

Aosaff

FOUR OVERALL SOLUTIONS FROM AOTTO

- ★ OVERALL SOLUTIONS FOR COLD PROCESSING AUTOMATION
- ★ OVERALL SOLUTIONS FOR HOT PROCESSING AUTOMATION
- ★ OVERALL SOLUTIONS FOR SAFETY GUARDING SYSTEM
- ★ INTELLIGENTLY GRAB STANDARD PRODUCTS

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Learn more
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OVERALL SOLUTIONS FOR SAFETY GUARDING SYSTEM



Since **2000**

Jinan Aotto Technologies Co., Ltd.



Aotto

Focusing on providing comprehensive and high - quality automation integration services for the stamping industry .



Aosaff

Providing safety guarding turnkey solutions.



aviz

The expert in the integration of stamping production intelligent factory.



Aovita

Regarding “being professional, fine and exquisite” , and making efforts in creating the first brand in tooling industry.



atrey

Provide customers with Hi-End laser cutting devices and services.



Aosaff safety fence focus on designing and manufacturing of robot and automatic production line safety guarding fence, regards “devoting to innovation and fine workmanship manufacture” as product orientation and development target, and provides complete solutions and outstanding service of automatic safety guarding to the customers.



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Aosaff SAFETY GUARDING ASSISTED SELECTION SYSTEM

Aiming at the design and development of the fence, realizing "special software for special purpose", and reducing the repetitive labor of the designer. This system realizes integration and high efficiency, and has been granted with software copyright.



Efficient fence arrangement and optimization algorithm, reduce customer costs.



Express requirements quickly, save design time. Generate the fence details and quick order according to the scheme.



The system can automatically generate the corresponding 2D or 3D model, reduce the repetitive work of designers, the whole process is quick efficiently.



Create an exclusive plan for customers with our standard fences.

STEEL FENCE AND COLUMN PROTECTION

3

Delivery
3 working days
Non-standard product delivery time
please call consultation



Product advantages

◆ Cost-effective

Features:

1. The price of steel fence is about 50% of that of aluminum.
2. Surface spray treatment, green and fashion.

◆ Short delivery time

Features:

Fully automated production process, product standardization, modularization, short delivery cycle.

◆ Good security



Features:

1. High welding strength/ the impact resistance is 3 times of that of aluminum.
2. Heavy load type link, firm and reliable.

◆ Quick installation and short construction period

① Quick installation

Features:

1. Increase the efficiency by 200%.
2. The height is easy to adjust, and all the fences can be flush.
3. Mesh can be connected all around the column, making installation convenient and flexible.



② Anchor & expansion bolt

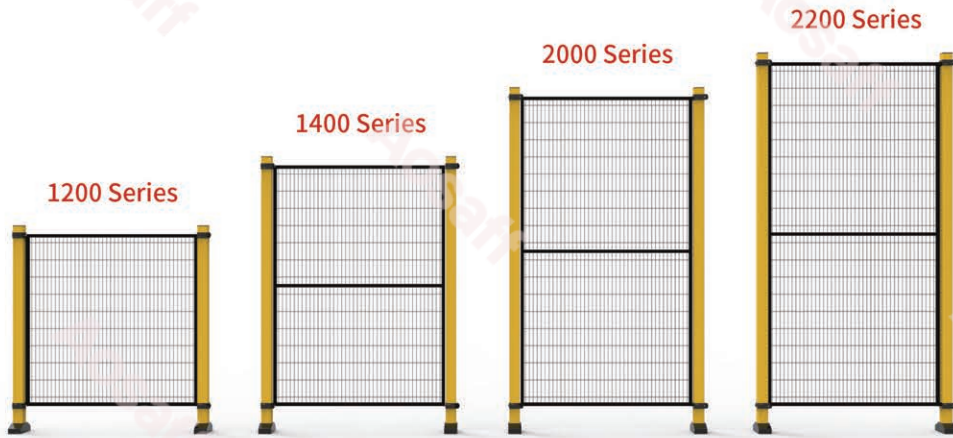
Features:

1. In the case of satisfying the rigidity of the overall fence, unnecessary installation holes are reduced, and the installation efficiency is high.
2. Using expansion bolts, the fixing is firmer and not easy to loosen.



STEEL FENCE AND COLUMN PROTECTION

3 Delivery
3 working days
Non-standard product delivery time
please call consultation



Suitable for production line protection in automotive, logistics, building materials, paper making, home appliances, injection molding, new energy and other industries, in line with GB, CE and ISO standards. The surface of the product is sprayed with plastic, providing both safety and aesthetics.

