



## ... we protect people!









TIEMANN Schutz-Systeme GmbH is a manufacturer and supplier of protective fencing and partition fencing systems for machine and plant engineering, and has a leading market position in the automotive and robotics industry, warehouse logistics, and in the food industry sectors. The development of various protective fencing systems for a diverse range of applications, as well as the flexible and frameless modular construction system, constitute the unique selling point of the company's own ECONFENCE® brand.

Our mission is to protect people with the aid of our products and to ensure that machine operation can be performed safely. Our main priority is to serve everyone and anyone who is able to benefit from our systems and services. We consider each of our customers as individuals. Thus, we strive to fully understand and accommodate the needs of our partners and to process these requirements in a cooperative manner.

We have a responsibility toward our customers, which is why we must avouch our high demands with regard to quality, because TIEMANN Schutz-Systeme only uses top-grade raw materials and tested components.

We are fully aware of the fact that the ability to fulfil customer requirements in the best possible manner is dependent on the creative skills, the versatility and from the teamwork of our employees. Therefore, we do what we can to support and encourage this by ensuring a pleasant and friendly working atmosphere for those within our family company.

**Cooperation in partnership** with our customers and suppliers is an integral part of our value system, because we are only able to ensure a successful future by working together as collaboratively strong team.

Frank und Axel W. Tiemann



#### Our ideas and visions for your success

Our idea was to create economical standards with a high level of stability with regard to sophisticated design.

With regard to protective equipment and partition grids, our customers have long since associated the name TIEMANN Schutz-Systeme and the ECONFENCE® brand with great reliability when it comes to partnership and industrial supplies. We have provided complete solution from a single source for over 30 years. You, too, can benefit from our experience. We produce and market innovative products in accordance with the principles of our mission statement: "... we protect people!"

As the leading company with BG (Accident Prevention & Insurance Association) tested safety products concerning standard conformity and resilience in the area of machine protection and partition grid systems made of steel, we welcome new challenges each day in accordance with the principles of our vision:

"We want the market of the future to benefit from our innovative products beyond the European borders: In accordance with the principle that the customer is always the focal point of our actions, because a down-to-earth attitude facilitates a sense of reality."







# Reference list extract

Airbus Industries Allgäuer Emmentalerwerk Alno Amazon Logistik BASF Bayer Buna Blum BMW AG Continental AG Daimler Chrysler AG De Beukelaer Deutsche Aerospace Airbus DHL Dynamit Nobel Fagor Arrasate Freudenberg Geobra Brandstätter Gilette Deutschland Hanomag







LIEBHERR



SIEMENS





**Gillette** 





Hella KG Karlsberg Brauerei KM Europa Metall AG Haribo Kronospan Kronprinz Alu Guß MAGNA STEYR Mannesmann Präzisrohr Neff Phönix Contact Proctor & Gamble PSB Rehau SEW Eurodrive Siemens AG Smurfit Tesa Thyssen Krupp Tönnies Veltins Voith Paper Wella AG



## **Our protective fence systems**



## HIGH LINE

Maximum protection for the robotics and automation industries





## **MEDIUM LINE**

The strong solution for machines, production facilities and automation





## **BASIC LINE**

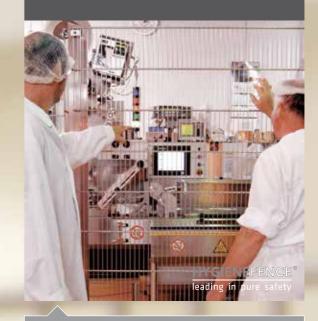
Attractive and economical for warehouse logistics and production facilities



## NEW



The clean solution for production facilities and automation in the food industry



more Information at "<mark>www.hygienefence.com</mark>"

#### Professional protection and economic efficiency

#### Take advantage of the wide range of options... it's your choice!

Do you or your customer demand the best in terms of strength, comfort and design, or do you simply require a cost-effective and functional solution?

Our ECONFENCE® System lines provide you with an ideal selection to suit your individual needs and to fulfil your particular requirement profile. Thus, you will always be provided with the protection that you need at a reasonable cost/performance ration, depending on the area of application and mechanical loading.

The superior robustness of our ECONFENCE® Systems is guaranteed by the frameless construction, a special alignment and welding of the bars, as well as the innovative mounting elements made of heavy-duty special plastic or s steel clamping element.

Without losing any of the mechanical stability, recesses and apertures can be cut out in order to allow the protective fence to suit the actual production requirements of the on-site user. The standard design of height-adjustable posts compensate uneven ground and ensure stability.

Thus, an extensive level of flexibility combined with maximum stability ensures comprehensive protection for both employees and machines.

Safe. Economical. Innovative





# Important information about your fence-shopping

Nach der neuen MRL 2006/42/EG gilt die trennende Schutzeinrichtung als Sicherheitsbauteil.

Daher müssen die Schutzzaunsysteme neuerdings vom Hersteller bei der Auslieferung wie folgt dokumentiert und gemäß der MRL 2006/42/EG gekennzeichnet werden:

- » mit EG-Konformitätserklärung
- » mit CE-Kennzeichnung

### Tested for safety by the DGUV – Accident Prevention & Insurance Association

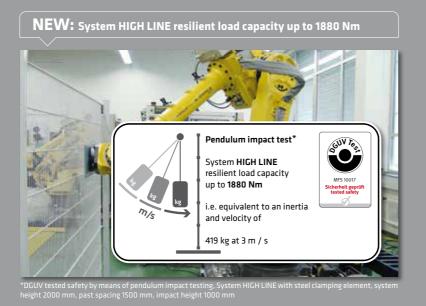
We provide you with guaranteed safety with the first BG certified protective fence made of steel in accordance with MD 2006/42/EC

All of our ECONFENCE® protective fences bear the BG Test Certificate sign. After undergoing thorough tests, approval is confirmed in the DGUV Test Certificate by the BG (Accident Prevention & Insurance Association) Metall Nord Süd, the Technical Committee of Machine Construction and Testing and Certification Authority.

Thus, we fulfil all requirements of the ne EC Machinery Directive 2006/42/EC concerning protective partitioning systems. The conformity confirms the adherence to the highest level of safety standards.

The individual fixing elements can only be released with the aid of tools, but remain connected to the fencing after the fencing is removed, the effect of which is that the installation is no longer in safety position. An appropriate declaration of conformity is automatically provided with each delivery.





ECONFENCE® erfüllt somit die Anforderungen der neuen EG-Maschinenrichtlinie 2006/42/EG an trennende Schutzeinrichtungen auf gesetzeskonforme Weise:



Application of undetachable fixing devices



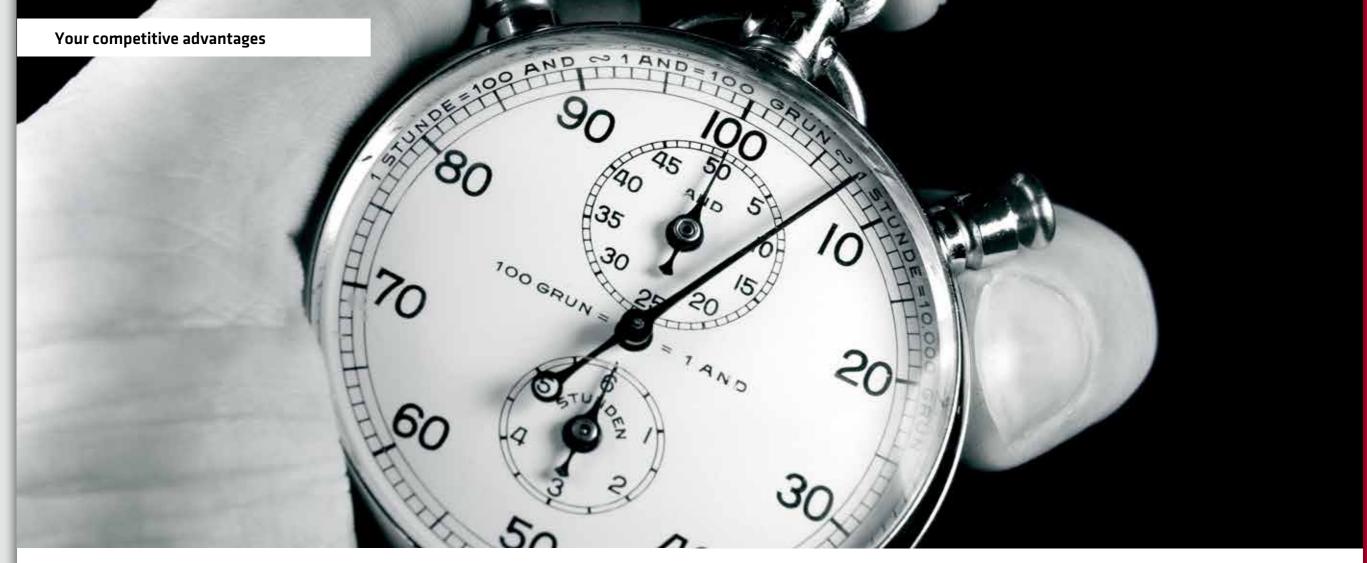
A tool must be required to open up the fixing elements of the protective fence.



