



Epicur Group Oy / TaloLVI Isonniitynkatu 5 B, LT2 00520 Helsinki +358 400 164 594

GENERAL CATALOGUE 2022

# EMERGENCY SHOWERS AND EYEWASHES









www.carlosarboles.com

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**SELF-DRAINING SHOWERS** 

**AND EYEWASHES** 

**EYEWASHES** 

**PLATFORMS** 



Arboles has been manufacturing taps and fittings for a variety of applications since 1929. We currently specialise in two product lines:

- EMERGENCY SHOWERS AND EYEWASHES
- TAP FITTINGS FOR LABORATORIES



CARLOS ARBOLES, S.A. is certified under ISO 9001, and all products manufactured in the company are produced under strict quality standards.

The Emergency Showers and Eyewashes provide water instantly as FIRST AID to protect people exposed to: fire, acids, reagents, radioactive materials and other contaminants that could cause serious or irreparable harm.

This is the most inexpensive and effective method to date for decontamination.



### CERTIFICATES

CARLOS ARBOLES, S.A. designs and manufactures Emergency Equipment to the current international standards to ensure user safety.

The requirements of these standards are, among others: the flow rate to be supplied by the Emergency Equipment, the distribution of the water pattern on the body, the dimensions of the installation, the operating elements, signage and accessibility aspects.

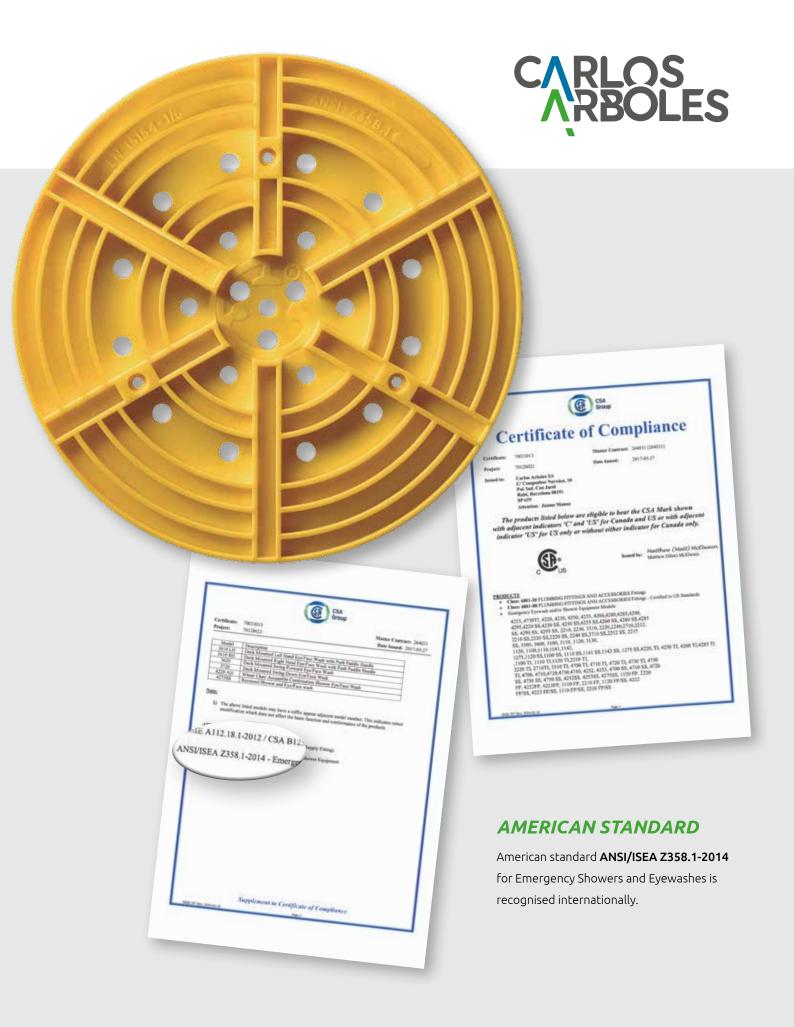




### **EUROPEAN STANDARDS**

The EN 15154 series of standards for Emergency Showers has been expanded in recent years with two new additions to the family to cover unanticipated application areas or those previously only covered by national standards:

- Parts 1 to 4 remain the same, covering Plumbed-in body showers for laboratories, Plumbed-in eyewashes, Nonplumbed-in body showers and Non-plumbed-in eyewashes respectively.
- Part 5, descended from DIN 12899-3, covers Plumbed-in body showers for sites other than Laboratories, and Nonplumbed-in overheard tanks or trailer-mounted showers. It incorporates the same DIN performance requirements and test methodology as in EN 15154 Parts 1 and 2.
- The new Part 6 covers Plumbed-in multiple nozzle body Showers.



# DESIGN AND MANUFACTURING



TECHNICAL DEPARTMENT CAD/CAM

CARLOS ARBOLES, S.A. has its own Emergency Equipment design and manufacturing team that develops and innovates to improve its products.



TEST LABORATORY

### **DESIGN**

Continuous improvement of our products and designs for special projects originate in the technical department through creation of designs using CAD tools and PROTOTYPING.

These prototypes are validated in our test LABORATORY. Rigorous mechanical and hydraulic tests are carried out in the laboratory, which guarantee functionality of the designs in emergency situations.



MECHANICAL TESTING



HYDRAULIC TESTING



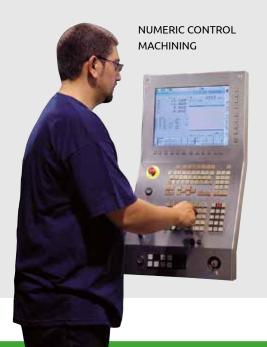
### **MANUFACTURING**

The manufacturing process uses high precision numerical control machining centres and lathes, designed specifically for production of taps and fittings. High-performance ovens heat the parts between 300 °C and 450 °C, to then immerse them in polyamide 11 powder tanks, where the powder is melted and adheres to the part. After the anti-corrosion coating process, the assembly line completes the manufacturing process with tests to ensure they are 100% leakproof. Throughout the process, the Quality department checks the manufacturing parameters.

**CNC MACHINING** 



PRODUCTS ARE 100% LEAK TESTED









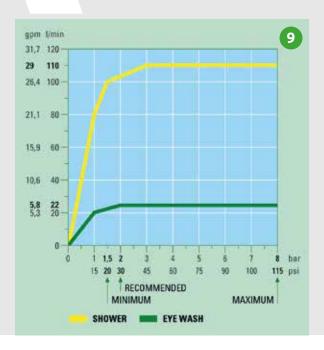
ANTI-CORROSIVE PLASTIC COATING

# TECHNICAL FEATURES

# ANSI STANDARD EN STANDARD

CARLOS ARBOLES, S.A. supplies high quality, reliable Showers and Eyewashes.

The main technical features that differentiate our products are the following:



### INTERNATIONAL STANDARDS

Our equipment meets or exceeds the following standards:

ANSI Z358.1 and EN 15154

# 1 HIGH QUALITY MATERIALS

Materials in contact with water are galvanised steel pipes, brass fittings and other parts in reinforced ABS plastic. Manufacturing equipment fully in stainless steel materials is an option.

# 2 ROBUST CONSTRUCTION

The base construction elements, as well as the components for securing the Emergency Equipment to the surface, are always metallic, resulting in robust equipment for the most adverse conditions.

# 3 SHOWER HEAD

- Water distribution pattern according to standards. Broad, gentle water spray.
- Large 250-mm diameter head, anti-clogging by lime scale or dirt.

# 4 FULL RANGE

We have a variety of models, depending on whether they are to be installed to WALL, FLOOR or TABLE. The equipment is supplied disassembled and its assembly is easy and unmistakable. We offer different activation types:

- Shower by pull rod or lever.
- Automatic opening and closing when entering and leaving the platform.
- Eyewash by push handle, foot control or platform.

# **5** EYEWASH ASSEMBLY

With one or two heads, these provide aerated, low pressure water to bathe face and eyes without damaging delicate eye tissues. The large diameter stream reaches a height of 15 cm according to the standard. The plastic materials and rounded shapes avoid damage to the eyes in case of accidental contact. They include an anti-dust cover that operates automatically when the Eyewash is activated.

