

CARLOS ARBOLLES S.A



**EMERGENCY SHOWERS  
AND EYEWASHES**

CATALOGUE 2014

**GENERAL**

## TECHNICAL INFORMATION



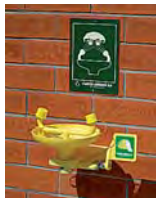
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# CARLOS ARBOLES S.A

SAFETY EQUIPMENT

GENERAL CATALOGUE 2014



Since 1929, Arboles manufactures tap fittings of diverse types and applications; we now specialise in two product lines:

- **EMERGENCY SHOWERS AND EYEWASHES**
- **TAP FITTINGS FOR LABORATORIES**

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

Since 1976 we have been supplying the international market with a full range of Emergency Equipment. In this catalogue we show our current models.

The Emergency Showers and Eyewashes instantly offer water as a FIRST AID treatment to people who have been exposed to: fire, acids, reagents, radioactive materials, and other contaminants that might cause serious or irreparable injury.

This is the most inexpensive method to date for decontamination.



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ

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CARLOS ARBOLES, S.A. designs and manufactures Emergency Equipment complying with the current International standards that ensures the user's safety. The requirements of these standards are, among

others: the flow to be supplied by the Emergency Equipment, the distribution of the water pattern on the body, the dimensions of the facility and the operating elements, signs and accessibility aspects.

EUROPEAN STANDARDS

The European Standard EN 15154 applies in Europe. According to this standard, the Emergency Equipment is divided into:

- Emergency Showers used in Laboratories EN 15154-1:2006.
- Emergency Eyewashes EN 15154-2:2006.

The following are the statements of compliance of both standards certified by the Spanish entity APPLUS, and the certification of the standard EN 15154-2:2006 by the German entity DVGW.

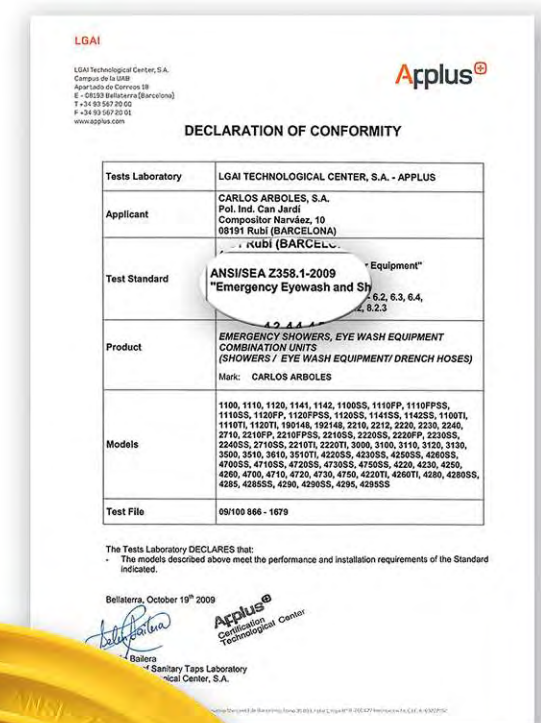
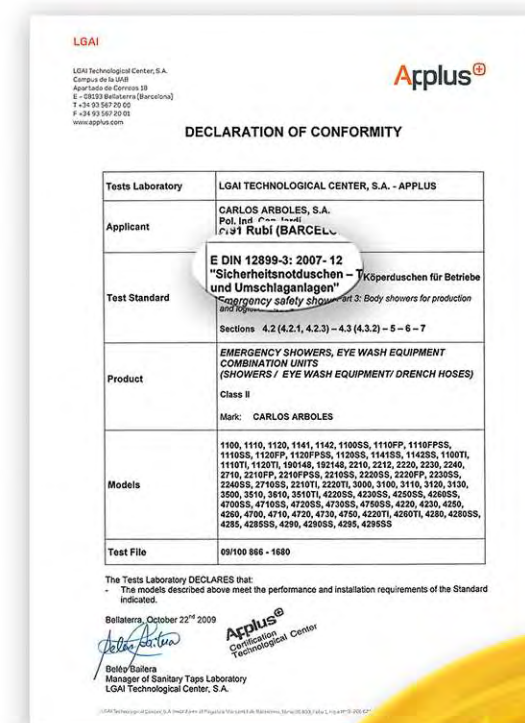
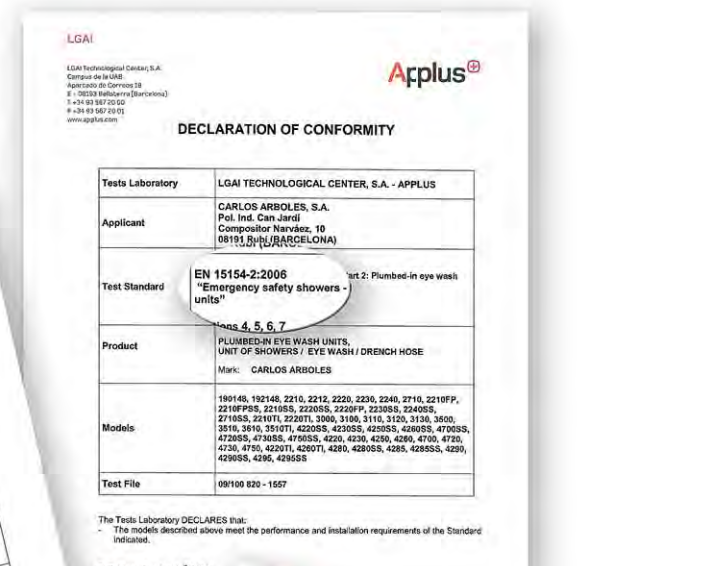
In Europe, the only standard for Emergency Showers used in industrial facilities is the German Standard DIN 12899-3:2007.

The following is the compliance statement certified by the entity APPLUS.

AMERICAN STANDARD

At the international level, the American standard ANSI/SEA Z358.1-2009 is recognized worldwide for Emergency Showers and Eyewashes.

The following is the compliance statement certified by the entity APPLUS.



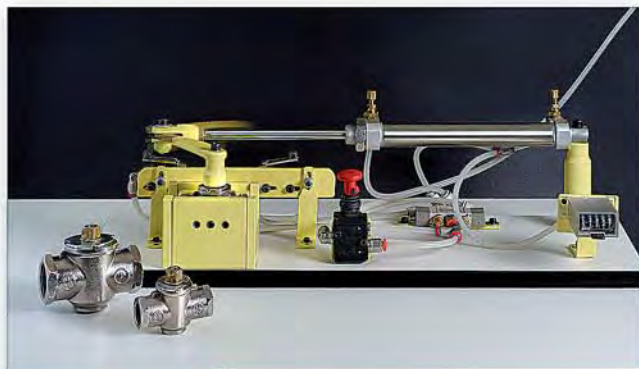
CARLOS ARBOLES, S.A. has its own design and manufacturing team for Emergency Equipment that develops, innovates and improves its products.

**DESIGN**

Our technical department continually develop and improve our products, along with specially required projects. The latest CAD/CAM technology is employed for production and PROTOTYPING of components. These prototypes are validated in our test LABORATORY. Strict mechanical and hydraulic tests are performed in the laboratory, which guarantee the functionality of the designs in emergency situations.



CAD/CAM TECHNICAL DEPARTMENT



MECHANICAL TESTING



TEST LABORATORY



HYDRAULIC TESTING

**MANUFACTURING**

The manufacturing process uses high-precision numerical control lathes and machining centers specifically designed for the production of tap fittings. High-performance ovens heat the parts between 300° C and 450° C to later dip them in polyamide 11 powder tanks, where the powder is melted and adheres to the part. After the anti-corrosive coating process, the assembly line finishes the manufacturing process with 100% watertight control of the parts. Throughout the process, the Quality department checks the manufacturing parameters.



NUMERIC CONTROL MACHINING



CNC MACHINING



ANTICORROSIVE PLASTIC COATING



PRODUCTS ARE 100% LEAK TESTED

# EMERGENCY SHOWER AND EYEWASHES

CARLOS ARBOLES, S.A. supplies high quality Showers and Eyewashes that are extremely reliable. The following are the main technical characteristics that distinguish our products.

## 1 HIGH QUALITY MATERIALS

Materials in contact with water are galvanized steel pipes, brass fittings and ABS reinforced plastic. We also have the ability to manufacture equipment in stainless steel.

## 2 ROBUST CONSTRUCTION

All our products are constructed from high quality materials, where fastening is surface mounting the components are always metallic. This results into a robust equipment for the most adverse conditions.

## 3 SHOWER HEAD

- The water distribution pattern is in accordance to all relevant standards to give a wide and smooth flow pattern.
- The large Shower head diameter of 250 mm and the design of the flow holes prevent restricted flow caused by lime scale or contamination.

## 4 FULL RANGE

- We have different models based on their installation, so as WALL, FLOOR, or TABLE mounted. The equipment is supplied disassembled, its assembly is easy and unmistakable. We have different types of mechanisms:
- Shower with a pull handle or lever.
  - Automatic opening and closing when entering and leaving the platform.
  - Eyewash with a push lever, pedal, or platform operation.

## 5 EYEWASH ASSEMBLY

One or two spray heads offer a low pressure aerated water, which flushes the face and the eyes without damaging the delicate eye tissues. The large-diameter jet reaches a 15 cm height, according to the standard. The plastic materials and rounded forms will not cause facial damage in the case of accidental contact. They include an anti-dust cover which operates automatically when the Eyewash unit is activated.

## 6 ANTI-CORROSIVE AND ENVIRONMENTAL COATING

Anti-corrosive polyamide 11 plastic coating, in HIGH-VISIBILITY YELLOW color. This plastic coating has a thickness of 250 to 300 microns. It has good resistance to acids, bases, sea water, oils... The coating is not derived from petroleum, but is a raw material originating from vegetable oil, and therefore, it preserves the environment. We have a Chemical Resistance Table, which can be consulted on our webpage: [www.carlosarboles.com](http://www.carlosarboles.com).



ANSI STANDARD  
EN STANDARD



## 7 ANTI SEIZE VALVE

The Shower and Eyewashes include valves that are specifically designed to be used in emergency situations, since they do not become obstructed nor do they stick up after long periods of inactivity. Optimal results after more than 100,000 cycles.

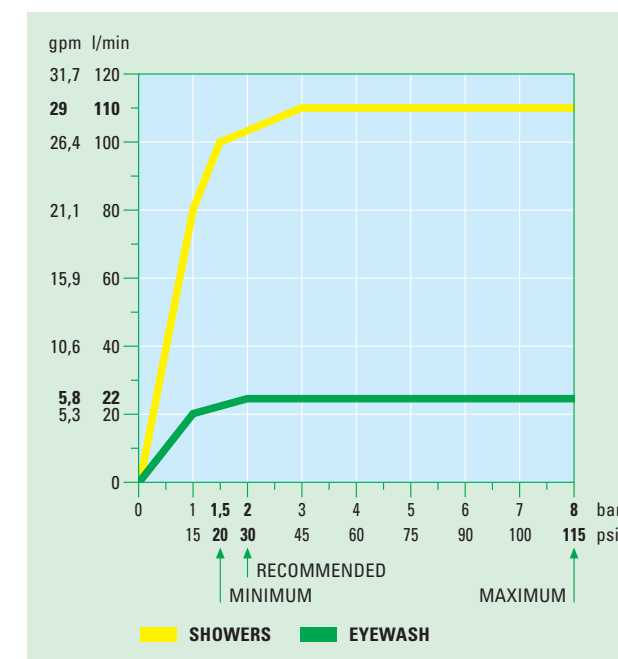
## 8 TEMPERATURE PROTECTION

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

- Automatic drain valves to avoid pipe freezing.
- Temperature protection valves, that create a bleed line when the temperatures of the supply piping are extreme.
- Thermostatic valve for the supply of tempered water.

## 9 FLOW RATE REGULATION

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



## 10 HIGH-VISIBILITY SIGNALLING

The Emergency Equipment includes:

- A photoluminescence signaling plate with a green background and white text. Dimensions: 210 x 297 mm
- Maintenance table and installation instructions.
- Optionally, an ALARM that may provide a visual and sonorous signal when the Equipment is operated.

### INTERNATIONAL STANDARDS

Our products meet or exceed the requirements:

- ANSI Z358.1
- EN 15154 1 and 2
- DIN 12899.3

APPLUS and DVGW Institute of Certifications.

**USE**

The following models combine the Shower and Eyewashes in one piece of equipment for outdoor and indoor facilities, minimizing the required space, and using a single water inlet for both equipments.

**GENERAL FEATURES**

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- DOUBLE WATER INLET** G 1" 1/4 BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.
- SHOWER OPERATION** Pull handle.

- SHOWER VALVES** G 1" BSP, regulated at 110 l/min, automatic and instant opening and manual closing.
- EYEWASH OPERATION** Lever, handle.
- EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.
- EYEWASH VALVE** G 1/2" BSP, regulated at 22 l/min, automatic and instant opening, and manual closing.