Declaration of conformity directly from the protective fencing manufacturer



Protective system is not allowed to remain in the protective position without the aid of fixing elements



## All system advantages from one source

The frameless element construction method – quickly adaptable
The frameless module construction method is the functional alternative to conventional frame screens. Flexible section cutting and recesses can be performed directly on site – no subsequent welding necessary!

**2** Easy and fast assembly – preassembled components Preassembled system components in the HIGH LINE, MEDIUM LINE programme. All posts and doors are already preassembled by the manufacturer.

#### 3 Tested safety

Our protective fencing systems are in conformity with the new Machinery Directive 2006/42/EC and are DGUV certified. In addition to this, our products are subjected to load-bearing and stability tests exceeding the normal test standards.

#### 4 Brand product - flexible system modules

You can rely upon the ECONFENCE® brand. Our system modules stand for safety, economic efficiency and innovation combined with maximum product quality.

#### 5 2/3D design data

With regard to construction and planning, we provide you with all necessary CAD files, which are accessible in the customer portal section of our website under "www.econfence.com"

#### 6 Powder coating

Our protective fence systems have a high-quality powder coating. This modern coating method creates a visually attractive effect, bonds firmly and is environmentally friendly.

#### 7 Post height adjustment

As a standard feature, the posts of the HIGH LINE, MEDI-UM LINE and BASIC LINE are all height-adjustable.

#### 8 Hazard analysis

Upon your request and with your help, our team will prepare a complete safety concept in accordance with applicable standards.

#### 9 CAD design

It would be our pleasure to design and draw a complete protective fencing layout in 2- or 3D for you, which we will send to you to be reviewed or approved for production.

#### 10 Ex factory protective switch installation

We can pre-install the door-locking mechanism of your choice in accordance with the relevant safety category.

#### 11 Component identification – construction plan

We can provide component identification and respective construction plan with every delivery upon request. This guarantees an ideal and fast installation performance.

#### 12 Individual solutions

We rise to the challenge of your assignment and create customised solutions. For instance lifting gates and self-supporting sliding gates with or without drive units, folding doors, as well as device and machine housings and enclosures of every imaginable type.

























10

#### **ECONFENCE®** designer 2.1

#### The ECONFENCE® designer sets new standards as a 3D protective fencing designer

#### Design complex systems cost-efficiently and within minutes

The ECONFENCE® designer has been especially developed for TIEMANN customers. With the easy to operate design and animation tool you are able to visualise and analyse protective fencing scenarios and layouts on a standard computer or laptop within the comfort of your own office.

#### An overview of the most important features and advantages for planners, engineers and sales personnel

#### First 3D protective fencing designer with a BG Test Certificate for fencing

The protective fencing variants from the model library have been awarded the BG Test Certificate in accordance with the new Machinery Directive 2006/42/EC.

#### Application without previous 3D CAD knowledge Intuitive operation, simple interface.

#### 2D and 3D import and export functions

You can easily integrate protective housing and enclosure systems in already existing project layouts, so that you can send completely developed safety concepts to your customers.

#### Enter virtual worlds at cyberspeed

Create complex protective fencing systems in just a matter of minutes. You can convert freehand sketches into virtual worlds at cyberspeed.

#### Dynamic 3D visualisation and rendering

You can quickly and precisely render accurately detailed and virtual images and videos with virtual "fly-through" functions. Export the VR scene for presentation purposes.

#### Online enquiry tool

Simply send your created layouts directly from the application to us.

#### Create parts lists

The possibility to export component lists to Microsoft® Excel for further processing.

#### Automatic dimensioning - component identification

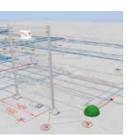
All components included in plans are automatically dimensioned and provided with a component identification. The drawing later serves as an order template and assembly plan.



ECONFENCE® model library



Online enquiry tool



2D / 3D Import and export function



Export of parts lists to MS Excel®



The first virtual 3D protective fencing designer with DGUV Test Certificate for protective fencing in accordance with the new Machinery Directive 2006/42/EC.





MEDIUM LINE



MEDIUM LINE

TIEMANN

Among other things, our products serve to safeguard hazard areas in the form of a protective partitioning system. Our protective fencing systems are designed in accordance with the applied EU Standards and, thus, fulfil the current accident prevention regulations.

A risk analysis is required in order to be able to plan a protection zone in which protective partitioning systems are used. The following standards must be observed:

#### **DIN EN ISO 12100**

Safety of machinery

#### **DIN EN ISO 13857**

Safety distances to prevent hazard areas being reached by upper and lower limbs

#### **DIN EN 953**

Protective partitioning systems

#### DIN EN 109

Interlocking devices associated with protective safeguards

#### Danger zone analysis

The safety distance of the protective fencing system is specified in accordance with the respective EN. A layout of the machine is required in order to be able to perform an analysis.

#### Risk analysis and assessment

The risk analysis is to be performed and evaluated by the customer, in accordance with the relevant and harmonised standards, in order to be able to specify the required mesh size, mesh height, ground clearance, the danger zone distance and the type of application.

#### Safety distance examples

DIN EN ISO 13857 (upper/lower limbs)



Caution: only admissible when using ECONFENCE® mesh elements with a mesh size of 19|190 mm.



High resistance protective mesh – guarantees the highest possible level of safety, even under maximum mechanical loads.



Optimum protection for the robotics and automation industries



#### Be on the safe side

The ECONFENCE® HIGH LINE protective fencing system can be used anywhere where an increased level of safety and, therefore, an optimum protection of people is required.

Application in the robotics and automation industries.

The high-strength mesh elements of our premium product guarantee the highest possible level of protection for employees, even when subjected to maximum mechanical loads.

## Make the most of the advantages provided by HIGH LINE:

- Suitable for application with heavy-du robotics, resilient load capacity up to 1880 Nm, pendulum impact test with BG Test Certificate.
- Protective fencing conform with MRL
   P
- 2006/42/EC with BG Test Certificate

#### The HIGH LINE product range:

Effective length of element 500 | 1000 | 1500 | 2000 | 2500 mm

#### Door width:

1 leaf revolving door: 800 | 1000 | 1400 mm 2 leaf revolving door: 1500 | 1900 | 2700 mm 1 leaf sliding door: 1000 | 1400 mm

#### System heights 2.000 | 2.400 mm

**Standard colour shades** RAL 7035 light grey RAL 1021 rape yellow RAL 9005 jet black



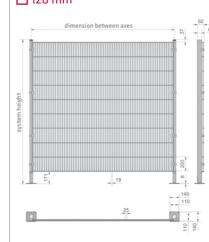


\*BG tested safety by means of pendulum impact testing, \*\*System HIGH LINE with steel clamping element, system height 2000 mm, past spacing 1500 mm, impact height 1000 mm

MEDIUM LINE

#### **HIGH LINE** | Mesh and Posts

#### Safety distance from source of hazard ☐ 120 mm



#### Effective length of element 500|1000|1500|2000|2500\* mm

\*Mesh width only available in system height 2000 mm

#### Standard post

consisting of rectangular steel pipes with plastic caps, plastic clamping element with steel screw, preassembled plastic holding elements, as well as height-adjustable base plates

#### Mesh elements

2 horizontal wires (8 mm) with inside lying vertical wires (6 mm), spot-welded

#### Mesh size

distance of the horizontal wires 190 mm, standard distances of the vertical wires 19 mm That amounts to a mesh size of 19 x 190 mm





#### System height 2000 mm

System neight 2000 mm						
Order no.	Colour group 2	Colour group 3	Colour group 4	Mesh elements / Pos	ts	
	RAL	RAL	RAL	in mm W x H		
H18005019	2-7035	3-xxxx	4-xxxx	500 x 1800 mm		
H18010019	2-7035	3-xxxx	4-xxxx	1000 x 1800 mm		
H18015019	2-7035	3-xxxx	4-xxxx	1500 x 1800 mm		
H18020019	2-7035	3-xxxx	4-xxxx	2000 x 1800 mm		
H18025019	2-7035	3-xxxx	4-xxxx	2500 x 1800 mm		
Reihenpfosten RP 2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm	Ô	
Eckpfosten L EPL2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm	ā	
Eckpfosten R EPR2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm	ů	

#### System height 2400 mm

Order no.	Colour group 2	Colour group 3	Colour group 4	Mesh elements / Pos	its
	RAL	RAL	RAL	in mm W x H	
H22005019	2-7035	3-xxxx	4-xxxx	500 x 2200 mm	
H22010019	2-7035	3-xxxx	4-xxxx	1000 x 2200 mm	
H22015019	2-7035	3-xxxx	4-xxxx	1500 x 2200 mm	
H22020019	2-7035	3-xxxx	4-xxxx	2000 x 2200 mm	
Row post RP 2400	2-7035	3-xxxx	4-xxxx	60/40/2400 mm	Ô
Corner post L EPL2400	2-7035	3-xxxx	4-xxxx	60/40/2400 mm	â
Corner post R EPR2400	2-7035	3-xxxx	4-xxxx	60/40/2400 mm	ß