# 6 ECOLOGICAL ANTI-CORROSIVE COATING

Anti-corrosion polyamide 11 HIGH VISIBILITY YELLOW plastic coating, 250 to 300 microns thick. It has good resistance to acids, bases, seawater, oils and to the elements in general.

The coating is not petroleum-based, but rather is based on a raw material originating from vegetable oil and therefore conserves the environment. We have a Chemical Resistance Table, which can consulted on our website: www.carlosarboles.com.



# 7 ANTI SEIZE VALVE

Emergency Showers and Eyewashes are fitted with valves specifically designed for emergency use, meaning they do not become obstructed or seize after long periods of inactivity. Optimal results after more than 100,000 cycles.

# **8** TEMPERATURE PROTECTION

In order to prevent freezing or excess temperatures in the pipes, we offer different solutions:

- Automatic drain valves to prevent pipe freezing.
- Temperature protection valves, that create a bleed line when supply pipe temperatures are extreme.
- Thermostatic valve for tepid water supply.
- Electric trace heating.

# 9 FLOW RATE REGULATION

Our valves regulate the water flow, regardless of the inlet pressure. Showers are regulated at 110 l/min, and Eyewashes at 22 l/min. Recommended pressure 2 bar. Maximum pressure 4 or 8 bar depending on the equipment. Please notify us if your equipment is to operate at pressures below 1.5 bar.

# 10 HIGH-VISIBILITY SIGNAGE

Emergency Equipment is delivered with the following:

- A photoluminescent sign board, with a green background and white text. Dimensions: 210 x 297 mm
- Maintenance sheet and assembly instructions.
- Optionally, an ALARM may provide a visual and audible signal when the Equipment is operated.

### O O R MOUNTING

SHOWER HEAD SHOWER HEAD BOWL ABS SS

ELS	4220	4220 SS
MODELS	4230	4230 SS

	ADS	33	
ELS	4220	4220 SS	Dual controls; shower pull rod, eyewash push handle.
MOD	4230	4230 SS	Dual controls; shower pull rod, eyewash push handle; includes spray unit Mod. 3000

# USE

In indoor or outdoor installations, the following models combine the Shower and Eyewash in one Emergency Unit, minimising the space required and using a single water inlet for both pieces of equipment.

EMERGENCY

SHOWERS AND

EYEWASHES

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### COATING

Anti-corrosive polyamide 11 plastic in high visibility yellow.

### **DOUBLE WATER INLET** G 1-1/4".

WATER INLET PRESSURE Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

# **SHOWER OPERATION**

Pull rod.

### **SHOWER VALVE**

1" full bore regulated at 110 l/min, instant opening and manual closing.

### **EYEWASH OPERATION**

Push handle.

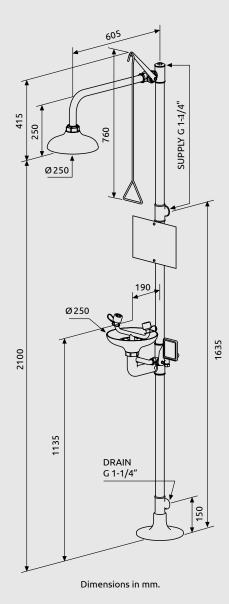
### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### **EYEWASH VALVE**

1/2" full bore regulated at 22 l/min, instant opening and manual closing.





# FLOOR MOUNTING

SHOWER HEAD SHOWER HEAD BOWL ABS SS

4250 4250 SS 4255 4255 SS

Triple controls; shower pull rod, eyewash push handle and foot control

Shower pull rod, eyewash push handle and foot control; includes spray unit Mod. 3000





# EMERGENCY SHOWERS AND EYEWASHES

ABS HEAD SS HEAD

4260 SS Dual controls; shower pull rod, eyewash push handle, without bowl

### USE

In indoor or outdoor installations, the following models combine the Shower and Eyewash in one Emergency Unit, minimising the space required and using a single water inlet for both pieces of equipment.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### COATING

Anti-corrosive polyamide 11 plastic in high visibility yellow.

# **DOUBLE WATER INLET** G 1-1/4".

WATER INLET PRESSURE Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

# SHOWER OPERATION Pull rod.

### rull rou.

### **SHOWER VALVE**

1" full bore regulated at 110 l/min, instant opening and manual closing.

### **EYEWASH OPERATION**

Push handle.

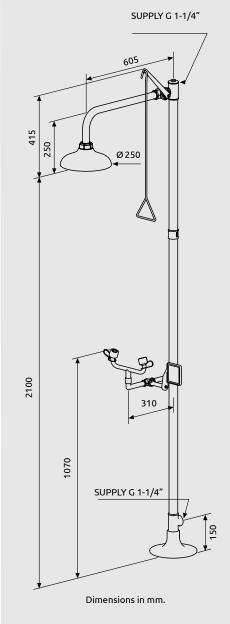
### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### EYEWASH VALVE

1/2" full bore regulated at 22 l/min, instant opening and manual closing.





### REDUCED HEIGHT

Dual controls; shower pull rod, eyewash push handle, ABS head/bowl. Reduced height

4221 SS

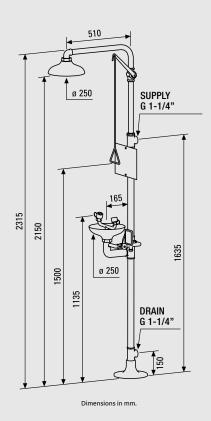
Dual controls; shower pull rod, eyewash push handle, stainless steel head/bowl. Reduced height

	K		U	U	C		U		IVI	U	D				-	
ELS		42	25	Į,	Dual d handl	ontr e, AB	ols; sh S head	owe 1/bo	er pull wl. R	rod, e educe	eyew ed ma	ash j bilit	oush 'Y			
MO	4	1225	SS	1	Dual o	ontr ess sl	ols; sh eel he	owe ad/l	er pull bowl.	rod, e Redu	eyew ced n	ash <sub>I</sub> nobi	oush lity	han	dle,	

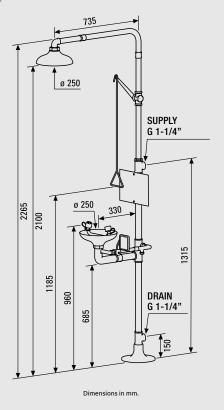




Emergency equipment specifically designed for installations with a height limitation



Emergency equipment specifically designed for users with disabilities or reduced mobility



# EMERGENCY SHOWERS AND

EYEWASHES

# ABS HEAD SS HEAD

MODELS	4280	4280 SS	Dual controls; shower pull rod, eyewash push handle, without bowl
	4285	4285 SS	Dual controls; shower pull rod, eyewash push handle, with bowl
	4290	4290 SS	Dual controls; shower pull rod, drench hose eyewash
	4295	4295 SS	Dual controls; shower pull rod, drench hose double eyewash

### **WALL MOUNTED USE**

In indoor or outdoor installations, the models combine the Shower and Eyewash in one Emergency Unit, minimising the space required.

### **RECESSED USE**

In indoor installations, the Emergency Equipment is set into the wall. Operation of the Emergency Shower starts when the pull rod is pulled down and the Eyewash starts when the cabinet door is opened.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### **COATING**

Anti-corrosion polyamide 11 plastic in high visibility yellow.

### **WATER INLET**

G 1".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

### WATER INLET PRESSURE

MOD. 4275

3 bar.

### **SHOWER OPERATION**

Pull rod or cabinet lever.

### **SHOWER VALVE**

1" full bore regulated at 110 l/min, instant opening and manual closing.

### **EYE WASH OPERATION**

Push handle or cabinet door opening.

### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### **EYEWASH VALVE**

1/2" full bore regulated at 22 l/min, instant opening and manual closing.

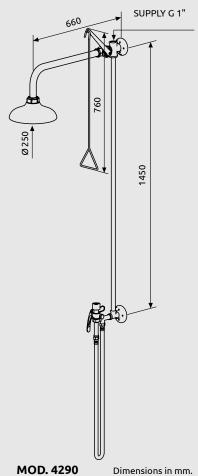
### EYEWASH VALVE MOD. 4275

Flow rate 20 l/min at 3 bar, instant opening and manual closing.

