INDUSTRIAL ROLL GATES HIGH-SPEED ROLL GATES





FIRE CURTAINS
SMOKE CURTAINS
FIRE-RESISTANT GATES

#### COMPREHENSIVE APPROACH TO PROTECTION OF OPENINGS

MBA is a manufacturer of industrial roll gates and fire barriers

Our production facility is equipped with up-to-date metal working machines, a powder oven and a laser cutting machine. This enables us to maintain the product quality at an adequate level. The company's production area is located in Kolomna, where branded products (MBA, FireTechnics (FireShield)) have been manufactured for so many years. The company has amassed a wealth of experience in manufacture, installation and maintenance of fire barriers and industrial gates. All our products undergo tests in a special-purpose laboratory, and after passing these tests, appropriate quality certificates are issued. The company is a self-regulatory organization and is licensed by EMERCOM.

#### **COMPANY'S HISTORY**

- 2002 MBA commenced production of industrial roll gates
- 2004 in cooperation with Stöbich, one of the global concerns, manufacturing fire protection system, for the first time in Russia, the production of fire barriers was arranged and launched;
- 2010 the company modernized the in-house production of fire curtains and gates. All products were tested, and certificates were issued;
- 2018 significant expansion of warehouse areas and production premises;
- 2019 introduction of new products and large-scale renewal of the production equipment.









Over **50** professional staff members



More than
10 000
projects
implemented



Over 20m maximum width of fire curtains



over **35m** maximum width of hangar gates

# Fire barriers



#### **ADVANTAGES**

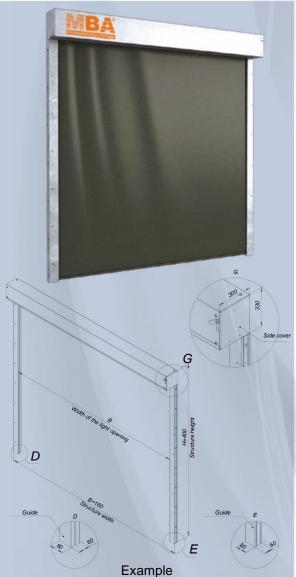
- Production and installation on a turn-key basis
- European fabrics and constituent parts
- Proved design
- Warranty and certificates
- Frame and guides of any color
- Individual design

#### **SCOPE OF APPLICATION**

- Parking areas
- Shopping malls and entertainment centres
- Production premises
- Hotels
- Administration buildings
- Multi-building warehouses

Subject to Law 123-FZ "Technical regulations "On fire safety requirements" Fire-Resistance Rating Classification:
E – structure collapse

I – thermal insulating capacity



# Onto a wall, surface-mounted a false ceiling or into an opening Under a false ceiling using suspensions using suspensions

# Fire Curtain **EI60** with no water irrigation



#### SYSTEM DESCRIPTION

Automatic fire curtains cover an opening, ensuring a fire-resistance rating of **El60** with no water supply from a standard fire extinguishing system. They are designed to divide premises into sections and prevent flame propagation throughout the building, thereby securing protection of people and material valuables from fire and smoke.

Fire-Resistance Rating:

· 60 minutes (no water irrigation);

The fire-resistance is ensured by the use of a multi-layer leaf, consisting of a thermally-active composite material.

Upon activation of an alarm system (opening of a "dry contact"), the curtain lowers at a speed of 0,15 m/s and covers the opening. In case of a power failure, the system retains its functionality subject to the following conditions:

- a control unit is installed, with an uninterruptible power supply (battery);
- an electric power supply system (1st power supply category) is connected.

#### **DIMENSIONS** •

Width, max.:	8	m
Height, max.:	6	m
Tray (depth × height):	200 × 220 mm at a height of less than 4 m	300 × 330 mm at a height above 4 m
Depending on your needs we can manufacture fire ourtains		

of made-to-order sizes. Ask your local dealer for details.

#### LEAF

Material (outer layer):	Firetex <sup>™</sup> 1100
Fabric weight:	440-660 g/m²
Material thickness (outer layer):	0,63 mm

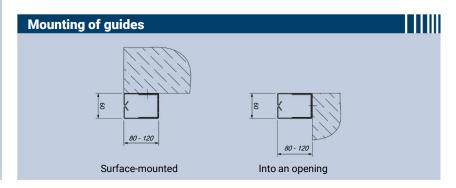
Multi-layered leaves are used. The inner layer consists of a thermally-active composite material that expands at a temperature of 160-180 °C and provides reliable protection against heat flows. The leaf fabric is certified as non-combustible and non-toxic. The leaf fabric is non-flammable and non-toxic.

#### **TRAY**

Made of 1.5 mm galvanized sheet steel. The end surfaces of the casing are closed with covers to ensure tightness. Color: RAL color or galvanized steel.

#### **GUIDES**

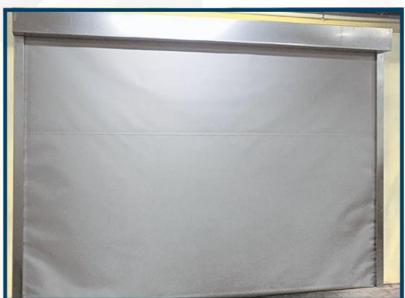
They are designed to guide the leaf when being unwound onto the shaft. Made of 2 mm sheet steel (casing 1,5 mm). Colors: RAL color or galvanized steel.

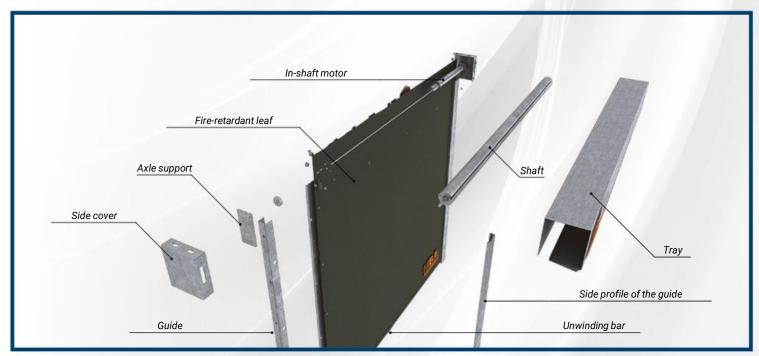




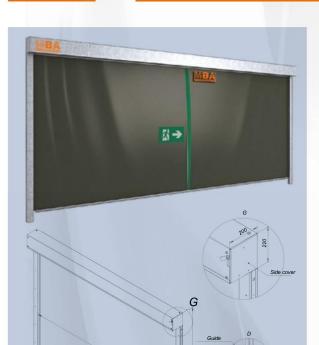








Example



# Fire Curtain **El60 / El120 / El180** with water irrigation.



#### SYSTEM DESCRIPTION

Automatic fire curtains with water irrigation **El60**, **El120**, **El180**They are designed to divide premises into sections and prevent flame propagation throughout the building, thereby securing protection of people and material valuables from fire and smoke.

#### Fire-Resistance Rating:

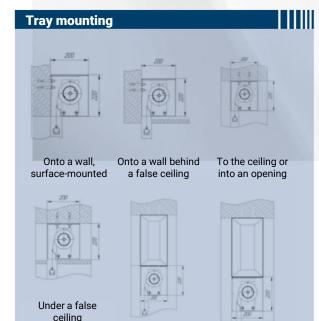
Fire resistance is ensured by the intensity of water irrigation from existing sprinkler or drencher fire-extinguishing systems within buildings.

 E1180 (one-sided water irrigation and min. water consumption (0,08\*h) I/m\*s per a running meter across the width, where "h" is a height of the curtain)

Upon activation of an alarm system (opening of a "dry contact"), the curtain lowers at a speed of 0,15 m/s and covers the opening. In case of a power failure, the system retains its functionality subject to the following conditions:

- a control unit is installed, with an uninterruptible power supply (battery);
- an electric power supply system (1st power supply category) is connected.

