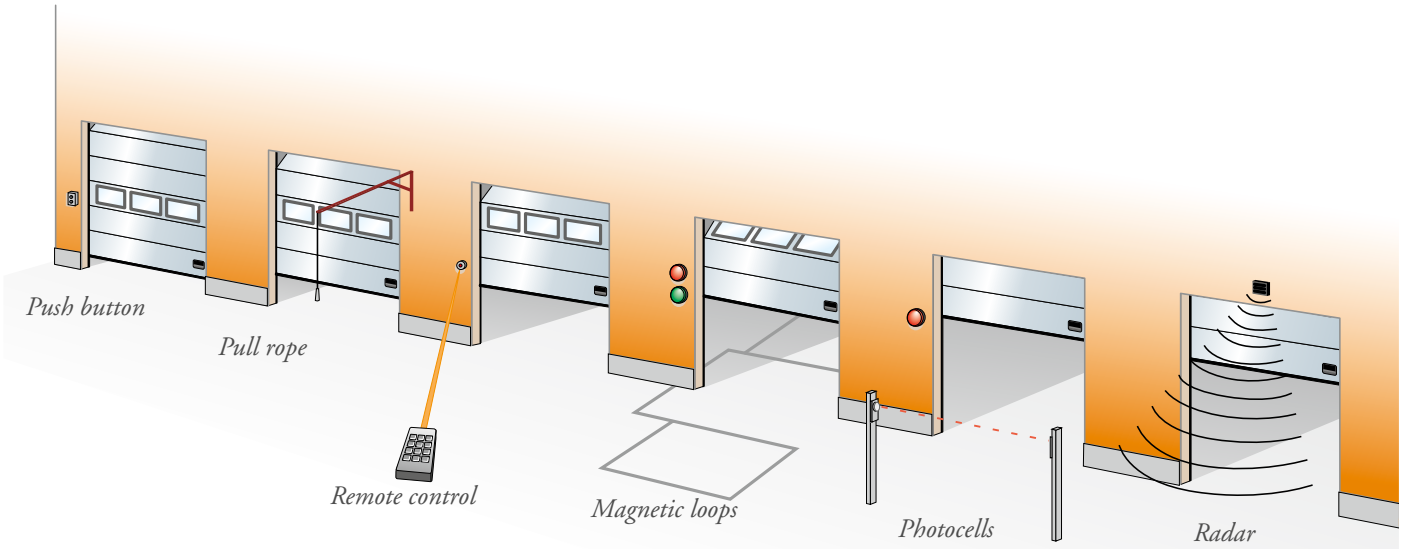
**Quality assurance**

All electrically operated products made by Crawford are CE-marked in accordance with the applicable European Directives and produced under an ISO 9001 certified quality management system as well as an ISO 14001 environmental management system.

**Guideline for selection of operators and automation**

| Door size m² | 1-5 openings/day | 5-10 openings/day | 10-15 openings/day | > 15 openings/day |
|---|---|---|---|---|
| 0-10 | Manual/operator | Manual/operator | Operator | Operator + automation |
| 10-20 | Manual/operator | Operator | Operator + automation | Operator + automation |
| > 20 | Geared hoist/operator | Operator | Operator + automation | Operator + automation |

# Crawford
# Access and automation




**Push button**
The most widely used method of operating the doors. A variety of types are available including key control. Can be fitted with programmed automatic closing and together with photocells. Various access level possibilities.

**Pull rope**
The pull rope allows vehicle drivers to operate the door from a more convenient position. The pull rope generally hangs from a bracket extending approximately 3 meters from the wall. Can be fitted with a programmed automatic closing and together with photocells. Unlimited access.

**Remote control**
A modern, simple and safe system. A radio transmitter is used to control the door. Access is limited to those having the transmitter. The system allows more restricted access, if required. One transmitter can operate any number of doors. Can be fitted with programmed automatic closing and together with photocells.

**Fixed transmitter**
Same system as remote control but with the transmitter mounted in the vehicle.

**Magnetic loop**
The door is opened or closed by vehicles activating a magnetic loop in the ground. Can be fitted with programmed automatic closing and together with photocells. Unlimited access for vehicles.

**Photocells**
The opening and closing of the door is controlled by a photocell placed outside and/or inside the door opening. Can be fitted with programmed automatic closing. Unlimited access.

**Radar**
The door is opened by people or vehicles approaching the radar beams. Normally fitted with automatic closing. Unlimited access.

**Automatic closing**
The door is automatically closed after passage by a timer.

**Safety warning lights**
Flashing red lights to warn before and during door movement.

**Traffic lights**
To increase traffic safety, vehicles can be directed by traffic lights.

**Reduced opening**
Sometimes the door does not need to be fully opened to allow passage. Such demand is solved by a reduced opening option. Reduced opening contributes to energy savings since the airflow through the door opening is reduced.

**Battery back-up**
In case of a power supply break-down, a battery operated emergency power function is available. This allows the door to be operated a limited number of times.

**24hr control function**
Crawford MobiGuard is a system developed by Crawford. It enables automatical function control of your door, 24 hours a day. A GSM transmitter connected to your door will automatically call our service department if your door does not function properly. It will also give a signal when a predefined number of cycles has been reached, to indicate that maintenance is necessary.

Crawford MobiGuard is designed to monitor all facilities, from single door buildings up to 100-door and larger facilities, all depending on the structure of your building. The transmitted information will tell our service department what action to take.

**Tailor-made solutions**
For special customer needs, we provide tailor-made solutions. Contact us to discuss your specific requirements.

**Upgrading**
Traffic flow increases or decreases, new or more vehicle types are being used, more drivers require access. When customer needs change, Crawford's operators and control systems can easily be modified or upgraded.

# Crawford
# Access and Automation
## Operators


## CDM9 The quiet and smooth running universal operator

| | |
|---|---|
| Supply voltage: | 230V 1-phase voltage. |
| Door weight: | up to 400kg |
| Opening speed: | 0.25m/s |
| Degree of protection: | IP55 |
| Hz: | 50/60Hz |
| Temperature range: | -20° – +60°C (optional -30°) |

### Door control system

**920** Impulse UP and dead man's grip DOWN or dead man's grip UP and DOWN.

**930** Impulse UP and DOWN with supervised pinch guard.
Automatic Closure:
Programmable 5-60 seconds.

**950** Impulse UP and DOWN with supervised pinch guard.
Automatic Closure:
Programmable 5-110 seconds.
LED-display:
For cycle and error code information
Service indicator:
Indication on days and cycles


## CDM9HD For heavy doors

| | |
|---|---|
| Supply voltage: | 230V 1-phase voltage. |
| Door weight: | 400kg - 650kg |
| Opening speed: | 0.18m/s |
| Degree of protection: | IP55 |
| Hz: | 50/60Hz |
| Temperature range: | -20° – +60°C (optional -30°) |

### Door control system

**920** Impulse UP and dead man's grip DOWN or dead man's grip UP and DOWN.

**950** Impulse UP and DOWN with supervised pinch guard.
Automatic Closure:
Programmable 5-110 seconds.
LED-display:
For cycle and error code information
Service indicator:
Indication on days and cycles


# CDM5HD For very heavy doors

| | |
|---|---|
| Supply voltage: | 230V /400 AC 3-phase voltage. |
| Door weight: | 650kg - 1150kg |
| Opening speed: | 0.19m/s |
| Degree of protection: | IP55 |
| Hz: | 50/60Hz |
| Temperature range: | -30° – +60°C |

## Door control system

**420** Impulse UP and dead man's grip DOWN.
**E430P** Impulse UP and DOWN with supervised pinch guard. Processor operated.


# CDM9FD The operator for folding doors

| | |
|---|---|
| Supply voltage: | 230V 1-phase voltage. |
| Door size: | up to 42m$^2$ |
| Opening speed: | 0.25 - 0.5m/s |
| Degree of protection: | IP55 |
| Hz: | 50/60Hz |
| Temperature range: | -20° – +60°C (optional -30°) |

## Door control system

**950** Impulse opening and closing with supervised pinch guard.
Automatic Closure:
Programmable 5-110 seconds.
LED-display:
For cycle and error code information
Service indicator:
Indication on days and cycles

The design of all control units is based on modules, and it is possible to upgrade or downgrade any module to one with more or less safety and more or less automation. Additional kits such as magnetic loop, photocells, radar, radio and reduced door opening height are available.

# Crawford
# Access and automation
## Accessories

### Magnetic loop
Magnetic loops can be used together with different types of industrial doors. They are often used on sites with forklift traffic and are placed in the ground or in the floor in front of the door. Regular maintenance is not needed.

| | |
|---|---|
| **Supply voltage:** | **24V(AC)** |
| **Temperature range:** | -30°C to +80°C |
| **Degree of protection:** | IP23 |
| **Installation:** | In the ground 700 mm from the door. |
| **Settings:** | Adjustable, sensitivity |
| **Distance – loop to door position:** | Up to 50m |

### Photocells
Photocells can be used for both opening commands and as an extra safety device on all types of industrial doors. The photocells are normally installed in the door wall tracks. Automatic closing and warning lights are common safety equipment combined with photocells.

| | |
|---|---|
| **Supply voltage:** | 24V(AC) |
| **Temperature range:** | -20°C to +60°C |
| **Degree of protection:** | IP67 |
| **Installation:** | In the side colums of the door and/or in the door area. |
| **Settings:** | Indication AUTOMATIC CLOSING |
| **Detection width:** | 7 m (standard) 15 m (option) |

### Radar
Radar can be used to open all different types of Industrial doors.
– It can be used for both outside and inside installation.
– Adjustments and settings are easily done with a remote control.

| | |
|---|---|
| **Supply voltage:** | 24V(AC) |
| **Temperature range:** | -30°C to +60°C |
| **Degree of protection:** | IP65 |
| **Installation height:** | Height between 3.5 – 7 m |
| **Settings:** | Remote control |
| **Detection width:** | 7 m (standard) 15 m (option) |
| **Detection area:** | 4 m width x 5 m depth for a mounting height of 5 m. |

## Remote control

This radio system can be used together with all different types of industrial doors. There are a number of different transmitters available. Modern design and easy to program.

| | |
|---|---|
| **Supply voltage:** | 12/24V(AC) |
| **Temperature range:** | -20°C to +60°C |
| **Degree of protection:** | IP23 |
| **Installation:** | Receivers inside installation |
| **Detection range:** | 50-100 m |


## Push button box

If required, an additional opening and closing Push Button Box can be supplied for Installation on the outside or Inside of the building. Available with or without locks.

| | |
|---|---|
| **Supply voltage:** | 24V(AC) |
| **Temperature range:** | -30°C to +60°C |
| **Degree of protection:** | IP44 - IP55 (depending on type) |
| **Installation:** | Outside and/or inside |

## Warning lights

Flashing red warning lights to warn before and during door movement.

| | |
|---|---|
| **Supply voltage:** | 230V(AC) |
| **Temperature range:** | -30°C to +60°C |
| **Degree of protection:** | IP54 |
| **Installation:** | On both sides of the door |
| **Settings:** | Various combinations of steady or flashing lights available. |

# Crawford
# Access and automation
## Accessories

### Traffic lights
Red and green traffic lights can be used together with all different types of Industrial doors. Designed for inside or outside installation. A number of traffic lights combinations set-ups are available.

| | |
|---|---|
| **Supply voltage:** | 230V(AC) |
| **Temperature range:** | -30°C to +60°C |
| **Degree of protection:** | IP54 |
| **Installation:** | On both sides of the door |
| **Settings:** | Various combinations possible |

### Pull rope
A Pull Rope can be Installed on all new as well as existing electrically operated doors. The pull rope allows the driver to operate the door from a more convenient position. Can be combined with automatic closing.

| | |
|---|---|
| **Supply voltage:** | 24V(AC) |
| **Temperature range:** | -30°C to +60°C |
| **Degree of protection:** | IP66 |
| **Installation:** | On both sides of the door |

### Battery back-up
In case of a power supply break-down, a battery operated emergency power function is available. This allows the door to be operated a limited number of times.