### INSTALLATION







ABS HEAD

SS HEAD

MODEL

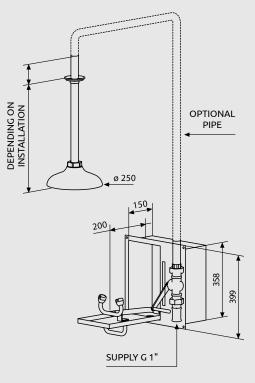
4275

4275 SS

Recessed shower and eyewash with dual control, shower lever, eyewash housing opening







Dimensions in mm.

# EMERGENCY EYEWASH

## WALL MOUNTING

	2210	2210 SS	Wall-mount eyewash
ELS	2230	2230 SS	Eyewash with spray unit Mod. 3000
MODELS	3510		Eyewash without bowl
	3820		Swing-down eyewash without bowl

ABS BOWL

SS BOWL

### **USE**

For indoor or outdoor installations we have a specific line of Eyewashes with different models depending on their mounting and operation.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### COATING

Anti-corrosion polyamide 11 plastic in high visibility yellow.

# **WATER INLET** G 1/2".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

# WATER INLET PRESSURE

MOD. 3820

### 3 bar.

### **EYE WASH OPERATION**

Push handle, foot control or rotation.

### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### EYEWASH VALVE

1/2" full bore regulated at 22 l/min, instant opening and manual closing.

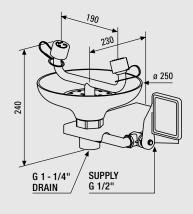
### EYEWASH VALVE MOD. 3820

Flow rate 20 l/min at 3 bar, instant opening and manual closing.

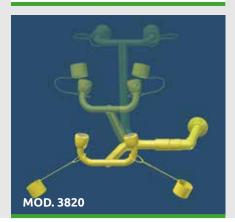
### INSTALLATION







Dimensions in mm.

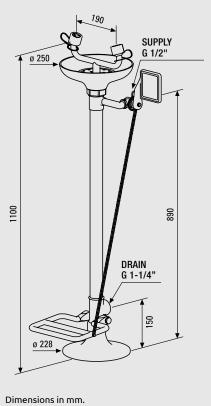


### FLOOR MOUNT

ABS BOWL SS BOWL Eyewash MODELS 2240 2240 SS Eyewash with spray unit Mod. 3000

C. CABOSES MINISTER
MOD. 2710





# EMERGENCY EYEWASH

	ABS BOWL	SS BOWL	
ELS	2212	2212 SS	Eyewash
MODELS		2215 SS	Eyewash built into table

TABLE MOUNTING

### **USE**

Series of Eyewashes specially designed for installation in laboratories, directly on the work table.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### COATING

Anti-corrosion polyamide 11 plastic in high visibility yellow.

# **WATER INLET** G 1/2".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

# *WATER INLET PRESSURE MOD. 3620-3720*

3 bar.

### **EYE WASH OPERATION**

Push handle, push button or rotation.

### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### **EYEWASH VALVE**

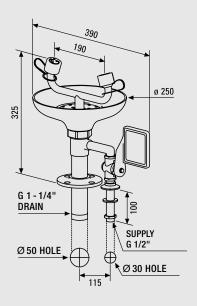
1/2" full bore regulated at 22 l/min, instant opening and manual closing.

### EYEWASH VALVE

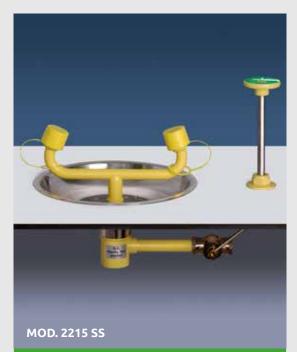
MOD. 3620-3720

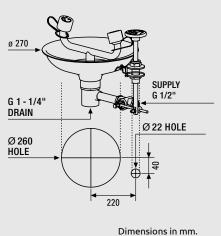
Flow rate 20 l/min at 3 bar, instant opening and manual closing.





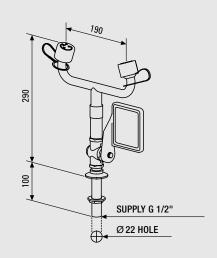
Dimensions in mm.





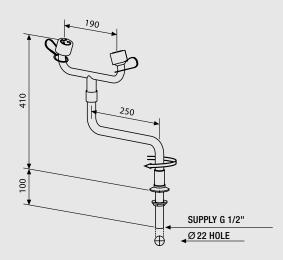
	3500	Eyewash
MODELS	3620	Swivel eyewash, 90° turn opening
	3720	Swing-down eyewash, 90° turn opening



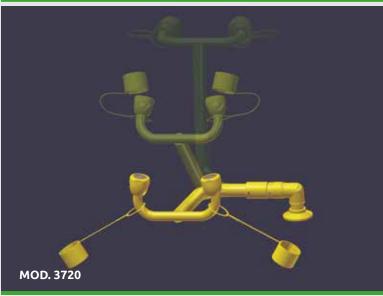


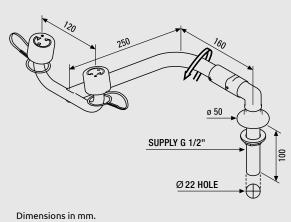
Dimensions in mm.





Dimensions in mm.





# EMERGENCY EYEWASH

MODELS	3000	Wall-mount eyewash with one head
	3100	Wall-mount eyewash with one head and support bracket
_	3110	Wall-mount eyewash with dual head and support bracket

### **DRENCH HOSE EYEWASH USE**

Manual Eyewashes with 1.5 m flexible hose and one or two highflow rate low pressure aerated water heads. These are intended for industry, laboratories, schools, etc.

### **RECESSED USE**

In indoor installations, the Emergency Equipment is set into the wall. The Emergency Eyewash starts to operate when the stainless steel box is opened.

### **GENERAL FEATURES**

### **MATERIALS**

Stainless steel flexible hose. Brass fittings.

### **COATING**

Anti-corrosion polyamide 11 plastic in high visibility yellow.

### **WATER INLET** G 1/2".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

### **WATER INLET PRESSURE** MOD. 2275

3 bar.

### **EYE WASH OPERATION**

By lever or cabinet door opening.

### **EYEWASH HEADS**

One or two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### **EYEWASH VALVE**

Regulated at 15 /min (one spray head) or 22 l/min (two spray heads), instant opening and manual closing.

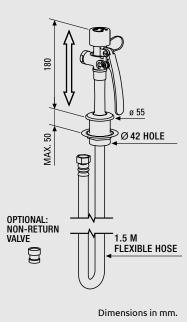
### **EYEWASH VALVE** MOD. 2275

Flow rate 20 l/min at 3 bar, instant opening and manual closing.









# **DRENCH HOSE EYEWASHES**

# RECESSED MOUNTING

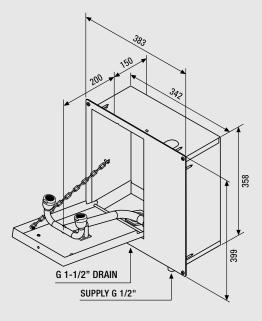
	3120	Table eyewash with one head
MODELS	3130	Table eyewash with twin head
	190030	Optional non-return valve

2275	Wall-mount eyewash	
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Dimensions in mm.

# EMERGENCY SHOWERS

ABS HEAD SS HEAD

1120 1120 SS Pedestal shower

### USE

In indoor or outdoor installations the Emergency Showers are operated by pulling down the pull rod.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### **COATING**

Anti-corrosive polyamide 11 plastic in high visibility yellow.

# WATER INLET

G 1" or G 1-1/4".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

### SHOWER OPERATION

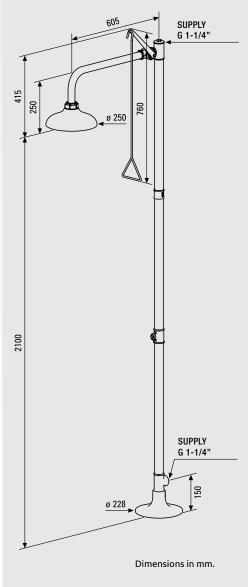
Pull rod.