## HIGH LINE | 1 leaf revolving door

Safety distance from

source of hazard

# **TIEMANN**

## Revolving door height 2000/2400 mm (frame 1800/2200 mm)

□ 120 mm

All doors with QR 40 lateral frame

Door cross brace as upper closure

Locking via latch & deadbolt lock with profile

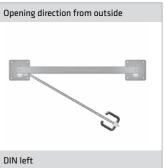
Aluminium handle fitting (consisting of 2 turnable handles)

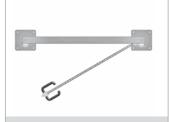
Finger safeguard optional, see accessories

The doors are also preassembled ex factory, see surcharge

base plate up to 2000 mm - measure: 140 x 140 x 8 mm **base plate up to 2400 mm** - measure: 180 x 180 x 8 mm

Doors are identical in construction to the MEDIUM LINE programme





17

DIN right

#### System height 2000 mm | DIN left

- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					
Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
TL18008019	2-7035	3-xxxx	4-xxxx	800 x 2000 mm	
TL18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm	
TL18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm	

#### System height 2000 mm | DIN right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
TR18008019	2-7035	3-xxxx	4-xxxx	800 x 2000 mm
TR18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm
TR18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm

#### System height 2400 mm | DIN left

9,000,000,000,000					
Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
TL22008019	2-7035	3-xxxx	4-xxxx	800 x 2400 mm	
TL22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm	
TL22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm	

#### System height 2400 mm | DIN right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
TR22008019	2-7035	3-xxxx	4-xxxx	800 x 2400 mm	
TR22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm	
TR22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm	

#### Example for the correct method of ordering:

Order no. H18002519 + Colour group 2 + RAL colour no. 7035 = Complete order no H18002519-2-7035

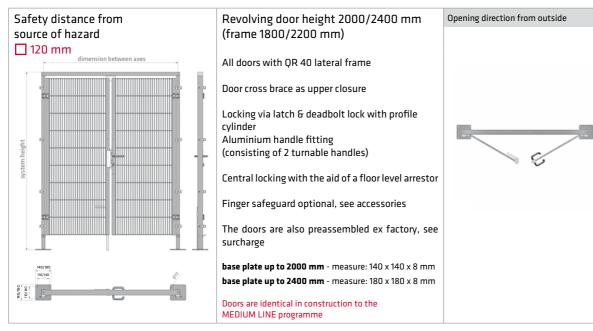
Specifications are subject to technical changes without notice
Other widths and heights are available upon request: Phone: 0049 - (0) 5223-79 19 95 - 0 | Fax: 0049 - (0) 5223-79 19 95 - 90

#### Example for the correct method of ordering:

Order no. TL18008019 + Colour group 2 + RAL colour no. 7035 = Complete order no. TL18008019-2-7035

MEDIUM LINE

#### **HIGH LINE** 2 leaf revolving door



#### System height 2000 mm | Lock door right / Blind door left

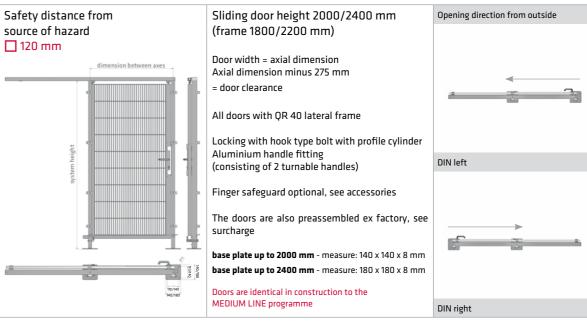
Order no.	Colour group 2	Colour group 3	Colour group 4	Door		
	RAL	RAL	RAL	in mm W x H		
DT18015019	2-7035	3-xxxx	4-xxxx	1500 x 2000 mm		
DT18019019	2-7035	3-xxxx	4-xxxx	1900 x 2000 mm		
DT18027019	2-7035	3-xxxx	4-xxxx	2700 x 2000 mm		

#### System height 2400 mm | Lock door right / Blind door left

Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
DT22015019	2-7035	3-xxxx	4-xxxx	1500 x 2400 mm
DT22019019	2-7035	3-xxxx	4-xxxx	1900 x 2400 mm
DT22027019	2-7035	3-xxxx	4-xxxx	2700 x 2400 mm

#### HIGH LINE | 1 leaf sliding door





#### System height 2000 mm | DIN left

Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
STL18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm
STL18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm

#### System height 2000 mm | DIN right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm w x H
STR18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm
STR18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm

#### System height 2400 mm | DIN left

Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
STL22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm
STL22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm

#### System height 2400 mm | DIN right

System neight 2400 mm   Dire right						
Order no.	Colour group 2	Colour group 3	Colour group 4	Door		
	RAL	RAL	RAL	in mm W x H		
STR22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm		
STR22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm		

#### Example for the correct method of ordering:

Order no. DT18015019 + Colour group 2 + RAL colour no. 7035 = Complete order no DT18015019-2-7035

Specifications are subject to technical changes without notice

Other widths and heights are available upon request: Phone: 0049 - (0) 5223-79 19 95 - 0 | Fax: 0049 - (0) 5223-79 19 95 - 90

#### Example for the correct method of ordering:

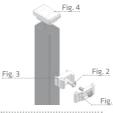
Order no. STL18010019 + Colour group 2 + RAL colour no. 7035 = Complete order no. STL18010019-2-7035

#### HIGH LINE and MEDIUM LINE Extract / accessory items and surcharges

Order no.	Description	Fig.
ZB31001	Clamping element, black plastic, clamping range 6 mm, with preassembled steel screw	1
	M8x40 mm	
ZB31075	Clamping element, stainless steel, clamping range 6 mm, with preassembled steel screw M8x40 mm	1.1
ZB31003	Clamping element, black plastic, clamping range 6 mm, with preassembled tapping screw ST8x40 mm (only in connection with drive-in version)	
	310A-40 Hilli (oliny in connection with unive in version)	
ZB21014	Mesh holder row post (rivet version), black plastic, for post profile 60x40 mm	3
ZB21008	Mesh holder row post (drive-in version), black plastic, for post profile 60x40 mm	
ZB21010	Mesh holder corner post (rivet version), black plastic, for post profile 60x40 mm	5
ZB21012	Mesh holder corner post (drive-in version), black plastic, for post profile 60x40 mm	
ZB20024	Aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	2
ZB20097	Post cap with collar, black plastic, for post profile 60x40 mm	4
ZB31055	Pottom mach connector for III /MI your pact for pact profile COv/00 mm, with serour	10
ZB31055	Bottom mesh connector for HL/ML row post for post profile 60x40 mm, with screw  Bottom mesh connector for HL/ML corner post left for post profile 60x40 mm, with screw	12
ZB31057	Bottom mesh connector for HL/ML corner post right for post profile 60x40 mm, with screw	13
233.037	Section mesh connector for high section post right for post prome cox to mini, that section	1.5
ZB31058	Assembly set mesh fixing (rivet version) for HL/ML row post:	6 + 10
	5 x ZB31001, clamping element, black plastic, 6 mm, with preassembled steel screw	
	5 x ZB21014, mesh holder row post (rivet version), black plastic	
	5 x ZB20024, aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	
	1 x ZB31055, bottom mesh connection for HL/ML row post, with screw	
ZB31059	Assembly set mesh fixing (rivet version) for HL/ML corner post or door corner post left:	7 + 12
	5 x ZB31001, clamping element, black plastic, 6 mm, with preassembled steel screw	
	5 x ZB21010, mesh holder corner post (rivet version), black plastic	
	5 x ZB20024, aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	
7004040	1x ZB31056, bottom mesh connection for corner post left, with screw	- 45
ZB31060	Assembly set mesh fixing (rivet version) for HL/ML corner post or door corner post right:	7 + 13
	5 x ZB31001, clamping element, black plastic, 6 mm, with preassembled steel screw  5 x ZB21010, mesh holder corner post (rivet version), black plastic	
	5 x ZB20024, aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	
	1x ZB31057, bottom mesh connection for corner post right, with screw	
	TA 255 (657) GOLLON MEST COMMERCION FOR COME. POST NS. NI, MEN SCIEN	
ZB31061	Assembly set mesh fixing (drive-in version) for HL/ML row post:	8 + 10
	5 x ZB31003 clamping element, black plastic, 6 mm, with preassembled tapping screw	
	ST8x40 mm	
	5 x ZB21008, mesh holder row post (Drive-in version), black plastic	
	1 x ZB31055, bottom mesh connection for HL/ML row post, with screw	
ZB31062	Assembly set mesh fixing (drive-in version) for HL/ML corner post or door corner post left:	9 + 12
	5 x ZB31003 clamping element, black plastic, 6 mm, with preassembled tapping screw	
	ST8x40 mm  5 x ZB21012, mesh holder corner post (drive-in version), black plastic	
	1x ZB31056, bottom mesh connection for HL/ML corner post left, with screw	
ZB31063	Assembly set mesh fixing (drive-in version) for HL/ML corner post or door corner post tight:	9 + 13
	5 x ZB31003 clamping element, black plastic, 6 mm, with preassembled tapping screw	3
	ST8x40 mm	
	5 x ZB21012, mesh holder corner post (drive-in version), black plastic	
	1 x ZB31057, bottom mesh connection for HL/ML corner post right, with screw	
500001	Post insert base. for profile 60x40 mm, height-adjustable, plate 140x140 mm, galvanised	11
IS07380-	Fastening screw for post insert base (2 pieces are required per insert base)	
M6x10		
702025	Hilbi anchor halt made of carbon steel, as his sized HICA MAD FO 40 90 5 mm, and all	
ZB20025 ZB20027	Hilti anchor bolt made of carbon steel, galvanised HSA M10 50/40/10 for non-cracked concrete  Hilti shear connector cartridge HVU M10x90 with anchor rod HAS M10x90/21 for non-cracked	
ZDZUUZ/	concrete	
	<del></del>	
ZB10103	Universal finger safeguard for all doors from the standard programme, dimensions 300 x 600	15
	mm, galvanised including fixing and anchoring material, contained within the scope of delivery:	
	Aluminium outside handle stationary, inside handle turnable	
ZB40001	1- leaf revolving door system completely preassembled ex factory and ready to be installed	-
ZB40002	2- leaf revolving door system completely preassembled ex factory and ready to be installed	
ZB40003	1- leaf sliding door completely preassembled ex factory and ready to be installed	
ZB31054	Assembly set for protective switch (Schmersal AZ16) for 1 leaf standard revolving door	14
ZB40004	Mounting of a safety switch on the door system, without switch, without mounting plate	
_B :0004	mountains of a survey switch on the abort system, without switch, without mounting plate	
ZB20054	Spray paint, RAL 7035 - light grey, 400 ml	
ZB20055	Spray paint, RAL 1021 – rape yellow, 400 ml	
ZB20056	Spray paint, RAL 9005 – jet black silk gloss, 400 ml	
ZB40005	Mesh cut outs and dimensional cuts according to customer layout	
ZB40020	Design / construction of a protective fencing system with respective components with CAD,	
	in 2 or 3 D, with construction plan and identification of components	
	in 2 or 3 b, with construction plan and mentineation of components	
	m 2 of 3 d, Militaristaction planting achimication of components	
	Specifications are subject to technical changes without notice	