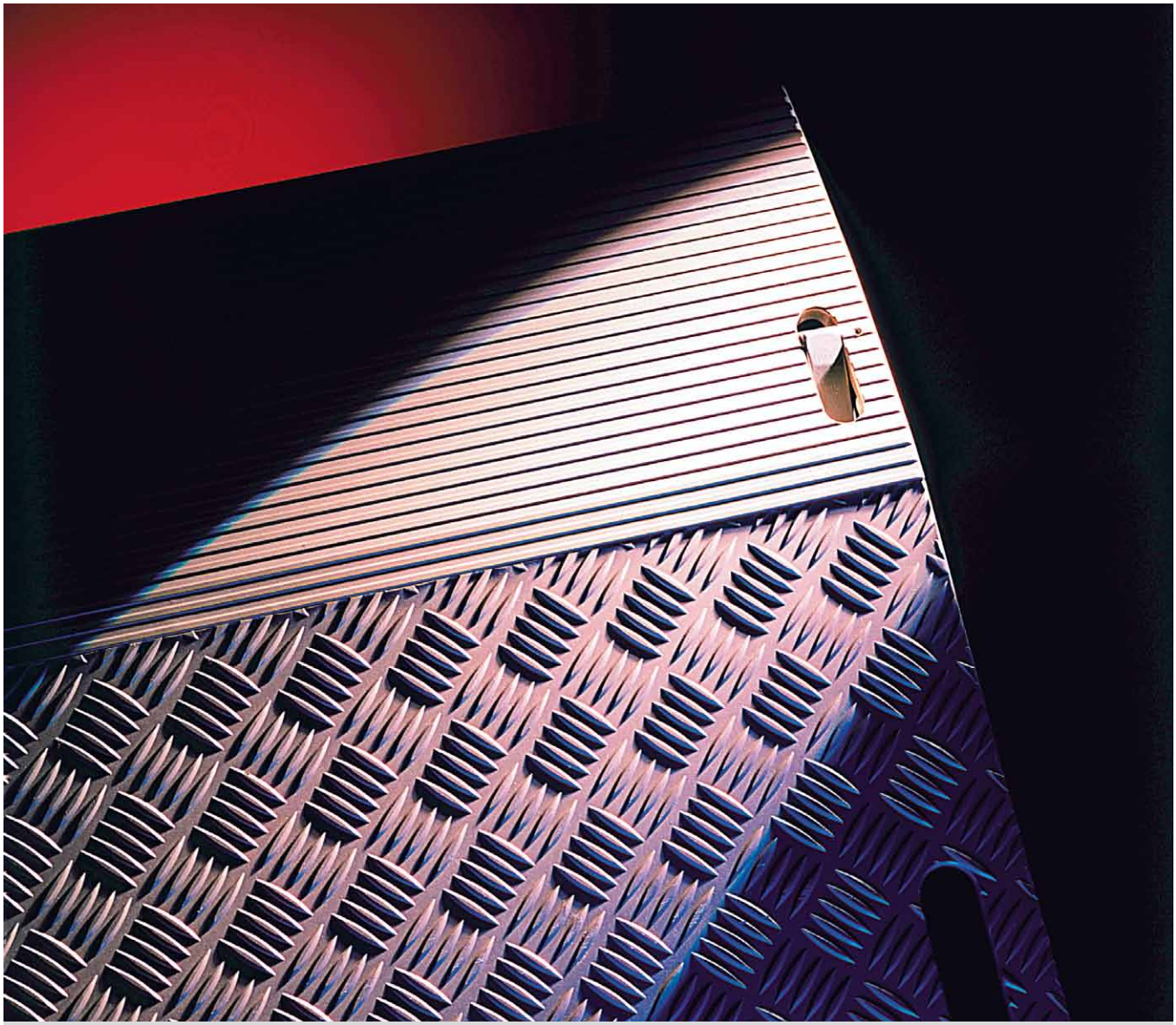
| | |
|---|---|
| **Supply voltage:** | 230V(AC) |
| **Temperature range:** | +15°C to +60°C |
| **Degree of protection:** | IP43 |
| **Installation:** | Inside installation |


## Reduced opening

For big doors sometimes it is not needed to fully open the door and this option enables to open half of the door height or fully open.

| | |
|---|---|
| **Supply voltage:** | 24 V(AC) |
| **Temperature range:** | -20°C to +60°C |
| **Degree of protection:** | IP54 |

# Docking systems



Crawford is Europe's leading supplier of dock loading equipment, which consists of dock levellers, shelters and load houses. The products provide a work environment for loading and unloading that is rational, energy efficient and protected from the weather.

# Docking – an important, integrated part in the logistic process

*With an extensive experience and more than 200,000 loading bay installations worldwide, Crawford is Europe's leading supplier of docking systems. We are able to help you find the solution most suitable to your need.*

A docking system is part of a comprehensive logistic process, which in turn puts high demands on the products facilitating it. Making the optimal decision at an early stage will contribute to considerable cost savings for the user. Our experts can help you to specify the optimal solution for your particular needs.

The different modules of our docking system contributes to efficient handling of goods and a safe and comfortable working environment.

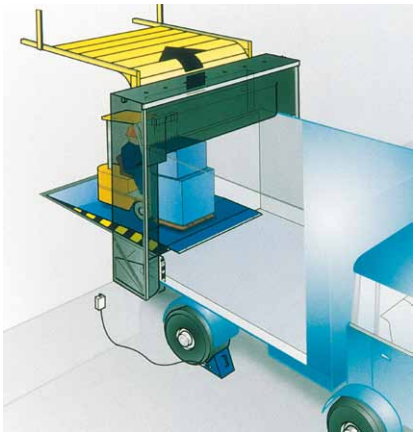
**Dock leveller –** bridges the distance between vehicle and bay, thus eliminating the the differences between truck bed and floor.

**Dock shelter –** tightens around the vehicle and eliminates draughts and rain.

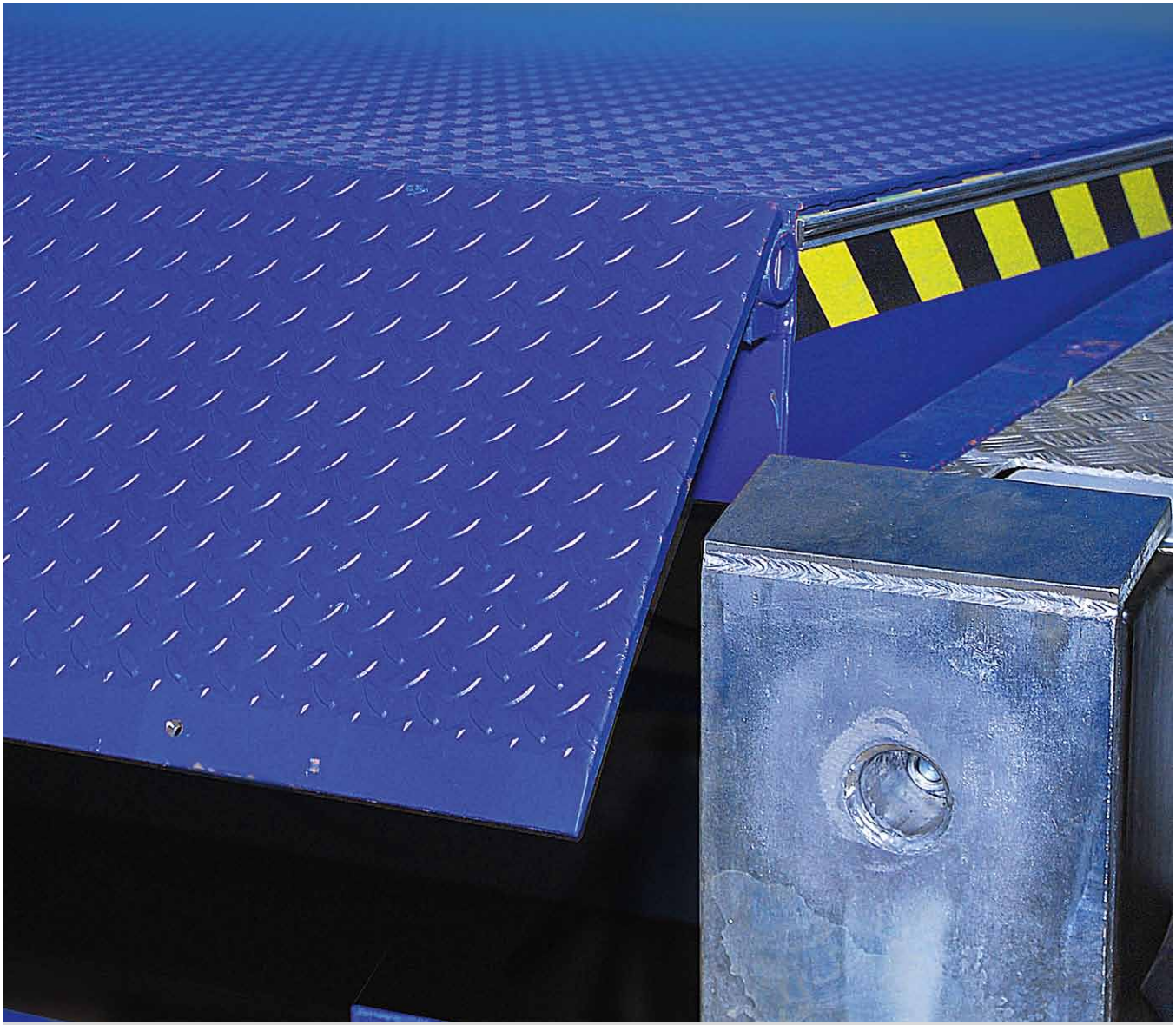
**Loadhouse –** optimises floor area utilisation by permitting loading and unloading outside the building.

**Industrial door –** seals off the building, giving protection and energy savings.

Crawford is able to meet the demands of all potential customers, from small sized companies with only one or a few loading bays to central warehouses with more than 100 loading bays and a non-stop 24-hour operation.



# Crawford
# 610 Swingdock
## Dock levellers



**Application**

The Crawford 610 swingdock is the standard solution in general industry applications and easy to operate. The swing lip safely bridges the gap between the ramp and the vehicle bed.

The Crawford 610 swingdock system meets the standard demands of most loading operation and complies fully with all rules and regulations of the European Standard EN 1398.

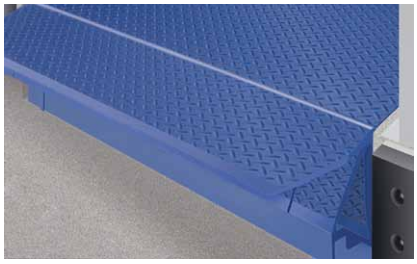
Crawford
ASSA ABLOY

# Optimal swing lip dimensions for safe positioning on the vehicle bed

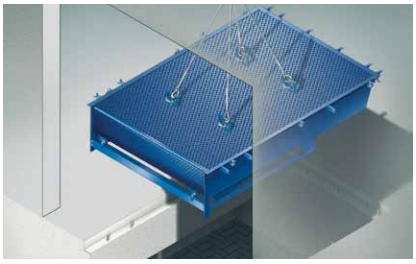
## Bent swing lip prevents material handling vehicles from "grounding out"

**Efficiency**
To enable a safe and efficient process for loading and unloading, the 610 swingdock connects the building with the vehicle. The result is highest safety for the transfer of goods, avoiding injuries to the personal or damages to the equipment. It is a time saving solution securing shortest possible ways in and out of the warehouse. For the optimal working environment the 610 swingdock is installed as a part of the complete loading bay consisting of a dock leveller, an overhead sectional door and a dock shelter.

**Mode of operation**
The operation of a 610 swingdock is based on an electro hydraulic swinging mechanism which bridges the last centimetres between the building and the vehicle bed. When the dock leveller is raised, the lip swings out and then – when lowered – lays down safely onto the lorry bed. After loading or unloading, the leveller is raised again by the push of a button and automatically returns to its parking position, i.e. to ramp level. To enable the handling of vehicles with different widths, the swing lips are available in different configurations: square, shaped or with fold down segments.

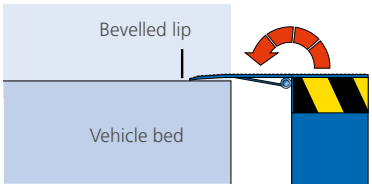


*Swing lips in different configurations.*



*Installation in the warehouse floor as a compact unit.*

*Safeguard emergency stop with two cylinders.*




**Steel lip design**
A Crawford 610 swingdock with a lip made of steel represents a durable and impact resistant solution and stands for long life time.

- Preventive maintenance is easy and fast to secure functionality and avoid downtimes.
- Bent swing lip prevents material handling equipment from "grounding out".

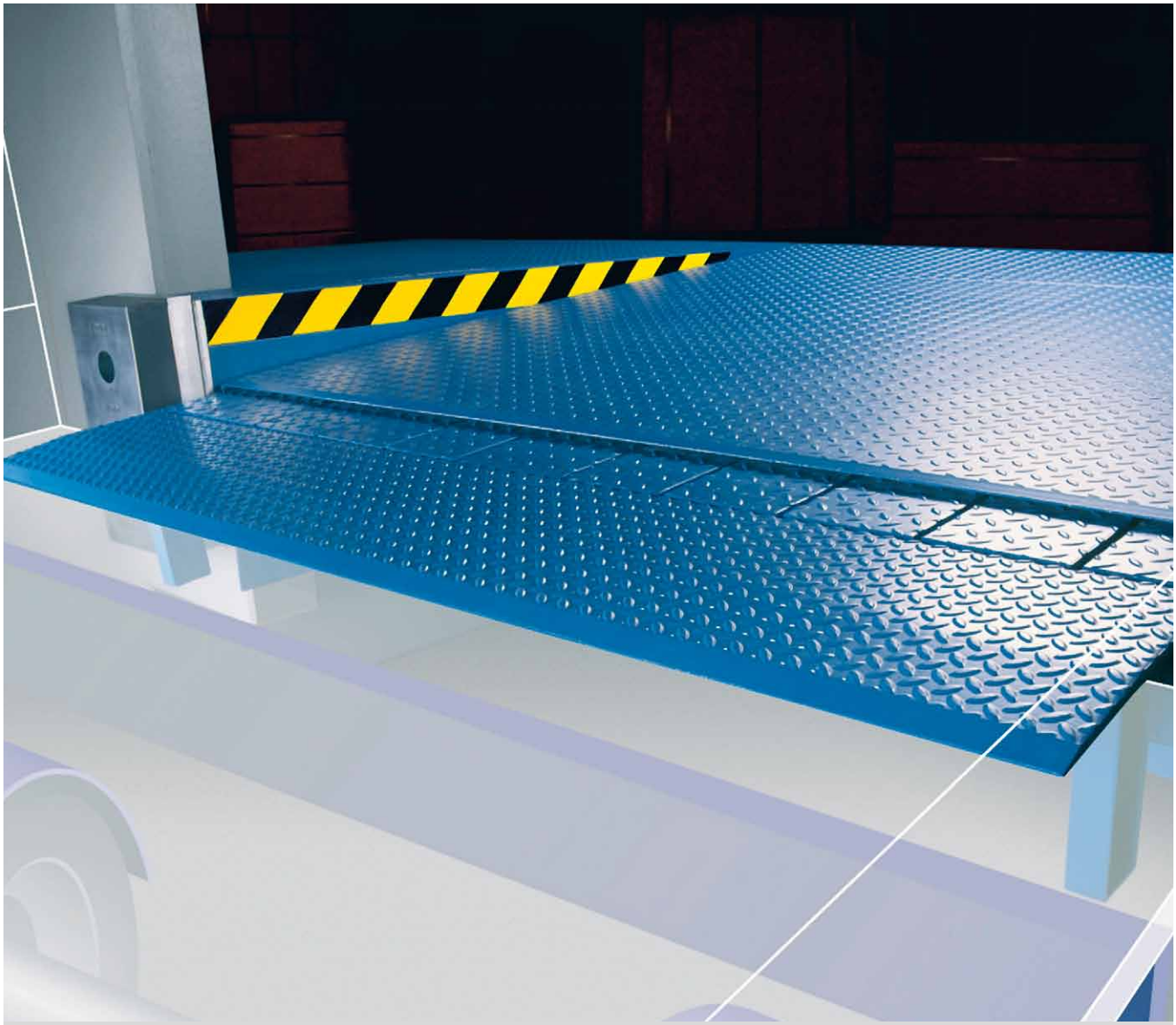
**Right solution for smooth passage**
The standard steel lip is 40 mm bevelled. Optionally, the lip can be bevelled 100 mm, designed to provide maximum comfort and smooth transition.