### SHOWER VALVE

1" full bore regulated at 110 l/min, instant opening and manual closing.

### **INSTALLATION**



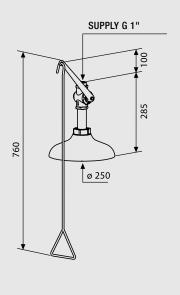


DELS	ABS HEAD	SS HEAD	
MOD	1100	1100 SS	Vertical shower

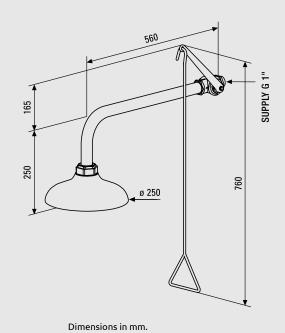
ELS	ABS HEAD	SS HEAD	
МОР	1110	1110 SS	Horizontal shower







Dimensions in mm.



### O V E R D O O R

# EMERGENCY SHOWERS

	ABS HEAD	SS HEAD	
MODELS	1141	1141 SS	Emergency shower, right-hand control
MO	1142	1142 SS	Emergency shower, left-hand control

### **OVER DOOR USE**

The Emergency Showers are installed above a door or emergency exit in indoor installations.

### **RECESSED MOUNTING**

In indoor installations, the Emergency Equipment is set into the wall. The Emergency Shower starts operating when the lever is pulled down.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### **COATING**

Anti-corrosive polyamide 11 plastic in high visibility yellow.

# **WATER INLET** G 1".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

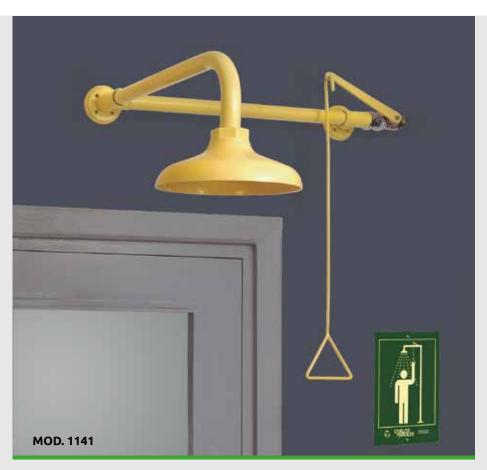
### **SHOWER OPERATION**

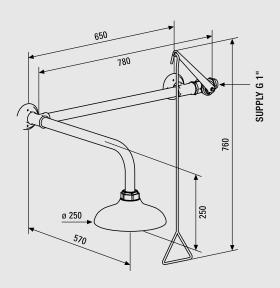
Pull rod or cabinet lever.

### **SHOWER VALVE**

1" full bore regulated at 110 l/min, instant opening and manual closing.

### INSTALLATION

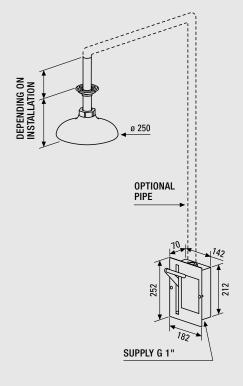




Dimensions in mm.

ELS	ABS HEAD	SS HEAD	
МОР	1275	1275 SS	Recessed shower





Dimensions in mm.

# STAINLESS STEEL SHOWERS AND EYEWASHES

	4220 TI	Shower pull rod, eyewash push handle, floor mounting
MODELS	4250 TI	Shower pull rod, eyewash push handle and foot control, floor mounting
MOD	4260 TI	Shower pull rod, eyewash push handle without bowl, floor mounting
	4285 TI	Shower pull rod, eyewash push handle, wall mounting

### USE

Series of Emergency Showers and Eyewashes constructed entirely in stainless steel for installation in food industries, nuclear power, etc.

The models combine the Shower and Eyewash, minimising the space required and using a single water inlet for the two items of equipment.

### **GENERAL FEATURES**

**MATERIALS** 

Stainless steel pipes and fittings.

**WATER INLET**G 1" or G 1-1/4".

**WATER INLET PRESSURE** 

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

SHOWER OPERATION Pull rod.

**SHOWER VALVE** 

1" full bore regulated at 110 l/min, instant opening and manual closing.

EYEWASH OPERATION

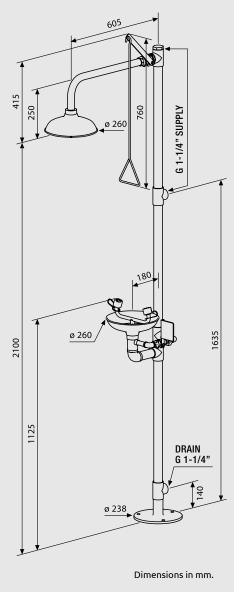
Push handle or foot control.

EYEWASH VALVE

1/2" full bore regulated at 22 l/min, instant opening and manual closing.

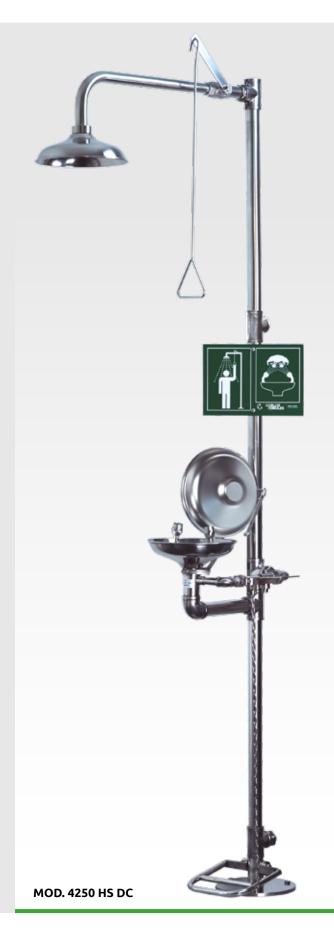
INSTALLATION





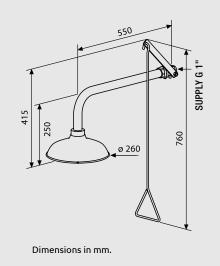
S H O W E R S

MODELS	4250 HS DC	Shower pull rod, eyewash handle and foot control, floor mounting, all in 316 stainless steel, with eyewash lid
	1100 TI	Vertical shower, ceiling mounting
	1110 TI	Horizontal shower, wall mounting
	1120 TI	Pedestal shower, floor mounting









### S

	2210 TI	Wall-mount eyewash, with bowl	
ELS	2220 TI	Pedestal eyewash, with bowl	
MODELS	2710 TI	Pedestal eyewash, with bowl and foot control	
	3510 TI	Wall-mount eyewash, without bowl	

# STAINLESS STEEL SHOWERS AND EYEWASHES

### USE

Series of Eyewashes and Emergency Platforms constructed entirely in stainless steel for installation in food industries, nuclear power, etc.

### **GENERAL FEATURES**

### **MATERIALS**

Stainless steel pipes and fittings.

### **WATER INLET**

G 1/2" (Eyewash) or G 1-1/4" (Platform).

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar (Eyewashes) or 4 bar (Platforms).

### **PLATFORM VALVE**

1-1/4", automatic opening and closing, automatic draining.

### **SHOWER OPERATION** Platform or pull rod.

### **SHOWER VALVE**

1" full bore regulated at 110 l/min, instant opening and manual closing.

### **EYE WASH OPERATION**

Push handle, foot control or platform.

### **EYEWASH VALVE**

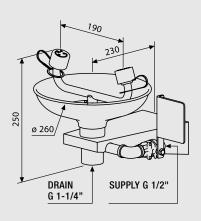
1/2" full bore regulated at 22 l/min, instant opening and manual closing.

### INSTALLATION







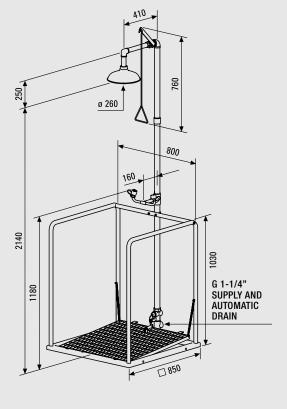


Dimensions in mm.