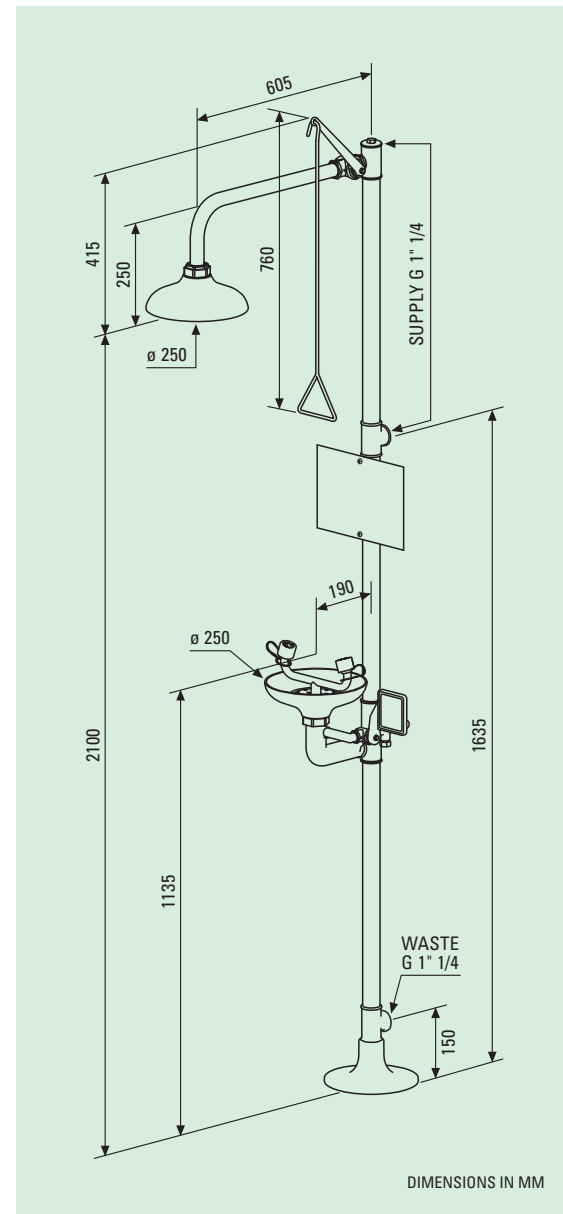
THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)



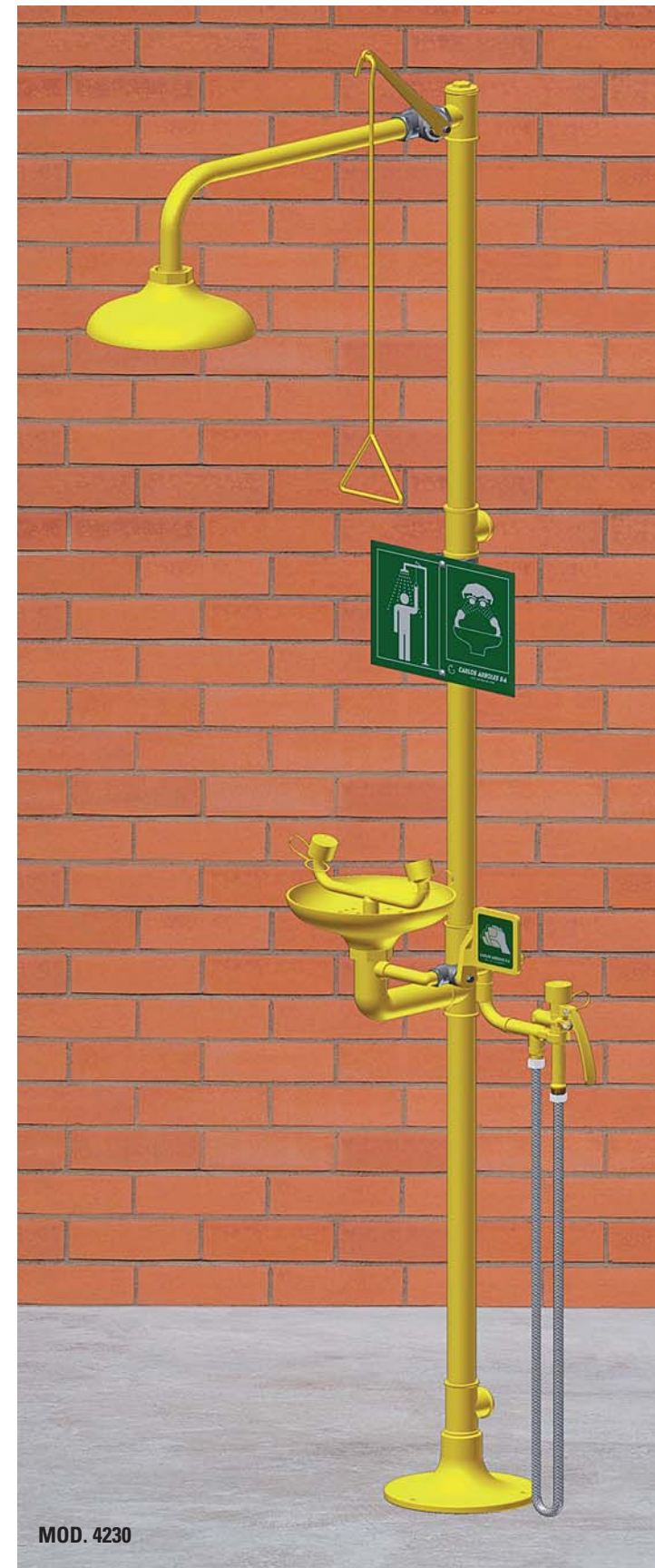
MOD. 4220

**FLOOR MOUNTING**

MODELS	SHOWER HEAD/BOWL ABS	SHOWER HEAD/BOWL STAINLESS STEEL	PULL ROD SHOWER, PUSH HANDLE EYEWASH
	4220	4220 SS	



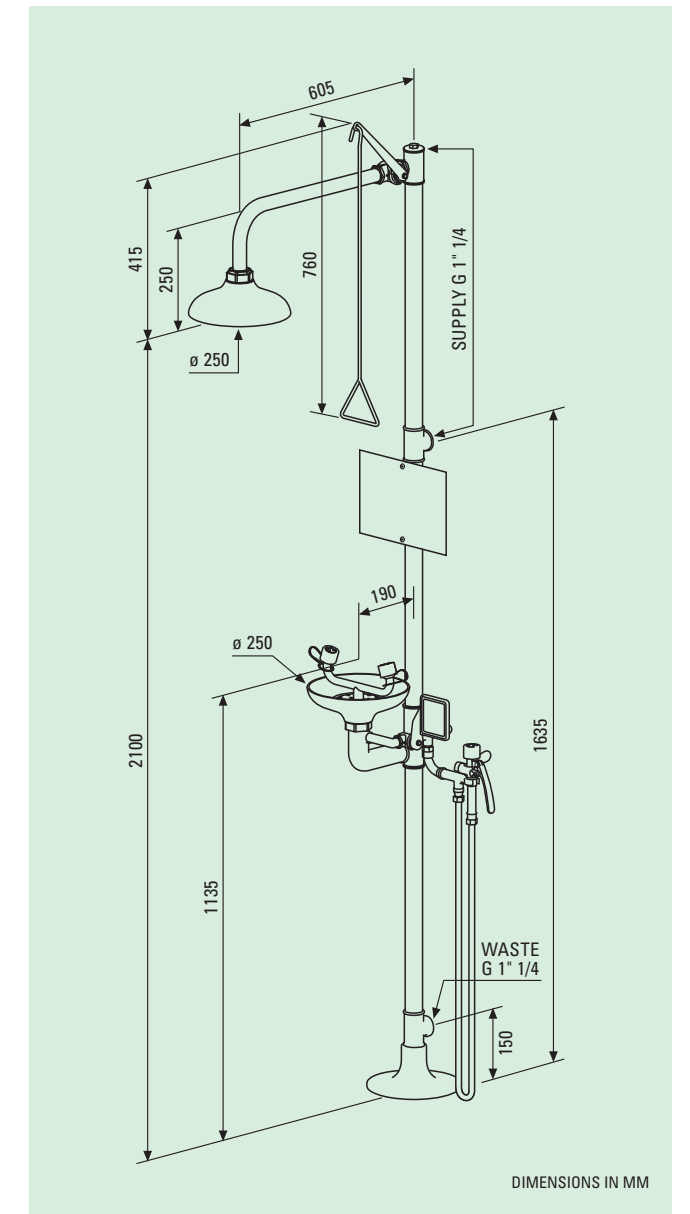
DIMENSIONS IN MM



MOD. 4230

**FLOOR MOUNTING**

MODELS	SHOWER HEAD/BOWL ABS	SHOWER HEAD/BOWL STAINLESS STEEL	PULL ROD SHOWER, PUSH HANDLE EYEWASH INCLUDES SPRAY UNIT MOD. 3000
	4230	4230 SS	



DIMENSIONS IN MM



**USE**

The following models combine the Shower and Eyewashes in one piece of equipment for outdoor and indoor facilities, minimizing the required space, and using a single water inlet for both equipments.

**GENERAL FEATURES**

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- DOUBLE WATER INLET** G 1" 1/4 BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.
- SHOWER OPERATION** Pull handle.

**SHOWER VALVES** G 1" BSP, regulated at 110 l/min, automatic and instant opening and manual closing.

**EYEWASH OPERATION** Lever, handle or foot treadle.

**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

**EYEWASH VALVE** G 1/2" BSP, regulated at 22 l/min, automatic and instant opening, and manual closing.

THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)

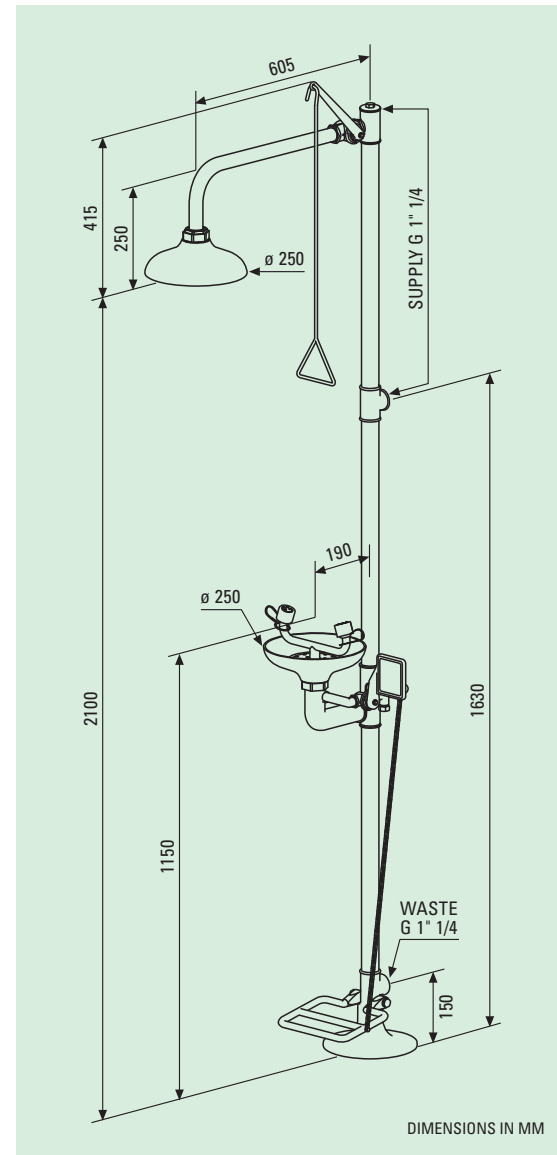
**EMERGENCY SHOWERS AND EYEWASHES**



MOD. 4250

**FLOOR MOUNTING**

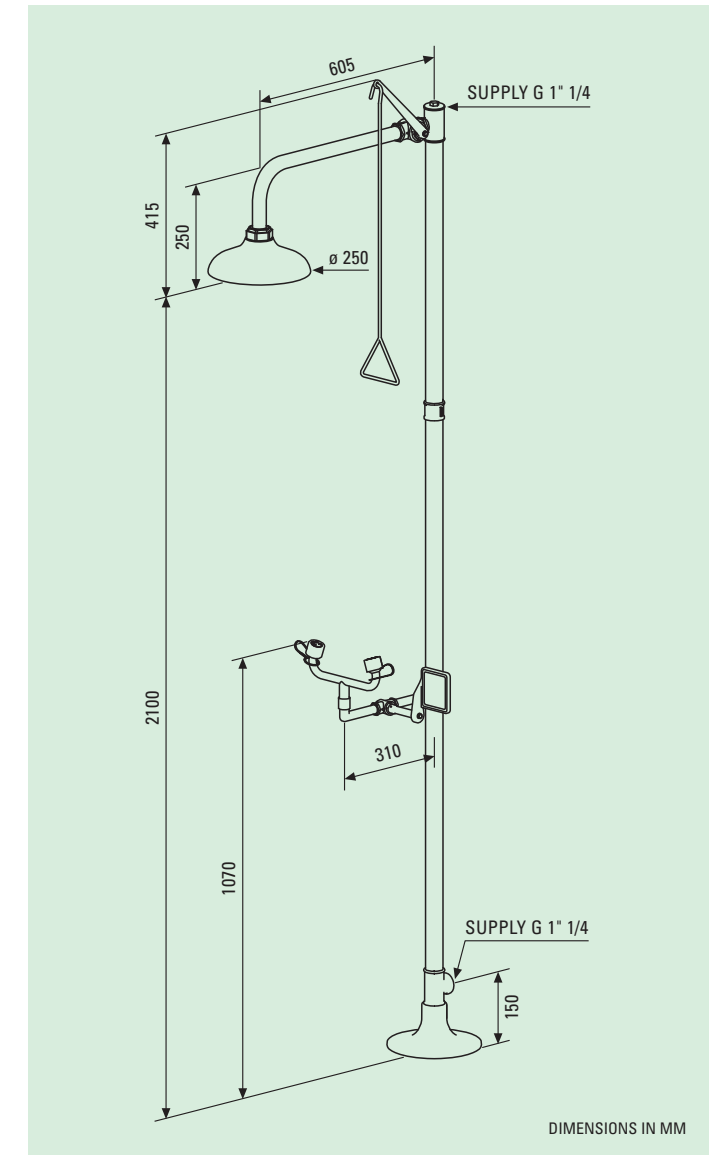
MODELS	SHOWER HEAD/BOWL ABS	SHOWER HEAD/BOWL STAINLESS STEEL	
	4250	4250 SS	
4255	4255 SS	PULL ROD SHOWER, PUSH HANDLE AND FOOT TREADLE EYEWASH INCLUDES SPRAY UNIT MOD. 3000	



MOD. 4260

**FLOOR MOUNTING**

MODELS	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	
	4260	4260 SS	





**WALL MOUNTING**

The following are suitable for outdoor (subject to climate conditions) and indoor facilities combination Shower and Eyewash optimises minimum use of space.