- Flat design for smooth passages between the leveller and truck bed. It is ergonomic as well as economical.

Advantages due to reduced chock loads for people and less wear and tear on the material handling equipment.

| Technical Data | |
|---|---|
| Nominal length | 2000, 2500, 3000, 3500, 4000, 4500 mm |
| Nominal width | 1750, 2000, 2200 mm |
| Load capacity | 6 tonnes (60 kN) |
| Vertical working range<br>Rise above dock<br>Fall below dock | <br>250 - 620 mm<br>270 - 350 mm |
| Platform tear-plate thickness with platform reinforcements according to the load capacity | 6/8, 8/10 mm |
| Coating | RAL 5010, Hot dip galvanized |
| Lip material & length | Steel, 400 / 500 mm |
| Nominal voltage | 400V 3-phase |
| Nominal motor power | 1,5 kW |
| Control unit | Supervision 105, 105A, i105, i305<br>Service & fault Indicator |
| European standard | EN 1398 Dock levellers |

# Crawford
# 620 Teledock
## Dock levellers



**Application**

The Crawford 620 teledock, i.e. the dock leveller with a telescopic lip, is the universal and most flexible docking system. It is suitable for every loading situation – regardless of its complexity. The main advantage compared to other levellers is the movable telescopic lip which can be precisely positioned on the vehicle bed, thus giving optimal load utilisation of the whole vehicle bed area.

The Crawford 620 teledock meets all possible user demands and complies with the rules and regulations of the European EN 1398 Standard.

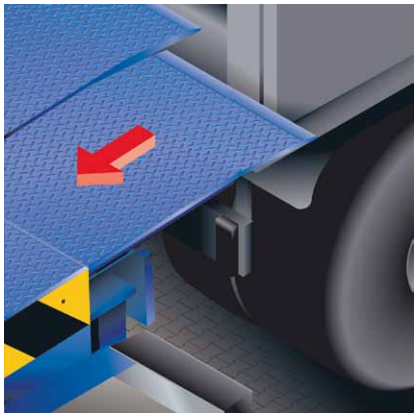
Infinitely variable high-precision telescopic technology

Ergonomic aluminium telescopic lip

Extremely smooth passage to the vehicle bed

**Mode of operation**

It is the Crawford 620 teledock technology that has really optimized dock leveller systems regarding their safety and user-friendliness. The Crawford 620 teledock can be positioned on the vehicle bed with the utmost precision. Even inaccurately docked vehicles do not cause any problems. Retracting tongues provide flexibility for different vehicle widths. In its parking position the lip is under the leveller platform. The telescopic lip is available either in steel or in aluminium.

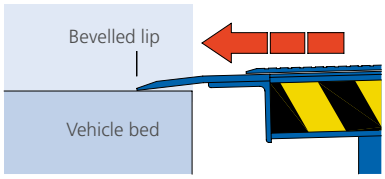


*Retracting tounges.*

**Choosing the right material**

*Steel telelip*

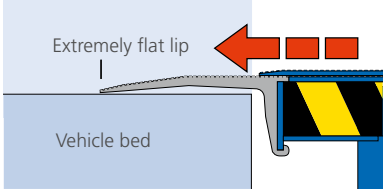
The Crawford 620 teledock with a steel lip offers most of the advantages of the telescopic lip technology. However, since the steel lip needs a reinforcement element under the lip, the steel Telelip has less flexibility than the aluminium Telelip.




*Aluminium telelip*

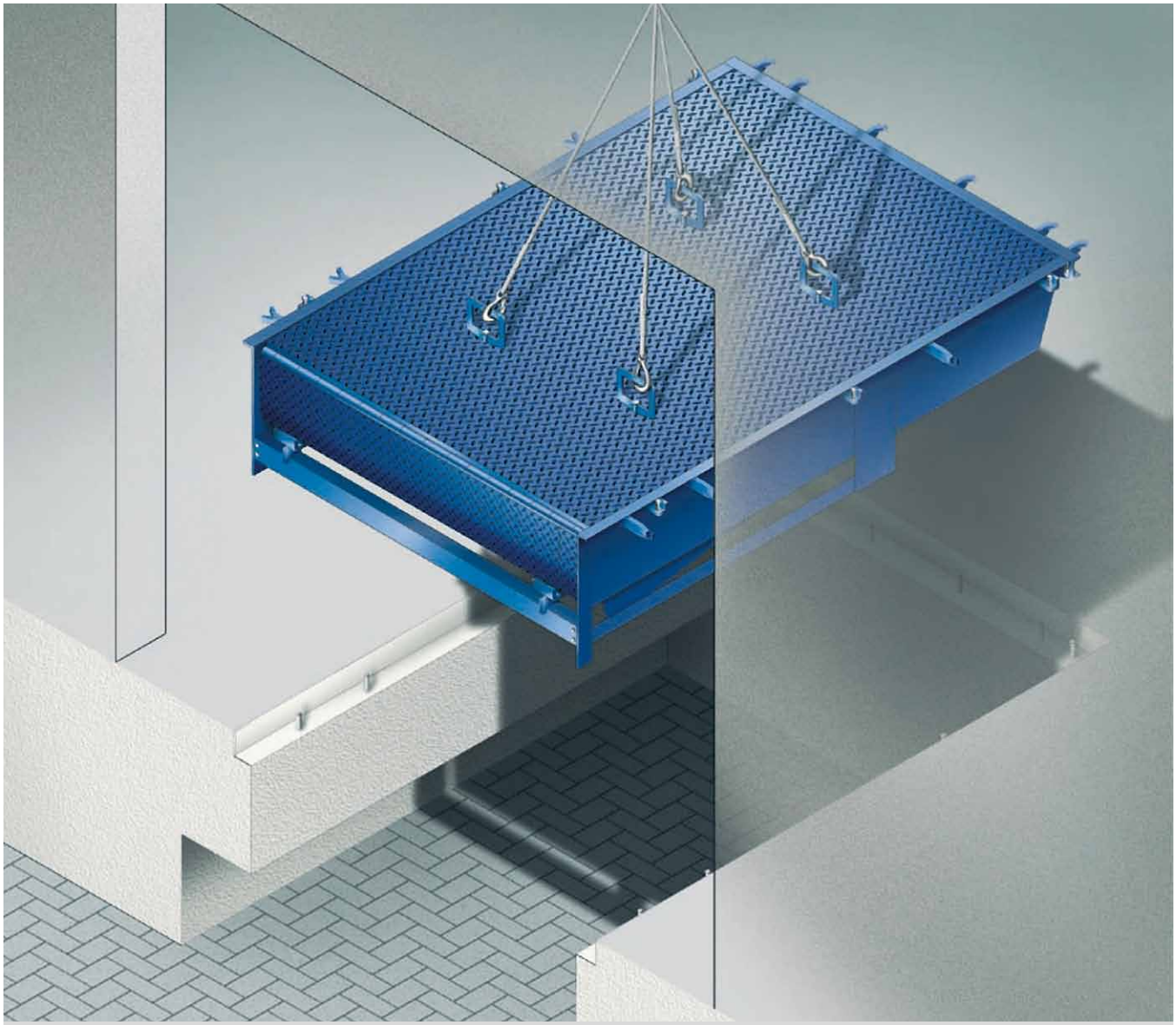
The Crawford 620 teledock with a high-strength aluminium lip is the optimal choice for customers who value quality, efficiency, flexibility and ergonomics.

- Larger contact area between vehicle bed and dock leveller for optimal and safe positioning on the vehicle bed.
- The aluminium lip is extremely flat resulting in smoother passages between leveller and truck bed. It is ergonomic as well as economical.
- Advantages due to reduced chock loads for people and less wear and tear on the material handling equipment.




| Technical Data | |
|---|---|
| Nominal length | 2000, 2500, 3000, 3500, 4000, 4500 mm |
| Nominal width | 1750, 2000, 2200 mm |
| Load capacity | 6 tonnes (60 kN) |
| Vertical working range<br>Rise above dock<br>Fall below dock | <br>310 - 660 mm<br>230 - 750 mm |
| Platform tear-plate thickness<br>with platform reinforcements according to the load capacity | 8/10 mm |
| Coating | RAL 5010, Hot dip galvanized |
| Lip material & length | Steel or aluminium, 500 / 1000 mm |
| Lip option | Retracting tounges |
| Nominal voltage | 400V 3-phase |
| Nominal motor power | 1,5 kW |
| Control unit | Supervision 205A, i205, i305<br>Service & fault Indicator |
| European standard | EN 1398 dock levellers |

# Crawford
# Standard and pre-installed frames
## Suitable for all pits



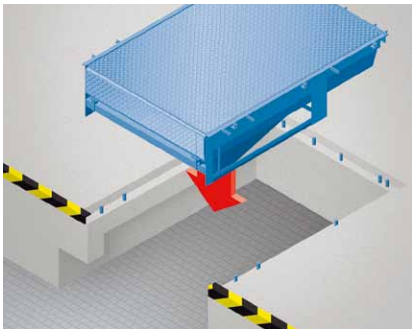
**A wide variety of frames make all installations possible**

The Crawford dock levellers are delivered as complete units with integrated frames or as pit models without frames. Installation time is short. The self-supporting construction leaves the floor area below the leveller completely free and can be utilised by lowered tail lifts.

Perfect installation system including dock leveller

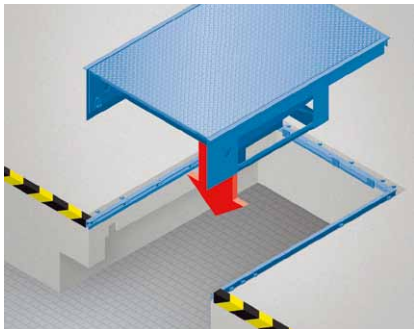
Fast installation

Best possible contact with the floor of the building



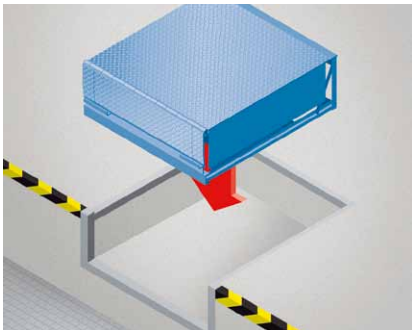
**The Model "T" standard frame**
The dock leveller, including frame, is installed into concrete and welded to embedded steel dowels. The system is then cast in concrete.

Advantage: Fast and clean one-step installation.



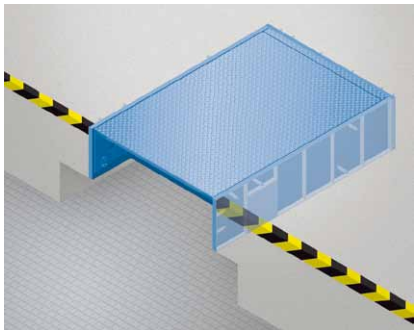
**The Model "W" pre-installed frame**
The dock leveller including its frame, is welded to a pre-installed frame, mounted to steel dowels already cast in the concrete. The pre-installed frame is subsequently cast in concrete (see Model "T").

Advantage: The pre-installed frame can be mounted to the floor slab before the dock leveller is installed. The leveller is welded to the pre-installed frame, facilitating easy future replacement.



**Pit frame**
In the pit model, the dock leveller, without frame, is welded to a pre-installed, rear end frame cast in the concrete. The front is supported by the pit floor or by two side-mounted steel angles.