# Mounting of guides | Standard |



To the ceiling,

using suspensions

Under a false ceiling,

using suspensions

Option: trap-door design

#### **DIMENSIONS** •

Version:	Standard	Premium
Max. width.:	12 m	30+ m
Lowering distance, max.:	8 м	10+ m
Tray (depth x height):	150 × 150 mm, 200 × 220 mm	$245 \times 310 \mathrm{mm}$

Depending on your needs, we can manufacture fire curtains of made-to-order sizes. Ask your local dealer for details.

#### **LEAF**

Material:	Firetex <sup>™</sup> 1100
Fabric weight :	440-660 r/м²
Material thickness:	0,63 mm

One-layer leaf. Non-combustible and non-toxic fabric.

#### TRAY

Made of 1.5 mm galvanized sheet steel. The end surfaces of the case are closed with covers to ensure tightness. Color: RAL color or galvanized steel.

#### **GUIDES**

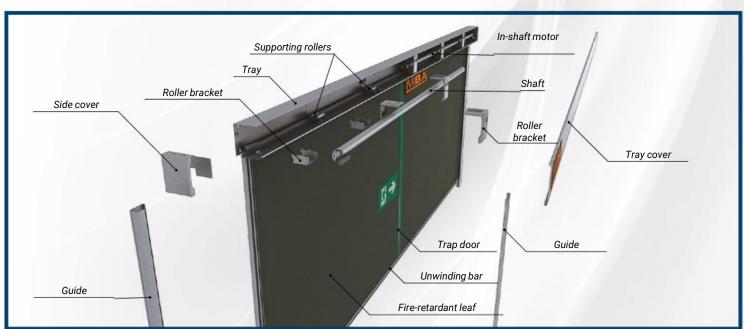
They are designed to guide the leaf, being unwound onto the shaft. Made of 2 mm sheet steel (casing 1,5 mm). Colors: RAL color or galvanized steel. Built-in rods ("Premium" version) ensure required tightness, noiseless lowering and resistance to high pressure. Colors: RAL color or galvanized steel.











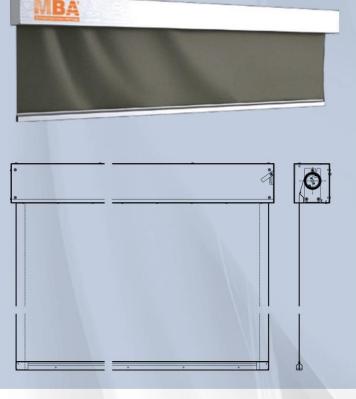


# Smoke curtain **E60** with no water irrigation

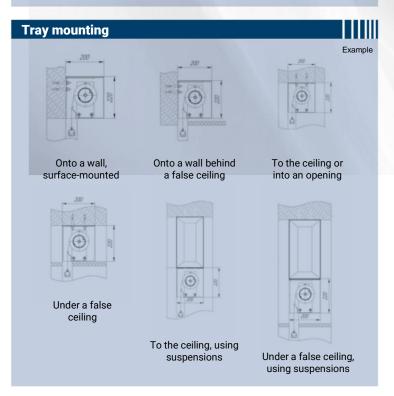
#### SYSTEM DESCRIPTION

Automatic smoke curtains E60 (no water irrigation) are designed to prevent the spread of smoke and direct it towards smoke exhaust systems, enabling safe evacuation of people and protection of property that can be damaged by smoke. Fire resistance time: 60 minutes (with no water irrigation). Upon activation of an alarm system (opening of a "dry contact"), the curtain lowers at a speed of 0,15 m/s and covers the opening. In case of a power failure, the system retains its functionality subject to the following conditions:

- a control unit is installed, with an uninterruptible power supply (battery).



# Mounting of guides Surface-mounted Into an opening



#### **DIMENSIONS** -

Max. width:	20+
Max. height:	6 m
Tray (depth x height) at a height of less than 4 m:	150 × 150 mm
Tray (depth x height) at a height above 4 m:	200 × 220 mm

Depending on your needs, we can manufacture smoke curtains of made-to-order sizes. Ask your local dealer for details.

#### **LEAF**

Material:	Firetex <sup>™</sup> 600
Fabric weight:	435 g/m²
Material thickness:	0,40 mm

#### **TRAY**

Made of 1.5 mm galvanized sheet steel. The end surfaces of the casing are closed with covers to ensure tightness. The size depends upon a height of the opening. Color: RAL color or galvanized steel.

#### **GUIDE**

Previously, smoke curtains **E60** (in the standard design) required no side guides. According to the new Technical Regulations of the EAEU, these guides are now required to be installed.

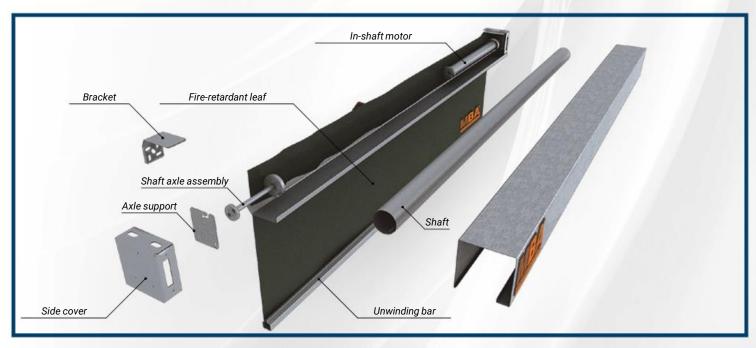




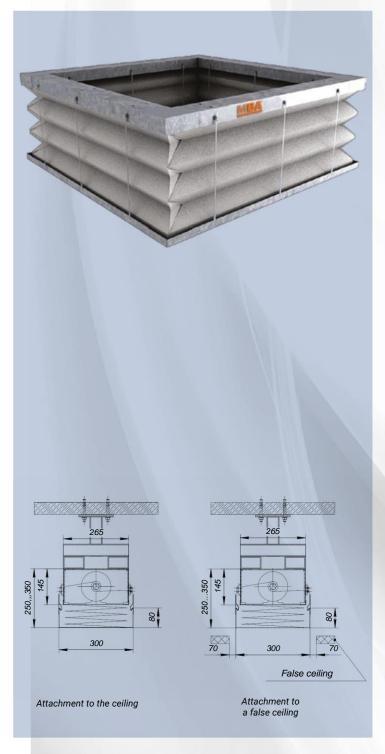














# Fire El60, El180 and smoke curtains E60 "Accordion"



#### SYSTEM DESCRIPTION

Automatic fire curtains "Accordion" are designed to create an enclosed space in case of fire, preventing the spread of fire and smoke throughout the building, protecting people and material assets from fire and smoke.

#### Fire Resistance Rating:

- El60 (with one-sided water irrigation from existing sprinkler
  or drencher fire extinguishing systems, with water consumption
  no less than (0,08\*h) I/m\*s per 1 running meter across
  the width, where "h" is a curtain height in meters).
- EI180 (with one-sided water irrigation, water consumption (0,08\*1t) I/m\*s per one running meter across the width, где "h" is a curtain height in meters).
- E60 fire curtain with no water irrigation.

#### Trap door design version.

In terms of design, the system can be implemented in form of a rectangle, polygon, or a U-shaped and L-shaped product version. Raising and lowering of the curtain is motor-driven. If any power failures, the electric motor can be powered from a UPS (battery).

Scope of application of "Accordion":

- · enclosure of elevator lobbies;
- protection of atriums;
- · protection of moving staircases.

#### **DIMENSIONS** -

Max. width:	Any perimeter, any shape
Max. height:	6 m
Structure dimensions (width x height):	300x250+ mm
Depending on your needs, we can manufacture fire curtains of made-to-order sizes. Ask your local dealer for details.	