Specifications are subject to technical changes without notice

20

























## **MEDIUM LINE**



**TIEMANN** 

Stable protective element – universally applicable for use with increased mechanical loads



The stable solution for production facilities and automation



Stable and universally applicable
The ECONFENCE® MEDIUM LINE protective fencing system can be used anywhere where an increased level of human protection is required.

Your protective fencing solution for production facilities, automation and mate-

the stable mesh elements guarantee pro-

- Make the most of the advantages provided by MEDIUM LINE:

   Protective fencing compliant with MD 2006/42/EC with BG Test Certificate

   All components preassembled ex factory.

The MEDIUM LINE product range:

Effective length of element 500 | 1000 | 1500 | 2000 | 2500 mm

Door widths
1 leaf revolving door: 800 | 1000 | 1400 mm
2 leaf revolving door: 1500 | 1900 | 2700 mm
1 leaf sliding door: 1000 | 1400 mm

System heights

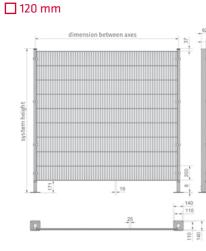
## Standard colour shades RAL 7035 light grey RAL 1021 rape yellow RAL 9005 jet black





#### **MEDIUM LINE** | Mesh and Posts

## Safety distance from source of hazard



#### Effective length of element 500|1000|1500|2000|2500 mm

#### Standard post

consisting of rectangular steel pipes with plastic caps, plastic clamping element with steel screw, preassembled plastic holding elements, as well as height adjustable base plates

#### Mesh elements

2 horizontal wires (6 mm) with inside lying verti- lying vertical wires(6 mm), spot-welded cal wires (6 mm), spot-welded

#### Mesh size

distance of the horizontal wires 190 mm, standard distances of the vertical wires 19 mm That amounts to a mesh size of 19 x 190 mm





2 horizontal wires (6 mm) with inside



Height-adjustable base plate, 140 x 140 x 8 mm, mounted on the post ex factory

#### System height 2000 mm

Order no.	Colour group 2	Colour group 3	Colour group 4	Mesh elements/Posts
	RAL	RAL	RAL	in mm W x H
M18005019	2-7035	3-xxxx	4-xxxx	500 x 1800 mm
M18010019	2-7035	3-xxxx	4-xxxx	1000 x 1800 mm
M18015019	2-7035	3-xxxx	4-xxxx	1500 x 1800 mm
M18020019	2-7035	3-xxxx	4-xxxx	2000 x 1800 mm
M18025019	2-7035	3-xxxx	4-xxxx	2500 x 1800 mm
Row post RP2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm
Corner post L EPL2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm
Corner post R EPR2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm

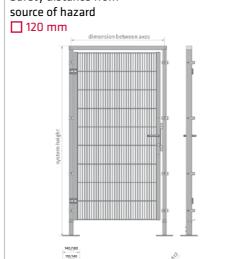
#### System height 2400 mm

Order no.	Colour group 2	Colour group 3	Colour group 4	Mesh elements/Posts
	RAL	RAL	RAL	in mm W x H
M22005019	2-7035	3-xxxx	4-xxxx	500 x 2200 mm
M22010019	2-7035	3-xxxx	4-xxxx	1000 x 2200 mm
M22015019	2-7035	3-xxxx	4-xxxx	1500 x 2200 mm
M22020019	2-7035	3-xxxx	4-xxxx	2000 x 2200 mm
M22025019	2-7035	3-xxxx	4-xxxx	2500 x 2200 mm
Row post RP2400	2-7035	3-xxxx	4-xxxx	60/40/2400 mm 🗓
Corner post L EPL2400	2-7035	3-xxxx	4-xxxx	60/40/2400 mm 🗓
Corner post R EPR2400	2-7035	3-xxxx	4-xxxx	60/40/2400 mm 🗓

## Safety distance from

MEDIUM LINE | 1 leaf revolving door





Revolving door height 2000/2400 mm (frame 1800/2200 mm)

All doors with QR 40 lateral frame

Door cross brace as upper closure

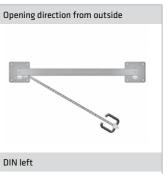
Locking via latch & deadbolt lock with profile Aluminium handle fitting (consisting of 2 turnable handles)

Finger safeguard optional, see accessories

The doors are also preassembled ex factory, see surcharge

base plate up to 2000 mm - measure: 140 x 140 x 8 mm base plate up to 2400 mm - measure: 180 x 180 x 8 mm

Doors are identical in construction to the HIGH LINE



DIN right



System height 2000 mm | DIN left

Jacob margine 2000 mm   2m lett					
Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
TL18008019	2-7035	3-xxxx	4-xxxx	800 x 2000 mm	
TL18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm	
TL18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm	

#### System height 2000 mm | DIN right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
TR18008019	2-7035	3-xxxx	4-xxxx	800 x 2000 mm	
TR18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm	
TR18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm	

#### System height 2400 mm | DIN left

-11				
Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
TL22008019	2-7035	3-xxxx	4-xxxx	800 x 2400 mm
TL22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm
TL22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm

#### System height 2400 mm | DIN right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
TR22008019	2-7035	3-xxxx	4-xxxx	800 x 2400 mm	
TR22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm	
TR22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm	

#### Example for the correct method of ordering

Order no. M18005019 + Colour group 2 + RAL colour no. 7035 = Complete order no M18005019-2-7035

Specifications are subject to technical changes without notice
Other widths and heights are available upon request: Phone: 0049 - (0) 5223-79 19 95 - 0 | Fax: 0049 - (0) 5223-79 19 95 - 90

#### Example for the correct method of ordering

Order no. TL18008019 + Colour group 2 + RAL colour no. 7035 = Complete Order no TL18008019-2-7035

#### **MEDIUM LINE** | 2 leaf revolving door

#### Safety distance from Revolving door height: 2000/2400 mm Opening direction from outside source of hazard (frame 1800/2200 mm) ☐ 120 mm All doors with OR 40 lateral frame Door cross brace as upper closure Locking via latch & deadbolt lock with profile Aluminium handle fitting (consisting of 2 turnable handles) Central locking with the aid of a floor level arrestor Finger safeguard optional, see accessories The doors are also preassembled ex factory, see surcharge base plate up to 2000 mm - measure: 140 x 140 x 8 mm base plate up to 2400 mm - measure: 180 x 180 x 8 mm Doors are identical in construction to the HIGH LINE

#### System height 2000 mm | Lock door right / Blind door left

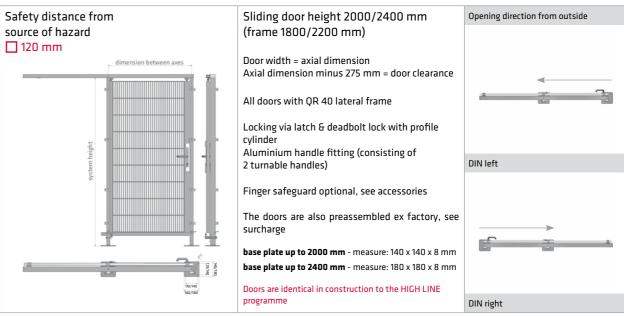
	<u>'</u>			
Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
DT18015019	2-7035	3-xxxx	4-xxxx	1500 x 2000 mm
DT18019019	2-7035	3-xxxx	4-xxxx	1900 x 2000 mm
DT18027019	2-7035	3-xxxx	4-xxxx	2700 x 2000 mm