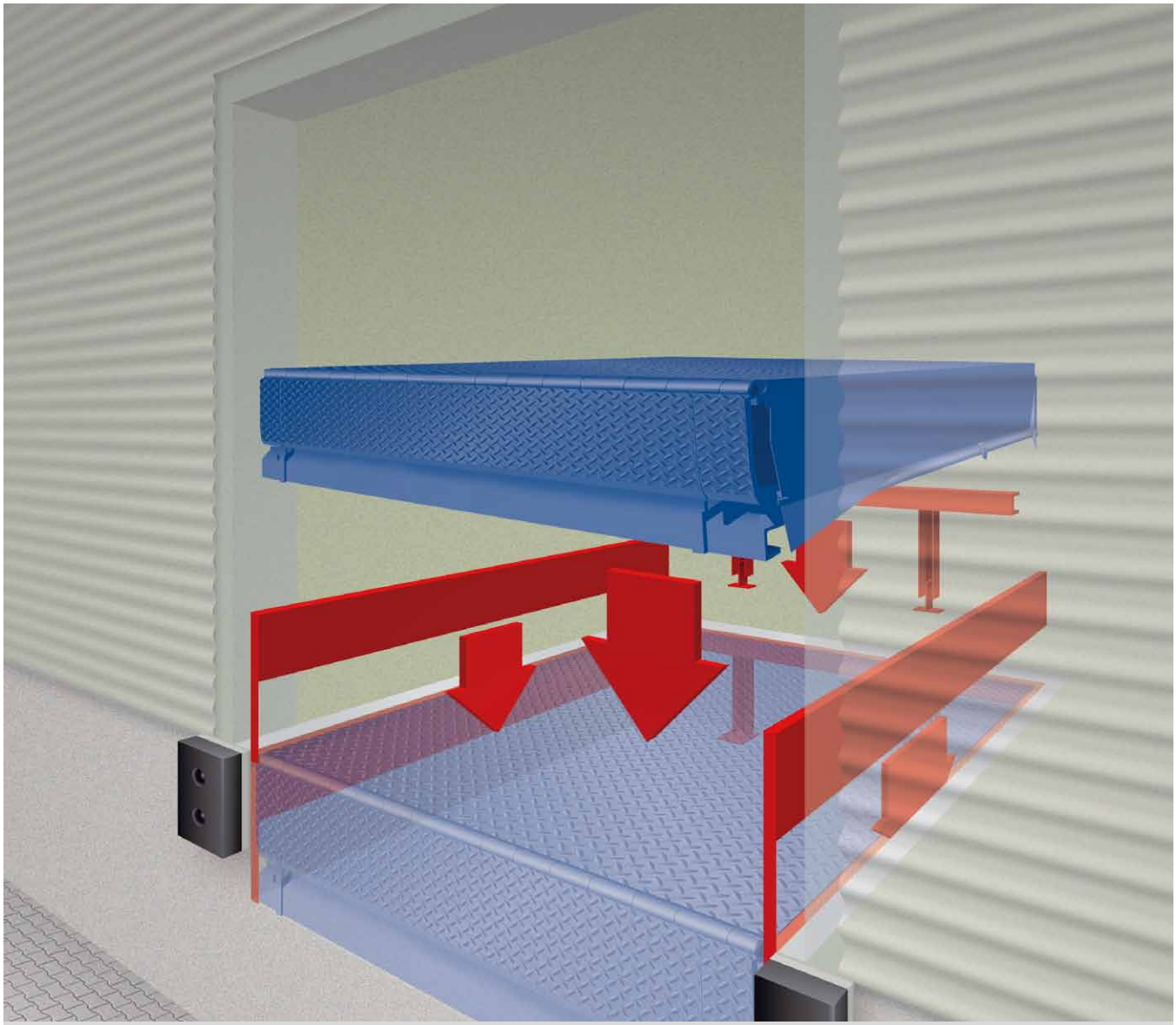
Advantage: Fast and low-cost installation of the dock leveller and easy future replacement.



**Box model**
The box model consists of a dock leveller inside a box which in turn is used as the concrete shuttering for the installation. An installation frame as well as welding to steel dowels is not needed (see also Standard Frame). The complete system – leveller and box – is mounted to a concrete slab. The building floor is produced later.

Advantages: A pit is not required, complicated and expensive shutter work can be avoided. Also preparation of the building slab construction is simplified.

# Crawford
# 612 Unidock
## A unique upgrading and replacement solution



**Application**

Obsolete and inefficient dock loading installations have until now been difficult to upgrade to modern functional demands.

Replacing old dimensions and models often meant costly rebuilding and installation and was thus not considered.

The new Crawford 612 unidock is a variable dock leveller adapter system, enabling every obsolete loading bay, regardless of manufacturer, to be upgraded at a reasonable cost. Replacement time is short!

A new docking system in a flash

No building alterations required

Unbeatable cost-performance ratio

**Step 1:** Removal of the old leveller takes just a few hours.

**Step 2:** Installation of the adapter. Can be used in all pits, regardless of dimensions. The old leveller frame is left in place, avoiding costly construction work.

**Step 3:** Installation of the Crawford 612 unidock leveller. After connection of the electrical system, the leveller can be taken into operation. This unique process gives unbeatable cost advatages! Ready for operation.

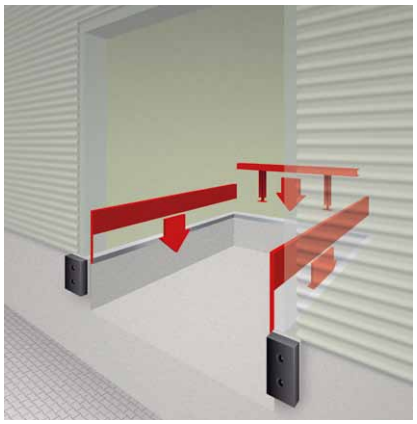
**Useful options**

- Crawford eye to facilitate the dock-in procedure.
- Noise reduction and slip protection coating.
- Hot dip galvanized coating.
- Protective sealing between leveller and building.
- Floating buffers.

| Technical Data | |
|---|---|
| Nominal length | 1750 to 3000 mm |
| Nominal width | 1750 to 2250 mm |
| Load capacity | 6 tonnes (60 kN) |
| Technical system in accordance with the EN 1398 standard | |

*Step 1*

*The Crawford 612 unidock adapter system.*



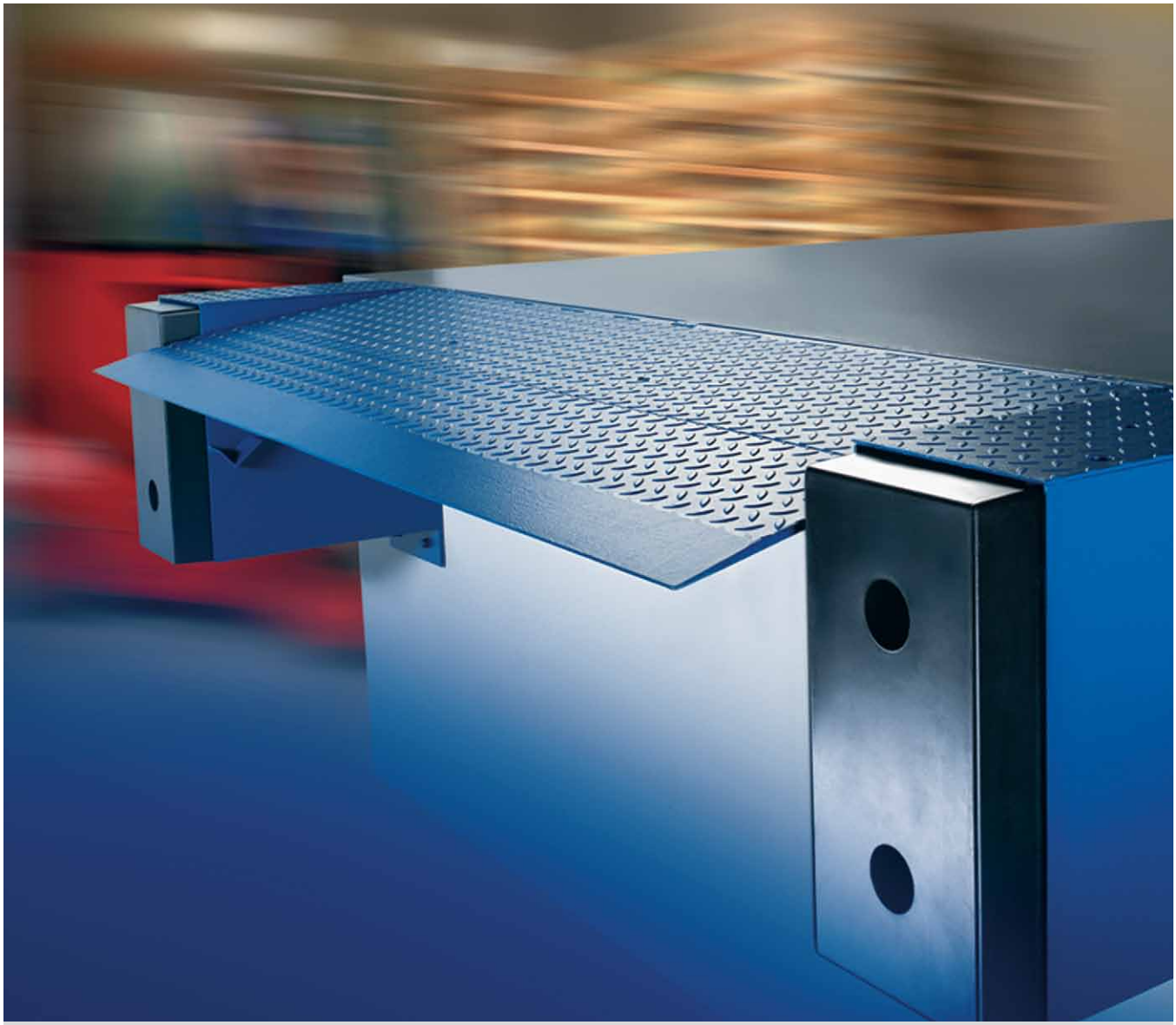
*Step 2*

*The Crawford 612 unidock is positioned and connected.*

*Step 3*

*The Crawford 612 unidock is placed in the pit.*

# Crawford
# 613 Minidock
## Dock levellers



**Application**

The Crawford 613 minidock is a manually operated dock leveller, specifically developed for operators of fleets of standardized vehicles with the same bed height. It meets the demands of most loading operations and fully complies with all requirements of the European Standard EN 1398.

Easy to operate

Economical alternative

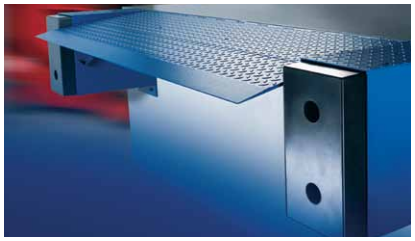
Ergonomic flat design

**Easy to operate**
The Crawford 613 minidock is developed to be an easy to operate and economical solution in environments where standardized vehicles with the same bed height is used. The Crawford 613 minidock is equipped with a gas spring, making it easy for one person to operate – just lift and swing the platform. The Crawford 613 minidock also meets the demands of most loading operations and fulfills all ergonimic requirements.

**Adapts to vertical movements**
The Crawford 613 mindock design includes a limited, free-floating function, allowing the platform to adapt to the vertical movements of a vehicle bed during loading and unloading.

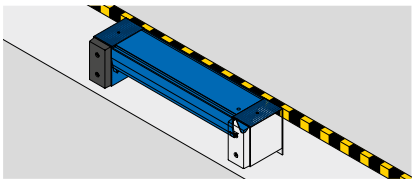
**Ergonomic and economic advantages**
The lip of the Minidock is made of steel. The shape of the lip is extremely flat and the design of the rear connection to the dock edge is bump-free, resulting in a smooth passage between building and truck bed. The Crawford 613 minidock can be complemented with a dock shelter to get the advantages of a complete docking system. Such solution improves the loading/unloading process and hence the working environment.

*Ramp model - smooth loading.*

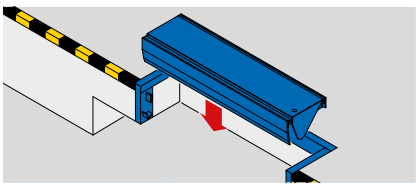


*Flat design for ergonomic solution.*

**Easy installation**



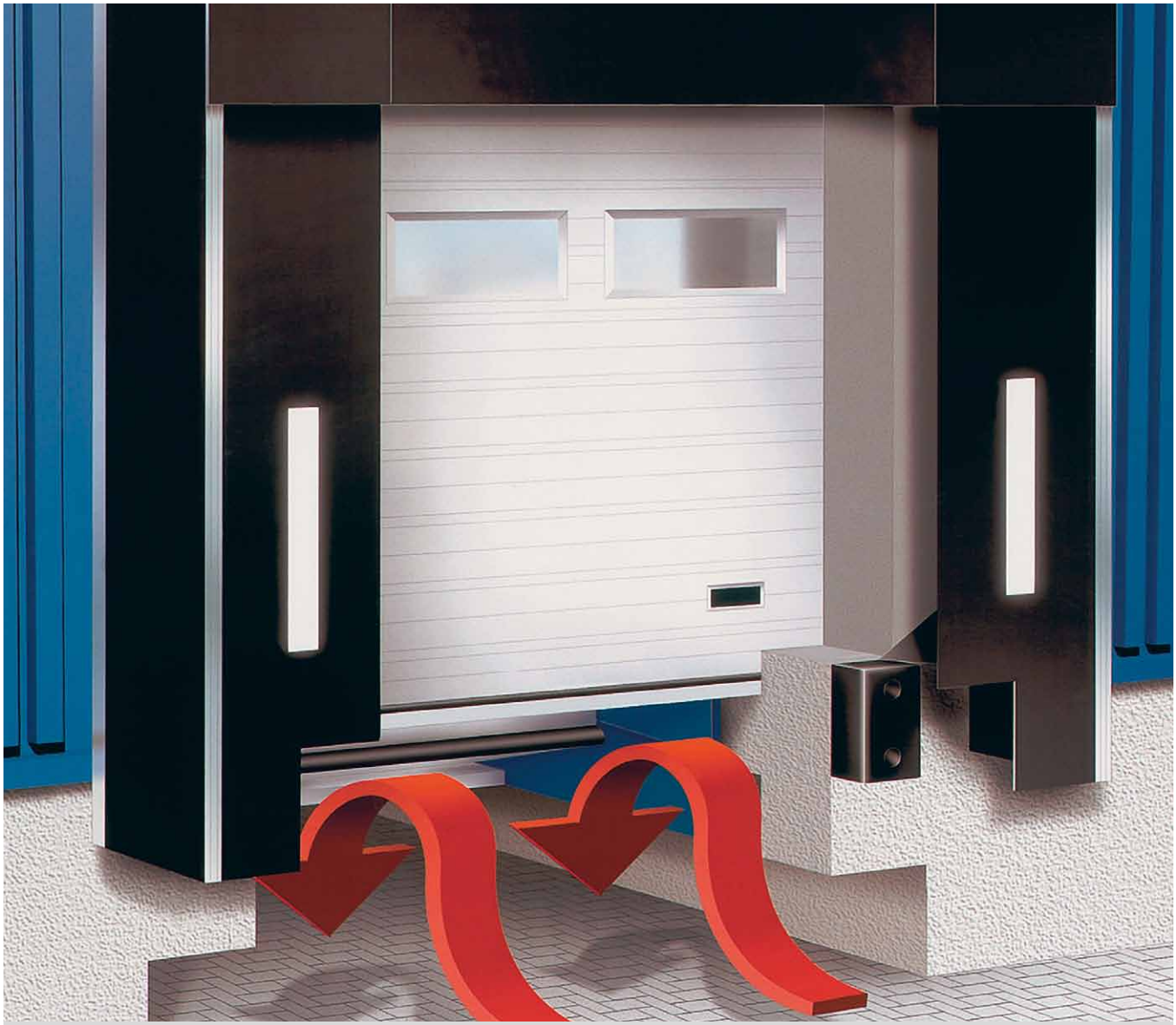
*Ramp model. Load capacity 4 tonnes (40kN) and 6 tonnes (60kN).*