#### **LEAF**

Material:	Firetex <sup>™</sup> 1100
Fabric weight:	440-660 g/m <sup>2</sup>
Material thickness:	0,63 mm

The leaf fabric is certified as non-combustible and non-toxic.

#### TRAY

It is used to accommodate the parts of the leaf lifting mechanism and consists of U-shaped formed panels, made from 1 mm thick galvanized steel. The trays are interconnected by means of special connection plates.

Colors: RAL color or galvanized steel.

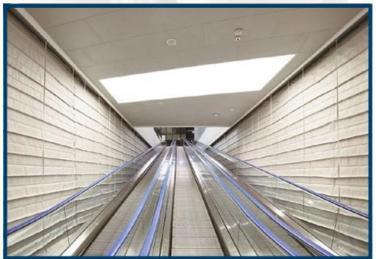
#### MOUNTING SOLUTIONS

The standard mounting solution is attachment to the ceiling, but an individual option is possible, where the fire resistance rating of the structure, to which the product is attached, must be at least is the same as that of the curtain.

The main advantage of the flexible fire protection system "Accordion" is its uniqueness in terms of its scope of application and mounting methods.





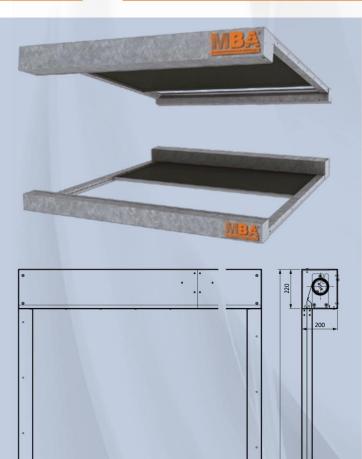












# Fire curtain "HORIZONTAL" EI60, EI180

#### SYSTEM DESCRIPTION

Automatic fire curtains "Horizontal" are designed to prevent the spread of fire and smoke from one part of the building to another. They are mounted into floor openings. The curtain moves horizontally.

Fire Resistance Rating:

- EI180 (with one-sided water irrigation from existing sprinkler or drencher fire extinguishing systems, with water consumption no less than (0,08\*N) I/m\*s per a running meter across the width, where "K" is a curtain height.
- · EI60 (with no water irrigation).

Upon actuation of a fire alarm system, the motor, installed into the small-sized tray, moves the unwinding bar that carries the fire-fighting leaf along the guides into the trap, using a system of cables, thus, closing the opening. The curtain is returned to its initial position by winding the leaf onto the shaft, installed in the big tray, by means of a second electric motor.

The opening is closed at a speed is 0.15 m/s.

In case of power failures, the system can be powered from a UPS (battery).

#### **DIMENSIONS**

Max. size of openings:	3 × 3 m
Big tray (cross-section):	$200 \times 220 \text{ mm}$
Small tray (cross-section):	150 × 150 mm

Depending on your needs, we can manufacture fire curtains of made-to-order sizes. Ask your local dealer for details.

#### **LEAF**

Material:	Firetex <sup>™</sup> 1100
Fabric weight:	440 g/m²
Material thickness:	0,63 mm

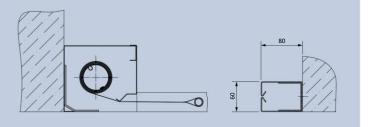
Non-combustible and non-toxic fabric

#### TRAY

The design provides for installation of two trays (big and small) for each single curtain. Each tray consists of three pre-formed panels of galvanized sheet steel, 1.5 mm thick, length of up 3 m. The panels are attached to each other, if it's required to make long curtains. Both ends of the tray are closed with covers to provide tightness required. The tray size depends upon dimensions of openings. Colors: RAL color or galvanized steel.

#### Tray and guides mounting

The standard mounting solution is mounting into an opening, but an option is possible, where the fire resistance rating of a structure, to which the product is attached, shall be at least the same as that of the curtain itself.



#### **GUIDES**

Made of 2 mm thick sheet steel (casing - 1.5 mm). Cross-sectional dimensions:  $80 \times 60$  mm. Color: RAL color or galvanized steel.



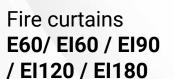


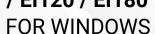












#### SYSTEM DESCRIPTION

Fire curtains **E60 /EI60 / EI90 / EI120 / EI180 for windows** are used to prevent fire propagation between the floors of buildings or between structures. They are, s a rule, mounted into window openings, thus, excluding the spread of fire and smoke protecting people and property from fire.





Max. width:	6 m
Bmax. height:	5 m
Depending on your needs, we can manufacture fire curtains of made-to-order sizes. Ask your local dealer for details.	

#### **LEAF**

Firetex <sup>™</sup> 1100
440 g/m²
0,63 mm

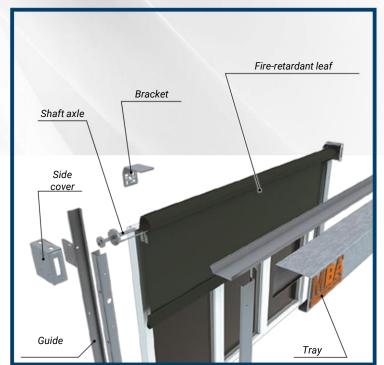
Non-combustible and non-toxic fabric.

#### **TRAY**

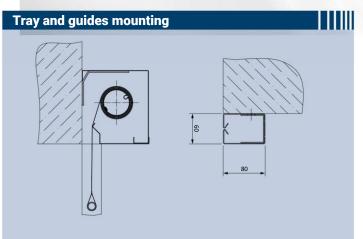
Made of 1.5 mm galvanized sheet steel. The end surfaces of the casing are closed with covers to ensure its tightness. Color: RAL color or galvanized steel.

#### **GUIDES**

Designed to guide the leaf, when being unwound; they are made of sheet steel, 2 mm thick (casing thickness 1.5 mm). Colors: RAL color or galvanized steel.









# Fire-proof membranes E60/EI60/EI90/ EI120/ EI180

#### SYSTEM DESCRIPTION

Light-weight fireproof membranes E60 / E160 / E190 / E1120 / E1180 are used to cover large openings in order to prevent the spread of fire and smoke, in case of fire.

Various fire resistance ratings:

- E60 (no water irrigation);
- EI60/ EI90/ EI120/ EI180 (water irrigation).

Low static load, about 1 kg per one square meter of the membrane.

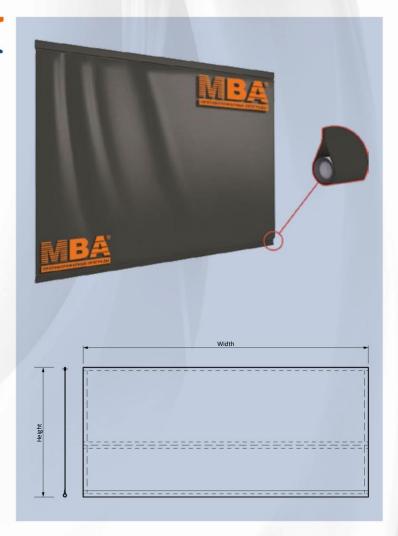
#### **DIMENSIONS**\*

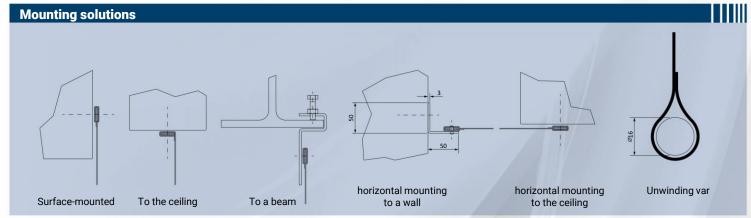
Max. width:	unlimited
Max. height:	unlimited
Depending on your needs, we can manufacture fire-proof membranes of made-to-order sizes.	