#### System height 2400 mm | Lock door right / Blind door left

Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
DT22015019	2-7035	3-xxxx	4-xxxx	1500 x 2400 mm
DT22019019	2-7035	3-xxxx	4-xxxx	1900 x 2400 mm
DT22027019	2-7035	3-xxxx	4-xxxx	2700 x 2400 mm

#### MEDIUM LINE | 1 leaf sliding door





#### System height 2000 mm | DIN left

-1					
Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
STL18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm	
STL18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm	

#### System height 2000 mm | DIN right

9					
Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
STR18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm	
STR18014019	2-7035	3-xxxx	4-xxxx	1400 x 2000 mm	

#### System height 2400 mm | DIN left

The state of the s					
Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
STL22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm	
STL22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm	

#### System height 2400 mm | DIN right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door			
	RAL	RAL	RAL	in mm W x H			
STR22010019	2-7035	3-xxxx	4-xxxx	1000 x 2400 mm			
STR22014019	2-7035	3-xxxx	4-xxxx	1400 x 2400 mm			

#### Example for the correct method of ordering

Order no. DT18015019 + Colour group 2 + RAL colour no. 7035 = Complete order no DT18015019-2-7035

Specifications are subject to technical changes without notice
Other widths and heights are available upon request: Phone: 0049 - (0) 5223-79 19 95 - 0 | Fax: 0049 - (0) 5223-79 19 95 - 90

#### Example for the correct method of ordering

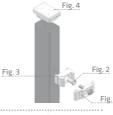
Order no. **STL18010019** + Colour group **2** + RAL colour no. **7035** = Complete Order no **STL18010019-2-7035** 

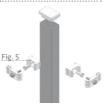
#### HIGH LINE and MEDIUM LINE Extract / accessory items and surcharges

visit us at www.econfence.com to find even more information and news

26

Order no.	Description	Fig.
ZB31001	Clamping element, black plastic, clamping range 6 mm, with preassembled steel screw M8x40 mm	1
'B31075	Clamping element, stainless steel, clamping range 6 mm, with preassembled steel screw M8x40 mm	1.1
B31003	Clamping element, black plastic, clamping range 6 mm, with preassembled tapping screw ST8x40 mm (only in connection with drive-in version)	
'B21014	Mesh holder row post (rivet version), black plastic, for post profile 60x40 mm	3
ZB21008	Mesh holder row post (drive-in version), black plastic, for post profile 60x40 mm	
ZB21010	Mesh holder corner post (rivet version), black plastic, for post profile 60x40 mm	5
ZB21012	Mesh holder corner post (drive-in version), black plastic, for post profile 60x40 mm	3
ZB20024 ZB20097	Aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	4
LB20037	Post cap with collar, black plastic, for post profile 60x40 mm	4
ZB31055	Bottom mesh connector for HL/ML row post for post profile 60x40 mm, with screw	10
ZB31056	Bottom mesh connector for HL/ML corner post left for post profile 60x40 mm, with screw	12
ZB31057	Bottom mesh connector for HL/ML corner post right for post profile 60x40 mm, with screw	13
ZB31058	Assembly set mesh fixing (rivet version) for HL/ML row post:	6 + 10
	5 x ZB31001, clamping element, black plastic, 6 mm, with preassembled steel screw	
	5 x ZB21014, mesh holder row post (rivet version), black plastic 5 x ZB20024, aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	
	1x ZB31055, bottom mesh connection for HL/ML row post, with screw	
ZB31059	Assembly set mesh fixing (rivet version) for HL/ML corner post or door corner post left:	7 + 12
	5 x ZB31001, clamping element, black plastic, 6 mm, with preassembled steel screw	
	5 x ZB21010, mesh holder corner post (rivet version), black plastic 5 x ZB20024, aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	
	1 x ZB31056, bottom mesh connection for corner post left, with screw	
B31060	Assembly set mesh fixing (rivet version) for HL/ML corner post or door corner post right:	7 + 13
	5 x ZB31001, clamping element, black plastic, 6 mm, with preassembled steel screw 5 x ZB21010, mesh holder corner post (rivet version), black plastic	
	5 x ZB20024, aluminium threaded rivet sleeve M8, for bore Ø 11.1 mm	
	1 x ZB31057, bottom mesh connection for corner post right, with screw	
7021061	Assambly set much fiving (drive in your land for III (MI) your neet.	0 . 10
ZB31061	Assembly set mesh fixing (drive-in version) for HL/ML row post:  5 x ZB31003 clamping element, black plastic, 6 mm, with preassembled tapping screw	8 + 10
	ST8x40 mm	
	5 x ZB21008, mesh holder row post (Drive-in version), black plastic	
ZB31062	1 x ZB31055, bottom mesh connection for HL/ML row post, with screw  Assembly set mesh fixing (drive-in version) for HL/ML corner post or door corner post left:	9 + 12
	5 x ZB31003 clamping element, black plastic, 6 mm, with preassembled tapping screw ST8x40 mm	
	5 x ZB21012, mesh holder corner post (drive-in version), black plastic	
ZB31063	1 x ZB31056, bottom mesh connection for HL/ML corner post left, with screw  Assembly set mesh fixing (drive-in version) for HL/ML corner post or door corner post tight:	9 + 13
	5 x ZB31003 clamping element, black plastic, 6 mm, with preassembled tapping screw	J + 13
	ST8x40 mm 5 x ZB21012, mesh holder corner post (drive-in version), black plastic	
	1 x ZB31057, bottom mesh connection for HL/ML corner post right, with screw	
500001	Post insert base. for profile 60x40 mm, height-adjustable, plate 140x140 mm, galvanised	11
S07380-M6x10	Fastening screw for post insert base (2 pieces are required per insert base)	
ZB20025	Hilti anchor bolt made of carbon steel, galvanised HSA M10 50/40/10 for non-cracked concrete	
ZB20027	Hilti shear connector cartridge HVU M10x90 with anchor rod HAS M10x90/21 for non-cracked concrete	
ZB10103	Universal finger safeguard for all doors from the standard programme, dimensions 300 x 600 mm, galvanised including fixing and anchoring material, contained within the scope of delivery:	15
	Aluminium outside handle stationary, inside handle turnable	
ZB40001	1- leaf revolving door system completely preassembled ex factory and ready to be installed	
ZB40002	2- leaf revolving door system completely preassembled ex factory and ready to be installed	
ZB40003	1- leaf sliding door completely preassembled ex factory and ready to be installed	
ZB31054	Assembly set for protective switch (Schmersal AZ16) for 1 leaf standard revolving door	14
ZB40004	Mounting of a safety switch on the door system, without switch, without mounting plate	
ZB20054	Spray paint, RAL 7035 - light grey, 400 ml	
ZB20055	Spray paint, RAL 1021 – rape yellow, 400 ml	
ZB20056	Spray paint, RAL 9005 – jet black silk gloss, 400 ml	
ZB40005	Mesh cut outs and dimensional cuts according to customer layout	
ZB40020	Design / construction of a protective fencing system with respective components with CAD, in 2 or 3 D, with construction plan and identification of components	
	Specifications are subject to technical changes without notice	
	Specifications are subject to technical changes without notice	





























Attractive protective element – as a functional partition between people and hazard areas



Individual and economical for warehouse logistics and production facilities



#### Economical, attractive and functional

The protective fencing system ECON-FENCE® BASIC LINE has been designed for use as a functional partition between people and hazard areas.

Economical and individual for warehouse logistics and production facilities.

#### Make the most of the advantages provided by BASIC LINE:

- Protective fencing compliant with MD 2006/42/EC with DGUV Test Certificate
  Simple and fast self-assembly of com

The BASIC LINE product range:

Effective length of element 500 | 1000 | 1500 | 2000 mm

**Door widths** 1 leaf revolving door: 1000 mm 1 leaf sliding door: 1200 mm

## System heights

Standard colour shades RAL 7035 light grey RAL 1021 rape yellow RAL 9005 jet black





# Safety distance from source of hazard ☐ 120 mm

#### Effective length of element 500|1000|1500|2000 mm

#### Standard post

consisting of rectangular steel pipes with assembly set (post cap, drive-in mesh holder, plastic clamping element with steel screw, base plate)

#### Mesh elements

Horizontal round wires one-sided 5,5 mm or flat steel 15/6 mm, vertical wires 3,5 mm, spot-welded 5,5 mm, spot-welded

#### Mesh size

distance of the horizontal wires 190 mm, standard distances of the vertical wires 19 mm That amounts to a mesh size of 19 x 190 mm





Height-adjustable base plate, 140 x 140 x 6 mm, included within the scope of delivery