**RECESSED MOUNTING USE**

Indoor Shower combination with Eyewash recessed in the wall. Eyewash operates when opening stainless steel case.

**GENERAL FEATURES**

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- WATER INLET** G 1" BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.
- SHOWER OPERATION** Pull handle.

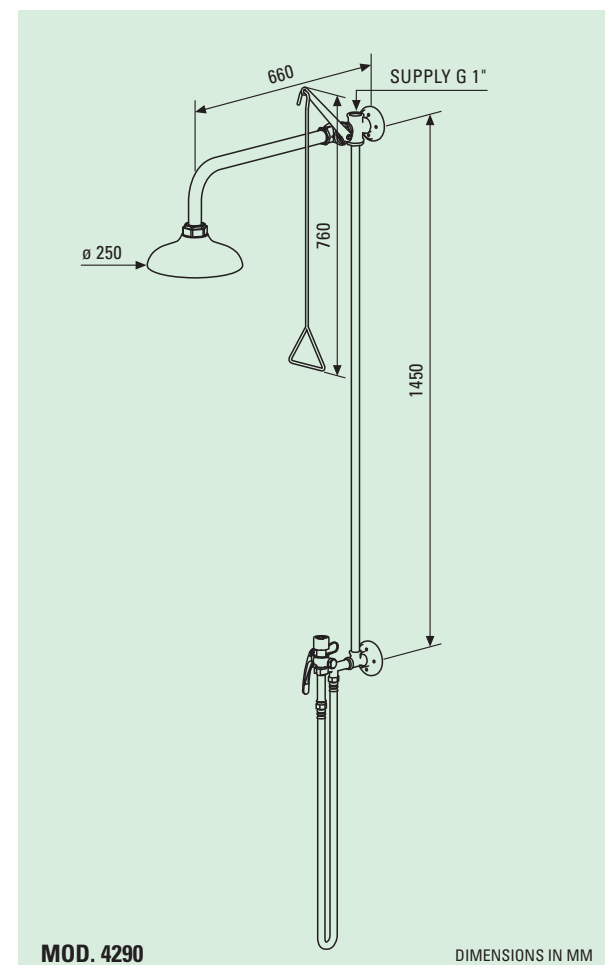
- SHOWER VALVE** G 1" BSP, regulated at 110 l/min, automatic and instant opening and manual closing.
- EYEWASH OPERATION** Lever, handle or by opening the box.
- EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.
- EYEWASH VALVE** G 1/2" BSP, regulated at 22 l/min, automatic and instant opening, and manual closing.
- INSTALLATION** Height assembly see pag. 42.

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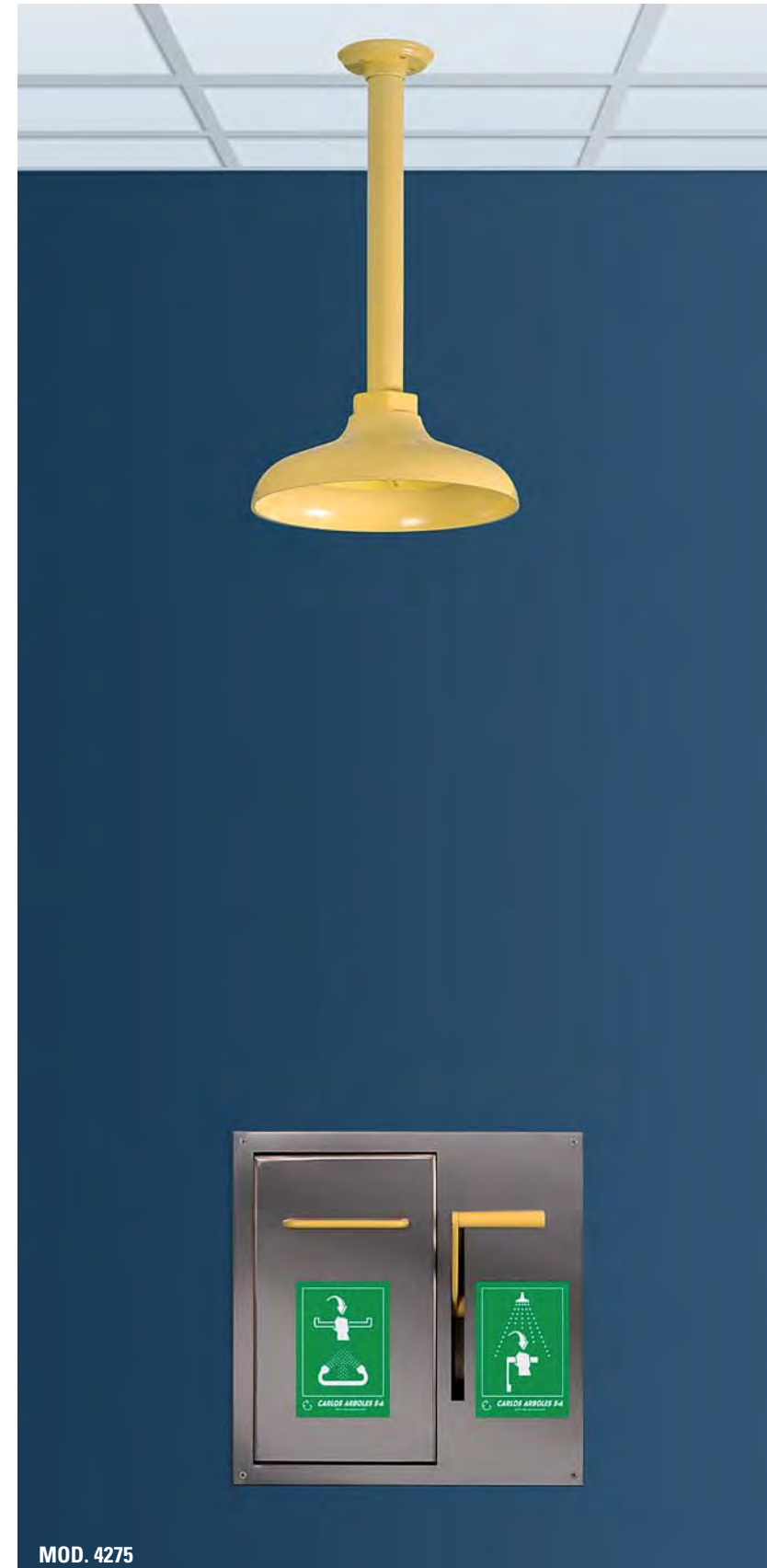
**WALL MOUNTING**

MODELS	SHOWER HEAD	SHOWER HEAD	DESCRIPTION
	ABS	STAINLESS STEEL	
4280	4280 SS		PULL ROD SHOWER, PUSH HANDLE EYEWASH WITHOUT BOWL
4285	4285 SS		PULL ROD SHOWER, PUSH HANDLE EYEWASH
4290	4290 SS		PULL ROD SHOWER, DRENCH HOSE EYEWASH
4295	4295 SS		PULL ROD SHOWER, DRENCH HOSE DOUBLE EYEWASH



MOD. 4290

DIMENSIONS IN MM



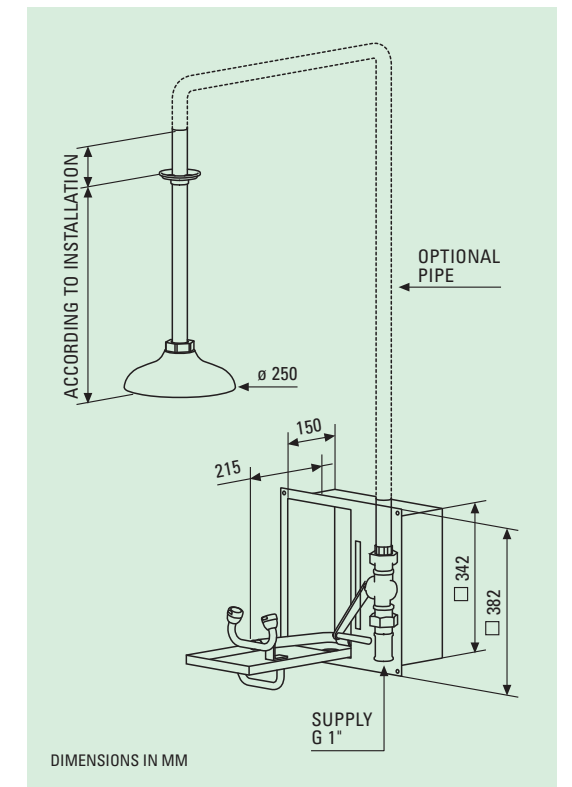
MOD. 4275

**RECESSED MOUNTING**

MODELS	SHOWER HEAD	SHOWER HEAD	DESCRIPTION
	ABS	STAINLESS STEEL	
4275	4275 SS		RECESSED SHOWER AND EYEWASH, PULL ROD SHOWER, OPENING BOX EYEWASH



MOD. 4275



DIMENSIONS IN MM



**USE**

In outdoor or indoor facilities the Eyewashes are activated by pushing the lever.

**GENERAL FEATURES**

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- WATER INLET** G 1/2" BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

**EYEWASH OPERATION** Lever, handle or foot treadle.

**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

**EYEWASH VALVE** G 1/2" BSP, regulated at 22 l/min, automatic and instant opening, and manual closing.

**INSTALLATION** Height assembly see pag. 42.

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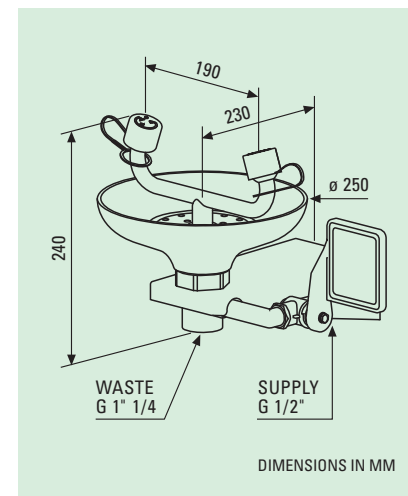
**EMERGENCY EYEWASHES**



MOD. 2210

**WALL MOUNTING**

MODELS	BOWL ABS	BOWL STAINLESS STEEL	
	2210	2210 SS	
2230	2230 SS	EYEWASH WITH DRENCH HOSE MOD. 3000	
3510		EYEWASH WITHOUT BOWL	



MOD. 3510

**FLOOR MOUNTING**

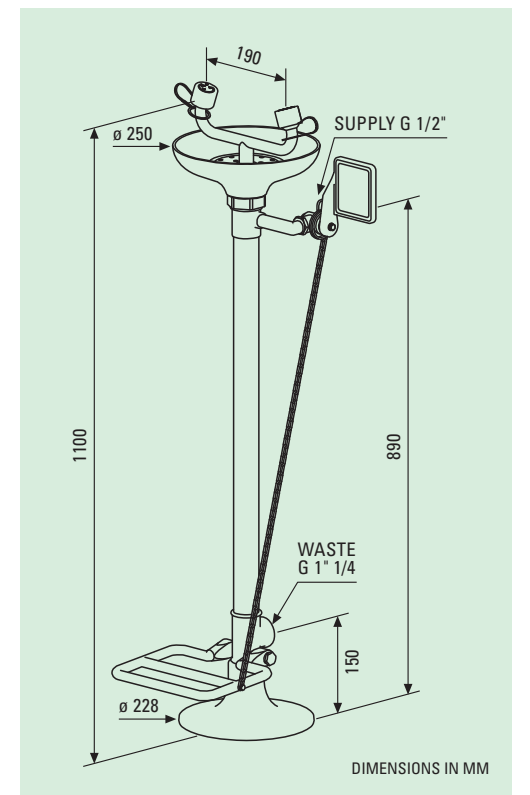
MODELS	BOWL ABS	BOWL STAINLESS STEEL	
	2220	2220 SS	
2240	2240 SS	EYEWASH WITH DRENCH HOSE MOD. 3000	
2710	2710 SS	EYEWASH DOUBLE CONTROL HANDLE/TREADLE	



MOD. 2710



MOD. 2220





**USE**

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

**GENERAL FEATURES**

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- WATER INLET** G 1/2" BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

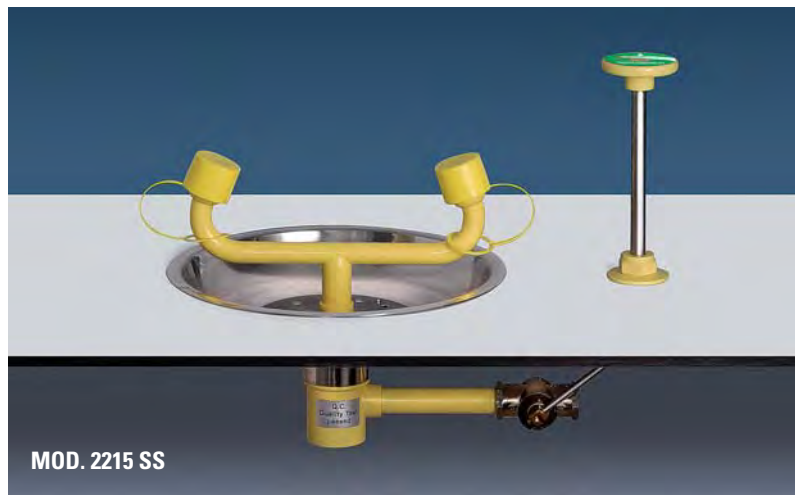
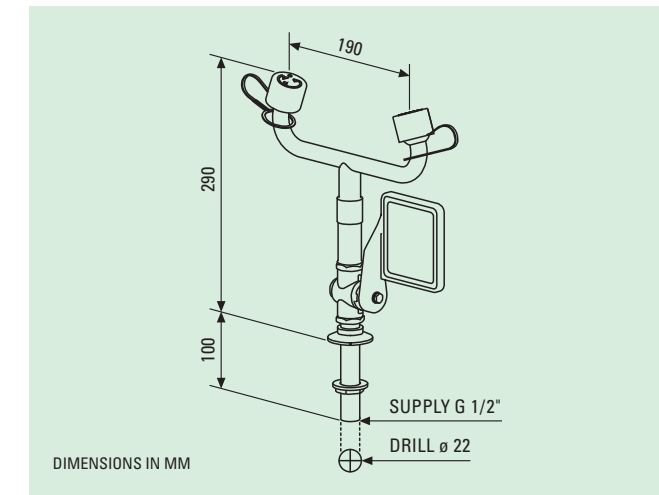
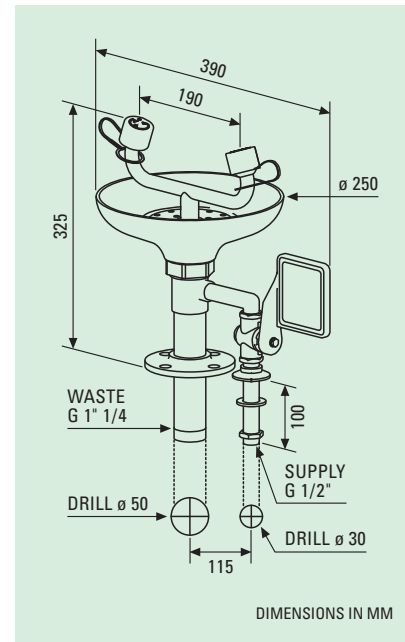
**EYEWASH OPERATION** Lever, handle or swivel opening.