*Pit model. Load capacity 4 tonnes (40kN) and 6 tonnes (60kN).*

| Technical Data | |
|---|---|
| Handling rod for manual operation supported by a gas spring device | |
| Nominal length | 700 mm |
| Nominal width | 1250, 2000, 2200 mm |
| Load capacity | 4 tonnes, 6 tonnes |
| Vertical working range<br>Rise above dock<br>Fall below dock | <br>100 mm<br>100 mm |
| Platform tear-plate thickness with platform reinforcements according to the load capacity | 4/6 mm |
| Coating | RAL 5010, hot dip galvanized |
| Lip material | Steel |
| Installation model | Ramp, pit |
| Rubber buffers | RB 250x250x90<br>RB 500x250x90 |
| European standard | EN 1398 dock levellers |

# Crawford
# 624 Isodock
## For temperature controlled premises



**Application**

Frozen and fresh food products must reach the customers in carefully pre-determined condition. Unbroken temperature chains in storage, loading and transportation are vital. In addition, big temperature differences between the inside and outside of a cold storage facility might create costly energy losses during loading and unloading. The Crawford 624 Isodock has been designed to cope with such demands. This insulated docking system can reduce energy losses by up to 75 percent compared to conventional designs.

Up to 75% energy savings

Guaranteed cooling chain for food

Environmentally friendly docking system

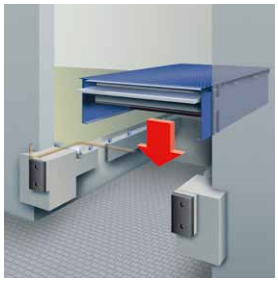
**Thermal separation gives low energy costs**
Unlike conventional docking systems, the Crawford 624 isodock leveller is placed behind a well insulated sectional door. It is also hermetically sealed off from below, preventing cold or hot air access.

**Tail lift access during dock-in**
The Crawford 624 isodock design permits lowered vehicle tail lifts to enter below the construction – an important detail in interrupted loading and unloading processes.

**Lorry impact forces absorbed by the building floor**
Contrary to most insulated docking systems, the Crawford 624 isodock is designed in such a way that impact forces from docking vehicles are absorbed by the building floor. The frost-proof foundation is separated from the building floor just by a gap for housing the sectional door – not as a separate building construction. Complicated building arrangements can be avoided.

*Hermetically sealed.*

*Gap for the sectional door.*



*Ready-to-install unit.*

**Instant installation!**
The Crawford 624 isodock is delivered as a premounted, ready-to-install unit – including the bottom insulation panel. The unit is simply lifted into the prepared pit.

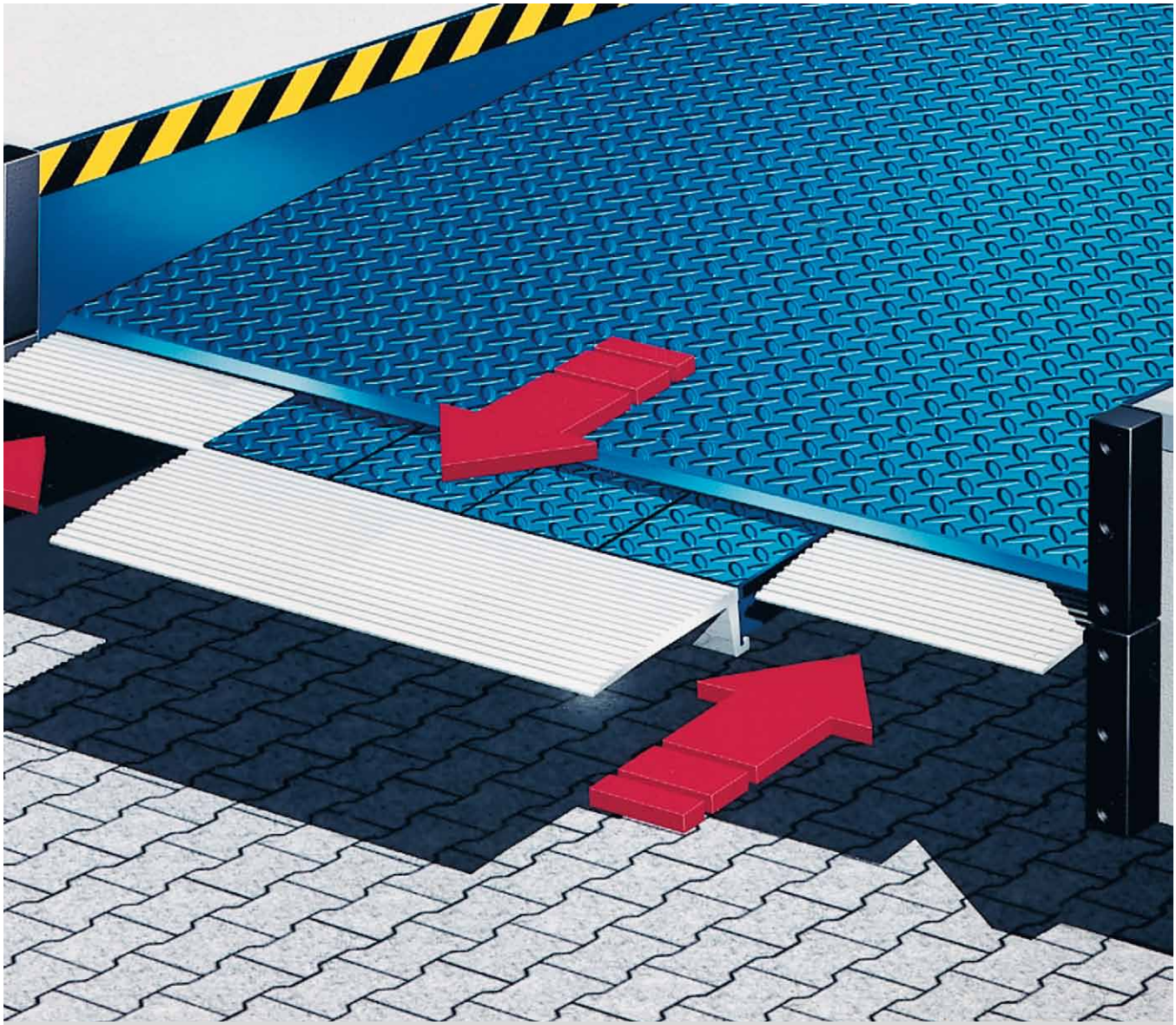
**Choose between manual or electrical door operation**
The Crawford 624 isodock unique design allows the sectional door to be smaller than usual since it does not have to reach ground floor level. This means that the door, if preferred, can be manually operated.

**Scientifically proved energy savings**
Studies made by the Institute of Thermodynamics at Hanover University show that Crawford 624 isodock, compared to conventional docking systems, creates energy savings of up to 75 percent – corresponding to the annual average energy cost of a detached house!

**Useful options**
- Crawford eye to facilitate the dock-in procedure
- Noise reduction and slip Protection coating
- Hot dip galvanized coating
- Movable lip tongues
- Floating buffers

| Technical Data | |
|---|---|
| Nominal length | 2000, 2500, 3000 mm |
| Nominal width | 2000, 2200 mm |
| Load capacity | 6 tonnes (60 kN) |
| Vertical working range<br>Rise above dock<br>Fall below dock | <br>380 – 520 mm<br>450 – 460 mm |
| Platform tear-plate thickness with platform reinforcements according to the load capacity | 8/10 mm |
| Insulation thickness | 40 mm |
| Coating | Hot dip galvanized |
| Lip material & length | Steel or aluminium, 1000 mm |
| Lip option | Retracting tounges |
| Nominal voltage | 400V 3-phase |
| Nominal motor power | 1,5 kW |
| Control unit | Supervision 205, 205A, i305<br>Service & fault indicator |
| European standard | EN 1398 dock levellers |

# Crawford
# 630 Combidock
## Leveller for both lorries and vans



**Application**

The electro-hydraulic Crawford 630 combidock is a dock leveller specially designed for applications where vehicles with large variations in size and design use the same bay for loading and unloading. The Crawford 630 combidock eliminates the need for different ramp heights and thereby reduces building costs. It is advisable to equip every frequent loading area with at least one Crawford 630 combidock so that vehicles of all sizes can he efficiently handled. The Crawford 630 combidock copes with all user demands, and complies with the rules and regulations of the European EN1398 Standard.

Versatility is the key word

Proven telescopic technology combined with width flexibility

Compensation for varying forces on the leveller platform

**Ergonomics and reduced wear and tear**

The telescopic lip can be supplied in steel or high-stability aluminium alloy. The latter is extremely flat, resulting in smoother passages between leveller and truck bed – giving ergonomic as well as economical advantages due to reduced chock loads for people and less wear and tear on the handling equipment.

**Horizontally at "eye level" with the vehicle bed!**

Loading and unloading vehicles with beds considerable higher or lower than the ramp floor can sometimes be difficult.

As an option, the Crawford 630 combidock can be equipped with a front section operating in parallel with the bed of the vehicle. This facilitates operations from the forklift driver's eye level and gives the forks a better operating angle.

**Lorry or van – just turn the switch!**

Simply set the selection switch and the relevant automation program is started. When set on "Small Lorries", leveller lip side tongues are retracted and the width is reduced by 1000 mm. At the same time, the down-force of the leveller platform is reduced by a hydraulic unit. Just use the selector switch for return to standard lorry performance.

**Time losses eliminated at inaccurate dock-ins!**

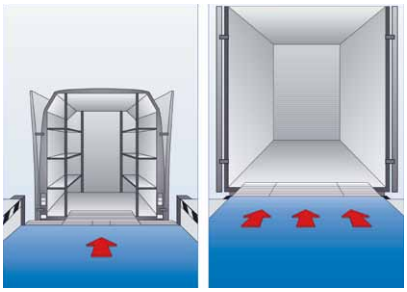
Should the vehicle not be accurately docked to the loading ramp, the telescopic lip will still bridge the distance between bed and ramp. The same goes for a situation where the bed is utilised to the last centimetre – the telescopic lip will connect with the small space left and safely bridge the distance. No time consuming vehicle manouvres are necessary.

**Automatic adjustment to vehicle bed movements during loading and unloading**

Vehicles sink and rise during loading and unloading. A special safety control system ensures that the leveller automatically follows the vertical movements of the vehicle bed. Should the bed move horizontally, the same automatic system keeps the lip against the bed, facilitating safe and smooth passages.

**Useful options**

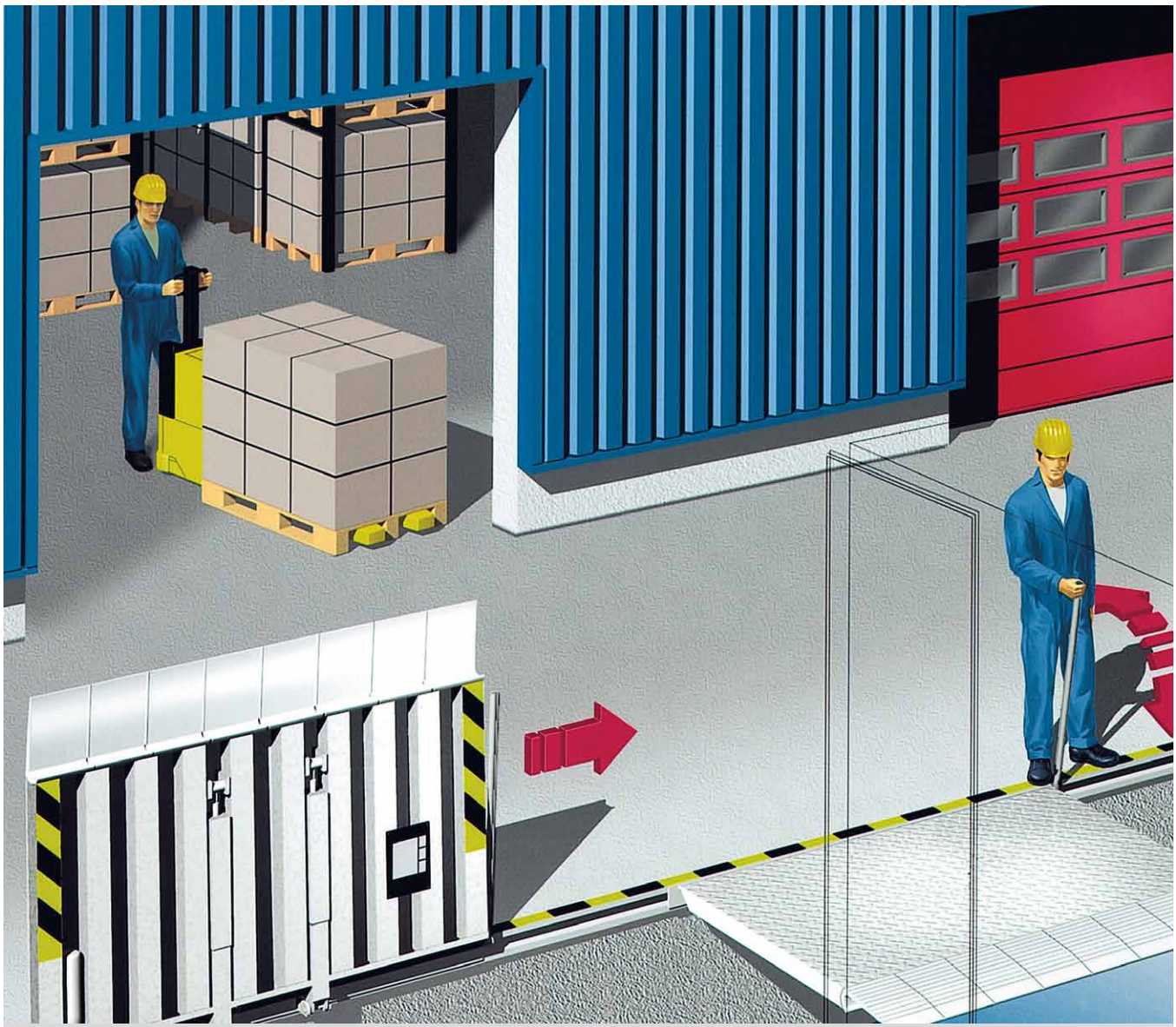
- Crawford eye to facilitate the dock-in procedure
- Noise reduction and slip protection coating
- Hot dip galvanized coating
- Protective sealing between leveller and building
- Floating buffers