#### System height 2000 mm

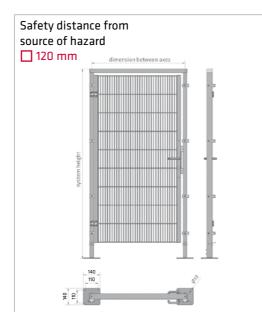
System neight 2000 min							
Order no.	Colour group 2	Colour group 3	Colour group 4	Mesh elements/Posts			
	RAL	RAL	RAL	in mm W x H			
B18005019	2-7035	3-xxxx	4-xxxx	500 x 1800 mm			
B18010019	2-7035	3-xxxx	4-xxxx	1000 x 1800 mm			
B18015019	2-7035	3-xxxx 4-xxxx		1500 x 1800 mm			
B18020019	2-7035	3-xxxx	4-xxxx	2000 x 1800 mm			
Row post BRP2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm			
Universal corner post BEPLR2000	2-7035	3-xxxx	4-xxxx	60/40/2000 mm			

#### System height 2200 mm

-,				
Order no.	Colour group 2	Colour group 3	Colour group 4	Mesh elements/Posts
	RAL	RAL	RAL	in mm W x H
B20005019	2-7035	3-xxxx	4-xxxx	500 x 2000 mm
B20010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm
B20015019	2-7035	3-xxxx	4-xxxx	1500 x 2000 mm
B20020019	2-7035	3-xxxx	4-xxxx	2000 x 2000 mm
Row post BRP2200	2-7035	3-xxxx	4-xxxx	60/40/2200 mm
Universal corner post BEPLR2200	2-7035	3-xxxx	4-xxxx	60/40/2200 mm

#### **BASIC LINE** | 1 leaf revolving door





Revolving door height 2000/2200 mm (frame 1800/2000 mm)

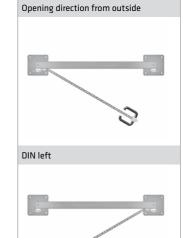
All doors with QR 40 lateral lock strut

Door cross brace as upper closure. Application as cable channel also possible.

Locking via latch & deadbolt lock with profile Aluminium handle fitting (consisting of 2

turnable handles) Finger safeguard optional, see accessories

Universal construction method for DIN left / right assembly



DIN right

#### System height 2000 mm | Universal left / right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
BTLR18010019	2-7035	3-xxxx	4-xxxx	1000 x 2000 mm	

#### System height 2200 mm | Universal left / right

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
Order no.	Colour group 2	Colour group 3	Colour group 4	Door				
	RAL	RAL	RAL	in mm W x H				
BTLR20010019	2-7035	3-xxxx	4-xxxx	1000 x 2200 mm				

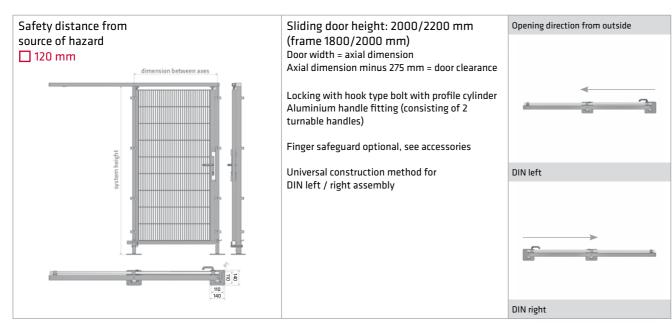
#### Example for the correct method of ordering

Order no. **B18005019** + Colour group **2** + RAL colour no. **7035** = Complete Order no **B18005019-2-7035** 

Specifications are subject to technical changes without notice
Other widths and heights are available upon request: Phone: 0049 - (0) 5223-79 19 95 - 0 | Fax: 0049 - (0) 5223-79 19 95 - 90

Order no. BTLR18010019 + Colour group 2 + RAL colour no. 7035 = Complete order no BTLR18010019-2-7035

#### BASIC LINE | 1 leaf sliding door



#### System height 2000 mm | Universal left / right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door
	RAL	RAL	RAL	in mm W x H
BSTLR18012019	2-7035	3-xxxx	4-xxxx	1200 x 2000 mm

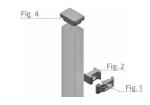
#### System height 2200 mm | Universal left / right

Order no.	Colour group 2	Colour group 3	Colour group 4	Door	
	RAL	RAL	RAL	in mm W x H	
BSTLR20012019	2-7035	3-xxxx	4-xxxx	1200 x 2200 mm	

#### **Basic Line** Extract / accessory items and surcharges

Order no.	Description	Fig.
ZB31004	Clamping element, plastic, black, clamping range 4 mm, with preassembled tapping screw ST 8x40 mm	1
7024000	14 14 14 14 14 14 14 14 15 14 16 16 16	
ZB21008	Mesh holder row post (drive-in version), black plastic, for post profile 60x40 mm	2
ZB21012	Mesh holder corner post (drive-in version), black plastic, for post profile 60x40 mm	3
	Meshinolate contact post (and a minerally) static plastic, to post provide dox to mine	
ZB20097	Post cap with collar, black plastic, for post profile 60x40 mm	4
ZB31047	Bottom mesh connector for BL row post for post profile 60x40 mm, with screw	7
ZB31048	Bottom mesh connector for BL universal corner post for post profile 60x40 mm, with screw	11
ZB31049	Bottom mesh connector for BL door post left for post profile 60x40 mm, with screw	9
ZB31050	Bottom mesh connector for BL door post right for post profile 60x40 mm, with screw	10
ZB31051	Assembly set mesh fixing (drive-in version) for BL row post	5 + 7
	5 x ZB31004, clamping element, black plastic, 4 mm, with preassembled tapping screw	
	5 x ZB21008, mesh holder row post (Drive-in version), black plastic	
	1 x ZB31047, bottom mesh connection for row post left, with screw	
ZB31052	Assembly set mesh fixing (drive-in version) for BL corner post or door corner post left	6+9
	5 x ZB31004, clamping element, black plastic, 4 mm, with preassembled tapping screw	
	5 x ZB21012, mesh holder row post (drive-in version), black plastic	
	1 x ZB31049, bottom mesh connection for BL corner post left, with screw	
ZB31053	Assembly set mesh fixing (drive-in version) for BL corner post or door corner post right	6 + 10
	5 x ZB31004, clamping element, black plastic, 4 mm, with preassembled tapping screw	
	5 x ZB21012, mesh holder corner post (drive-in version), black plastic	
	1 x ZB31050, bottom mesh connection for BL corner post right, with screw	
ZB20025	Hilti anchor bolt made of carbon steel, galvanised HSA M10 50/40/10 for non-cracked concrete	
ZB20027	Hilti shear connector cartridge HVU M10x90 with anchor rod HAS M10x90/21 for non-cracked concrete	
ZB10103	Universal finger safeguard for all doors from the standard programme, dimensions 300 x 600 mm,	13
	galvanised, including fixing and anchoring material, contained within the scope of delivery: Aluminium outside handle stationary, inside handle turnable	
ZB40001	1 lost revolving door cyctom completely processmaled by factory and roady to be installed	
ZB40001 ZB40003	1- leaf revolving door system completely preassembled ex factory and ready to be installed	
ZD40003	1- leaf sliding door completely preassembled ex factory and ready to be installed	
ZB10075	Chuck for drive-in holder	
2010075	Chack to dive in notice	
500001	Post insert base, height adjustable (plate 140x140 mm, galvanised)	8
IS07380	Fastening screw for post insert base (2 pieces are required per insert base)	
M6x10		
ZB31054	Assembly set for protective switch (Schmersal AZ16) for 1 leaf standard revolving door	12
ZB40004	Mounting of a safety switch on the door system, without switch, without mounting plate	
ZB20054	Spray paint, RAL 7035 – light grey, 400 ml	
ZB20055	Spray paint, RAL 1021 – rape yellow, 400 ml	
ZB20056	Spray paint, RAL 9005 - jet black silk gloss, 400 ml	
ZB40005	Mesh cut outs and dimensional cuts according to customer layout	
ZB40020	Design / construction of a protective fencing system with respective components with CAD, in 2 or 3 D,	
2040020	with construction plan and identification of components	
	Specifications are subject to technical changes without notice	
	· · · · · · · · · · · · · · · · · · ·	-