**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

**EYEWASH VALVE** G 1/2" BSP, regulated at 22 l/min, automatic and instant opening, and manual closing.

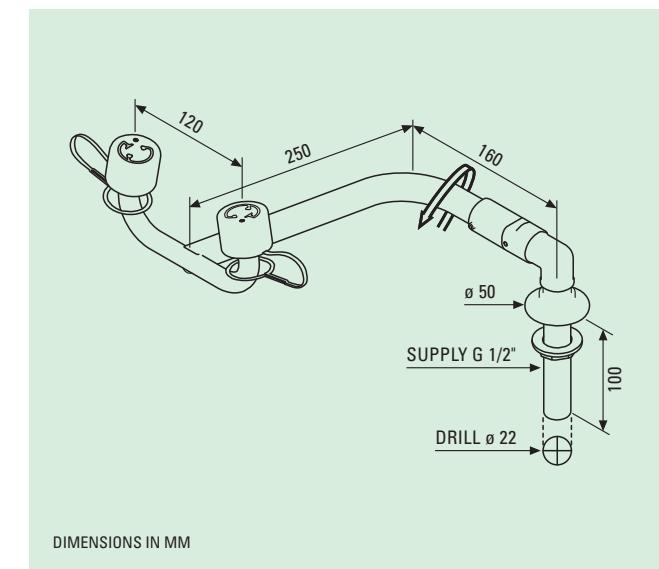
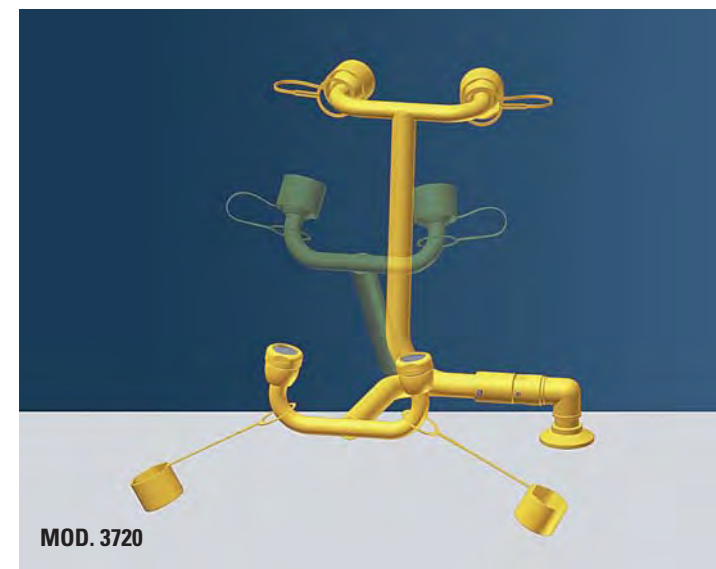
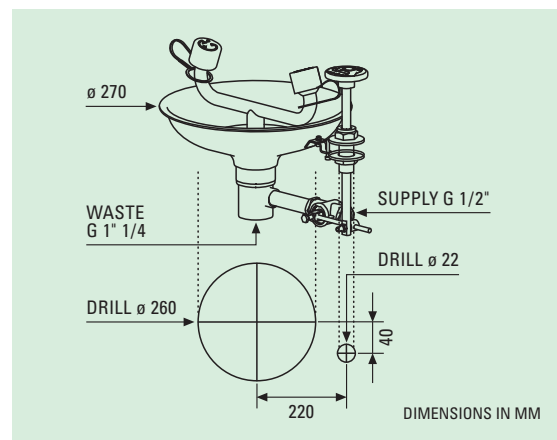
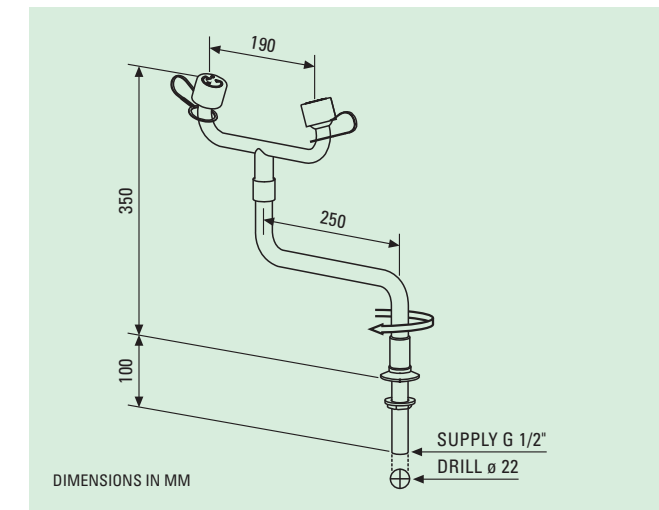
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**EMERGENCY EYEWASHES**



**TABLE MOUNTING**

MODELS	BOWL	BOWL	
	ABS	STAINLESS STEEL	
2212	ABS	STAINLESS STEEL	EYEWASH
			TABLE RECESSED EYEWASH
3500			EYEWASH WITHOUT BOWL
3620			SWIVEL EYEWASH WITHOUT BOWL 90° TURN OPENING
			SWIVEL EYEWASH WITHOUT BOWL UP-DOWN OPENING





### DRENCH HOSE EYEWASH USE

Manual Eyewashes with 1.5 mtr long flexible tube, with one or two high-flow water spray heads at low pressure. To be used in industry, laboratories, schools, etc.

### RECESSED MOUNTING USE

Indoor Eyewash recessed in the wall. Eyewash operates when opening stainless steel case.

### GENERAL FEATURES

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- WATER INLET** G 1/2" BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

**EYEWASH OPERATION** Lever, handle.

**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

**EYEWASH VALVE** G 1/2" BSP, regulated at 15 l/min, automatic and instant opening, and manual closing.

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# EMERGENCY EYEWASHES



MOD. 190030

MOD. 3100

## DRENCH HOSE EYEWASHES

### MODELS

- 3000** WALL EYEWASH WITH SINGLE HEAD
- 3100** WALL EYEWASH WITH SINGLE HEAD AND WALL FEEDING BRACKET
- 3110** WALL EYEWASH WITH DOUBLE HEAD AND WALL FEEDING BRACKET
- 3120** TABLE EYEWASH WITH SINGLE HEAD
- 3130** TABLE EYEWASH WITH DOUBLE HEAD
- 190030** OPTIONAL NON-RETURN VALVE



MOD. 3000

## RECESSED MOUNTING

### MODEL

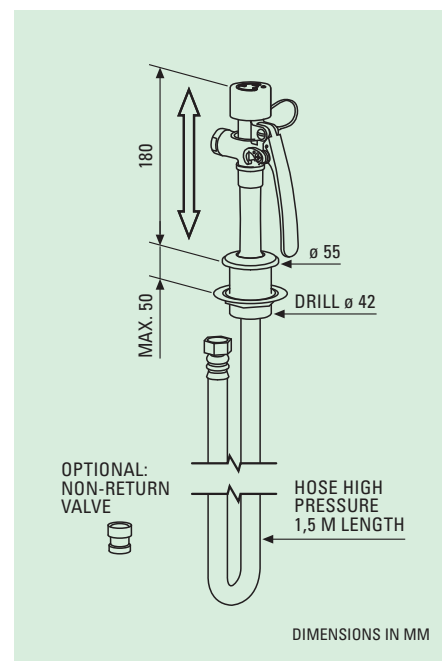
- 2275** WALL EYEWASH WITH SINGLE HEAD



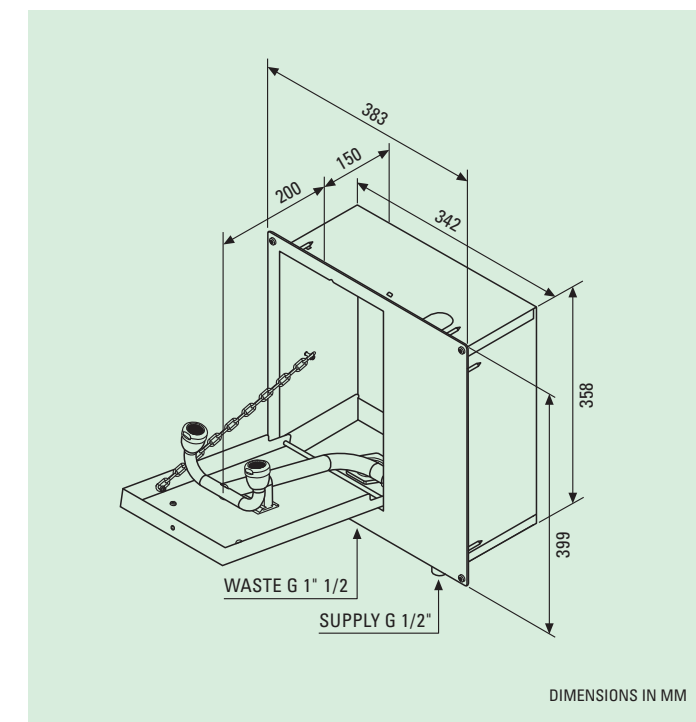
MOD. 2275



MOD. 3120



MOD. 3130







### OVER DOOR USE

In indoor facilities the Emergency Showers are installed over a door or emergency exit.

### RECESSED MOUNTING USE

Indoor Shower recessed in the wall. Shower operates when pulling the handle.

### GENERAL FEATURES

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- WATER INLET** G 1" BSP or G 1" 1/4 BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

**SHOWER OPERATION** Pull handle.

**SHOWER VALVE** G 1" BSP or G 1" 1/4 BSP, automatic and instant opening and manual closing.

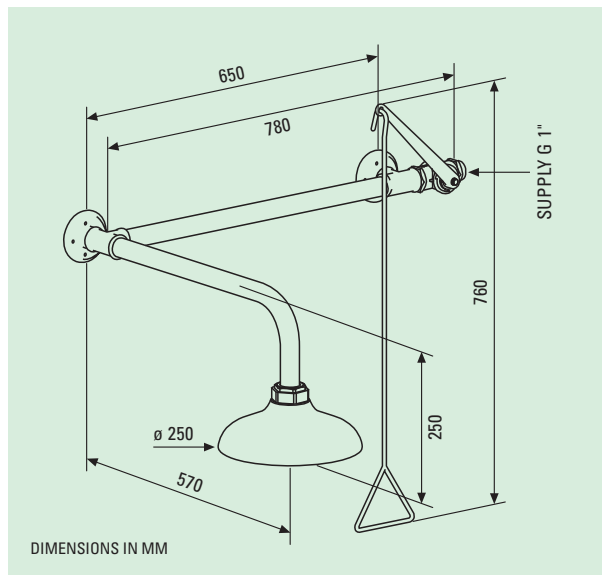
**INSTALLATION** Height assembly see pag. 42.