#### **LEAF**

Material:	Firetex <sup>™</sup> 600
Fabric weight:	440 g/m²
Material thickness:	0,40 mm

Non-combustible and non-toxic fabric.













#### SYSTEM DESCRIPTION

Fire-resistant rolling gates **EI60 / EI90 / EI120** are used as barriers to prevent penetration of fire and smoke. They cover openings in parking areas, shopping malls, warehouses, industrial halls, etc. Fire resistance ratings: EI60, EI90, EI120.

#### **DIMENSIONS** •

Gate type	Max. width	Max. height
Single-leaf gate	10+ m	10 m
Double-leaf gate	10+ m	5 m
Three-leaf gate	10+ m	5 m
Sliding gate	10+ m	5 m

Depending on your needs, we can manufacture fire-resistant gates of made-to-order sizes. Ask your local dealer for details.

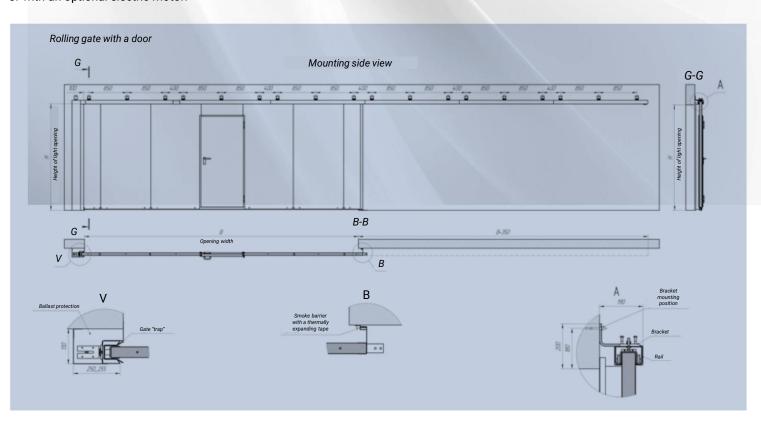
# Fire-resistant rolling gates EI60 / EI90 / EI120

#### **KEY SPECIFICATIONS**

- Available are single-leaf and telescope-type versions, consisting of two or three leaves.
   A version with sliding leaves is also possible to be manufactured.
- Gate leaf thickness 60, 100 mm, filler: mineral wool, density 100 kg/m³.
- The light-weight gate structure 13 kg/m² facilitates installation procedures and reduces the requirements to the load-bearing capacity of walls.
- Frameless design prevents any deformation of the gate, if exposed to high temperatures, and guarantees the highest protection against fire propagation.
- · Height adjustment during installation.
- Min. door head for mounting works: 150 mm.
- It is possible to mount a fire-resistant door, complete with a fireproof lock, hinges with a self-locker and a panic bar (option).
- A fire fighting access door, size 200 x 200 mm, can be mounted.
- · Colors: Any RAL color (standard colors: RAL 7035; RAL 9010).
- A decorative moulding can be used to cover the rail (this moulding is not a standard accessory).
- The slamming pocket can be of any color (the standard version is galvanized steel).

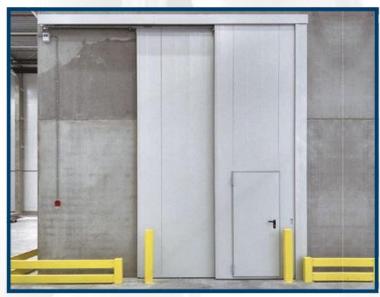
#### PRINCIPLE OF OPERATION

The opening is always open; the gate is kept open by an electromagnetic lock, and it's unlocked upon actuation of a fire alarm. Upon actuation of the fire alarm, a system of counterweights causes the gate to move. The gate can be opened manually or with an optional electric motor.









Single-leaf







Three-leaf

Sliding gate







#### SYSTEM DESCRIPTION

Automatic fire-resistant roll gates El60 are fire barriers to prevent penetration of flames and smoke from one part of the building to another and between buildings. They are used in parking areas, shopping centers, warehouses, industrial halls, etc. Fire resistance rating: El60.

#### **DIMENSIONS** •

Products	Max. width	Max. height
Fire-resistant roll gates with rock wool	8+ m	5+ m
Fire-resistant roll gates with expandable mineral filler	8+ m	6+ m

Depending on your needs, we can manufacture fire-resistant roll gates of madeto-order sizes. Ask your local dealer for details.

Maximum area of the roll gates, filled with rock wool, is 24 m<sup>2</sup>. Space required for mounting in the upper part of an opening:

- rock wool: minimum 800 mm;
- · expandable mineral filler: minimum 600 mm.

Space required for mounting of an electric motor: minimum 500 mm; space required on the opposite side: minimum 250 mm.

# Fire-resistant roll gates **EI60**

#### PRINCIPLE OF OPERATION

The leaf is lowered by means of an electric motor only. Its end positions of the are fixed with electromagnetic limit switches. The electric motor is controlled with a control unit. An emergency power supply can be provided for potential power failures.

For larger gates, a 380 V motor is used.

#### **LEAF**

#### 1. Rock wool as a door filler

It is made of steel sheet sections with movable joints, thickness of 0.5 mm, filled with rock wool, density of 100 kg/m3.

Structure weight:	13 kg/m <sup>2</sup>
Thickness:	50 mm
One section height:	80 mm

#### 2. Expandable mineral filler

It is made of steel sheet sections with movable joints, 0.7 mm thick, with a thermally-expanding element filler between two layers of fire-retardant leaf.

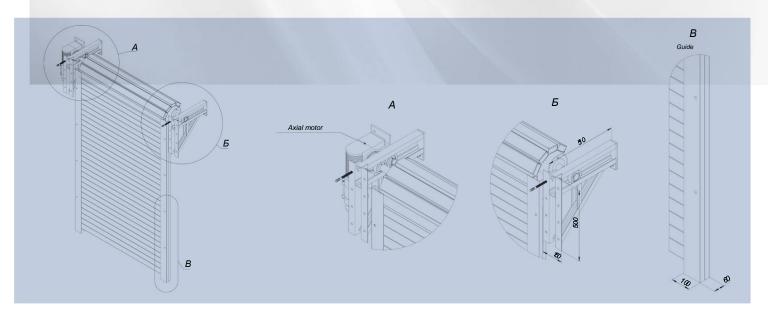
Leaf weight:	13 kg/ m <sup>2</sup>
Thickness:	50 mm
One section height:	80 mm

#### **SIDE GUIDES**

Made of 2 mm thick steel U-profile 100x60 mm. Colors: RAL color or galvanized steel.

#### **MOUNTING SOLUTIONS**

Surface-mounted









Filled with expandable mineral filler





Filled with rock wool





# EI60

Fire-resistant sectional gates

#### SYSTEM DESCRIPTION

Automatic fire-resistant sectional gates EI60 are used as barriers to prevent fire and smoke penetration from one part of the building to another or between buildings. They are used in underground parking areas, shopping malls, warehouses, industrial halls, etc. Fire resistance rating: EI60.

#### **DIMENSIONS**

Max. width:	8 m
Max. height:	4 m

Depending on your needs, we can manufacture fire-resistant gates of made-to-order sizes. Ask your local dealer for details.

#### Maximum area 18 m<sup>2</sup>.

Space required for mounting purposes in the upper part of an opening: minimum 550 mm. Space required for installation of an electric motor: minimum 450 mm.

Space required on the side opposite to the electric motor: 250 mm.

#### PRINCIPLE OF OPERATION

The gate is moved up and down automatically, by means of an electric motor. Electromagnetic limit switches keep the leaves in their end positions. The motor is controlled with a control unit. If any power failures, an emergency power supply can be installed.