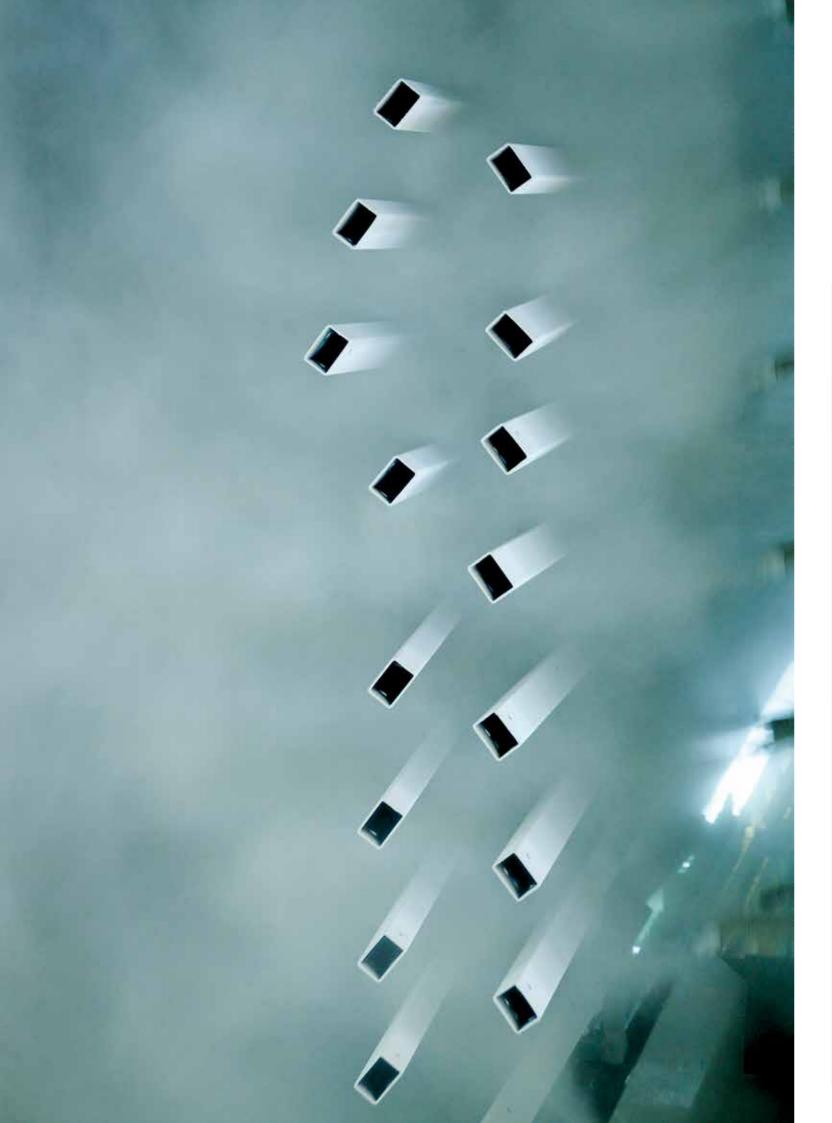






#### Example for the correct method of ordering

Order no. BSTLR18012019 + Colour group 2 + RAL colour no. 7035 = Complete order no BSTLR18012019-2-7035





## RAL colour groups



All products are treated with high-grade powder coating and thereby remain a high surface quality and is more impact and scratch resistant than conventional industrial paints.







#### Important:

No binding obligations regarding colour shade or shine can be derived from this RAL colour information sites. This colour chart merely serves as a general reference and is not suitable as a production guideline for colours as defined by RAL. Only the individual colour cards from the RAL 840-HR (semi matt) register and the RAL 841-GL (high gloss) register are binding for manufacturing and checking colours as defined by RAL.

# RAL colour group 2 Our standard colours RAL 7035 light grey RAL 1021 rape yellow RAL 9005 jet black **RAL 7035** RAL colour group 3 RAL 1013 RAL 1014 RAL 1015 RAL 1019 RAL 5003 RAL 5004 RAL 5005 RAL 5007 RAL 5008 RAL 5009 RAL 5010 **RAL 5011** RAL 5012 RAL 5013 RAL 5014 RAL 5015 RAL 5017 RAL 5018 RAL 5019 RAL 5020 RAL 5021 RAL 5022 RAL 5023 RAL 5024 RAL 6000 RAL 6001 RAL 6002 RAL 6003 RAL 6004 RAL 6005 RAL 6006 RAL 6007 RAL 6008 RAL 6009 RAL 6010 RAL 6011 RAL 6012 RAL 6013 RAL 6014 RAL 6015 RAL 6016 RAL 6017 RAL 6018 RAL 6019 RAL 6020 RAL 6021 RAL 6022 RAL 6024 RAL 6025 RAL 6026 RAL 6027 RAL 6028 RAL 6029 RAL 6032 RAL 6033 RAL 6034 RAL 7000 RAL 7001 RAL 7002 RAL 7003 RAL 7004 RAL 7005 RAL 7006 RAL 7008 RAL 7009 RAL 7010 RAL 7011 RAL 7012 RAL 7013 RAL 7015 RAL 7016 **RAL 7021** RAL 7022 RAL 7023 RAL 7024 RAL 7026 RAL 7030 RAL 7031 RAL 7032 RAL 7033 RAL 7034 RAL 7036 RAL 7037 RAL 7038 RAL 7039 RAL 7040 RAL 7042 RAL 7043 RAL 7044 RAL 7045 RAL 7046 RAL 7047 RAL 8002 RAL 8003 RAL 8004 RAL 8007 RAL 8008 RAL 8011 RAL 8012 RAL 8014 RAL 8015 RAL 8016 RAL 8017 RAL 8019 RAL 8022 RAL 8023 RAL 8024 RAL 8025 RAL 8028 RAL 9001 RAL 9002 RAL 9003



#### Information on powder coating

All TIEMANN products are treated with high-grade powder coating The powder coating has a high surface quality and is more impact and scratch resistant than conventional industrial paints. The environmental impact is reduced to a minimum due to the fact that no solvents are used.



The components are phosphate-treated (degreased / cleaned) before being powder coated



The level of powder coating amounts to 80 - 100 µm, subsequent curing at 180°C in the oven



After a cooling period the mesh sheets are ready for shipping

#### Colour group 3

1		1		1		1	
RAL 1000	Green beige	RAL 6002	Leaf green	RAL 7002	Olive grey	RAL 7046	Tele grey 2
RAL 1001	Beige	RAL 6003	Olive green	RAL 7003	Moss grey	RAL 7047	Tele grey 4
RAL 1011	Brown beige	RAL 6004	Blue green	RAL 7004	Signal grey	RAL 8000	Green brown
RAL 1013	Oyster white	RAL 6005	Moss green	RAL 7005	Mouse grey	RAL 8001	Ochre brown
RAL 1014	lvory	RAL 6006	Grey olive	RAL 7006	Beige grey	RAL 8002	Signal brown
RAL 1015	Light ivory	RAL 6007	Bottle green	RAL 7008	Khaki grey	RAL 8003	Clay brown
RAL 1019	Grey beige	RAL 6008	Brown green	RAL 7009	Green grey	RAL 8004	Cooper brown
RAL 5000	Violet blue	RAL 6009	Fir green	RAL 7010	Tarpaulin grey	RAL 8007	Fawn brown
RAL 5001	Green blue	RAL 6010	Grass green	RAL 7011	Iron grey	RAL 8008	Olive brown
RAL 5002	Ultramarine blue	RAL 6011	Reseda green	RAL 7012	Basalt grey	RAL 8011	Nut brown
RAL 5003	Sapphire blue	RAL 6012	Black green	RAL 7013	Brown grey	RAL 8012	Red brown
RAL 5004	Black blue	RAL 6013	Reed green	RAL 7015	Slate grey	RAL 8014	Sepia brown
RAL 5005	Signal blue	RAL 6014	Yellow olive	RAL 7016	Anthracite grey	RAL 8015	Chetnut brown
RAL 5007	Brilliant blue	RAL 6015	Black olive	RAL 7021	Black grey	RAL 8016	Mahogany brown
RAL 5008	Grey blue	RAL 6016	Turquoise green	RAL 7022	Umbra grey	RAL 8017	Chocolate brown
RAL 5009	Azure blue	RAL 6017	May green	RAL 7023	Concrete grey	RAL 8019	Grey brown
RAL 5010	Gentian blue	RAL 6018	Yellow green	RAL 7024	Graphite grey	RAL 8022	Black brown
RAL 5011	Steel blue	RAL 6019	White green	RAL 7026	Granite grey	RAL 8023	Orange brown
RAL 5012	Light blue	RAL 6020	Chrome green	RAL 7030	Stone grey	RAL 8024	Beige brown
RAL 5013	Cobalt blue	RAL 6021	Pale green	RAL 7031	Blue grey	RAL 8025	Pale brown
RAL 5014	Pigeon blue	RAL 6022	Olive drab	RAL 7032	Pebble grey	RAL 8028	Terra brown
RAL 5015	Sky blue	RAL 6024	Traffic green	RAL 7033	Cement grey	RAL 9001	Cream
RAL 5017	Traffic blue	RAL 6025	Fern green	RAL 7034	Yellow grey	RAL 9002	Grey white
RAL 5018	Turquoise blue	RAL 6026	Opal green	RAL 7036	Platinum grey	RAL 9003	Signal white
RAL 5019	Capri blue	RAL 6027	Light green	RAL 7037	Dust grey	RAL 9004	Signal black
RAL 5020	Ocean blue	RAL 6028	Pine green	RAL 7038	Agate grey	RAL 9005	Jet black
RAL 5021	Water blue	RAL 6029	Mint green	RAL 7039	Quartz grey	RAL 9010	Pure white
RAL 5022	Night blue	RAL 6032	Signal green	RAL 7040	Window grey	RAL 9011	Graphite black
RAL 5023	Distant blue	RAL 6033	Mint turquoise	RAL 7042	Traffic grey A	RAL 9016	Traffic white
RAL 5024	Pastel blue	RAL 6034	Pastel turquoise	RAL 7043	Traffic grey B	RAL 9017	Traffic black
RAL 6000	Platin green	RAL 7000	Squirrel grey	RAL 7044	Silk grey	RAL 9018	Papyrus white
RAL 6001	Emerald green	RAL 7001	Silver grey	RAL 7045	Tele grey 1		