# P L A T F O R M S

MODELS	4700 TI	Dual platform, shower and eyewash, independent operation	
	4710 TI	Platform with shower	
	4720 TI	Platform with shower and eyewash, simultaneous operation	
	4730 TI	Platform with shower and eyewash, independent operation	
	4750 TI	Platform with eyewash	





Dimensions in mm.

# SELF-DRAINING SHOWERS AND EYEWASHES

ABS BOWL

4750

\_\_

4750 SS

SS BOWL

EYEWASH PLATFORM

### USE

In outdoor installations, the Platform
Showers have valves that empty the pipes
after operation. When a person stands
on the platform, water rises through the
pipe to the Shower or the Eyewash. When
they step off the platform after use,
all the water in the pipe goes down the
automatic drain from the valves. The pipes,
empty of water, then cannot freeze.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### **COATING**

Anti-corrosion polyamide 11 plastic in high visibility yellow.

### **WATER INLET**

G 1/2" or G 1-1/4".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 4 bar.

### **PLATFORM VALVE**

Of 1-1/4", automatic opening and closing, automatic draining.

### **SHOWER OPERATION**

Platform or pull rod.

### **SHOWER VALVE**

1" full bore regulated at 110 l/min, instant opening and manual closing.

### **EYEWASH OPERATION**

Platform.

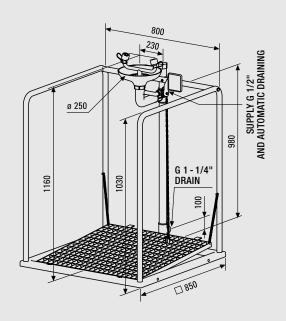
### **EYEWASH VALVE**

1/2" full bore regulated at 22 l/min, instant opening and manual closing, automatic draining.

### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.





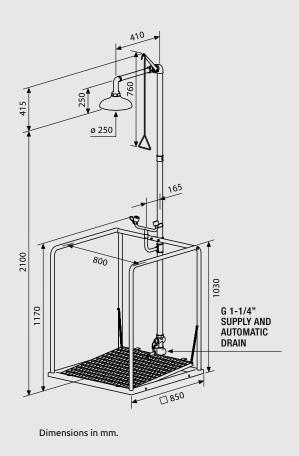
Dimensions in mm.

# PLATFORM SHOWERS AND EYEWASHES

	ABS HEAD	SS HEAD	
	4700	4700 SS	Dual platform, shower and eye wash unit, independent operation
MODELS	4720	4720 SS	Platform with shower and eyewash, simultaneous operation
_	4730	4730 SS	Platform with shower and eyewash, independent operation









# SELF-DRAINING SHOWERS AND EYEWASHES

SHOWER HEAD SHOWER HEAD BOWL BOWL ABS SS

ELS	4252	4252 SS
MOD	4253	4253 SS

Simultaneous operation, foot control operation

Independent operation, push handle for shower, eyewash foot control

### **USE**

In outdoor facilities, self-draining Showers have valves that empty the pipes after operation. Water rises up the pipe to the Shower or the Eyewash on pressing foot control or pushing the handle. When the Equipment is shut off after use, all the water in the pipe goes down the automatic drain from the valves. The pipes, empty of water, then cannot freeze.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### **COATING**

Anti-corrosion polyamide 11 plastic in high visibility yellow.

### **WATER INLET**

G 1-1/4".

### **WATER INLET PRESSURE**

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

# PLATFORM WATER INLET PRESSURE

4 bar.

### **PLATFORM VALVE**

1-1/4", automatic opening and closing, automatic draining.

### **SHOWER OPERATION**

Push handle, foot control or platform.

### **SHOWER VALVE**

1-1/4" full bore regulated at 110 l/min, instant opening and manual closing, automatic draining.

### **EYE WASH OPERATION**

Push handle or foot control.

### **EYEWASH VALVE**

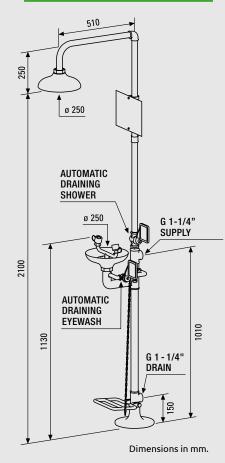
1/2" full bore regulated at 22 l/min, instant opening and manual closing.

### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.







# PLATFORMS

4710 SS

Platform with shower, ABS head

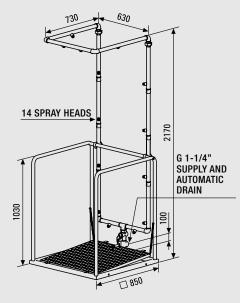
Platform with shower, stainless steel head

# ECONTAMINATION BOOTH

Platform with 14 spray heads







Dimensions in mm.

# SELF-DRAINING SHOWERS AND EYEWASHES

	ABS HEAD	SS HEAD	
ELS	1120 FP	1120 FP/SS	Temperature protection shower
MODELS	2220 FP		Temperature protection eyewash

### USE

In outdoor facilities with extreme low or high temperatures. Floor mounting equipment uses underground valves with automatic draining. Wall supply to the equipment takes place from inside the building. When the lever is operated to put it into service, water passes through the pipe to the Shower or Eyewash. When the valve is shut off after use, all the water in the pipe goes down the automatic drain from the inlet valve. The pipes, empty of water, then cannot freeze.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### COATING

Anti-corrosion polyamide 11 plastic in high visibility yellow.

### **WATER INLET**

G 1/2", G 1" or G 1-1/4".

### WATER INLET PRESSURE

Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

# SHOWER / EYEWASH OPERATION

Push handle or pull rod.

### **SHOWER VALVE**

1" or 1-1/4" full bore regulated at 110 l/min, instant opening and manual closing, automatic draining.

### **EYEWASH HEADS**

Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### **EYEWASH VALVE**

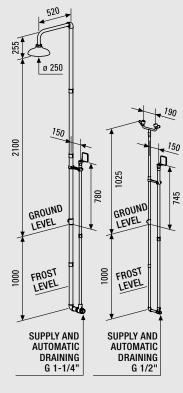
1/2" full bore regulated at 22 l/min, instant opening and manual closing, automatic draining.

### INSTALLATION

See page 46 for mounting height.



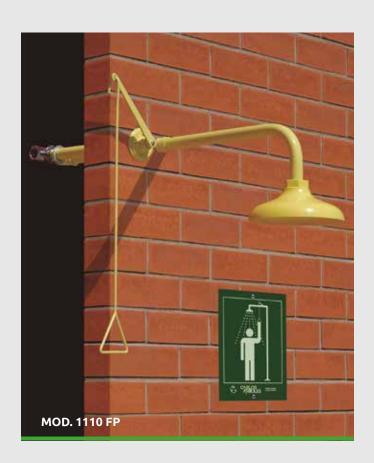




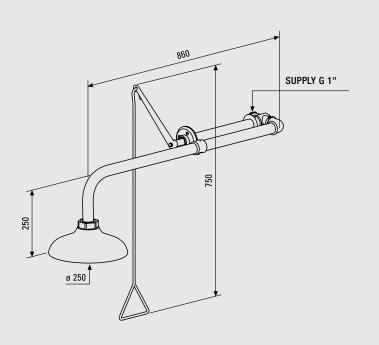
Dimensions in mm.

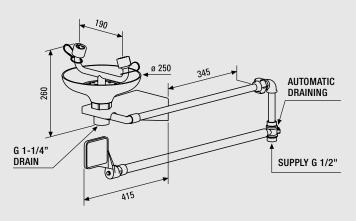
# INTERIOR WALL WATER SUPPLY

	ABS HEAD	SS HEAD	
MODELS	1110 FP	1110 FP/SS	Temperature protection shower
MOL	2210 FP	2210 FP/SS	Temperature protection eyewash









Dimensions in mm. Dimensions in mm.