Technical parameter

Dimension in mm

Panel Height 2000/1800/1200/1000
Panel Width 1200/1100/1000/900/800/700/600/500
Grid 20*100
Wire Diameter 3

Panel Square Tube 20*20*1.2
Column Square Tube 60*60*1.5
Column Height 2200/2000/1400/1200

STEEL FENCE AND COLUMN PROTECTION

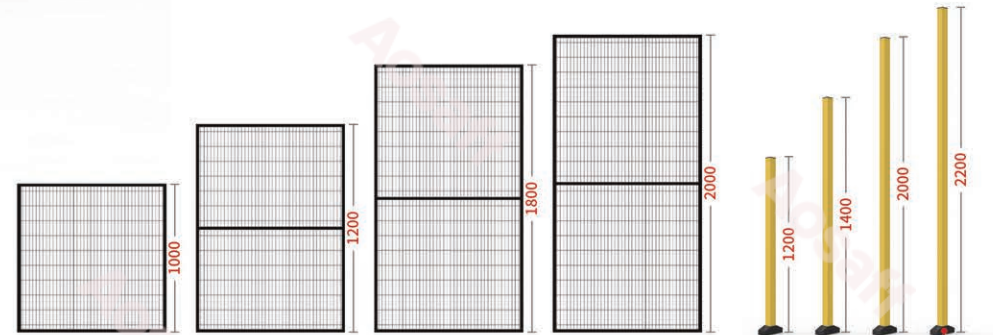
3 Delivery
3 working days
Non-standard product delivery time
please call consultation

20 series standard panel

Width (mm)	Height (mm)	Kilogram (Kg)	Width (mm)	Height (mm)	Kilogram (Kg)
500	1000	3.47	500	1200	4.02
600		3.89	600		4.49
700		4.37	700		5.02
800		4.79	800		5.49
900		5.22	900		5.97
1000		5.69	1000		6.50
1100		6.12	1100		6.97
1200		6.84	1200		7.44
Width (mm)	Height (mm)	Kilogram (Kg)	Width (mm)	Height (mm)	Kilogram (Kg)
500	1800	6.04	500	2000	6.59
600		6.70	600		7.30
700		7.46	700		8.12
800		8.12	800		8.84
900		8.79	900		9.55
1000		9.54	1000		10.37
1100		10.21	1100		11.08
1200		10.88	1200		11.80

60 series standard column

Height (mm)	Kilogram (Kg)	Height (mm)	Kilogram (Kg)
1200	4.03	2000	6.23
1400	4.58	2200	6.77



Standard colors



Schematic diagram of column foundation



HINGED DOOR SINGLE/DOUBLE

3 Delivery
3 working days
Non-standard product delivery time
please call consultation



Product features : Modular design, easy installation.

Standard configuration of single-door : 1 set of handle assembly (single open), 1 set of casters.

Standard configuration of double-door : 2 sets of handle components (double open), 2 sets of casters.

Optional configuration : ground pin, high-end mechanical lock, safety lock + mechanical pin (see P13 for details).

Standard single hinged door

Opening width (mm)	Overall width (mm)	Column height (mm)			
700	850	1200	1400	2000	2200
800	950				
1000	1150				
1200	1350				
1500	1650				

Standard double hinged door

Opening width (mm)	Overall width (mm)	Column height (mm)			
1400	1560	1200	1400	2000	2200
1600	1760				
2000	2160				
2400	2560				
3000	3160				

※ Customized services can be provided according to customer needs, 1200/1600 series without door beam.

SUSPENSION DOOR SINGLE/DOUBLE

3 Delivery
3 working days
Non-standard product delivery time
please call consultation



Pneumatic
suspension door

Electric
suspension door



Product features : large opening, unlimited height, modular pre-installation, convenient installation.

Standard configuration of single-door : 1 set of handle assembly (double open), 2 sets of three-section slide rail modules, 1 set of casters.

Standard configuration of double-door : 2 sets of handle assemblies (double open), 4 sets of three-section slide rail modules, 2 sets of casters.

Optional configuration : ground pin, safety lock + mechanical pin (see P13 for details).

Standard suspension door Single/Double

Single-door opening width (mm)	Single-door overall width (mm)	Double-door opening width (mm)	Double-door overall width (mm)	Column height (mm)			
700	1640	1400	3130	1200	1600	2000	2200
800	1840	1600	3530				
900	2040	1800	3930				
1000	2240	2000	4330				
1200	2640	2400	5130				
1400	3040	2800	5930				
1500	3240	3000	6330				

※ Pneumatic suspension doors, electric suspension doors, three-level suspension doors, etc. can be customized according to customer needs.