*For smaller lorries.* *For normal lorries.*

| Technical Data | |
|---|---|
| Nominal length | 3000 mm |
| Nominal width | 2000 mm |
| Load capacity | Lorries 6 tonnes (60 kN)<br>Vans 2 tonnes (20 kN) |
| Vertical working range<br>Rise above dock<br>Fall below dock | <br>450 mm<br>550 mm |
| Platform tear-plate thickness with platform reinforcements according to the load capacity | 8/10 mm |
| Coating | RAL 5010, hot dip galvanized |
| Lip material & length | Aluminium, 500 mm |
| Nominal voltage | 400V 3-phase |
| Nominal motor power | 1,5 kW |
| Control unit | Standard truck / city van mode<br>Impulse auto button<br>Optional with door operation |
| European standard | EN 1398 dock levellers |

# Crawford
# Drawbridges and dock plates
## Portable and flexible



**Application**

In addition to the normal, integrated loading ramps, most modern warehouses and terminals are provided with an additional, open ramp with low demand on weather protection. This ramp must be able to facilitate rear and side loading and unloading of vehicles. Also, goods in special dimensions can be handled since no palletising demand exists for a ramp equipped with Crawford drawbridges or dock plates. The Crawford drawbridges and dock plates comply with all customer demands.

# Sliding or in fixed position
# Mobile and portable
# Easy rail wagon loading and unloading

**Drawbridges**
**– the best choice for open ramps**
The Crawford drawbridge is the best solution for open ramps and for servicing vehicles of roughly the same size. This leveller is equipped with a heavy-duty spring, enabling it to be conveniently lifted and lowered by hand. Installation can be done in a fixed position or in guidance rails placed in the front edge of the ramp. The latter alternative makes it possible for the leveller to operate in different ramp positions. When not in use, the drawbridge is secured in the vertical position with a safety lock. Hot-dip galvanising is standard to ensure corrosion resistance.

The Crawford drawbridges are also available with a segmented aluminium alloy lip, compensating for sloping vehicle beds and facilitating smooth passages.

**Dock plates**
**– the universal solution!**
The Crawford dock plates are the universal solution for all loading situations. In spite of their mobility, they are capable of handling heavy loads due to the special aluminium alloy material. Dock plates can be used as a permanent loading solution or as an additional, back up capacity in case of unforeseen ramp bottlenecks.

Automatic locking arms, safety hooks and full-depth lip heels give safe dock plate contact with the vehicle.

**Loading railway cars**
**– a regulated and special application**
For loading and unloading of railway cars, the railroad operators have issued a number of rules that must be taken into consideration. Two Crawford solutions are available: sliding or rolling dock plates. Both are made of a special, high performance aluminium alloy and meet all loading requirements and safety regulations for railway car loading.

*Aluminium alloy.*

*Mobility solution.*

*For rail wagons.*

| Technical Data | |
|---|---|
| **Steel version with heavy duty springs:** | |
| Nominal length | 1200, 1500, 1750, 2000 mm |
| Nominal width | 1500, 1750, 2000 mm |
| Load capacity | 60 kN |
| European standard | EN 1398 dock levellers |
| **Aluminium alloy version without heavy duty springs:** | |
| Nominal length | 610, 860, 1100 mm |
| Nominal width | 1250, 1500 mm |
| Load capacity | 40 kN |
| European standard | EN 1398 dock levellers |
| Technical data of the mobile dock levellers and of the dock levellers for rail loading upon request. | |

# Crawford
# Curtain dock shelters
## For a wide range of lorry sizes

**Application**

The curtain dock shelter is the standard solution for energysaving oriented operators. The vehicle reverses into the dock shelter which seals it off with flexible side and top curtains, giving weather protection during the loading and unloading process.

The result is an improved working environment and goods protection. The curtain material has a very high wear and tear resistance. The Crawford curtain dock shelter programme comprises a number of models, meeting all customer demands and suitable for a wide range of vehicle sizes.

85% lower energy costs

Reduced construction costs

Ergonomic workplace

**The all-round solution**

The standard curtain shelter is suitable for a wide range of vehicle sizes and has a flexible design. Should a vehicle deviate from the dock-in centre-line and hit the shelter frame, built-in springs allow the shelter to follow the movement without being damaged. Its flexibility and high wear and tear resistance, in combination with a high price-performance ratio, contribute to the fact that the vast majority of all European loading bays are equipped with this standard dock shelter!

**Self-adjusting top section for bigger vehicles**

A number of vehicles, e.g. swop bodies, rise during the docking process. A standard dock shelter cannot cope with this situation.

Therefore, a curtain shelter with adjustable top section has been developed by Crawford. This model automatically adapts to different vehicle heights and vertical movements.

**For building aesthetics: built-in shelters**

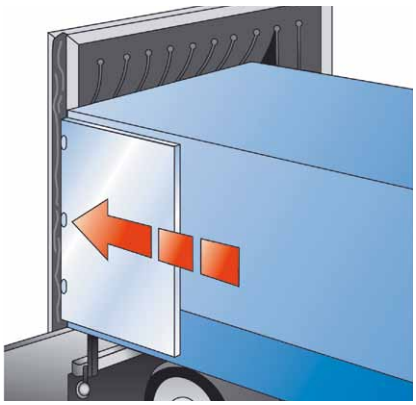
Sometimes, architects and operators require a nice looking, smooth building façade. In order to meet such demands, dock shelters can be installed in building extensions or directly into the building façade.

**High quality inside structure ensures long lifetime**

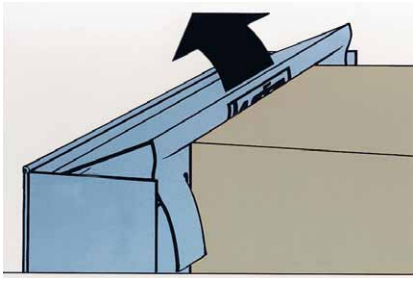
Neither curtain sheet material thickness nor surface treatment has any major influence on shelter lifetime in a harsh loading environment. Instead, the material structure is of importance. Ability to adjust to vehicle contours and resist wear and tear rests with the way the sheet material is built up. All Crawford curtain shelters are made in double-layered polyester with high longitudinal and transverse tensile strength.

**Useful options**

- Rain channel in continuous roof cover.
- Splitted top curtain
- Number imprint on the top curtain.
- One rubber flap each for the stabilization of the two side curtains.
- Corner seals for the bottom part of the dock shelter.



*Highly flexible construction.*



*Self-adjusting roof frame.*


*For a wide range of vehicle sizes.*

| Technical Data | |
|---|---|
| Nominal length | 3200, 3400, 3600 mm, (Road Model up to 4600 mm) |
| Nominal width | 3250, 3450 mm |
| Side curtain | 600, 700 mm |
| Top curtain | 1000, 1200, 1500 mm |
| Nominal depth | 600, 900 mm |

# Crawford
# Inflatable dock shelters
## For temperature controlled premises

**Application**

The handling of cooled or frozen food puts high demands on the temperature chain. The Crawford inflatable dock shelters provide the optimal sealing of temperature controlled premises during the loading and unloading process. Contrary to other types of dock shelters, the vehicle does not push towards the shelter. Instead, the shelter is inflated around the docked vehicle, providing complete sealing. The Crawford inflatable shelters are suitable for a wide range of vehicle sizes and their sealing capacity exceeds by far the standard normally required by operators.

Optimum sealing

Best insulation properties

Best suited for temperature controlled warehouses

**Unbroken cold chain!**
The food industry puts high demands on loading bay sealing in order to keep the cold chain as intact as possible. The dock shelter must provide continuous weather protection throughout the entire loading and unloading operation. Like a glove, the Crawford inflatable dock shelters tighten around the vehicle, preventing air inlet. Customer demands are fulfilled!

**Rolling top seal for large variations in vehicle height**
A special inflatable shelter model has been developed in order to cope with large variations in vehicle height. The top seal is a roller design – automatically activated for low or high vehicles. In addition, it follows all vertical movements of the docked vehicle, continuously providing high tightness.

**Simplified dock-in navigation**
In rest position, the inflatable dock shelter is completely retracted behind the side structures, giving the vehicle driver the possibility to use the complete width of the loading bay when reversing into it. In addition, yellow front line indicators further facilitate dock-in navigation. Stable collision protectors at ramp height prevent shelter damages.

**Insulated top and side panels**
The inflatable dock shelter is installed into a frame construction covered by insulated panels, giving additional insulation effects.

The design facilitates easy and fast component exchange, should this be needed.

**Special ground model for no-ramp applications**
Normally, dock shelters are installed at dock level, but sometimes a loading ramp is not available. For such applications, a special model of the Crawford inflatable dock shelter is supplied, giving the same high tightness around the entire door opening all the way down to ground level.

**High quality material composition**
The side and top inflatable airbags are made of impact resistant material with a strong, woven core. It is non-flammable, color stable and highly resistant to weather impacts – in other words a material well suited for optimal function in rough docking environments.

| Technical Data | |
|---|---|
| Nominal height | 3755, 4055, 4355, 4555 mm |
| Nominal width | 3600 mm |
| Nominal depth | 770 mm |

*Continous cooling.*

*For high and low lorries.*

*Activated position.*

*Resting position.*

# Crawford
# 680 Loadhouse
## The independent docking system


**Application**

The Crawford 680 loadhouse is an independent loading system, containing all the relevant components: leveller, shelter and door. Together with the Autodock bottom platform and an insulated or non-insulated cladding house, a complete, stand-alone dock loading system is formed. Placed outside the door opening of a warehouse or terminal, the operator will gain inside space advantages compared to a conventional, inside docking installation in new as well as in existing buildings – without any major building modifications. Due to the thermal separation between building and docking unit, the Crawford 680 loadhouse can be used in temperature controlled applications. The Crawford 680 loadhouse therefore meets most operator demands.

Thermal separation of the building from the docking system

Simple and fast installation in front of the building

Higher storage capacity in the building

**Variable product combinations give maximum flexibility!**
The Crawford 680 loadhouse offers almost unlimited possibilities:
- Dock leveller with telescopic or swing lip.
- Mechanical or inflatable dock shelters.
- Cladding house in insulated or noninsulated panels or even the same cladding as on the building to which it is attached.

Everything can be tailor-made to the individual loading situation.

**Limited ground area outside the door opening?**
Due to its flexible design, the Crawford 680 loadhouse can be supplied in straight or angled versions, depending on the ground size outside the loading bay area.

**Space and energy saving design!**
As well as better building utilisation, using the Crawford 680 loadhouse offers energy savings. The premises can be heated or cooled without any air inlet from the outside.

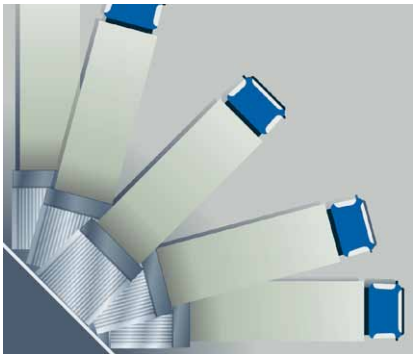
**Factory assembly means lower site installation costs!**
Planning and delivery times are considerably reduced due to the high degree of pre-assembly of the Crawford 680 loadhouse. This also makes installation time on site very short – it can even be installed during normal, running loading operations! Standard steel frame surface treatment is hot dip galvanising.

**Building economy**
As an alternative to building extension investments, load houses offer an interesting cost saving possibility.