#### **LEAF**

Made of steel sheet sections, 0.5 mm thick, with movable joints, filled with rock wool, density 100 kg/m³. 2 mm profiles are mounted onto side surfaces of panels.

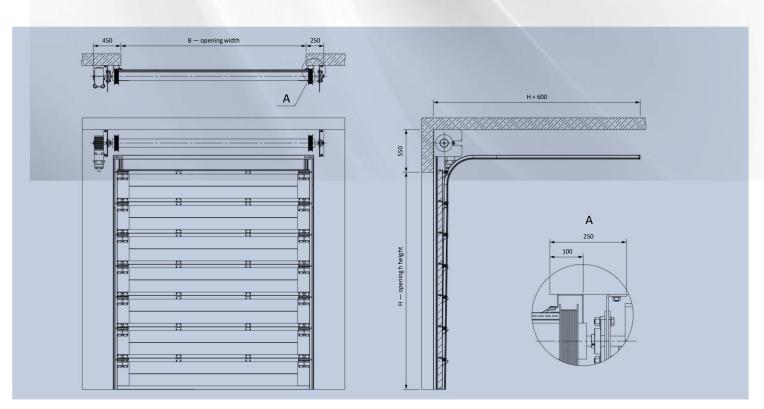
Structure weight:	24 kg/m <sup>2</sup>
Leaf thickness:	60 mm
Panel height:	545 mm

#### **MOUNTING SOLUTIONS**

Standard, high, low, vertical.

#### **ACCESSORIES**

- At the request of the customer, a fire-resistant door can be made within the gate, equipped with a fireproof lock and door closer.
- At the request of the customer, a fire fighting access door 200 x 200 mm can be made and mounted.
- Colors: any RAL color (standard colors: RAL 7035; RAL 9010)

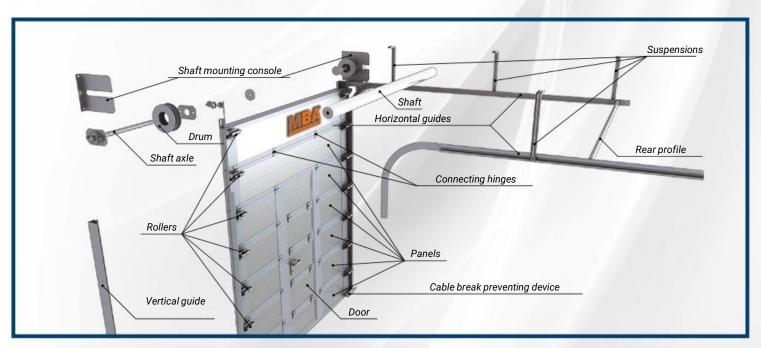
















#### SYSTEM DESCRIPTION

Automatic fire-resistant swinging gates **EI60** are used as barriers to prevent fire and smoke penetration from one part of the building to another or between buildings. They are used to cover openings in parking areas, shopping malls, warehouses, industrial halls, etc. Fire-resistance rating: EI60

European quality, confirmed with conformity declarations and by EMERCOM Russia.

#### DIMENSIONS .

Max. width:		5 m
Max. height:		5 m

Depending on your needs, we can manufacture fire-resistant gates of made-toorder sizes. Ask your local dealer for details.

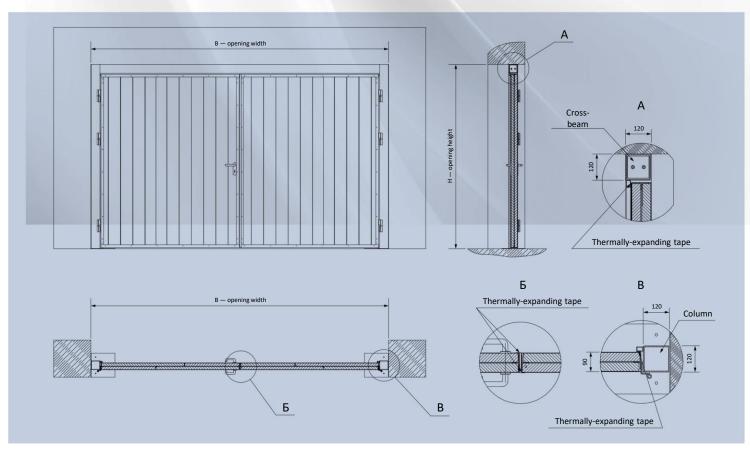
# Fire-resistant swinging gates **EI60**

#### PRINCIPLE OF OPERATION

The opening is always open; the gate is kept open by an electromagnetic lock, and it's unlocked upon actuation of a fire alarm. Upon actuation of the fire alarm, a system of counterweights causes the gate to move. The gate can be opened manually or with an optional electric motor. No collision of the leaves is expected, as their closing is synchronized.

#### **KEY SPECIFICATIONS**

- Gate leaf thickness 60 mm, rock wool filler, density 100 kg/m<sup>3</sup>.
- Light-weight gate leaves (13 kg/m²) contribute to convenient mounting and reduce requirements to the load-bearing capacity of walls.
- The leaf design excludes any deformation, if exposed to high temperatures, and guarantees the highest protection from flame propagation.
- · Mounting methods: surface-mounted and into openings.
- A fire-resistant door can be mounted, complete with a fire-resistant lock and self-closing hinges; optionally, a panic bar can be mounted.
- A fire fighting access door can be made and mounted, 200 x 200 mm.
- · Color: any RAL color (standard colors: RAL 7035; RAL 9010).

















#### REFERENCE LIST:

#### fire-resistant solutions, implemented for protection of openings

#### **ADMINISTRATIVE BUILDINGS:**

- Bank "Vozrozhdeniye", Moscow
- The State Duma of the Russian Federation
- State Kremlin's Palace
- Office of the RF Procurator General
- "Kursky" Railway Station
- Surgery Department of the R&D Urgent Pediatric Surgery and Traumatology
- Burdenko Main Military Clinical Hospital, Moscow
- Residency of the President of the Russian Federation

#### MULTI-BUILDING WAREHOUSES AND PRODUCTION AREAS:

- 000 «"LKM Group"
- OAO "URALVAGONZAVOD"
- "Bulatnikovo" Terminal
- 000 "International Aluminium Company"
- Float-glass manufacturing plant "Pilkington", Moscow
- "Grundfos" production company, Moscow "Hochland" production area, Moscow
- AO "DP Istra-Nutritsiya"
- **Ural Civil Aviation Plant**
- "Centrtranstekhmash", Ryazan (production of commercial vans)

#### **SHOPPING MALLS AND BUSINESS CENTERS:**

- "MEGA" shopping malls (Russia-wide)
- "Krasnaya Presnya" Exhibition Center, Moscow
- "Evropeyskiy" shopping mall, Moscow
- "Rublevskiy" shopping mall, Moscow
- "Leipzig" holding center, Moscow
- "Maxcity" shopping mall, town of Balashikha
- "Mercedes" trade and exhibition center, Volgogradskiy avenue, Moscow
- "Fantastika" shopping mall, Nizhny Novgorod
- "Lotte Plaza" hotel, Moscow
- "BMW" center ROLF
- "RIO Leninskiy" trade and entertainment center, "Tashir" group of businesses
- Moscow International Business Center "Moscow-City":
- "Vostok" skyscraper, complex of buildings "Federatsiya"
- "Zapad" skyscraper, complex of buildings "Federatsiya"
- "Mercury" skyscraper

#### RESIDENTIAL AND MIXED-USE DEVELOPMENTS

- GK "PIK"
- Capital Group
- Flat and Co.
- MR Group
- **RG** Development
- **GK Pioneer**
- **AEON**

#### DEVELOPMENT AND CONSTRUCTION COMPANIES

- 000 "AgroStroyAlliance"
- "ANT YAPI SANAYI VE TICARET LIMITED SIRKETI" (Republic of Turkey)
- ZAO "Renaissance Construction"
- OAO "Atomenergoremont"
- PK "Botanic Projects B.V." (The Netherlands)
- 000 "Gasinvestprom"
- "ENKA İnşaat ve Sanayi A.Ş." (Republic of Turkey)
- AO "KORAY İNŞAAT SANAYİİ VE TİCARET ANONIM ŞİRKETİ" (Republic of Turkey)
- "ESTA Construction" (Republic of Turkey)
- "Dywidag International GmbH" (Germany)
- OOO "Stroy-Group" OOO "IMEDI"
- 000 "Ital Engineering International"
- 000 "City Palace"
- ZAO "Mosmetrostroy: department of special services"
- ZAO "Mosmetrostroy" direction of construction works"
- OAO "Mosinzhproject"
- 000 "B0ES Construction" (Republic of Turkey).