# SELF-DRAINING SHOWERS AND EYEWASHES

### UNDERGROUND WATER SUPPLY PLATFORM

	SHOWER HEAD BOWL ABS	SHOWER HEAD BOWL SS	
MODELS	4710 FP	4710 FP/SS	Platform with shower
	4720 FP	4720 FP/SS	Platform with shower and eyewash, simultaneous operation
	4730 FP	4730 FP/SS	Platform with shower and eyewash, independent operation
	4750 FP		Platform with eyewash without bowl
	4810 FP		Platform with 14 spray heads

### **USE**

In outdoor facilities with extreme low or high temperatures.

Decontamination Booth operation is fully automatic when a person stands on the platform. The equipment uses valves underground with automatic draining. When a person enters, water rises through the pipe to the Shower or the Eyewashes. When they leave after use, all the water in the pipe goes down the automatic drain from the inlet valve. The pipes, empty of water, then cannot freeze.

### **GENERAL FEATURES**

### **MATERIALS**

Galvanised steel pipes. Brass fittings.

### **COATING**

Anti-corrosion polyamide 11 plastic in high visibility yellow.

# **WATER INLET** *G* 1-1/4".

### WATER INLET PRESSURE

Recommended 2 bar. Minimum 1.5 bar. Maximum 4 bar.

### PLATFORM VALVE

1-1/4", automatic opening and closing, automatic draining.

**SHOWER / EYE WASH OPERATION**Pull rod, push handle or platform.

### **SHOWER VALVE**

1" full bore regulated at 110 l/min, instant opening and manual closing.

### **EYEWASH HEADS**

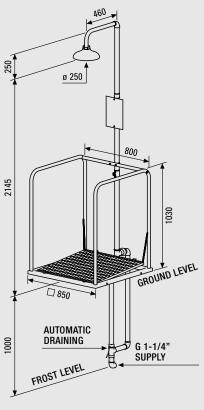
Two high-flow rate low pressure aerated water heads with automatic opening anti-dust cover.

### **EYEWASH VALVE**

1/2" full bore regulated at 22 l/min, instant opening and manual closing, automatic draining.

### INSTALLATION



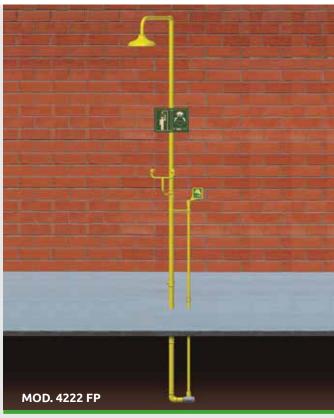


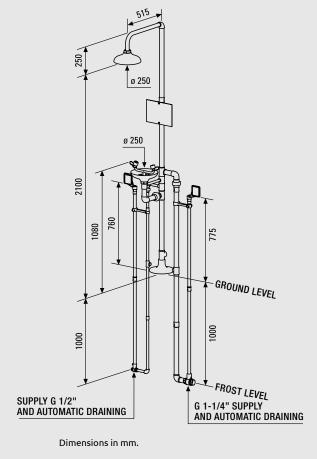
Dimensions in mm.

# UNDERGROUND WATER SUPPLY

MODELS	4222 FP	Shower and eyewash, simultaneous operation, ABS head			
	4222 FP/SS	Shower and eyewash, simultaneous operation, stainless steel head			
	4223 FP	Shower and eyewashes, independent operation, ABS head/bowl			
	4223 FP/SS	Shower and eyewashes, independent operation, stainless steel head/bowl			







# TANK-FED SHOWERS AND EYEWASHES

# 4820 TI/TS Emergency shower and eyewash with overhead tank 4830 TI/TS Emergency shower with overhead tank

#### USE

The overhead tank-fed Emergency Equipment is designed to deliver water under gravity for 15 minutes, in accordance with the regulations, in a standalone manner when no water supply is guaranteed or the equipment is isolated from the closest supply point. And for environments with high or low temperatures, where the equipment has an underground tank, this is isolated from the ambient temperature and so needs no heating or cooling systems. The pipework drains automatically after use to prevent the water heating or freezing.

#### GENERAL FEATURES, OVERHEAD TANK

TANK MATERIALS
Stainless steel structure and pipes.

TANK CAPACITY 1,500 litres.

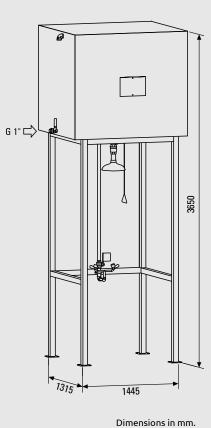
**WATER FILLING** G 1".

INTEGRATED OVERFLOW SHOWER OPERATION Pull rod.

**EYEWASH OPERATION**Push handle.

	0	Р	Т	1	0	N	S				
	196001		Float valve for a	utomatic tai	nk filling						
	196002		Side tank level sight glass indicator								
MODELS	196003		Electric heater with adjustable thermostat for cold environments (T<15°C)								
	196004		Thermal insulati or cold (T<15°C,								
	196005		Eyewash activation switch to send signal to control room								
	196006		Shower activation switch to send signal to control room								





# UNDERGROUND TANK

	4710 TS/FP	Platform shower with underground tank
MODELS	4720 TS/FP	Shower and eyewash with platform with underground tank, simultaneous operation
_	4730 TS/FP	Shower and eyewash with platform with underground tank, independent operation



#### GENERAL FEATURES, UNDERGROUND TANK

#### **MATERIALS**

Polyethylene tank. Platform shower in galvanised steel with polyamide 11 anticorrosive coating. Brass fittings.

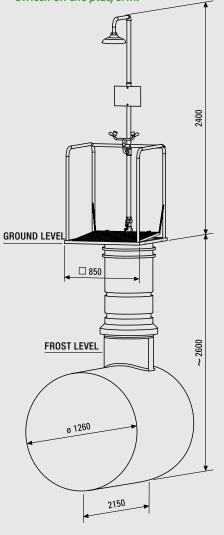
WATER FILLING

Large diameter oval lid.

TANK CAPACITY 2,000 litres.

# ADJUSTABLE TANK DEPTH ELECTRICITY

Submersible pump, 230 V 1.5 kW. 230 V/24 V control box with activation switch on the platform.



Dimensions in mm.

# TANK-FED SHOWERS AND EYEWASHES

2820 2840

Pressurised portable eyewash. Autonomous water supply (50 L)

Portable pressurised eyewash with spray unit. Autonomous water supply (50 L)

#### **USE**

The pressurised Emergency
Eyewashes make it possible to
provide protective measures where
there is no guarantee of continuous
water supply. With a total capacity
of 50 l and pressurised with
air to 6 bar, the heads deliver
water for over 15 minutes.

#### **GENERAL FEATURES**

#### **MATERIALS**

Steel tank with anti-corrosive internal coating and high visibility yellow exterior paint.

#### **WATER INLET**

Large, accessible filling point.

#### PRESSURISED

Quick-fit air filler.

#### WORKING PRESSURE

6 bar.

#### SAFETY

Includes pressure relief valve and pressure gauge.

#### **EYEWASH**

#### **MATERIALS**

Eyewash head assembly in polyamide plastic-coated brass. Two low flow-rate water spray heads with automatic opening anti-dust cover.

#### **OPERATION**

Push handle.

#### **VALVE**

1/2" full bore.

#### **DRENCH SHOWER**

#### **MATERIALS**

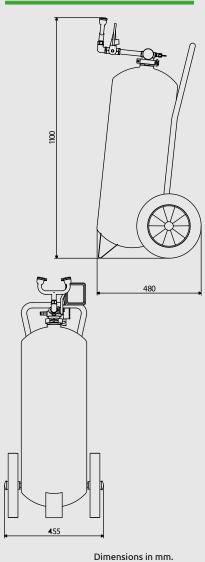
Low flow -rate water spray heads with automatic opening anti-dust cover.

#### **OPERATION**

Lever.







2920

Gravity-fed eyewash. Autonomous water supply (50 L)





#### **USE**

The gravity-fed Eyewash make it possible to provide protective measures where there is no guarantee of continuous supply of water under pressure. With a total capacity of 50 l, the heads deliver water for over 15 minutes.