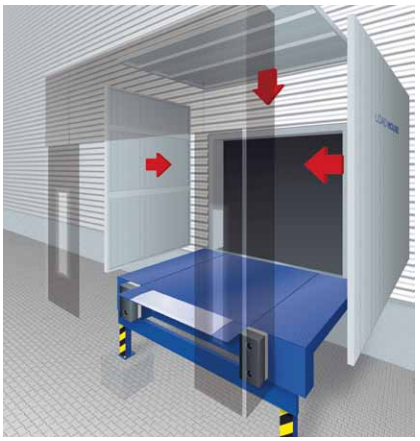
**Useful options**
- Crawford eye to facilitate the dock-in procedure.
- Noise Reduction and slip protection coating.
- Hot dip galvanized coating.
- Floating buffers.

| Technical Data | |
|---|---|
| Nominal length | 2000, 2450, 3000 mm |
| Nominal width | 3300, 3500, 3600 mm |
| Overall height | 4850 to 6050 mm |
| Load capacity | 60 kN dynamic load |
| Functional performance in accordance with the European Standard EN 1398. | |

*Installation in front of building.*

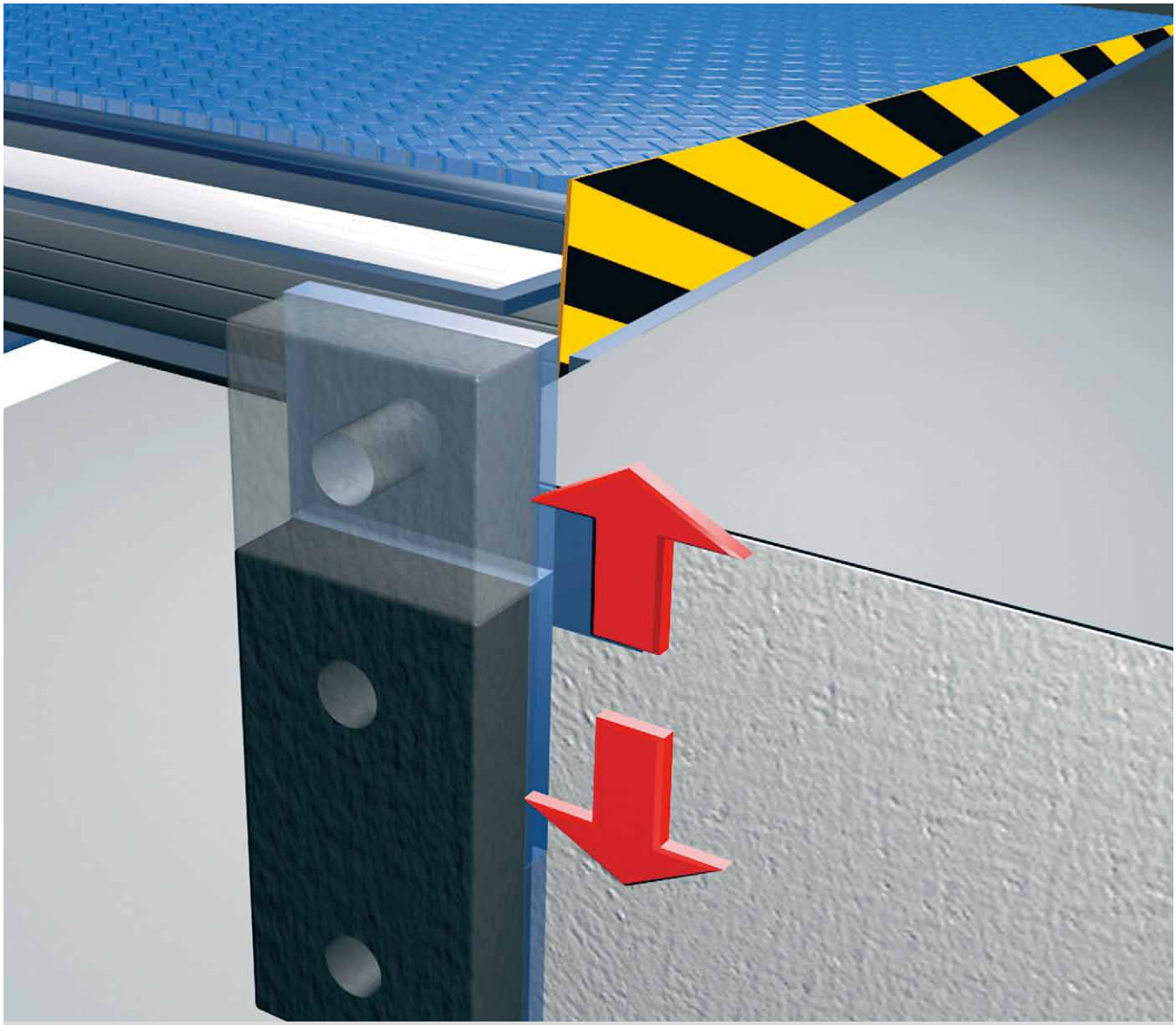


*Normal or angled multiple system.*



*Located outside the warehouse.*
*Different profiled panels.*
*Individual components.*

# Crawford
# Useful and effective equipment
## Reduces your costs!



**Application**

The loading and unloading process is an important part of the logistics chain and must be thoroughly considered. In addition to the standard solutions supplied by Crawford, a range of optional equipment and components can be added for upgrading of existing installations or added to the standard solutions for adaptation to individual applications or requests.

# Prevent damage to vehicles and buildings
# Minimise your energy costs
# Save time

**Crawford eye**
**– a profitable efficiency tool**
The Crawford eye is an electronic, sensor-based dock-in system, supporting the vehicle driver in inbound docking navigation.

By means of outside traffic lights – GREEN-YELLOW-RED – the driver is informed about the distance to the dock – and about any obstacle between the vehicle and the dock!

Dock-in time is shortened, the operation is safer and the loading bay and its equipment as well as the building are subject to less wear and tear and damage. Investing in Crawford eye gives a short pay-back time!

**Crawford electronic wheel chock**
**– for additional safety**
The Crawford electronic wheel chock adds safety to the docking operation. Only when the wheel chock is put in place detecting and securing the docked vehicle, the dock loading equipment is released for safe loading and unloading. When the loading bay is empty the control box functions are locked. The benefit of this interlocking function is to prevent accidents, caused by irregular departures.

The electronic wheel chock can be upgraded with optional inside and outside traffic lights.

**Vehicle guides**
**– for quick and safe dock-in**
Sometimes, vehicles arrive at loading bays where the dock-in navigation is difficult. At the same time, the facility operator puts narrow time demands on the traffic flow.

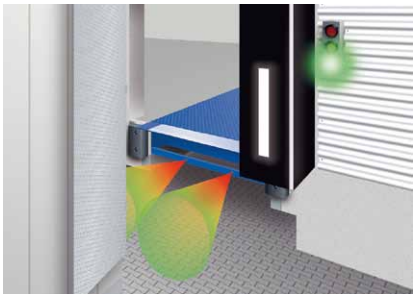
The Crawford vehicle guides, made of galvanized steel, are installed in the ground and provide the drivers with the necessary navigation assistance. Time demands are fulfilled and the risk of damages to buildings or vehicles is eliminated.

**Buffers**
**– a small but cost saving device!**
In order to fully absorb the energy of a reversing vehicle, the loading bay rubber buffers must have the correct specification. Damage to loading bay or building is often expensive and can be reduced or avoided by having the right buffers. It is better to overspecify than underspecify buffer capacity!

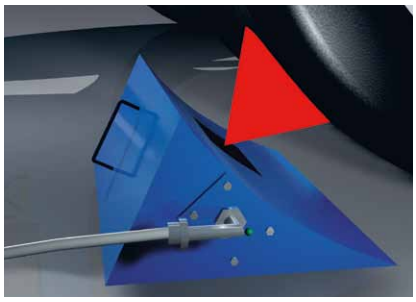
**Moving buffers**
**– extended lifetime**
During loading and unloading, a vehicle moves vertically all the time, creating wear on fixed rubber buffers – and on the vehicle itself. The Crawford moving buffers follow the vertical movements, thereby eliminating unnecessary wear and tear.

**Corner bumpers and corner seals**
Front mounted corner bumpers or corner seals will further reduce airflow, contributing to additional energy savings.

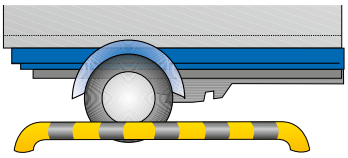
**Noise reduction**
**and slip protection**
Noise reduction and slip protection: Some applications require a lower noise level than normal. For such demands, a special coating on the upper side of the dock leveller is provided. This coating also gives improved slip protection, useful in open air applications exposed to rain or in e.g. the food industry where frequent washing of the loading equipment takes place.



*Crawford eye for perfect docking.*

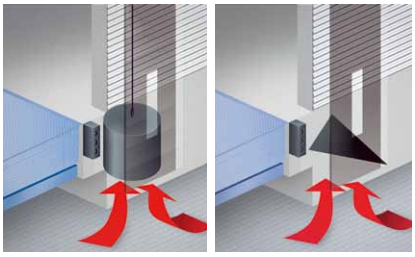


*Wheel chock for safety.*



*Save money with vehicle guides.*

*Dock light.*



*Corner bumpers and seals.*

# Crawford Supervision

## The intelligent docking control system


**Application**

The design of the new control system generation named Crawford supervision represents a completely new approach and sets new standards for a future-oriented docking technology.

The Crawford supervision is an innovative and unique means to meet the demands of modern logistics.

**Supervision 105**
In addition to standard operation features this member of the Supervision family offers a service interval indicator, infrared interface and fault indicator. Important customer and product data as well as the history of performed maintenance checks are stored in the Crawford memory and can be retrieved any time.

- Integrated infrared interface
- Service interval indicator
- Crawford memory
- On-board diagnostics (OBD)

**Supervision 105A**
In addition to the basic functions the Supervision 105A is equipped with an auto button which leads to improved user-friendliness and high safety. The Supervision 105A is used to control Crawford swing lip levellers.

- Integrated infrared interface
- Service interval indicator
- Crawford memory
- On-board diagnostics (OBD)
- Auto button

**Supervision 205A**
The Supervision 205A offers the standard functions and is also equipped with an auto button, which leads to improved user friendliness and high safety. The Supervision 205A is used to control Crawford telescopic lip levellers.

- Integrated infrared interface
- Service interval indicator
- On-board diagnostics (OBD)
- Auto button

**Supervision 305**
Besides the different types of dock levellers, the Supervision i305 controls the sectional door and the inflatable dock shelter.

- Integrated infrared interface
- Service interval indicator
- Crawford memory
- On-board diagnostics (OBD)
- Auto button
- 3-digit display
- Control of dock leveller, door and dock shelter
- BUS interface for networking
- Option: OPC Server for data transmission to existing software systems
- Option: software to visualize and control the flow of goods

# Service and preventive maintenance


*We are available when the customer needs us, 24/7.*

# Give yourself peace of mind – with fast, reliable service and support

*To properly support logistical and pedestrian flows, doors, dock levellers and shelters must be properly adapted to the actual traffic situation, function without disturbance and, not least, conform to national and international safety and functional requirements.*

Regular professional service secures smooth operation. At the same time, it increases the product's functional life. And, if requirements change, professional product upgrades will adapt them to your new situation.

**The Crawford service promise: We care about your business**

Crawford is the international service leader for doors and docking equipment – both industrial and pedestrian.

There's a good reason why. With close to 50 years of experience, and more than 1,000 specialised service engineers serving an installed base of over two million products worldwide, we are able to offer the advantages of a global player with a well-developed local service network.

But it is not only our size that makes us Number One. It is the individual commitment made by each member of our global service team to uphold what we call our Golden Rules. Distilled to one sentence, they can be stated like this: Trouble-free operation, around the clock, because a promise is a promise. The members of our service organisation make this promise themselves, so we know it can be fulfilled.

By signing a Crawford Service Agreement to perform maintenance for you, we commit ourselves to accept a share of your responsibilities. You have contracted us because you want to assure safety and avoid operational problems, and it serves both you and us best to provide the proactive service and support that ensures the best results.

**Fast spare parts supply – vital to professional service**

The quality and punctuality of our work is reinforced by our spare parts availability. That is why all our service cars carry a comprehensive, carefully planned spare parts stock for urgent on-site repairs – of our own as well as competitors' products.

Thanks to our efficient on-line routines, additional spare parts are easily ordered and delivered from our strategically located Spare Part Centres – all stock items can be delivered to site within 24 hours. All spare parts are of Crawford quality!

**First time right, with first-class people**

At Crawford we can usually do the job with only one visit by one person, whether it's to perform regular on-site maintenance, or emergency repair.

Every Crawford service engineer uses standard, documented work practices for every procedure, enumerated by method, parts and tools. We work 'safe and smart', making the most efficient use of our time and resources. When a service activity is completed, it is carefully documented in your on-site logbook.

Not only can we offer high quality solutions for serving Crawford doors and docking systems, we are also able to take care of all the other major brands in the industry. Our engineers are trained to service all of the principle door and docking equipment used worldwide.

With more than 3,000 customer contacts every day, we know how to meet your demands. You really only need one partner for service and maintenance of your doors and docking systems – Crawford.

**Automatically yours**

Supporting our service of pedestrian doors, Crawford offers a seection of robust automatic door openers that are simple to operate and maintain, and able to withstand years of continuous use. Serving both swing and sliding door models, the Crawford Automatic Door Systems provide a valuable door-opening alternative for heavily trafficked pedestrian portals.

# Crawford preventive maintenance keeps your business running smoothly


**8 top reasons for preventive maintenance**

- Keeps the warranty valid
- Prevents costly unexpected break-downs
- Keeps operations running smoothly
- Prolongs product lifetime
- Minimises risk of personal injury
- Minimises energy loss
- Fulfils legal requirements
- Makes budgeting easy

*A Crawford Service Agreement is our oath of loyalty to you. Because it guarantees not only proactive preventive maintenance but also top priority for emergency repair, it is your best assurance of safe, trouble-free door and dock loading operation.*

Besides minimising your risk of product breakdown, a Crawford Service Agreement also helps you to guarantee full compliance with your local regulations and with the new harmonised European Union standards. In addition to this, you will ensure that your doors and docking systems retain their classifications for wind load, air permeability, water penetration and more.