#### **CULTURAL AND EDUCATIONAL INSTITUTIONS:**

- The Bolshoi Theatre
- Variety Theatre
- Youth Palace, Moscow
- Concert hall, town of Gelendzhik
- Drama theatre, Khabarovsk
- Gallery of Art
- State Hermitage Museum
- Federal State-Funded Cultural Institution "Berezka" dance ensemble named after Nadezhdina S.A., Moscow
- "Congress Hall", town of Gelendzhik

#### **HOTELS:**

- "Krasnye Holmy" hotel
- "Hyatt" hotel, Moscow
- "Ukraine" hotel, Moscow
- "Sochi", hotel

# Industrial roll gates for large openings



#### **ADVANTAGES**

- Compact size. Roll gates are space-saving products. As compared to other types of gates, they require less installation space.
- User-friendly solution for all the seasons.
   No operational issues in the cold time.
- High resistance to corrosion, rapid changes of temperature, wind loads. If properly mounted, leaves shall fit flush with walls within openings, thus providing for protection of a level required.
- Durability. The roll gates design is reliable due to a limited number of structural units, which are subject to wear.
- Affordability. The price of roll gates is comparable to that of other product types, but in terms of the scope and geography of their application, they are considerably superior to similar structures.
- Quick mounting. The roll gates are delivered to a site in a maximum ready-to-install condition

- Average mounting time: 3-4 hours.
- Moderate price. A roll gates are one of the most affordable products for any budget.
   Owners of small garages and private points of sale can afford to buy and use them.
- Repairability. Components for repairs of roll gates can be delivered within the shortest time possible, as they are always available for sale.
- High quality level. All the materials, which are used for the manufacture of the roll gates, are certified.

#### SCOPE OF APPLICATION

- production premises of plants and factories;
- agriculture (hangars, grain depots, vegetable wholesale warehouses);
- entries into production and processing areas;
- workshops;
- shopping malls and supermarkets;
- warehouses and storage areas;
- passenger and freight vehicles areas (parking areas, motor transportation companies, terminals, car repair shops and car washes).



#### **ROLL GATES**

#### Heat-insulated, automatic, with no fire protection AL-120

Ele

#### SYSTEM DESCRIPTION

#### Roll gates AL-120, heat-insulated

Made of 23 mm thick, double-walled aluminum profile AL-120, filled with rigid polyurethane foam, which provides thermal insulating properties of leaves (max. height of 15 m, max. width of 11.5 m each). A special version of gates, consisting of several panels with use of sliding bars, enables to protect the openings through which aircraft and special equipment of unlimited width are supposed to move. These gates are designed to be installed into in- and outside openings of production premises and warehouses, hangars, points of sale, and prevent unauthorized access and provide for heat insulation, light and noise protection.

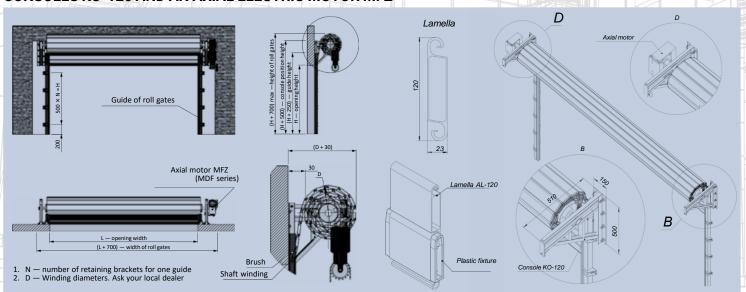
The roll gates consist of the following parts: leaf, electric motor with an emergency lifting function, guide rails, drive shaft and consoles. Additional components and accessories can be used, such as radio controls, photocells, carrier strips and key-operated switches. A special feature of the roll gates, making a real difference from the others, is minimum space above and alongside of an opening, which is required for installation and operation of the entire system. And this enables users to install the roll gates, where no sectional, rolling and swinging gates can be mounted.

#### **TECHNICAL DATA**

Material	Double-walled alu profile, internally filled with rigid polyurethane foam, powder coating with a RAL color	Standard	
Max. size	One leaf width, max, mm	11 500	
	Max. width, mm	40 000+	
	Max. height, mm	15 000	
Profile	Wall thickness, mm	1	
size and weight	Lamella thickness, mm	23	
weight	Lamella height, mm	120	
	Coating, mm	98	
	Leaf: 1 m² weight, kg	10,6	
	Profile: 1 r.m. weight, kg	1,06	
Consoles	OKD-6, OKD-8, KS-104, KO-120	Standard	
	KO-120U	Option	
End covers for profiles	Plastic-made fixture	Standard	
Depending on your needs, we can manufacture heat-insulated roll gates of made-to-order sizes. Ask your local dealer for details.			

lectric notor	Axial	Standard		Shaft winding diameters Gate Shaft		g	
	Inside the shaft	Standard				oft.	
	Supply voltage (single-phase motor / 3-phase motor)	220 V / 380 V		height, mm	dian	diameter, mm	
	Electric motor ingress	IP 54			159	220	
	protection	(standard)		1000	260	310	
		IP 65 (option)		1500	290	330	
	Electric motor emergency lifting system	Chain reduction gear (standard)		2000	320	350	
				2500	355	373	
		Tommy bar (option)		3000	390	395	
			-	3500	400	423	
	Operating temperatures of the			4000	410	450	
	electric motor and automatic	s: −5 +50 °C		4500	433	470	
	Axial motors with in-built control units			5000	455	490	
	Inside the shaft	−20 +50 °C		5500	470	495	
	Axial, special-type	−35 +50 °C		6000	485	500	

#### **INSTALLATION DRAWING FOR ROLL GATES AL-120 WITH CONSOLES KO-120 AND AN AXIAL ELECTRIC MOTOR MFZ**















#### **ROLL GATES**

#### Made of steel, with no heat insulation, fire-retardant M-80

#### SYSTEM DESCRIPTION

**Roll gates M-80, steel-made:** made of a single-walled profile. The profile material is cold-rolled galvanized steel, powder-coated. Special elements prevent lateral movements of lamellas.

The same elements provide for high stability of the leaves. The roll gates, made of steel, perforated (M-80P) and unperforated (M-80) profiles are the best choice for interiors, requiring no additional thermal insulation.