Provided with a wall mounting bracket.

#### **GENERAL FEATURES**

#### **MATERIALS**

High visibility yellow polyethylene tank.

#### **WATER INLET**

Large, accessible filling cap.

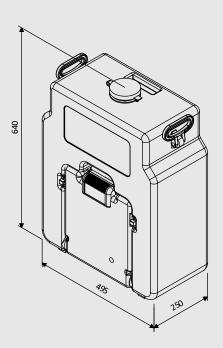
#### **EYEWASH**

#### **MATERIALS**

Two low flow-rate spray heads.

#### **OPERATION**

Opening the tray.



Dimensions in mm.

#### **ACCESSORIES**

#### **USE**

To avoid thermal shock, the Showers and Eyewashes can be fitted with a thermostatic mixer developed specifically for Emergency Equipment to supply tepid water. The standards recommend a water temperature of between 15 °C and 37 °C. The mixer enables the water temperature to be adjusted. In case of hot water supply failure, the mixer provides cold water by means of a bypass. In case of cold water supply failure, the mixer shuts off to prevent harm to the user.

#### **SPECIFICATIONS**

- Handwheel for temperature adjustment between 20 °C and 55 °C.
- Maximum hot water supply temperature: 100 °C, 50-70 °C for optimal performance.
   Maximum cold water supply temperature: 23 °C, 5-10 °C for optimal performance.
- Minimum hot and cold water supply pressure 3.5 bar. Recommended 4 bar. Maximum pressure 8 bar.
- G 1" male thread coupling with non-return valve.
- Cold water flow rate with bypass 105 l/min at Δ2 bar.
- Tepid water flow rate 122 l/min at  $\Delta 2$  bar.

# TEPID WATER 195120 Thermostatic emergency valve 100 MOD. 195120 Dimensions in mm.

#### USE

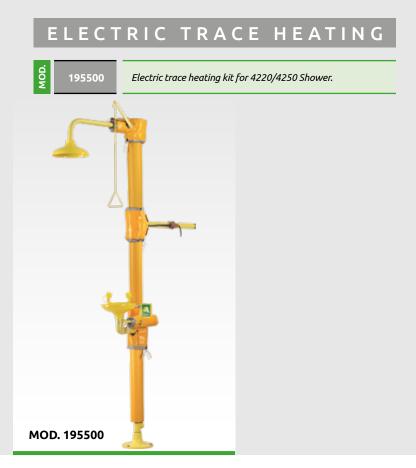
In outdoor installations with continually low temperatures, electric trace heating with insulating blankets prevents water from freezing inside Emergency Equipment.

#### **FUNCTIONING**

When the ambient temperature drops to 0 °C, the sensor activates the heater cable. The sensor is deactivated when it reaches 3 °C.

#### **SPECIFICATIONS**

- 220-240 V AC, 50/60 Hz.
- PVC heating cable, self-regulating.
- IP65 sensor with 1 m of 3G0.75 cable.
- Operating LEDs.



#### **USE**

The valves with thermal sensors are in continuous contact with the water and ambient temperatures and automatically establish a bleed line in the Emergency Equipment to eliminate excess temperatures or very low temperatures.

#### **FUNCTIONING**

When the temperature exceeds the set limit, the thermal actuator modulates valve opening. A small amount leaks through the valve until the temperature returns to safe values.

#### **SPECIFICATIONS**

Body and valve in stainless steel, activator in brass. Inlet and drain 1/2".

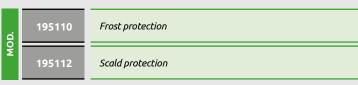
#### **MODEL 195110**

- Frost protection valve.
- Nominal pressure 2 bar.
- Maximum working pressure 8 bar.
- · Maximum opening temperature 2 °C.
- Total closing temperature 7 °C.

#### **MODEL 195112**

- Scald protection valve.
- Nominal pressure 2 bar.
- Maximum working pressure 6 bar.
- Maximum opening temperature 37 °C.
- Total closing temperature 29 °C.

### TEMPERATURE PROTECTION





#### PRESSURE PROTECTION





#### **USE**

For optimum Emergency Equipment operation, maintaining the supply pressure within the recommended values is recommended to prevent premature wear of components, unnecessary user effort and damage to the installation.

For pressures of over 4 bar or 8 bar, depending on the equipment, installation of a pressure reducing valve is recommended.

#### **SPECIFICATIONS**

- Maximum inlet pressure 25 bar.
- Adjusted outlet pressure 3 bar.

#### **ACCESSORIES**

# P R O T E C T I V E STRUCTURE

Shower structure with 3 PMMA panels

Shower structure with 3 PMC panels and roof

The structures reduce the thermal shock effect and protect against wind and/or sun.

The 194745 model incorporates top coverage for increased sun protection.

With high visibility yellow plastic coating.





#### SHOWER PLATFORM



Operating platform for showers, 1120 - 4220 - 4230 - 4250 - 4260 models

Accessory for operating all platform Showers, 1120 - 4220 - 4230 - 4250 - 4260 models, and shutting off the Shower using a pull rod.



#### SHOWER TEST

0 195003

Shower test

Essential for control of Emergency Shower flow rate. Made of plasticised PVC.



MODELS	190121	Wall bracket model 1110			
	191121	Wall bracket model 1110TI			



#### A L A R M K I T

195030 Alarm kit for safe areas for showers / eyewashes

190614 Safe area flow switch

195040 Alarm kit for explosive atmospheres for showers / eyewashes

950634 ATEX flow switch

Visual and audible alarm that starts operating when water flows through the pipe when the Emergency Equipment is activated. Optionally sends an operating signal to the facility emergency or control room.

Installation must be carried out by qualified personnel.

#### **WATER INLET PRESSURE**

Optimum 2 bar. Minimum 1.5 bar. Maximum 8 bar.







ALARM KIT FOR SAFE AREAS 220-240 V AC, 50/60 Hz (Schuko). IP43 protection.

#### Flow switch

- Max. switching voltage 230 V AC, 48 V DC
- Max. switching current 1 A
- Cable length 1.5 m, 2x0.5 mm<sup>2</sup>

#### Visual and audible alarm

- Flashing orange light, 120 flashes/min.
- Continuous sound 92 dBA

# ALARM KIT FOR EXPLOSIVE ATMOSPHERES

220-240 V AC, 50/60 Hz. Group II, Zone 1/2, Zone 1, Category 2G. (Other classifications available).

#### Flow switch

- Max. switching voltage 250 V AC/V DC
- Max. switching current 4 A AC/ 5 A DC

#### Visual alarm

• Flashing orange light, 120 flashes/min.

#### Audible alarm

• Continuous sound, adjustable 90-110 dBA

# INSTALLATION AND MAINTENANCE INSTRUCTIONS

#### **EMERGENCY SHOWERS AND EYEWASHES**

Presented below are the basic standards for Emergency Equipment installation.

#### INSTALLATION

#### **LOCATION OF EMERGENCY EQUIPMENT**

The location of Emergency Equipment must comply with the following conditions:

- It must be installed in fully visible locations, easily accessible from at least three directions.
- It must be installed in areas where a hazard exists, and must not be more than 10 seconds from where an accident may occur.
- It must be located at the same level as the source of the hazard, with no obstructions on the route to the Emergency Equipment, such as doors, stairs, etc.

#### MOUNTING

Mounting the Emergency Equipment in the order shown on the assembly drawing is recommended.

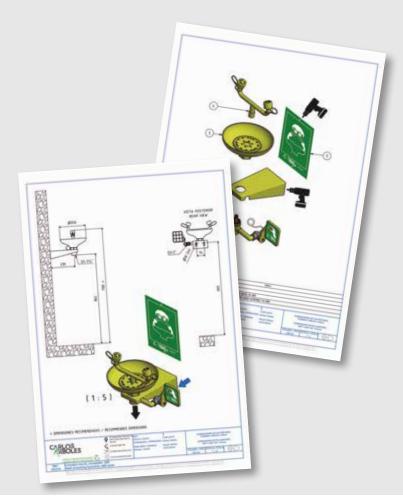
The necessary means are:

- · Pipe sealant.
- Tools to fasten the equipment to the surface. For Emergency Showers not fixed to the floor, installation so that the head is at a height of between 210 and 230 cm above the level where the user will stand is recommended.
   For Emergency Eyewashes not fixed to the floor, installation so that the Eyewash outlet nozzles are at a height of between 90 and 110 cm above the level where the user will stand is recommended.