#### Colour group 4

RAL 1002	Sand yellow	RAL 1032	Broom yellow	RAL 3001	Signal red	RAL 3026	L. bright red
RAL 1003	Signal yellow	RAL 1033	Dahlia yellow	RAL 3002	Carmine red	RAL 3027	Raspberry red
RAL 1004	Golden yellow	RAL 1034	Pastel yellow	RAL 3003	Ruby red	RAL 3031	Orient red
RAL 1005	Honey yellow	RAL 1037	Sun yellow	RAL 3004	Purple red	RAL 4001	Red lilac
RAL 1006	Maize yellow	RAL 2000	Yellow orange	RAL 3005	Wine red	RAL 4002	Red violet
RAL 1007	Daffodil yellow	RAL 2001	Red orange	RAL 3007	Black red	RAL 4003	Heather violet
RAL 1012	Lemon yellow	RAL 2002	Vermilion	RAL 3009	Oxide red	RAL 4004	Claret violet
RAL 1016	Sulphur yellow	RAL 2003	Pastel orange	RAL 3011	Brown red	RAL 4005	Blue lilac
RAL 1017	Saffron yellow	RAL 2004	Pure orange	RAL 3012	Beige red	RAL 4006	Traffic purple
RAL 1018	Zinc yellow	RAL 2005	Luminous orange	RAL 3013	Tomato red	RAL 4007	Purple violet
RAL 1020	Olive yellow	RAL 2007	L. bright orange	RAL 3014	Antique pink	RAL 4008	Signal violet
RAL 1021	Rape yellow	RAL 2008	Bright red orange	RAL 3015	Light pink	RAL 4009	Pastel violet
RAL 1023	Traffic yellow	RAL 2009	Traffic orange	RAL 3016	Coral red	RAL 4010	Telemagenta
RAL 1024	Ochre yellow	RAL 2010	Signal orange	RAL 3017	Rose	RAL 9006	White aluminium
RAL 1026	Luminous yellow	RAL 2011	Deep orange	RAL 3018	Strawberry red	RAL 9007	Grey aluminium
RAL 1027	Curry	RAL 2012	Salmon orange	RAL 3020	Traffic rot		
RAL 1028	Melon yellow	RAL 3000	Flame red	RAL 3022	Salmon pink		

#### Alphabetical

A		Flame red	RAL 3000	N		Signal black	RAL 9004
Agate grey	RAL 7038			Night blue	RAL 5022	Signal blue	RAL 5005
Anthracite grey	RAL 7016	G		Nut brown	RAL 8011	Signal brown	RAL 8002
Antique pink	RAL 3014	Gentian blue	RAL 5010			Signal green	RAL 6032
Azure blue	RAL 5009	Golden yellow	RAL 1004	0		Signal grey	RAL 7004
		Granite grey	RAL 7026	Ocean blue	RAL 5020	Signal orange	RAL 2010
В		Graphite black	RAL 9011	Ochre brown	RAL 8001	Signal red	RAL 3001
Basalt grey	RAL 7012	Graphite grey	RAL 7024	Ochre yellow	RAL 1024	Signal violet	RAL 4008
Beige	RAL 1001	Grass green	RAL 6010	Olive brown	RAL 8008	Signal white	RAL 9003
Beige brown	RAL 8024	Green beige	RAL 1000	Olive drab	RAL 6022	Signal yellow	RAL 1003
Beige grey	RAL 7006	Green blue	RAL 5001	Olive green	RAL 6003	Silk grey	RAL 7044
Beige red	RAL 3012	Green brown	RAL 8000	Olive grey	RAL 7002	Silver grey	RAL 7001
Black blue	RAL 5004	Green grey	RAL 7009	Olive yellow	RAL 1020	Sky blue	RAL 5015
Black brown	RAL 8022	Grey aluminium	RAL 9007	Opal green	RAL 6026	Slate grey	RAL 7015
Black grey	RAL 7021	Grey beige	RAL 1019	Orange brown	RAL 8023	Squirrel grey	RAL 7000
Black green	RAL 6012	Grey blue	RAL 5008	Orient red	RAL 3031	Steel blue	RAL 5011
Black olive	RAL 6015	Grey brown	RAL 8019	Oxide red	RAL 3009	Stone grey	RAL 7030
Black red	RAL 3007	Grey olive	RAL 6006	Oyster white	RAL 1013	Strawberry red	RAL 3018
Blue green	RAL 6004	Grey white	RAL 9002			Sulphur yellow	RAL 1016
Blue grey	RAL 7031			P		Sun yellow	RAL 1037
Blue lilac	RAL 4005	Н		Pale brown	RAL 8025		
Bright red orange	RAL 2008	Heather violet	RAL 4003	Pale green	RAL 6021	Т	
Broom yellow	RAL 1032	Honey yellow	RAL 1005	Papyrus white	RAL 9018	Tarpaulin grey	RAL 7010
Bottle green	RAL 6007			Pastel blue	RAL 5024	Telegrey 1	RAL 7045
Brown beige	RAL 1011	I		Pastel orange	RAL 2003	Telegrey 2	RAL 7046
Brown grey	RAL 7013	Iron grey	RAL 7011	Pastel turquoise	RAL 6035	Telegrey 4	RAL 7047
Brown green	RAL 6008	lvory	RAL 1014	Pastel yellow	RAL 1034	Telemagenta	RAL 4010
Brown red	RAL 3011			Pastel violet	RAL 4009	Terra brown	RAL 8028
Brilliant blue	RAL 5007	J		Patina green	RAL 6000	Tomato red	RAL 3013
		Jet black	RAL 9005	Pebble grey	RAL 7032	Traffic black	RAL 9017
С				Pigeon blue	RAL 5014	Traffic blue	RAL 5017
Capri blue	RAL 5019	K		Pine green	RAL 6028	Traffic green	RAL 6024
Cement grey	RAL 7033	Khaki grey	<b>RAL 7008</b>	Platinum grey	RAL 7036	Traffic grey A	RAL 7042
Chocolate brown	RAL 8017			Pure orange	RAL 2004	Traffic grey B	RAL 7043
Chrome green	RAL 6020	L		Pure white	RAL 9010	Traffic orange	RAL 2009
Claret violet	RAL 4004	Leaf green	RAL 6002	Purple red	RAL 3004	Traffic purple	RAL 4006
Clay brown	RAL 8003	Lemon yellow	RAL 1012	Purple violet	RAL 4007	Traffic red	RAL 3020
Concrete grey	RAL 7023	Light blue	RAL 5012			Traffic white	RAL 9016
Carmine red	RAL 3002	Light green	RAL 6027	Q		Traffic yellow	RAL 1023
Chestnut brown	RAL 8015	Light grey	RAL 7035	Quartz grey	RAL 7039	Turquoise blue	RAL 5018
Cobalt blue	RAL 5013	Light ivory	RAL 1015			Turquoise green	RAL 6016
Coral red	RAL 3016	Light pink	RAL 3015	R		U	
Copper brown	RAL 8004	L. bright orange	RAL 2007	Rape yellow	RAL 1021	Ultramarine blue	RAL 5002
Cream	RAL 9001	Luminous bright red	RAL 3027	Raspberry red	RAL 3027	Umbra grey	RAL 7022
Curry	RAL 1027	Luminous orange	RAL 2005	Red brown	RAL 8012	Umbra grey	RAL 7022
		Luminous red	RAL 3026	Red lilac	RAL 4001	V	
D		Luminous yellow	RAL 1026	Red orange	RAL 2001	Vermilion	RAL 2002
Daffodil yellow	RAL 1007			Red violet	RAL 4002	Violet blue	RAL 5000
Dahlia yellow	RAL 1033	М		Reed green	RAL 6013	W	
Deep orange	RAL 2011	Mahogany brown	RAL 8016	Reseda green	RAL 6011	Water blue	RAL 5021
Distant blue	RAL 5023	Maize yellow	RAL 1006	Rose	RAL 3017	White aluminium	RAL 9006
Dust grey	RAL 7037	May green	RAL 6017	Ruby red	RAL 3003	White green	RAL 6019
		Melon yellow	RAL 1028			Window grey	RAL 7040
E		Mint green	RAL 6029	S		Wine red	RAL 3005
Emerald green	RAL 6001	Mint turquoise	RAL 6033	Saffron yellow	RAL 1017	Υ	
		Moss green	RAL 6005	Salmon orange	RAL 2012	Yellow green	RAL 6018
F		Moss grey	RAL 7003	Salmon pink	RAL 3022	Yellow grey	RAL 7034
Fawn brown	RAL 8007	Mouse grey	RAL 7005	Sand yellow	RAL 1002	Yellow olive	RAL 6014
Fern green	RAL 6025			Sapphire blue	RAL 5003	Yellow orange	RAL 2000
				Sepia brown	DAL 0014	Z	
Fir green	RAL 6009			Sehia niowii	RAL 8014		

36







#### AQD INDUSTRIAL SAFETY

Barcelona – Madrid – Alicante – Burgos – Pamplona – Valencia – Bilbao – La coruña – Santander – Salamanca – Sevilla Central - C/Cellecs,2 | Les Franqueses del Valles | 08520 Barcelona info@aqdindustrial – www.aqdindustrial.es

...please visit our online portal for more information "www.econfence.com"