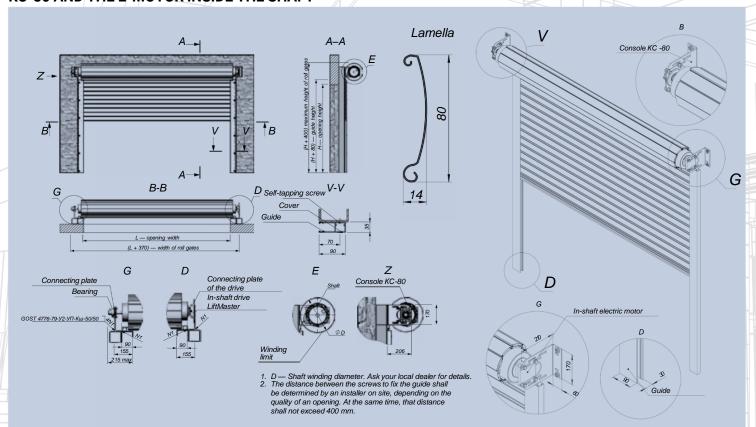
#### **TECHNICAL DATA**

		M-80	M-80P
Material	Galvanized steel with powder coating according to RAL	Standard	Standard
	Galvanized steel, unpainted	Option	Option
Max. dimensions	Maximum width, mm	9000	9000
of roll gates	Maximum height, mm	7000	7000
Profile size and weight	Wall thickness, mm	0,7	0,7
	Lamella thickness, mm	14	14
	Lamella height, mm	80	80
	Coating, mm	75	75
	Leaf: 1 m² weight, kg	8,5	6
	Profile: 1 running meter weight, kg	0,64	0,45

Shaft winding diameters					
Height of roll gates, mm	Shaft diameter, mm		Height of roll gates, mm	Sh diam m	eter,
	133	159		133	159
1000	170	200	4000	260	280
1500	193	212	4500	270	290
2000	215	225	5000	280	300
2500	230	240	5500	290	310
3000	240	255	6000	310	320

Depending on your needs, we can manufacture steel roll gates of made-to-order sizes. Ask your local dealer for details.

### INSTALLATION DRAWING FOR ROLL GATES M-80 WITH CONSOLES KC-80 AND THE E-MOTOR INSIDE THE SHAFT











# ROLL GATES, translucent, not fire-proof

#### **SYSTEM DESCRITION**

**Translucent roll gates** are classified as enclosing structures. They are designed to provide thermal insulation and natural light required, maintaining a visual contact with the outside world. The roll gates of this type have a specially aesthetic look to please the eye in shopping malls, hypermarkets and airports.

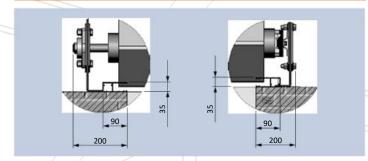
**Translucent roll gates** can be designed for in- and outdoor mounting. Outdoor roll gates enclose entrance and balcony doors, and indoor ones functionally divide spaces within premises. They do not prevent penetration of light into rooms.

Profiles of translucent roll gates s are made of aluminum and can be painted in any RAL color. Their leaves are made of polycarbonate glass, which results in perfect light transmission.

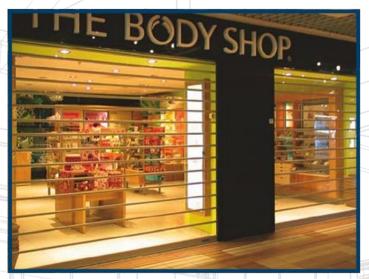
#### **TECHNICAL DATA**

Max. dimension of the structure	4500 × 4000
Light permeability, %	80
Profile thickness, mm	5
Shock resistance, kg/m²	8
Options	Alu profiles can be painted in any RAL color

Depending on your needs, we can manufacture translucent roll gates of made-to-order sizes. Ask your local dealer for details.













# ROLL GATES "NET"

#### SYSTEM DESCRIPTION

"Net" roll gates are classified as enclosing structures. They are used, if it's necessary to monitor the area behind the roll gates to comply with anti-vandal protection requirements.

The roll gates of this type are used for hangars with wide openings, driveways and parking lots, shop windows and concession stands, production premises and storage areas, animal farms and zoos.

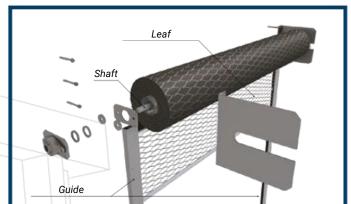
"Net" roll gates can be designed for in- and outdoor mounting. Outdoor roll gates enclose entrance and balcony openings, and indoor ones functionally divide spaces within premises. These roll gates are generally used for conveyor lines and are notable for their outstanding reliability and durability.

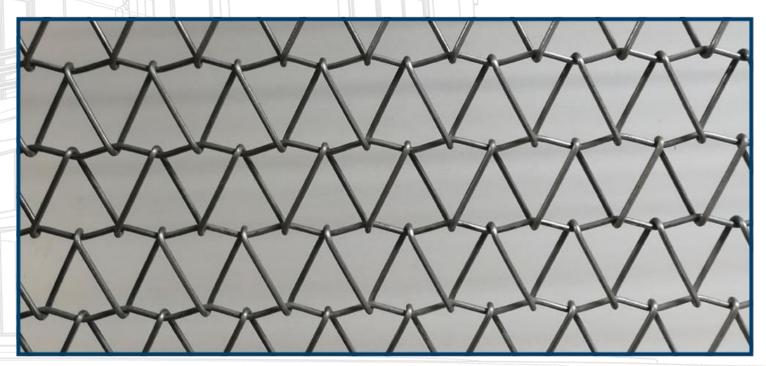
Profiles for "Net" roll gates are made of galvanized wire mesh (single wire netting technique), which ensures perfect light transmission.



#### **TECHNICAL DATA**

Max. dimensions of the structure, mm 6000	× 4000
Light permeability, %	90
Profile thickness, mm	10
Shock resistance, kg/m²	4
Depending on your needs, we can manufacture "Net" roll gates of made-to-order sizes. Ask your local dealer for details.	







# HIGH-SPEED **SPIRAL** GATES

#### SYSTEM DESCRIPTION

This product is a harmony of specifics and performance advantages of roll gates and sectional gates.

They are notable for their reliability and strength of sectional gates and the speed of roll gates, and these properties are perfectly combined. The leaf is wound into a polymer console with a spiral groove. As a result, the structure exhibits high resistance to wear and tear, thanks to which its service life can be extended.

The leaf of the spiral gates can be continuous or equipped with viewing windows. The inside of sections is filled with polyurethane foam, which guarantees excellent thermal insulation.

The use of a system of high-quality seals and special-type hinges improves the structural stiffness of the product and resistance to higher wind loads and insignificant mechanical impacts.

Maximum dimensions:	6000 × 6000 mm	
Opening speed, max.	2,5 m/s	
Closing speed, max.	1,0 m/s	
Resistance to wind loads (EN12424)	Classes 3-4	
Number of cycles:	500 000	
Emergency lifting with a handle or a chain-driven mechanism		



Made of frameless double-wall ISO panels, filled with polyurethane foam (thickness 40 mm, height 250 mm). The leaf can be painted in RAL 9006 (white aluminium) or be available as an anodized version.

The lamellas are attached to each other with a hinged joint.

#### **GUIDES**

The guides are self-supporting structures with integrated consoles with spiral grooves.

#### COATING

Upper, lower and side profiles of the frame are made of anodized aluminum. Can be painted in any RAL color at the customer's discretion or available as an anodized version.

#### **CONTROL UNIT**

The DR2100 microprocessor-based control unit with the main switch and an integrated frequency converter, 230 V / 50 Hz. The emergency stop switch and three-position push button are integrated into the steel control unit (IP54). The automatic closing function is implemented, and the 'open position' time can be pre-set and adjusted.









#### HIGH-SPEED GATES PVC

#### SYSTEM DESCRIPTION

High-speed PVC gates are mounted into openings of warehouses, production premises and selling spaces with a high traffic of forklifts or intensive movement of people.

High-speed opening and closing makes it possible to reduce heat losses from premises and avoid downtime.

#### **GUIDES**

Designed and made as self-supporting structures for a shaft with a leaf and drive. Made of galvanized metal or stainless steel.

Maximum dimensions* of gates:	5000 × 5000 mm
Opening speed	Max. 1,8 m/s
Closing speed	Max. 0,8 m/s
Resistance to wind loads (EN12424)	Classes 1-3

<sup>\*</sup>Special sizes and dimensions can be requested.