#### **WATER SUPPLY**

The water supply to the Emergency Equipment must comply with the following conditions:

- They must be supplied from the main or emergency line.
   The supply pipe diameter must be at least 1".
- An inlet pressure to the Emergency Equipment of 2 bar is recommended.
  - For proper operation, the minimum pressure is 1.5 bar and the maximum pressure is 4 bar or 8 bar, depending on the equipment.
- Water temperature of between 15 °C and 37 °C is recommended.
- Installing a filter is recommended, as is purging the pipes prior to installation of the Emergency Equipment.
- Potable water, or water of similar quality, is required.
- A drain system is recommended for the Eyewash and a floor drain for the Shower, to avoid hazards and prevent slippery surfaces.





#### **OPERATION**

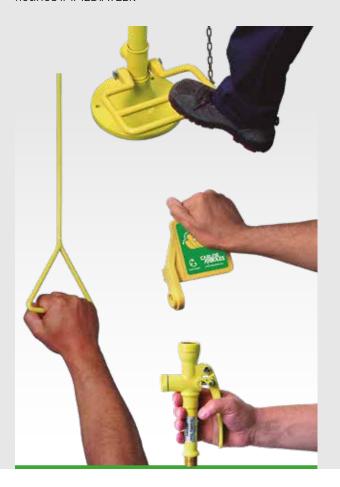
#### **ACTIVATION**

In case of accident, the person involved must shower or wash their eyes IMMEDIATELY for at least 15 minutes.

The Emergency Units ares operated rapidly as follows:

- Emergency Eyewashes by pushing the handle backwards or stepping on the foot control.
- Emergency Showers by pulling the triangular-shaped pull rod downwards.
- Manual Equipment by squeezing the lever.

A doctor or healthcare assistant must be notified IMMEDIATELY.



#### **MAINTENANCE**

#### **MAINTENANCE AND TRAINING**

Emergency Shower and Eyewash operation must be checked at least ONCE a week to ensure water supply and to prevent microbial growth.

Fill in the Maintenance Sheet provided (mod. 190190) or a similar one.

Personnel must be instructed on:

- Location and signage of the Emergency Equipment.
- Operation of the Showers and Eyewashes.
- The way of notifying healthcare personnel.
- Maintenance to be performed on the Emergency Equipment.



MOD. 190190

#### **SIGNAGE**

#### SIGN BOARDS

A board is delivered with each appliance in our manufacturing programme to indicate the unit (except tablemounting models).

The sign boards are photoluminescent, with white text on a green background. Dimensions: 210 x 297 mm.



MOD. 191004



MOD. 191005

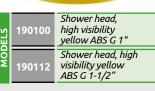


MOD. 191006

We have a wide range of spare parts for all Emergency Shower and Eyewash models.

#### **ENQUIRE FOR AVAILABILITY OF OTHER SPARE PARTS**



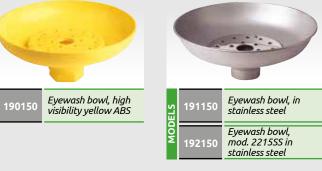


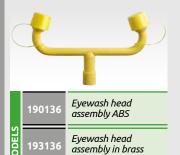


192100	Shower head, in stainless steel, G 1"			
192112	Shower head, in stainless steel G 1-1/2"			
192212	Head mod. 4820 4830 in stainless steel G 1-1/2"			
	192112			









195136

Compact, low flow

rate Eyewash head assembly in brass























# CARLOS ARBOLES







G 1/2" valve for Eyewash with drain







?	191106	Shower handle in stainless steel				
ᆲ		(horizontal valve)				
Σ	192106	Shower handle in stainless steel (vertical valve)				
		7				



MODELS	190146	Eyewash push handle in ABS				
	811146	Eyewash push handle in ABS (models with foot control)				
	193146	Eyewash push handle in aluminium				
	861146	Eyewash push handle in aluminium (models with foot control)				
	864000	FP Shower push handle in aluminium (4253 model)				
	864146	Push handle in aluminium (FP models)				











811301

Floor mounting flange





## DIRECTORY

CODE / PAGI	E	CODE / PAGE		CODE / PAGE		CODE /	PAGE
1100	23	3720	19	4720 SS	31	191136	48
1100 SS	23	3820	16	4720 TI	29	191150	48
1100 TI	23 27	4220	10	4720 TS/FP	39	192100	48
1110	23	4220 SS	10	4730	39 31	192106	49
1110 FP	35	4220 TI	26	4730 FP	36	192112	48
1110 FP/SS	35	4221	13	4730 FP/SS	36	192135	48
1110 SS	23	4221 SS	13	4730 SS	31	192145	49
1110 TI	27	4222 FP	37	4730 TS/FP.	39	192148	48
1120	22	4222 FP/SS	37	4730 TI	29	192150	48
1120 FP	34	4223 FP	37	4750	30	192212	48
1120 FP/SS	34	4223 FP/SS	37	4750 FP	36	193135	48
1120 SS	22	4225	13	4750 SS	30	193136	48
1120 TI	27	4225 SS	13	4750 TI	29	193146	49
1141	24	4230	10	4810	33	194740	44
1141 SS	24	4230 SS	10	4810 FP	36	194745	44
1142	24	4250	11	4820 TI/TS	38	194900	44
1142 SS	24	4250 HS DC	27	4830 TI/TS	38	195003	45
1275	25	4250 SS	11	190030	21	195030	45
1275 SS	25	4250 TI	26	190100	48	195040	45
2210	16	4252	32	190105	49	195110	43
2210 FP	35	4252 SS	32	190106	49	195112	43
2210 FP/SS	35	4253	32	190108	49	195120	42
2210 SS	16	4253 SS	32	190109	48	195136	48
2210 TI	28	4255	11	190112	48	195148	48
2212	18	4255 SS	11	190121	45	195500	42
2212 SS	18	4260	12	190123	48	196001	38
2215 SS	18	4260 SS	12	190125	48	196002	38
2220	17	4260 TI	26	190128	49	196003	38
2220 FP	34	4275	15	190131	49	196004	38
2220 SS	17	4275 SS	15	190135	48	196005	38
2220 TI	28	4280	14	190136	48	196006	38
2230	16	4280 SS	14	190145	49	196136	48
2230 SS	16	4285	14	190146	49	197136	48
2240	17	4285 SS	14	190148	48	811146	49
2240 SS	17	4285 TI	26	190149	48	811301	49
2275	21	4290	14	190150	48	861146	49
2710	17	4290 SS	14	190151	48	864000	49
2710 SS	17	4295	14	190160	48	864146	49
2710 TI	28	4295 SS	14	190190	47	950153	48
2820	40	4700	31	190400	49	950221	48
2840	40	4700 SS	31	190402	49	950222	48
2920	41	4700 TI	29	190614	45	950250	43
3000	20	4710	33	190700	43	950634	45
3100	20	4710 FP	36	191004	47	951222	48
3110	20	4710 FP/SS	36	191005	47	971011	49
3120	21	4710 SS	33	191006	47	971015	49
3130	21	4710 TI	29	191043	43	973007	49
3500	19	4710 TS/FP	39	191105	49	973010	43
3510	16	4720	31	191106	49	973107	49
3510 TI	28	4720 FP	36	191121	45	973985	43
3620	19	4720 FP/SS	36	191135	48		







Epicur Group Oy / TaloLVI Isonniitynkatu 5 B, LT2 00520 Helsinki +358 400 164 594



GRIFERÍA DE LABORATORIO DUCHAS Y LAVA-OJOS DE EMERGENCIA

C/ Compositor Narváez, 10 Pol. Ind. Can Jardi 08191 Rubí (Barcelona), Spain Tel.: +34 935 860 780 Fax: +34 936 973 226

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