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# EMERGENCY SHOWERS

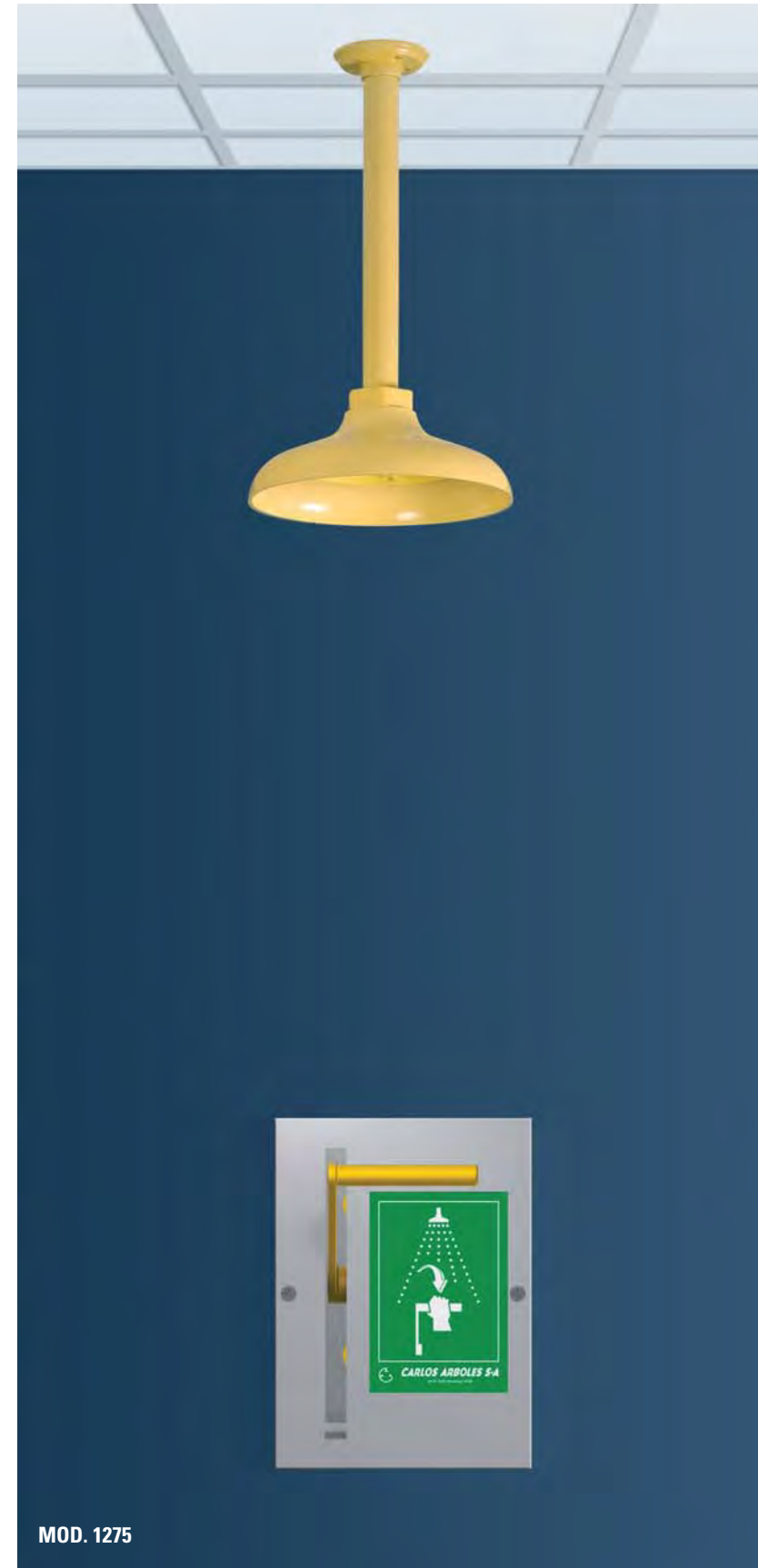


MOD. 1141



### OVER DOOR

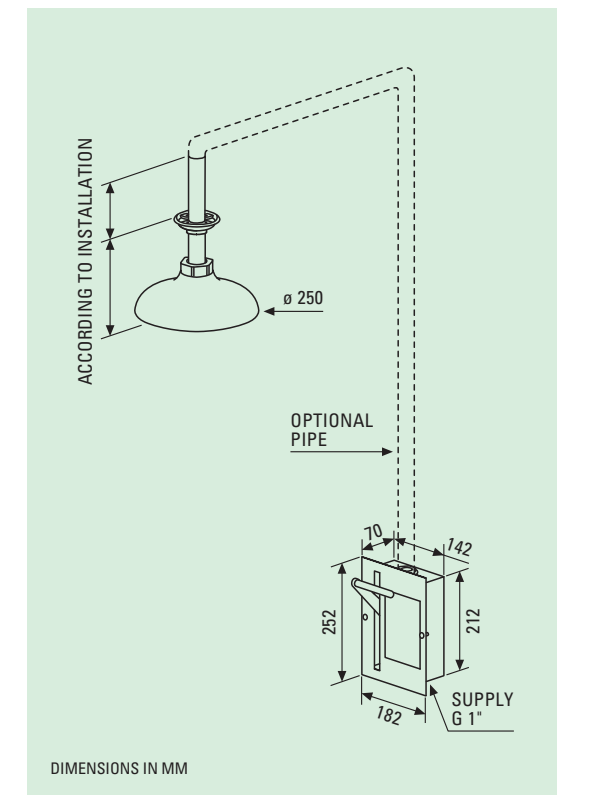
	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	
MODELS	1141	1141 SS	EMERGENCY SHOWER RIGHT CONTROL
	1142	1142 SS	EMERGENCY SHOWER LEFT CONTROL



MOD. 1275

### RECESSED MOUNTING

	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	
MODELS	1275	1275 SS	RECESSED SHOWER



**USE**

Series of Emergency Showers and Eyewashes completely constructed of stainless steel to be installed in food industries, nuclear energy, etc. The models combine the Shower and Eyewashes between them, minimizing the required space, and using a sole water inlet for both pieces of equipment.

**GENERAL FEATURES**

**MATERIALS** Stainless steel piping and fittings.

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

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

**SHOWER OPERATION** Pull handle.

**SHOWER VALVE** G 1" BSP, manual operation by push handle.

**EYEWASH OPERATION** Lever, handle.

**EYEWASH VALVE** G 1/2" BSP, manual operation by push handle.

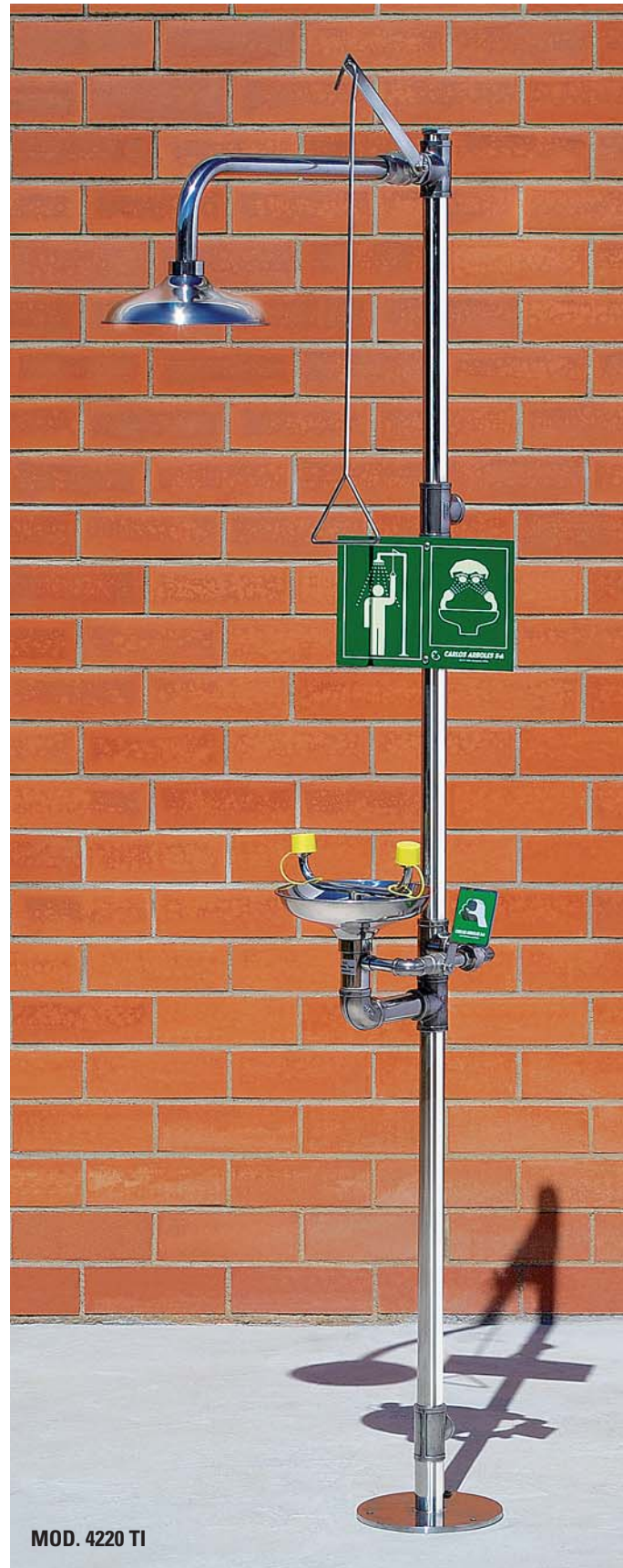
**INSTALLATION** Height assembly see pag. 42.

THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)

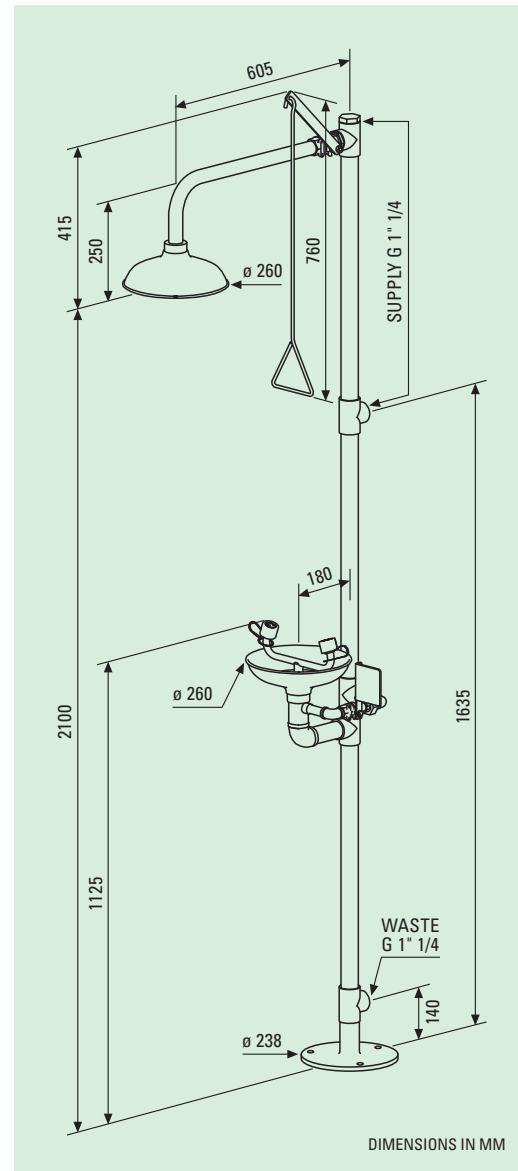
**SHOWERS AND EYEWASHES**

**MODELS**

- 4220 TI** PULL ROD SHOWER, PUSH HANDLE EYEWASH, FLOOR MOUNTING
- 4250 TI** PULL ROD SHOWER, PUSH HANDLE AND FOOT TREADLE EYEWASH
- 4260 TI** PULL ROD SHOWER, PUSH HANDLE EYEWASH WITHOUT BOWL
- 4285 TI** PULL ROD SHOWER, PUSH HANDLE EYEWASH, WALL MOUNTING



MOD. 4220 TI



DIMENSIONS IN MM



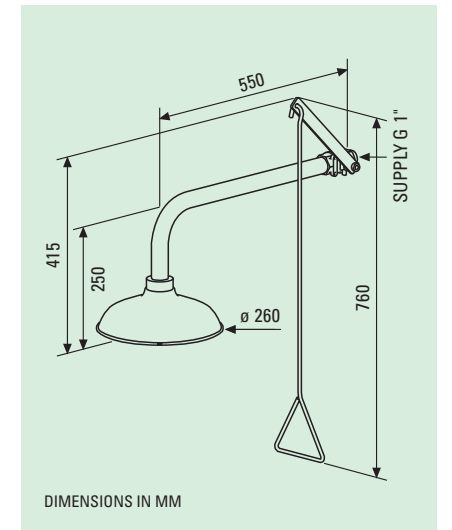
MOD. 4260 TI

**SHOWERS**

- MODELS**
- 1100 TI** VERTICAL SHOWER
  - 1110 TI** HORIZONTAL SHOWER
  - 1120 TI** PEDESTAL SHOWER



MOD. 1100 TI



DIMENSIONS IN MM



MOD. 1110 TI

**USE**

Series of Emergency Eyewashes and Booth Stations completely constructed of stainless steel to be installed in food industries, nuclear energy, etc.