SLIDING DOOR SINGLE/DOUBLE

3 Delivery
3 working days
Non-standard product delivery time
please call consultation



Product features : large opening, modular design, easy installation.

Standard configuration of single-door : one set of handle assembly (double open), one set of upper slide rail, one set of guide wheel bracket, and two sets of buffer block assembly.

The standard configuration of double-door : two sets of handle components (double opening), two sets of upper slide rails, two sets of guide wheel brackets, and two sets of buffer block components.

Optional configuration : ground pin, safety lock + mechanical pin (see P13 for details).

Standard suspension door Single/Double

Single-door opening width (mm)	Single-door overall width (mm)	Double-door opening width (mm)	Double-door overall width (mm)	Column height (mm)	
700	1850	1400	3530	2000	2200
800	2050	1600	3930		
900	2250	1800	4330		
1000	2450	2000	4730		
1200	2850	2400	5530		
1400	3250	2800	6330		
1500	3450	3000	6730		

※ Double rail sliding doors, floor rail sliding doors, etc. can be customized according to customer needs.

OTHER PRODUCTS

Steel column PC board protection



Using colorless and transparent PC board, high light transmission, beautiful appearance, is the best choice for your product display, production line exhibition.

Steel column arc curtain protection



Adding arc-blocking curtains on the basis of the original safety protection can effectively prevent arc damage, a variety of color options make your welding workstation unique, high-quality, strong protection, and contribute to your safety career.

OTHER PRODUCTS

Heavy-duty sliding door



Product features : super wide opening, stable structure, customized on demand.

Standard configuration of double doors : two sets of handle components (double doors) and two sets of casters.

Optional configuration : ground pin, safety lock + mechanical pin (see P13 for details).

Standard double heavy-duty sliding door

Opening width (mm)	Overall width (mm)	Column height (mm)	
4000	11000	2000	2200
5000	13000		
6000	15000		

Folding door Single/Double



Product features: large opening, economical, customized on demand.

Standard configuration of single door: one set of handle assembly (single open), ground pin, caster (the number of sets varies according to the opening).

Standard configuration of double doors: two sets of handle components (double doors), anchor pins, casters (the number of sets varies according to the opening).

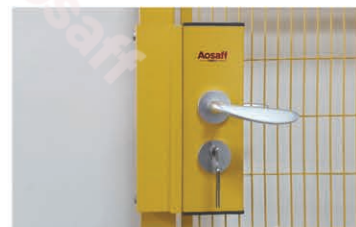
Optional configuration: safety lock + mechanical latch (see P13 for details).

Standard folding door Single/Double

Single-door opening width (mm)	Single-door overall width (mm)	Double-door opening width (mm)	Double-door overall width (mm)	Column height (mm)			
3000	3175	6000	6205	1200	1600	2000	2200

LOCK

High-end mechanical lock



The appearance is high-end and elegant, which is convenient for permission management, and is widely used in storage scenarios.

Mechanical latch



Mechanical latch, knob positioning, can be used in combination with a variety of safety locks.

Cases



◀ Pilz security lock
Model
me4.2/4AS



Schneider safety lock ▶
Model
XCSA702+XCSZ01



◀ Pilz security lock
Model
me5s



Schneider safety lock ▶
Model
XCS7312+XCSZ01

ACCESSORIES



1 Snap ring

It is divided into upper/lower snap rings, so that the fence can be fixed on the column, and the height of the fence can be adjusted freely. A single clip can install four pieces of fence in different directions.

2 Special hinge (for door)

The patented product realizes the door opening effect through its hinge structure, which is more convenient to install and has higher strength.

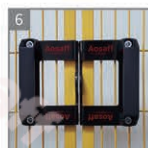


3 60*60 Column plug

Used for the top of the column to play the role of dustproof and protection.

4 Dust cover

Used at the bottom of the column to play a role in dust prevention and protection.



5 Single door handle assembly

Used for opening and limit function of single door.

6 Double door handle assembly

Used for double door opening and padlock installation.



7 U-groove assembly

Used for splicing and fixing of mesh.

8 Column heightening parts

Used for heightening and fixing of 60 series columns.



9 Casters

Used for the support of the security gate fence.

10 Three-section slide rail assembly

Used for guiding and supporting the suspension door.