**We anticipate your needs**

With awareness of and responsiveness to your operating conditions, we can be certain to provide the service you need when it's most convenient and important for you. And preventive maintenance by Crawford offers several further benefits:

- Minimal risk of unplanned breakdowns caused by wear and tear
- Reduced long-term operating cost
- Safety parts are regularly checked, reducing accident risks in your daily operation
- It fulfils European health and safety regulation requirements for workplaces

**A service agreement for every user**

With a Crawford Service Agreement, you are guaranteed that regular, expert service is carried out at fixed intervals that are determined by the operating frequency of the products concerned.

A Crawford Service Agreement will match your service requirements, as outlined in the diagram below.

Our service undertaking can vary from regular basic inspections and service to prioritised, guaranteed reaction times, extended warranties and frequent product status reports. Several additional options are also available, including:

- Continuous function monitoring
- Component breakdown insurance
- Door machinery rental agreements

Once a service activity has been carried out, it is carefully documented on-site and in both our and your internal records. Logbooks, technical specifications or inspection reports are always available to the end users, on site and in our internal records.

# The Crawford Service Agreement matches your needs

Your activity level determines your service requirements. Consult your Crawford representative for exact details. We will create the solution that serves you best.

- Low traffic flow
- Low maintenance need
- Must meet safety regulations



- Steady traffic flow
- Operating reliability is important
- Maintenance schedules always followed

- High traffic flow
- Breakdowns cause serious problems
- Maintenance routines are important
- Continuous reliability is important

- Tailor-made solutions

*Customers with service agreements get first priority.*
*– one of Crawford's Golden Rules*

# Can we help you to improve your business?


*We keep customers informed of our whereabouts.*
*Any changes, we inform proactively.*
*– one of Crawford's Golden Rules*

*The most expensive door is the one that doesn't work. With a Crawford Service Agreement, you can ensure trouble-free operations around the clock.*

When Crawford signs a service agreement, we make a commitment to keep you operative. There are several reasons why this can boost your profit as well as your peace of mind.

**Fast response and first time right**
We have the right knowledge readily available to solve your urgent needs.

Our service planners make sure that we always send the right competence to your site. Our fully stocked service vans ensure we can solve your most urgent needs quickly and efficiently, saving you time and money.

**One supplier for everything**
How many suppliers and service organisations do you need to stay in touch with?

With Crawford, you need only one supplier for all your doors, docking and related products. We perform service independent of brand. Besides our own products, we keep a spare parts stock for competing brands and related products, and our service personnel are fully qualified to repair and maintain them.

**No unwelcome surprises**
How much money should you reserve in your budget for service and repairs?

With a Crawford Service Agreement and an annual review performed by our qualified service technicians, you avoid unforeseen costs. We will tell you exactly what to expect in terms of service for the coming year, so you can budget accordingly.

**We can share your responsibility**
By law, you are responsible for running safe operations.

But, according to EU directives, Crawford retains responsibility for safe operation of your doors and/or docking systems as long as all user instructions are obeyed and the service checklist and scheduled maintenance tasks are performed by competent, qualified personnel.

Avoid safety risks. Let us perform preventive maintenance, including safety inspections. Ease your mind and prevent accidents from happening.

*We do not compromise on work quality. We take ownership and do not pass along errors in the organisation.*
*– one of Crawford's Golden Rules*

# Questions and answers

**"Isn't preventive maintenance expensive?"**
*No. It actually lowers your total cost. With scheduled maintenance, consequential costs are avoided: the cost of unplanned down time, energy loss and expensive emergency visits by a service engineer, including extra cost for call-out rates and scissor lift rental. Remember: we warranty the components we replace. Change before it breaks saves money for all!*

**"Can a component be replaced before its scheduled replacement?"**
*Absolutely. If an article is subjected to excessive wear and tear or extreme environments, it must be replaced even before its final date. Scheduled maintenance recommendations are made by the manufacturer, based on normal use. In exceptional circumstances, these components may need to be replaced earlier.*

*If a Crawford service engineer advises you to replace it, do so! Ignoring his advice means that you take over all responsibility.*

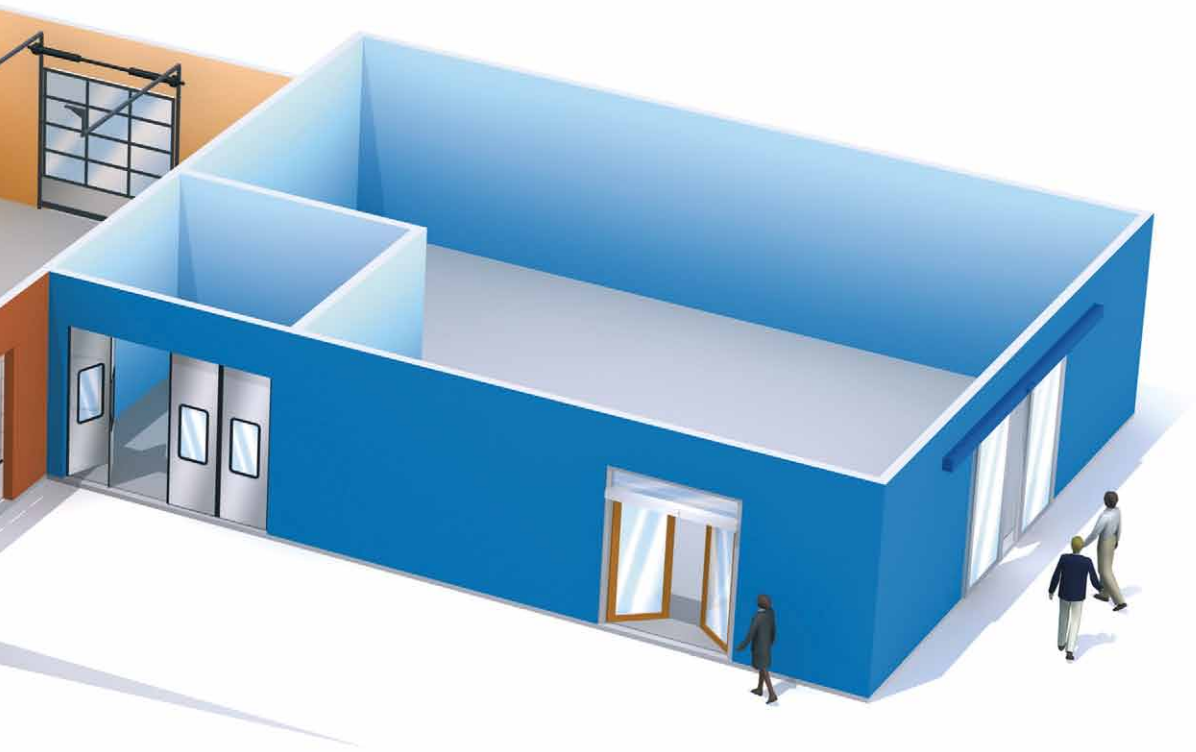
**"My door or docking system is not from Crawford. Can Crawford still perform preventive maintenance?"**
*Yes! Crawford offers an exceptional service organisation and extensive know-how. Because our knowledge is brand-independent, we can also share liability for non-Crawford products. In this case, Crawford can become your single point of contact for all of your door and docking system needs.*

**"Where can I find recommendations from my Crawford service engineer?"**
*Recommendations are documented in the standard checklist and logbook. If a part needs immediate replacement, the Crawford service engineer will also recommend this personally to you.*

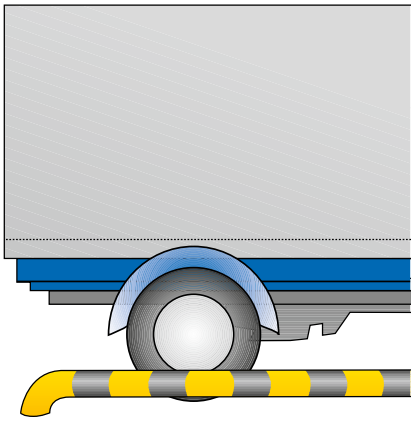
*EN directives clearly state that maintenance checks must be done by competent persons, and that they must inform you of critical issues. If you do not follow manufacturer specifications, or the service engineer's advice, you take over all responsibility. Let Crawford, its experienced service organisation, share this responsibility and carry out preventive replacements.*

**"Can I upgrade my Crawford door and docking equipment?"**
*All options that are available for new products are also available for already-installed products. Changes in your logistics set-up – such as new vehicle sizes, new access requirements, increased operating frequencies and new regulations – may require you to upgrade your industrial doors and/or docking systems.*

*We offer a wide range of standard aftermarket products, but specific circumstances may sometimes require tailor-made solutions. Please contact one of our local sales offices to find your solution.*



# Equipment upgrading – Docking system



**Dock-in assistance systems**
To facilitate easy dock-in, a number of Crawford systems are available.

Traffic lights inform building staff and the truck driver about the dock-in process. Wheel guides and truck positioning sensors assist the driver. Dock lights and reflection guides are other helpful tools making the dock-in easier.

**Crawford eye**
The Crawford eye is an electronic, sensor-based dock-in system, supporting the vehicle driver in the inbound docking navigation.

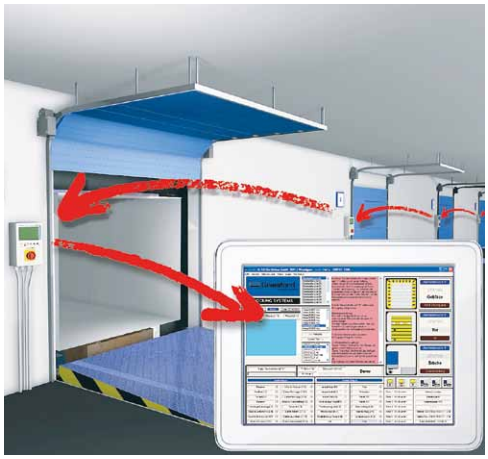
By means of outside traffic lights. The driver is informed about the distance to the dock.

Dock-in time is shortened, the operation is safer and the loading bay and its equipment as well as the building are subject to less wear and tear and damage.

**Buffers**
In order to fully absorb the energy of an in-docking vehicle, the loading bay rubber buffers must have the correct specification. Damage to loading bay or building is often expensive and can be reduced or avoided by having the right buffers. It is better to over specify than under specify the buffer capacity!

**Moving buffers**
During loading and unloading, a vehicle moves vertically all the time, creating wear on fixed rubber buffers – and on the vehicle itself. The moving buffers follow the vertical movements, thereby eliminating unnecessary wear and tear.

# Crawford Monitoring Systems – Improving your business



**Crawford 101 Dock Management**
For efficiently coordinating truck traffic and warehouse operations.

Crawford 101 Dock Management is a decision support system that indicates status of the bay real time.

On the basis of information from our control and sensor packages the new system does not only supplies IT supported information for the control and monitoring of the docking bays, but also data for the management of the fleet of truck and of the warehouse.

Crawford 101 Dock Management data can be integrated in any of the major ERP (enterprise resource planning) or WMS (warehouse management system) giving the possibility to upgrade your current system with real time information.

**Crawford 102 Facility Management**
With Crawford 102 Facility Management, you can close and lock all doors remotely and check the status of the facility online. It secures trouble free operations by the use of alarm management technology. The system sends alarms by SMS or email to the contact of your choice when maintenance is due or error codes are displayed. These messages are first sent to a server that filters what and to whom information should be sent. The server also allows the possibility of escalation if the receiver of the SMS/ E-mail does not acknowledge the alert.

**Increased energy savings**
Another possibility with Crawford 102 Facility Management is to improve the energy efficiency of your warehouse by securing that doors are opened only when needed. The system can for instance secure that doors will only be opened if a truck is at the bay, which will reduce your energy loss. Automatic closing of the warehouse doors can be set when there is no traffic at the bay. If necessary, these functions can be overruled by the warehouse manager from a PC.

Crawford 102 Facility Management can be connected to almost any facility management system.

# Equipment upgrading – Industrial doors

**Door control systems**
Crawford offers a number of door control systems for electrically operated doors.

Access requirements decide which control system to use.
Pull ropes, radar, magnetic loops or remote controls are used for general building access. Key readers or coded remotes are recommended for buildings or building sections with restricted access requirements.

For applications like car wash halls, special packages apply for interaction with the wash ma chines.

All systems are developed and manufactured by Crawford.


**Pass door**
To avoid that a large industrial door is opened just to let people through, Crawford pass doors can be retrofitted. Preferably, pedestrian and vehicle traffic should be separated but building space sometimes does not permit the installation of a separate pass door. In such cases, a pass door can be installed in the industrial door and energy losses as well as draughts can be reduced.

**Door operators**
A door operator ensures the smooth opening and closing of your door. Damage caused by rough, manual handling is eliminated and energy savings can be made if the operator is completed with an automatic closing function.

Crawford has a number of operator models to cope with individual site demands.

For doors not frequently in use, a chain hoist is a good solution for controlled opening and closing.

*Before.*

*After.*

**Change the door blade – get a "new" door!**
Old doors in industrial buildings often show signs of fatigue. Dents and scratches are common and after some 20 years, the colours are sometimes faded. All together, they simply give a gloomy impression. Often, such old or damaged doors do not have to be replaced.

By simply changing the door sections – which includes rollers, cables, hinges & the sectional rubber seals, the overall impression will be fresh and new and, in addition, the door will contribute to energy savings.

Not only Crawford doors are refreshed by our field service technicians. Our door section program covers a lot of doors manufactured by other suppliers.

# Global presence – local expertise


For local addresses, please visit www.crawfordsolutions.com

Crawford Product Catalogue

ASSA ABLOY, the global leader in door opening solutions

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EM1011V4A