**GENERAL FEATURES**

**MATERIALS** Stainless steel piping and fittings.

**WATER INLET** G 1/2" BSP (Eyewash), G 1" 1/4 BSP (Cabin).

**WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar. On Decontamination Booth max. 4 bar.

**SHOWER OPERATION** Pull handle or platform.

**SHOWER VALVE** G 1" BSP, manual operation by push handle.

**EYEWASH OPERATION** Lever, handle or foot treadle/platform.

**EYEWASH VALVE** G 1/2" BSP, manual operation by push handle.

**INSTALLATION** Height assembly see pag. 42.

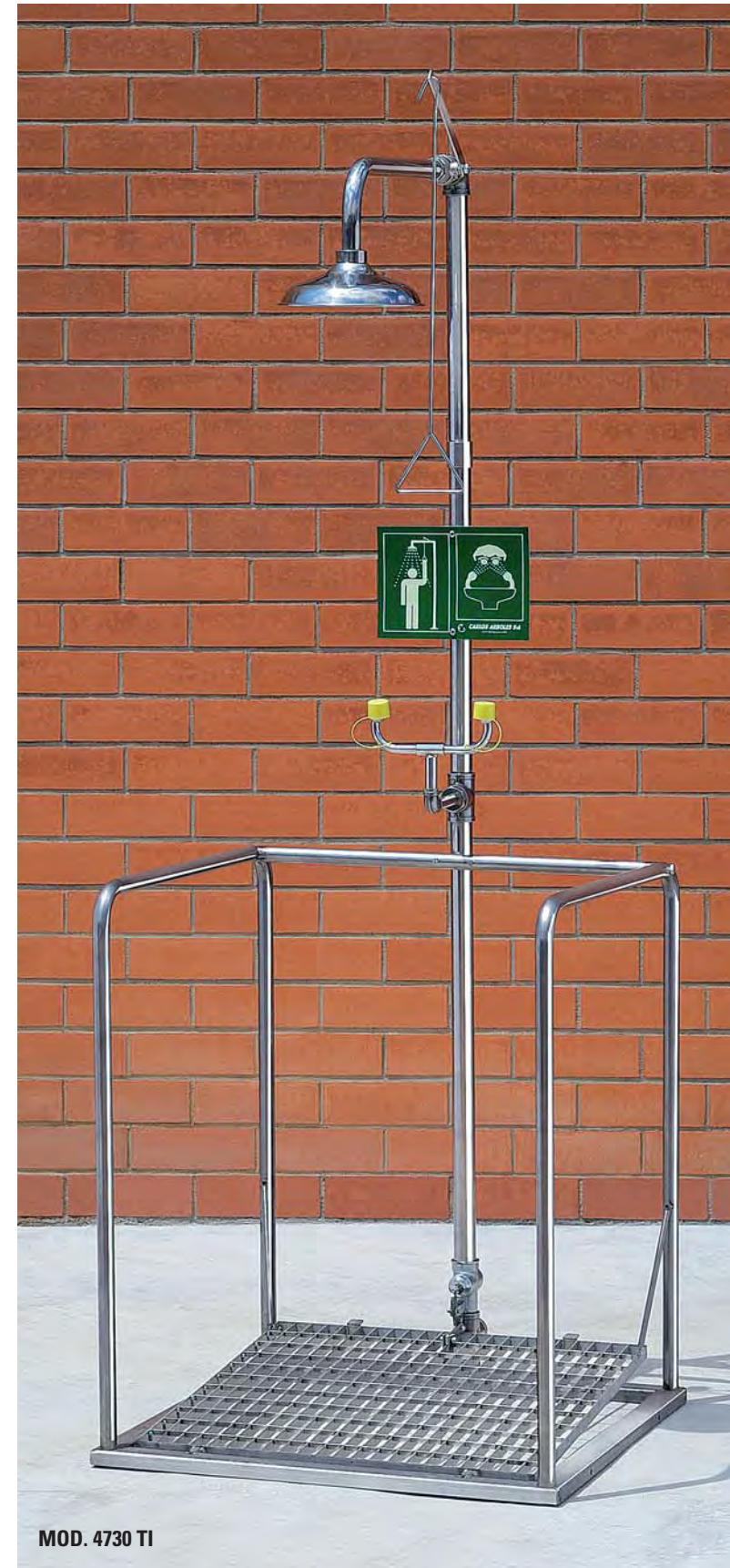
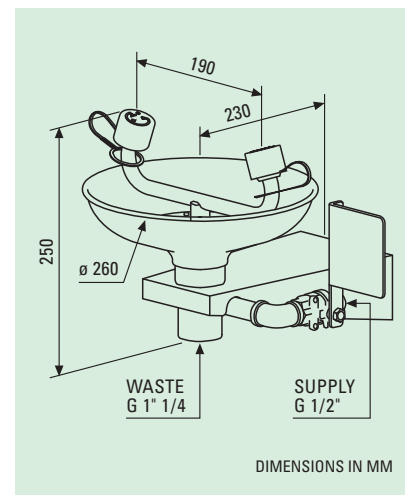
THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)



**EYEWASHES**

MODELS

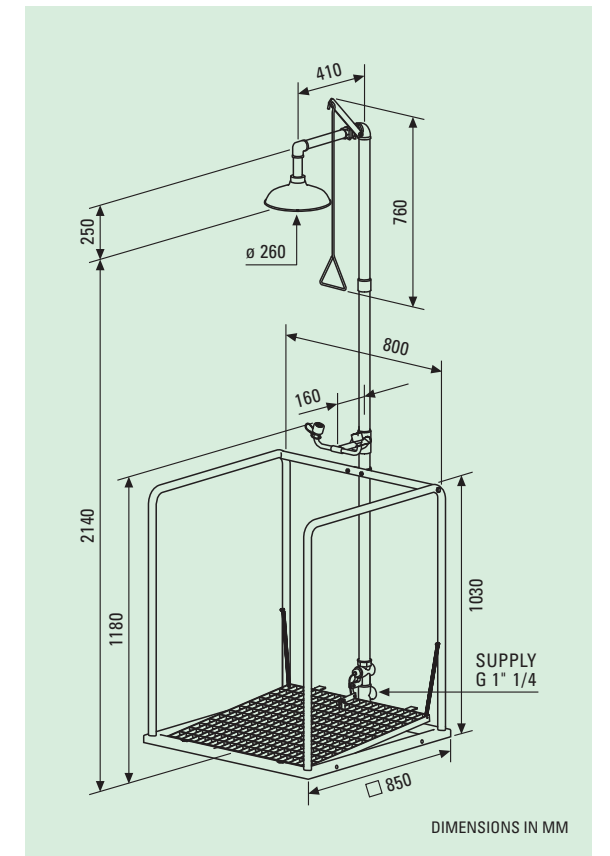
- 2210 TI** WALL EYEWASH WITH BOWL
- 2220 TI** PEDESTAL EYEWASH WITH BOWL
- 2710 TI** PEDESTAL EYEWASH WITH BOWL AND FOOT TREADLE
- 3510 TI** EYEWASH WITHOUT BOWL



**PLATFORMS**

MODELS

- 4700 TI** EMERGENCY SHOWER AND EYEWASH DOUBLE PLATFORM SEPARATE OPERATION
- 4710 TI** SHOWER PLATFORM, SHOWER HEAD ABS
- 4720 TI** EMERGENCY SHOWER AND EYEWASH PLATFORM SIMULTANEOUS OPERATION
- 4730 TI** EMERGENCY SHOWER AND EYEWASH PLATFORM INDEPENDENT OPERATION
- 4750 TI** EYEWASH PLATFORM







**USE**

The Self-draining Showers platforms in external facilities is completely automatic when a person enters the platform. Automatic drain valve for residual water.

**GENERAL FEATURES**

- MATERIALS** Galvanized steel piping. Brass fittings and Elbows.
- COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.
- WATER INLET** G 1/2" BSP or G 1" 1/4 BSP.
- WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 4 bar.

**SHOWER OPERATION** Pull handle.

**SHOWER VALVE** G 1" 1/4 BSP, regulated at 110 l/min.

**EYEWASH OPERATION** Step onto platform.

**EYEWASH VALVE** G 1/2" BSP, regulated at 22 l/min.

**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)



MOD. 4700

**PLATFORMS SHOWERS AND EYEWASHES**

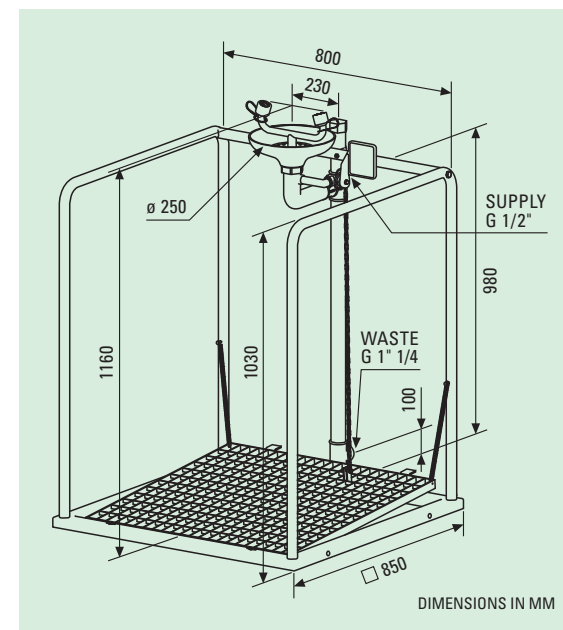
	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	
MODELS	4700	4700 SS	EMERGENCY SHOWER AND EYEWASH DOUBLE PLATFORM SEPARATE OPERATION



MOD. 4750

**PLATFORMS SHOWERS AND EYEWASHES**

	BOWL ABS	BOWL STAINLESS STEEL	
MODELS	4750	4750 SS	EYEWASH PLATFORM



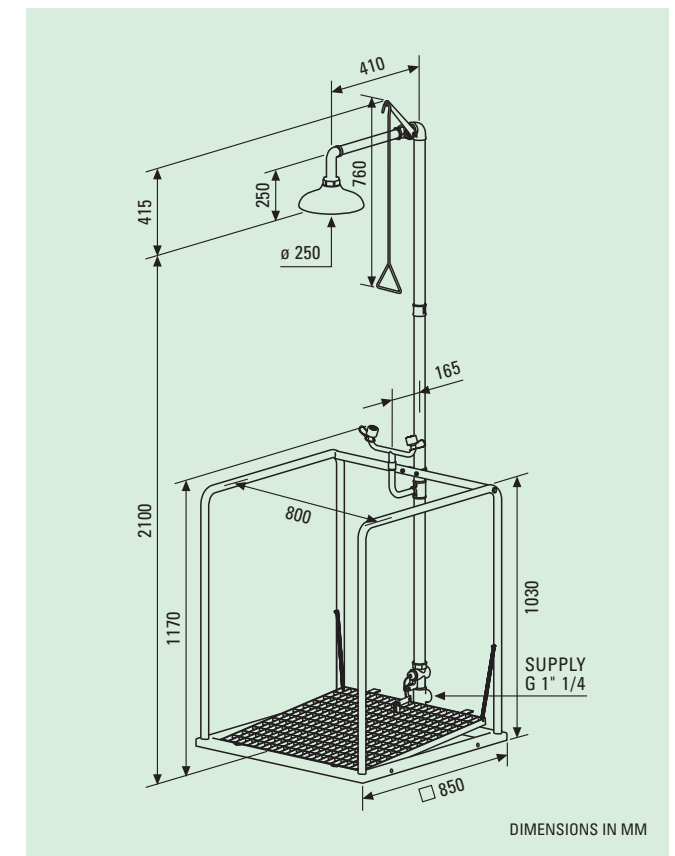
	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	
MODELS	4720	4720 SS	EMERGENCY SHOWER AND EYEWASH PLATFORM SIMULTANEOUS OPERATION
	4730	4730 SS	EMERGENCY SHOWER AND EYEWASH PLATFORM INDEPENDENT OPERATION



MOD. 4730



MOD. 4720





## USE

The Selfdraining Showers platforms in external facilities is completely automatic when a person enters the platform. Automatic drain valve for residual water. The Selfdraining Showers floor mounting are provided with drain valves which are activated after pushing the handle.

## GENERAL FEATURES

**MATERIALS** Galvanized steel piping. Brass fittings and Elbows.  
**COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.  
**WATER INLET** G 1/2" BSP or G 1" 1/4 BSP.  
**WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 4 bar.

**SHOWER OPERATION** Pull/push handle or step onto platform.  
**SHOWER VALVE** G 1" 1/4 BSP, regulated at 110 l/min.  
**EYEWASH OPERATION** Push handle or foot treadle or step onto platform.  
**EYEWASH VALVE** G 1/2" BSP, regulated at 22 l/min.  
**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

THE UPDATE OF OUR MODELS IS ON THE WEBPAGE  
[www.carlosarboles.com](http://www.carlosarboles.com)

# SELFDRAINING SHOWERS AND EYEWASHES

## FLOOR MOUNTING

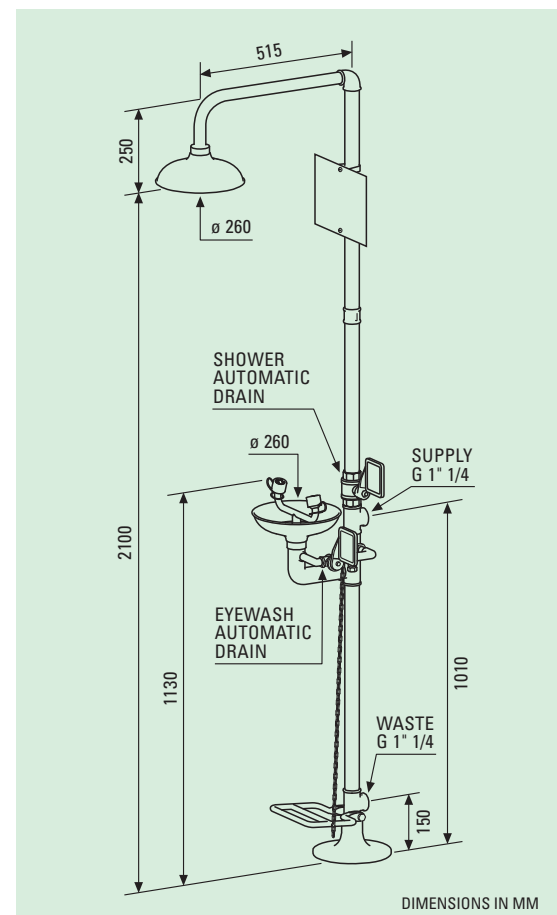
MODELS	SHOWER HEAD/BOWL	SHOWER HEAD/BOWL	
	ABS	STAINLESS STEEL	
4252	4252 FP/SS	4252 FP/SS	SIMULTANEOUS OPERATION FOOT TREADLE OPERATION
4253	4253 FP/SS	4253 FP/SS	INDEPENDENT OPERATION, PUSH HANDLE FOR SHOWER, HANDLE OR FOOT TREADLE FOR EYEWASH



MOD. 4253 FP/SS



MOD. 4252 FP/SS



DIMENSIONS IN MM



MOD. 4810

## PLATFORM SHOWERS

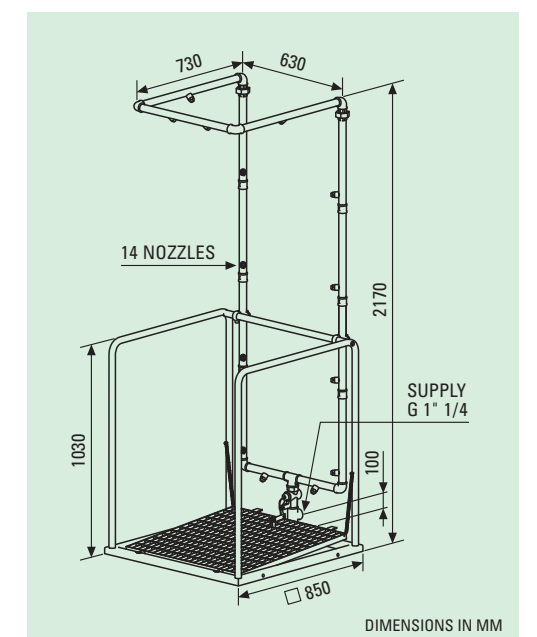
MODEL 4710  
SHOWER PLATFORM, SHOWER HEAD ABS  
 MODEL 4710 SS  
SHOWER PLATFORM, SHOWER HEAD STAINLESS STEEL

## DECONTAMINATION BOOTH

MODEL 4810  
PLATFORM WITH 14 SPRAYS



MOD. 4710



DIMENSIONS IN MM

**USE**

In outdoor facilities with extreme low or high temperatures. The floor equipment uses underground valves with automatic drains. The wall equipment is supplied inside the building. When the operating lever is pushed, the water enters the supply pipe to the Shower or Eyewash, when closing the valve after use the residual water drains via the automatic drain valve thus preventing the system from freezing.