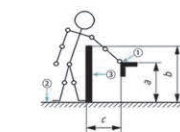
PRODUCT STANDARDS

GB23821-2009 Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs

Reaching over protective structures — High risk

Dimension in mm

Height of hazard zone a	Height of protective structure b								
	1000	1200	1400	1600	1800	2000	2200	2400	2500
	Horizontal safety distance to hazard zone c								
2600	900	800	700	600	600	500	400	300	100
2400	1100	1000	900	800	700	600	400	300	100
2200	1300	1200	1000	900	800	600	400	300	0
2000	1400	1300	1100	900	800	600	400	0	0
1800	1500	1400	1100	900	800	600	0	0	0
1600	1500	1400	1100	900	800	500	0	0	0
1400	1500	1400	1100	900	800	0	0	0	0
1200	1500	1400	1100	900	700	0	0	0	0
1000	1500	1400	1000	800	0	0	0	0	0
800	1500	1300	900	600	0	0	0	0	0
600	1400	1300	800	0	0	0	0	0	0
400	1400	1200	400	0	0	0	0	0	0
200	1200	900	0	0	0	0	0	0	0
0	1100	500	0	0	0	0	0	0	0



- a -- height of hazard zone
b -- height of protective structure
c -- horizontal safety distance to hazard zone
① -- hazard zone (nearest point)
② -- reference plane
③ -- protective structure

Notes : 1. Protective structures less than 1 000 mm in height are not included because they do not sufficiently restrict movement of the body.
2. Protective structures lower than 1 400 mm should not be used without additional safety measures.

Reaching through regular openings — Persons of 14 years of age and above

Dimension in mm

Part of body	Illustration	Opening	Safety distance Sr		
			Slot	Square	Round
Fingertip		$e \leq 4$	≥ 2	≥ 2	≥ 2
		$4 < e \leq 6$	≥ 10	≥ 5	≥ 5
Finger up to knuckle joint		$6 < e \leq 8$	≥ 20	≥ 15	≥ 5
		$8 < e \leq 10$	≥ 80	≥ 25	≥ 20
		$10 < e \leq 12$	≥ 100	≥ 80	≥ 80
		$12 < e \leq 20$	≥ 120	≥ 120	≥ 120
Hand		$20 < e \leq 30$	≥ 850 (Note)	≥ 120	≥ 120
		$30 < e \leq 40$	≥ 850	≥ 200	≥ 120
Arm up to junction with shoulder		$40 < e \leq 120$	≥ 850	≥ 850	≥ 850

The bold lines within the table delineate that part of the body restricted by the opening size.

Note : If the length of the slot opening is ≤ 65 mm, the thumb will act as a stop and the safety distance can be reduced to 200 mm.

QUALITY TESTING



Impact test

According to ISO 14120-2015 standard, Can withstand 1600J impact force.



Color difference test

The color difference is measured by the instrument method in accordance with the provisions of the standards GB/T 11186.2-1989 and GB/T 11186.3-1989, and the sampling test is carried out by a spectrophotometer.



Spray layer thickness test

Spray layer thickness conform to GB/T 26941.1-2011 standard. The sampling inspection is done by thickness meter.



Salt mist

According to ISO9227 standard to do the corrosion resistance test.

CERTIFICATION QUALIFICATION

CE authentication

Passed Intertek professional test and obtained EU CE certification.



Partial patent certificate

Powerful in production and R&D.

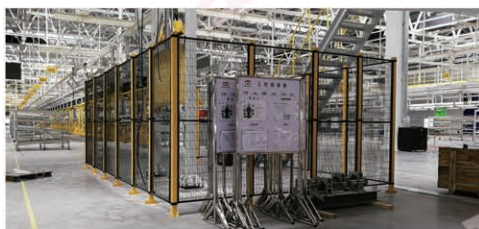
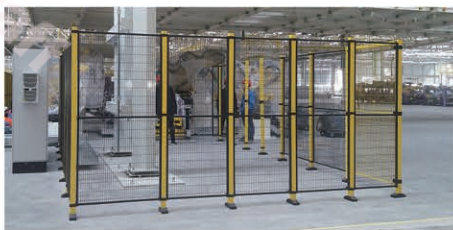


ISO quality management system certification

ISO quality management system certification has been obtained.