#### **MATERIAL**

Durable fabric, made in Europe, PVC-coated.

#### **SURFACE COATING**

Guides: any RAL color or galvanized steel.

#### **AUTOMATICS**

In-built gearmotor with frequency control on the drive side, on the left or right. Emergency opening by the handle or manually driven chain.

#### **CONTROL**

The DR2100 microprocessor-based control unit with the main switch and an integrated frequency converter, 230 V / 50 Hz. 3-position emergency switch integrated into the control unit. Enabled adjustment of the opening and closing time.









# AUTOMATICS for fire **CURTAINS**



#### **IN-SHAFT ELECTRIC MOTOR GRX**

Equipped with the Gravigen  $^{\text{m}}$  system - lowering requires no externally supplied power and occurs due to gravity of the unwinding bar.

Operating voltage:	220 V
Torque:	10-50 Nm
Power:	150-291 W
Rotation speed:	12-25 rpm
Ingress protection:	IP44



## CONTROL UNIT FOR ELECTRIC MOTORS GRX WITH THE GRAVIGE N SYSTEM

Equipped with a battery (battery life up to 72h)

Rated supply voltage:	230 V (+10%, -15%), 50 Hz
Max. permissible switching current:	3 A (cos q ≥ 1)
Rated switching voltage:	250 V
Fuse action rated current:	3,15 A
Number of electric motors to be controlled:	1
Ingress protection acc. to GOST 14254:	IP55



#### **IN-SHAFT MOTOR**

Operating voltage:	220 V
Torque:	60-120 Nm
Power:	370-525 W
Rate of rotation:	9-15 rpm.
Ingress protection:	IP44



## CONTROL UNIT SERIES N-AES (N-AES-T, N-AES-PP, N-AES-T-PP)

Rated supply voltage:	230 V (+10%, -15%), 50 Hz
Max. permissible switching current:	3 A (cos q ≥ 1)
	2 A (cos q ≤ 0,6)
Rated switching voltage:	250±30 V
Fuse action rated current:	3,15 A
Number of electric motors to be controlled:	1
Number of electric motors to be controlled with GU	I-4R: 4
Ingress protection acc. to GOST 14254:	IP65



## CONTROL UNIT GU-4R (automatic control units)

Rated supply voltage:	220 V (+10%, -15%), 50 Hz	
Max. permissible switching current:	Max 3 A	
Rated switching voltage:	220±10 V	
Fuse action rated current:	3,15 A	
Number of electric motors to be controlled with NERO 8113:		
Electric shock protection class acc. to GOST 2757	'O: II	
(no protecting grounding required)		



#### ELECTRIC DRIVES for FIRE BARRIERS and ROLL GATES



#### **IN-SHAFT ELECTRIC MOTOR RX**

Operating voltage:	220 V
Torque:	140-300 Nm
Power:	660-920 W
Rate of rotation:	8-12 rpm.



#### **ELECTRIC MOTOR GFA®**

Operating voltage:	220 / 380 V
Torque:	250-750 Nm
Power:	400-1100 W
Rate of rotation:	12-15 rpm.
Country of origin:	Germany



#### **IN-SHAFT ELECTRIC MOTOR SOMFY®**

Operating voltage:	220 / 380 V
Torque:	300-800 Nm
Power:	610-1270 W
Rate of rotation:	8-12 rpm.
Country of origin:	France



#### **ELECTRIC MOTOR MFZ®**

Operating voltage:	220 / 380 V
Torque:	100-2000 Nm
Power:	370-2100 W
Rate of rotation:	12-16 rpm.
Country of origin:	Germany



# REFERENCE LIST: mounted non-fire-proof gates for openings of any width

- · Air company "Chelavia"
- Hangar for maintenance of "BELAZ" trucks, town of Stary Oskol
- Airfield "Astafievo", Podolsk
- Airfield "Bolshoye Gryzlovo"
- Airfield "Kalachyovo", Chelyabinsk
- · Airfield "Novinki"
- · Airfield "Severka"
- · Aeroclub "Yakhroma"
- · Airport "Vnukovo"
- Airport "Sheremetyevo"
- · Airport, town of Cherepovets
- · "Eurasia" skyscraper, "Moscow City" business center
- · Weight-measuring company "Tenzo-M", Nizhny Novgorod
- Gazpromavia
- Hypermarket "OBI", Moscow
- State Kremlin Palace
- ZAO "North-Western Phosphorous Company", town of Kirovsk

- · Kashira Steel Structures and Boiler-Making Plant
- Krokus-Expo
- Outlet "SEPHORA", Shopping Mall "MEGA"
- Outlet "Children's World", "MEGA", Nizhny Novgorod
- Outlet "Letoile", Shopping Mall "MEGA", town of Khimki
- OAO "Velikie Luki Pilot Machine Building Plant"
- · Facilities of the Department of Defense
- 000 "Aerosoyuz"
- 000 "IKEA MOS (Trade and Real Estate)"
- 000 "MEGA-STROY"
- 000 "International Aluminium Company"
- Smolensk Atomic Power Plant OAO "ROSENERGOATOM"
- "Stadium "Yekaterinburg Arena"
- "Luzhniki" Stadium
- · Taganrog Iron and Steel Works
- Shopping Mall "MEGA Teply Stan" Moscow
- · Shopping Mall "Columbus", Moscow

#### **CERTIFICATES**







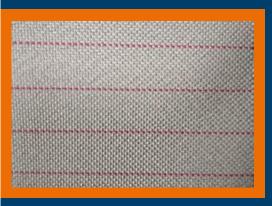


For full and detailed information on certificates of compliance of all the company's products go to https://MBA-rolltor.ru

# SAMPLES OF MATERIALS FOR FIRE CURTAINS



#### Fire-retardant and heat-resisting reinforced fabric as fire protection (red stripe)



Made from E-glass with stainless steel wire meshing and PU-coating. Due to its high density, reinforcement and special meshing, it is used for the production of large size fire curtains (premium class).

Fabric density	660 g/m²
Composition	E-glass, reinforcement, PU (one-sided)
Tensile breaking strength (base)	6000 N/5 cm

#### Fire-retardant and heat-resisting reinforced fabric as fire protection (blue stripe)



Made from E-glass with stainless steel wire meshing and PU-coating. Used for fire and smoke curtains.

Fabric density	480 g/m² ± 25 g/m²
Composition	E-glass, reinforcement, PU (one-sided)
Tensile breaking strength (base)	5000 N/5 cm

#### Glass fabric with double-sided PU-coating



High-quality heat- and fire-resistant material for the manufacture of smoke barriers and curtains.

Fabric density	460 m/g <sup>2</sup>
Composition	E-glass, PU-coating (double-sided)
Tensile breaking strength (base)	4000 N/5 cm

#### **Expandable, thermally-active material**



It consists of fiberglass fabric and carbon material, which expands by more than 20 times, when heated above 160-180  $^{\circ}$ C, and creates a protective barrier against fire and smoke. It is used in the manufacture of fireproof laminated curtains of different fire resistance ratings.

# **EXPERT IN THE FIELD** OF MANUFACTURE OF INDUSTRIAL **GATES AND FIRE BARRIERS**

#### **Advantages**

- In-house production and storages with a standing stock of constituent parts
- High-precision machinery
- · Highly-qualified staff

#### Integrated approach

- Design works
- Manufacturing
- Installation
- **After Sales Service**

#### Innovative solutions

Non-standard solutions for coverage of openings

#### **Competence**

- Certificates that confirm the consistent high quality of products
  - ISO certificate
- Certificate of admission to works (self-regulating organization)
  - License for installation. maintenance and after sales services (issued by EMERCOM)

#### Warranty

up to 5 years

#### **Experience**

**Operations since 2002** 



Russa, 117405, Moscow, ulitsa Dorozhnaya, street number 60, bldg. 4, office 118