**GENERAL FEATURES**

**MATERIALS** Galvanized steel piping. Brass fittings and Elbows.  
**COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.  
**WATER INLET** G 1/2" BSP, G 1" BSP or G 1" 1/4 BSP.  
**WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

**SHOWER/EYEWASH OPERATION** Pull lever handle/ Push handle.

**SHOWER VALVE** G 1" BSP, automatic drain. Manual opening and closing.

**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

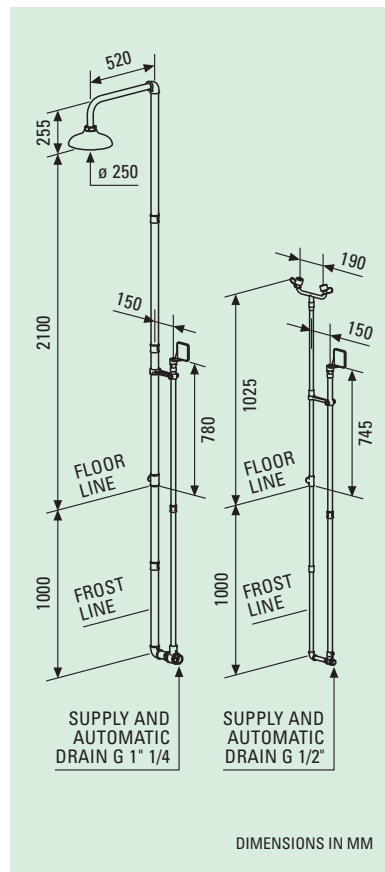
**EYEWASH VALVE** G 1/2" BSP, automatic drain. Manual opening and closing.

**INSTALLATION** Height assembly see pag. 42.

THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)

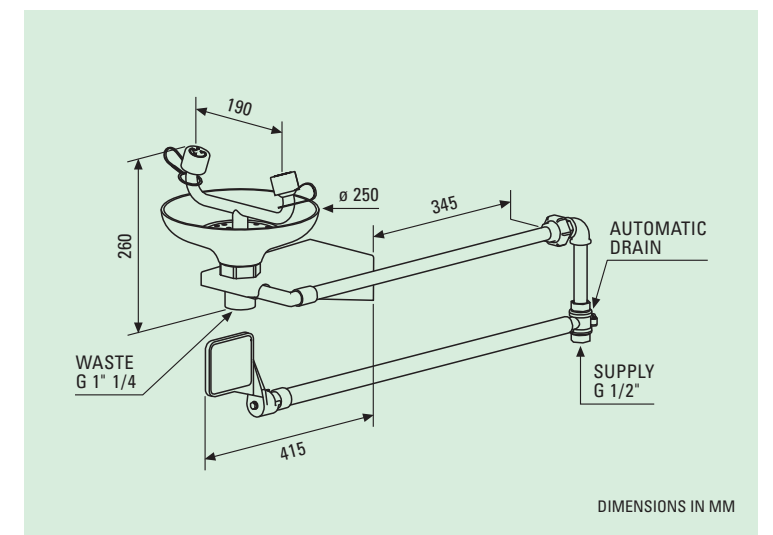
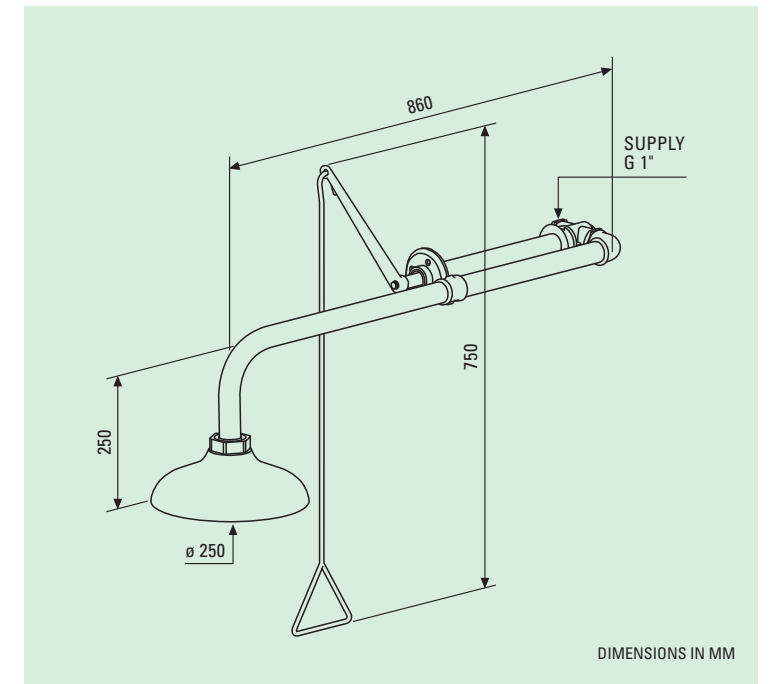
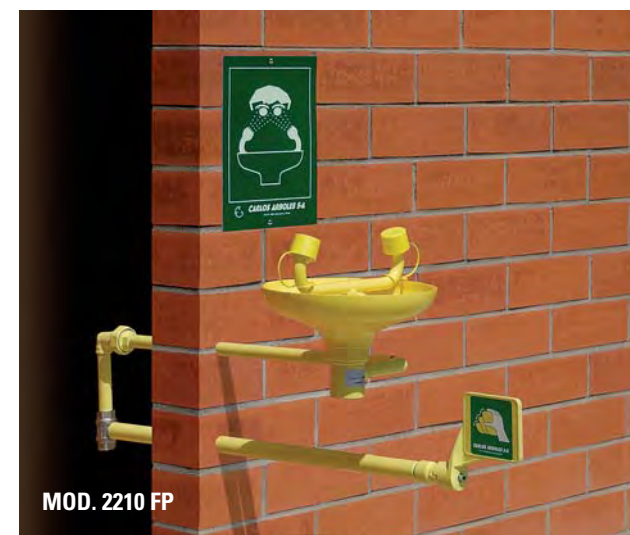
**UNDERGROUND FLOOR MOUNTING**

	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	
MODELS	1120 FP	1120 FP/SS	TEMPERATURE SHOWER PROTECTION
	2220 FP		TEMPERATURE EYEWASH PROTECTION



**UNDERGROUND WALL MOUNTING**

	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	
MODELS	1110 FP	1110 FP/SS	TEMPERATURE SHOWER PROTECTION
	BOWL ABS	BOWL STAINLESS STEEL	
MODELS	2210 FP	2210 FP/SS	TEMPERATURE EYEWASH PROTECTION



**USE**

In outdoor facilities with extreme low or high temperatures. The floor equipment uses underground valves with automatic drains. The wall equipment is supplied inside the building. When the operating lever is pushed, the water enters the supply pipe to the Shower or Eyewash, when closing the valve after use the residual water drains via the automatic drain valve thus preventing the system from freezing.

**GENERAL FEATURES**

**MATERIALS** Galvanized steel piping. Brass fittings and Elbows.  
**COATING** Anti-corrosive polyamide 11, high-visibility yellow plastic.  
**WATER INLET** G 1/2" BSP, G 1" BSP or G 1" 1/4 BSP.  
**WATER INLET PRESSURE** Recommended 2 bar. Minimum 1.5 bar. Maximum 8 bar.

**SHOWER/EYEWASH OPERATION** Pull lever handle/Push handle.

**SHOWER VALVE** G 1" BSP, automatic drain. Manual opening and closing.

**EYEWASH HEADS** Two high-flow aerated water spray heads at low pressure with automatic opening anti-dust cover.

**EYEWASH VALVE** G 1/2" BSP, automatic drain. Manual opening and closing.

**INSTALLATION** Height assembly see pag. 42.

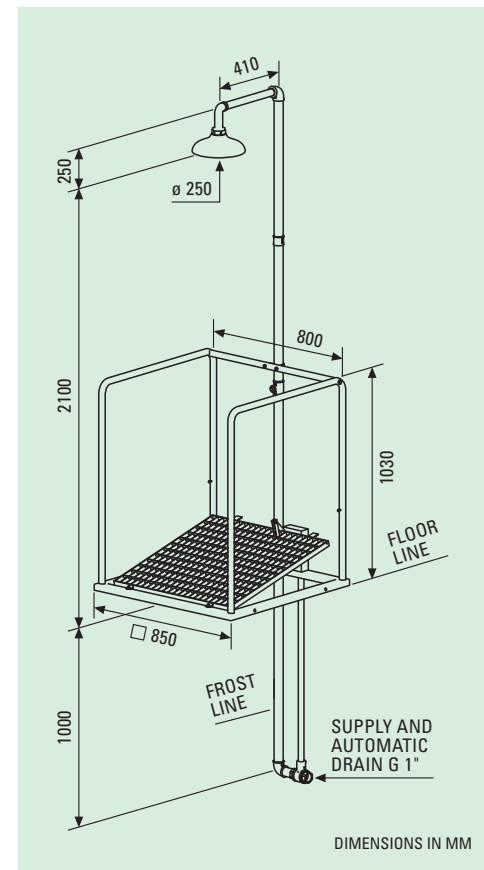
THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)



MOD. 4710 FP

**UNDERGROUND PLATFORM**

MODELS	SHOWER HEAD ABS	SHOWER HEAD STAINLESS STEEL	OPERATION
4700 FP	4700 FP/SS		EMERGENCY SHOWER AND EYEWASH DOUBLE PLATFORM SEPARATE OPERATION
4710 FP	4710 FP/SS		SHOWER PLATFORM
4720 FP	4720 FP/SS		EMERGENCY SHOWER AND EYEWASH PLATFORM SIMULTANEOUS OPERATION
4730 FP	4730 FP/SS		EMERGENCY SHOWER AND EYEWASH PLATFORM INDEPENDENT OPERATION
4750 FP	4750 FP/SS		EYEWASH PLATFORM
4810 FP			PLATFORM WITH 14 SPRAYS



DIMENSIONS IN MM



MOD. 4222 FP



MOD. 4222 FP

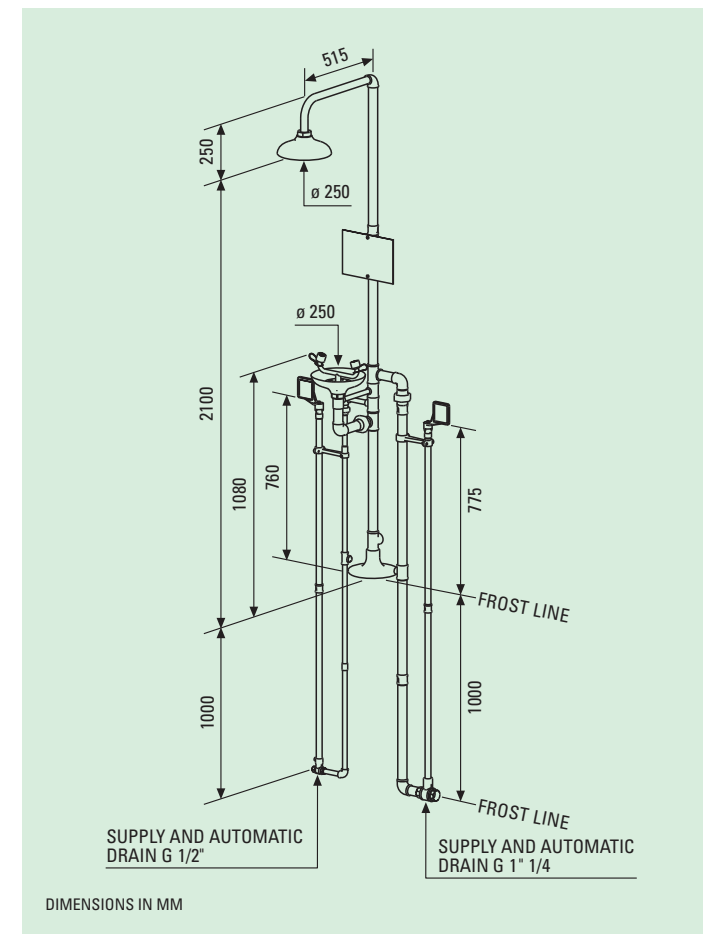
**UNDERGROUND FLOOR MOUNTING**

**MODEL 4222 FP**  
TEMPERATURE PROTECTION SHOWER/EYEWASH BOWL ABS, SIMULTANEOUS OPERATION

**MODEL 4222 FP/SS**  
TEMPERATURE PROTECTION SHOWER/EYEWASH STAINLESS STEEL, SIMULTANEOUS OPERATION

**MODEL 4223 FP**  
TEMPERATURE PROTECTION SHOWER/EYEWASH BOWL ABS, INDEPENDENT OPERATION

**MODEL 4223 FP/SS**  
TEMPERATURE PROTECTION SHOWER/EYEWASH STAINLESS STEEL, INDEPENDENT OPERATION



DIMENSIONS IN MM



## USE

Overhead Tank Showers are designed for remote location with inadequate water supply providing necessary water by gravity up to 15 min. according to standard.