PROJECT CASE | AUTOMOTIVE INDUSTRY SAFETY PROTECTION



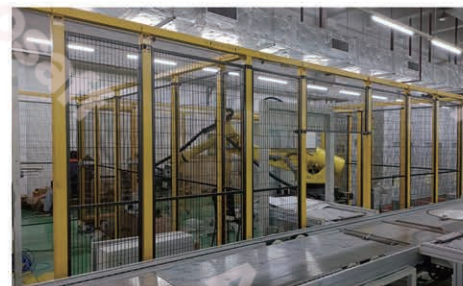
PROJECT CASE | NEW ENERGY BATTERY LINE SAFETY PROTECTION



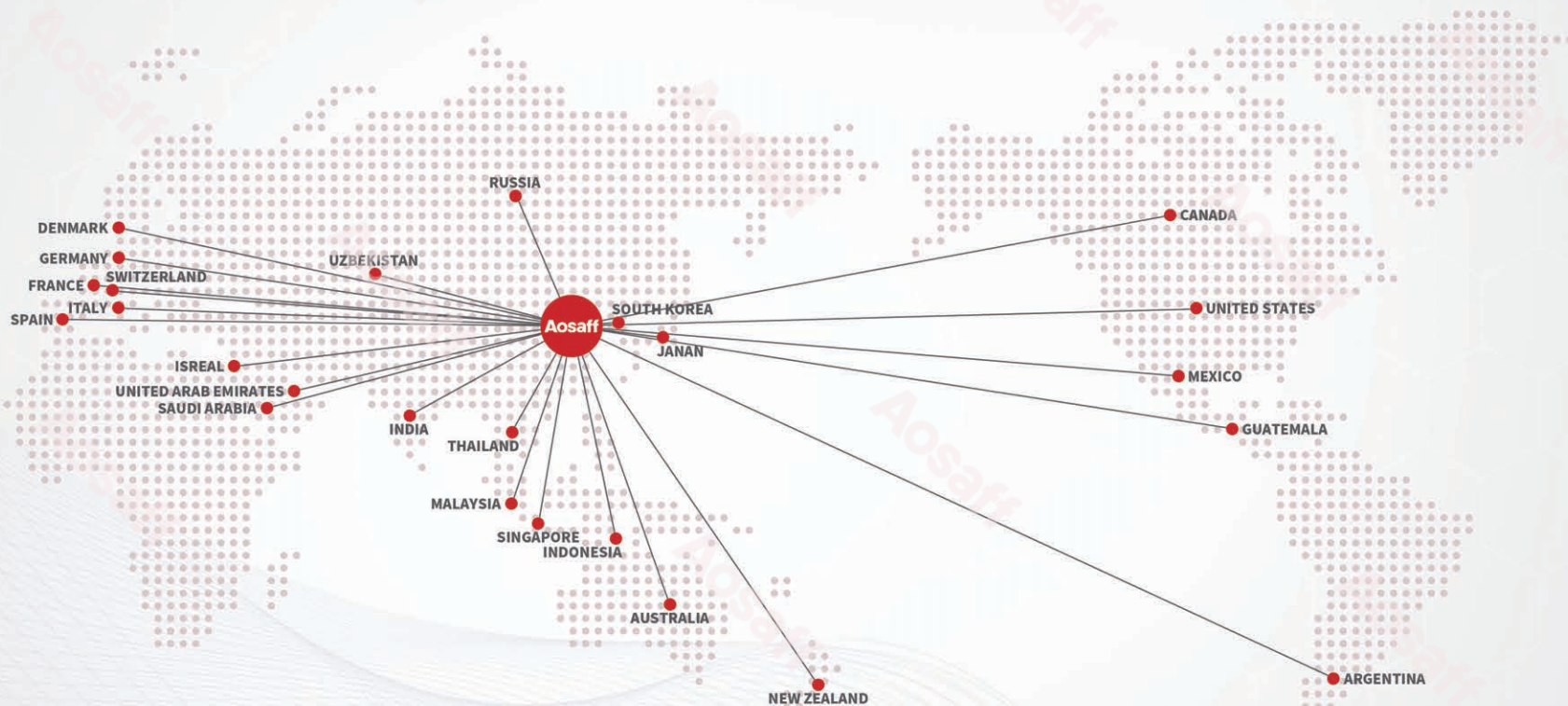
PROJECT CASE | WAREHOUSING AND LOGISTICS SECURITY PROTECTION



PROJECT CASE | ROBOT WORKSTATION SAFETY PROTECTION



WE & WORLD



Aosaff safety fences are widely used in all walks of life, and stand out in the safety protection of new energy, robotics, warehousing and logistics, light industry, automobiles and other industries, and are exported to Germany, Japan, India, France, the United States, South Korea, Singapore In more than 20 countries, the world is getting smaller and smaller, and through high-quality products and services, we have become more and more intimate with our customers.

 Aotto 1688 online store

Through the presentation of the text, pictures and videos on the e-commerce platform, the customers can know the product quickly and comprehensively. With online interaction, integral rebate and digital transaction services, the customer's procurement can become more easier and more affordance.

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