In addition for extreme temperatures environment (hot/freeze conditions) are designed Underground Tank Showers. After use, pipes remain empty preventing the system from heat and freezing. Therefore, expensive chiller and heating systems are not required.

## GENERAL FEATURES OVERHEAD TANK

**MATERIALS** Tank, structure & piping in stainless steel.

**TANK CAPACITY** 1500 L.

**WATER FILLING** G 1" BSP.

**OVERFLOW INTEGRATED**

**SHOWER OPERATION** Pull rod.

**EYEWASH OPERATION** Push handle.

## GENERAL FEATURES UNDERGROUND TANK

**MATERIALS** Tank in polyethylene, shower platform in galvanized steel piping with anticorrosive polyamide 11 coating.

**TANK CAPACITY** 2000 L.

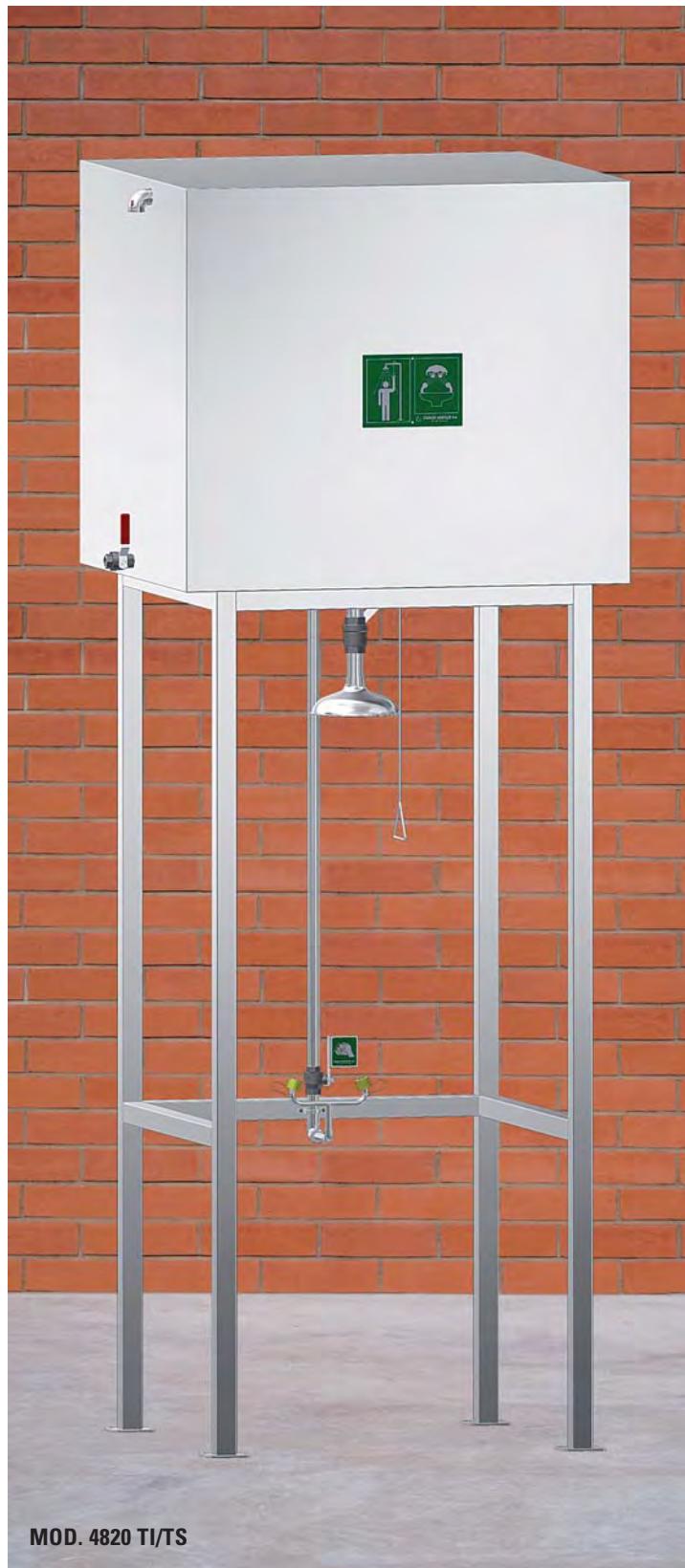
**ADJUSTABLE DOME SHAFT**

**WATER FILLING** Large oval lid, safe to walk on.

**ELECTRICAL** Submersible pump 230V 1.5Kw. Control box 230V /24V with platform limit switch.

THE UPDATE OF OUR MODELS IS ON THE WEBPAGE [www.carlosarboles.com](http://www.carlosarboles.com)

# TANK SHOWERS

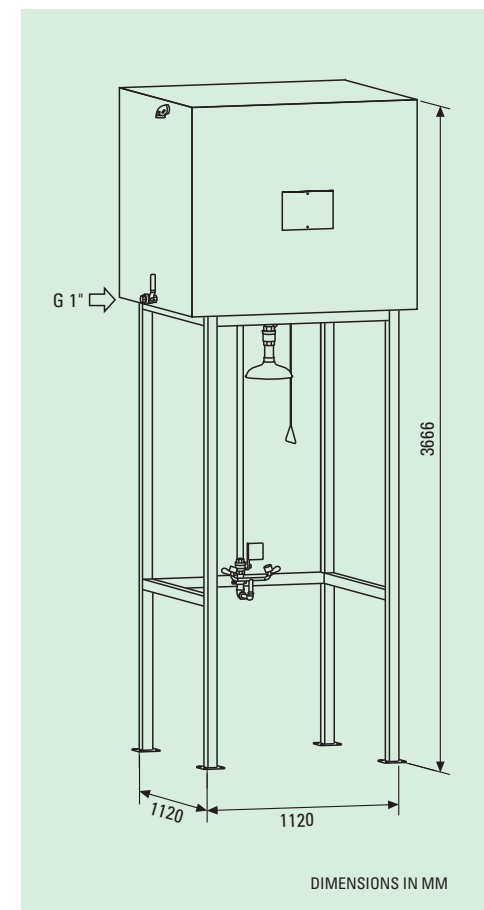


MOD. 4820 TI/TS

## OVERHEAD TANK

### MODELS

<b>4820 TI/TS</b>	EMERGENCY SHOWER AND EYEWASH WITH OVERHEAD TANK
<b>4830 TI/TS</b>	EMERGENCY SHOWER WITH OVERHEAD TANK



DIMENSIONS IN MM

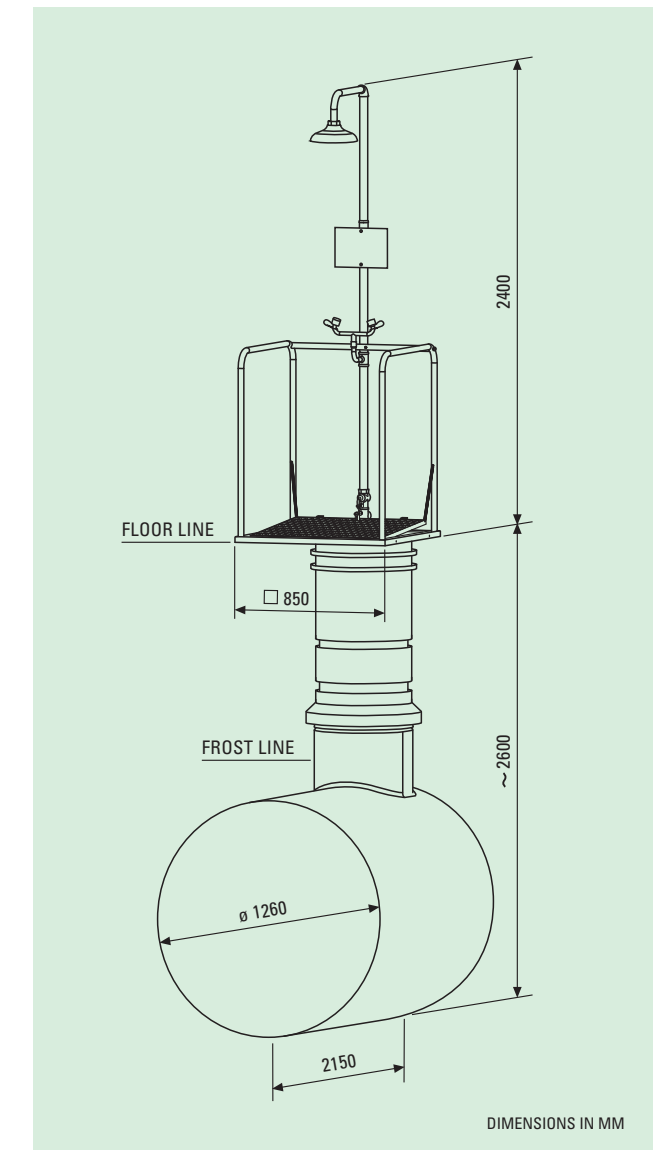


MOD. 4720 TS/FP

## UNDERGROUND TANK

### MODELS

<b>4710 TS/FP</b>	SHOWER PLATFORM WITH UNDERGROUND TANK
<b>4720 TS/FP</b>	SHOWER/EYEWASH PLATFORM WITH UNDERGROUND TANK, SIMULTANEOUS OPERATION
<b>4730 TS/FP</b>	SHOWER/EYEWASH PLATFORM WITH UNDERGROUND TANK, INDEPENDENT OPERATION



DIMENSIONS IN MM

## TEMPERED WATER

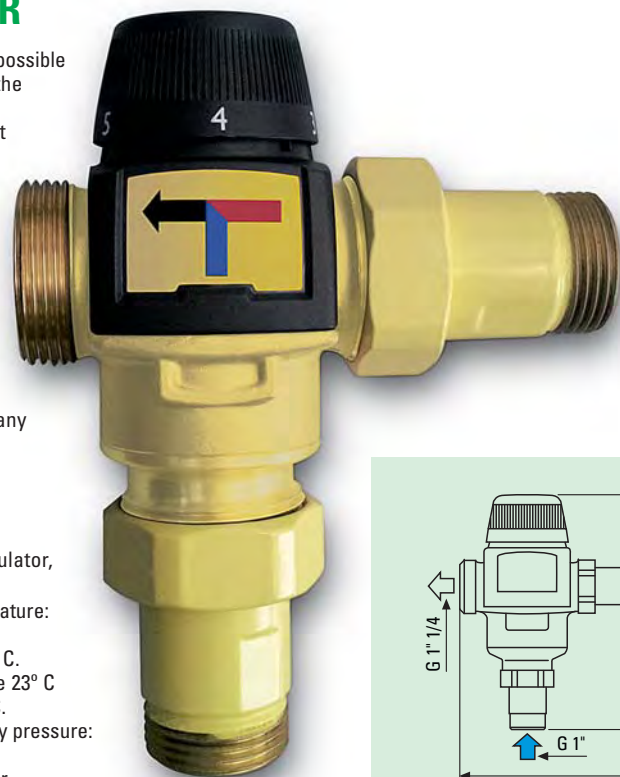
In order to avoid thermal shock it is possible to include a thermostatic mixer in the Shower and Eyewash, specifically designed for Emergency Equipment that supply tempered water. Standards recommends temperatures between 15° C - 37° C.

The valve mixes cold and hot water inlets to deliver tepid water at the desired temperature. On failure of hot water supply, internal cold water by-pass delivers cold water supply. On failure of cold water supply, hot water is shut down to prevent any damage on the user.

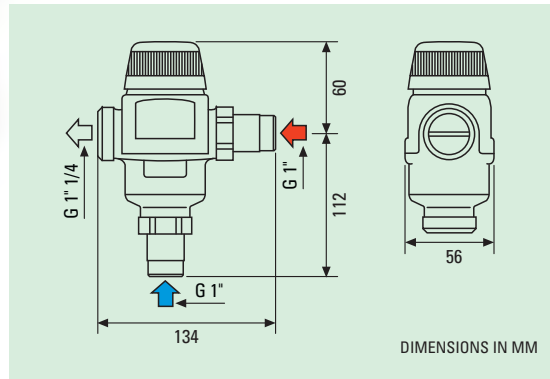
### SPECIFICATIONS

#### MODEL 195120

- Adjustable temperature knob regulator, from 20 to 43° C.
- Maximum hot water supply temperature: 100° C. For optimum performance, 50-70° C. Maximum cold water temperature 23° C for optimum performance, 5-10° C.
- Minimum hot and cold water supply pressure: 1.5 bar. Recommended 2 bar. Maximum supply pressure is 8 bar.
- G 1" male connections with check valves.
- Cold water by-pass delivers 105 lpm at 2 bar.



MODEL 195120  
THERMOSTATIC SAFETY VALVE 100



DIMENSIONS IN MM

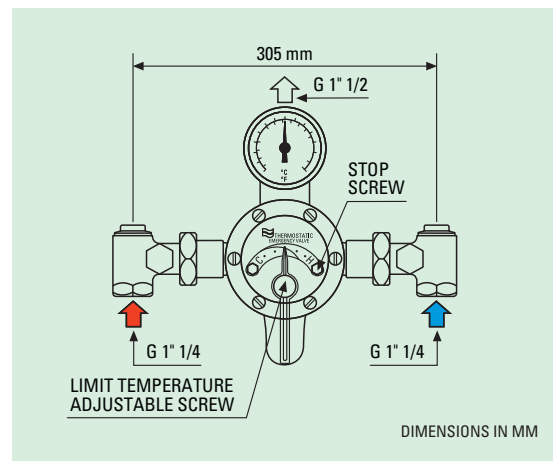
### SPECIFICATIONS

#### MODEL 195020

- Adjustable temperature regulator set for 29° C, high temperature limit stop set for 32° C.
- Thermometer display.
- Recommended hot inlet temperature, 60° C.



- Minimum hot and cold water supply pressure: 2 bar. Maximum supply pressure is 8 bar.
- G 1" 1/4 male connections with check valves.
- Cold water by-pass delivers 105 lpm at 2 bar.
- High flow mixer for multiple Showers/Eyewash.



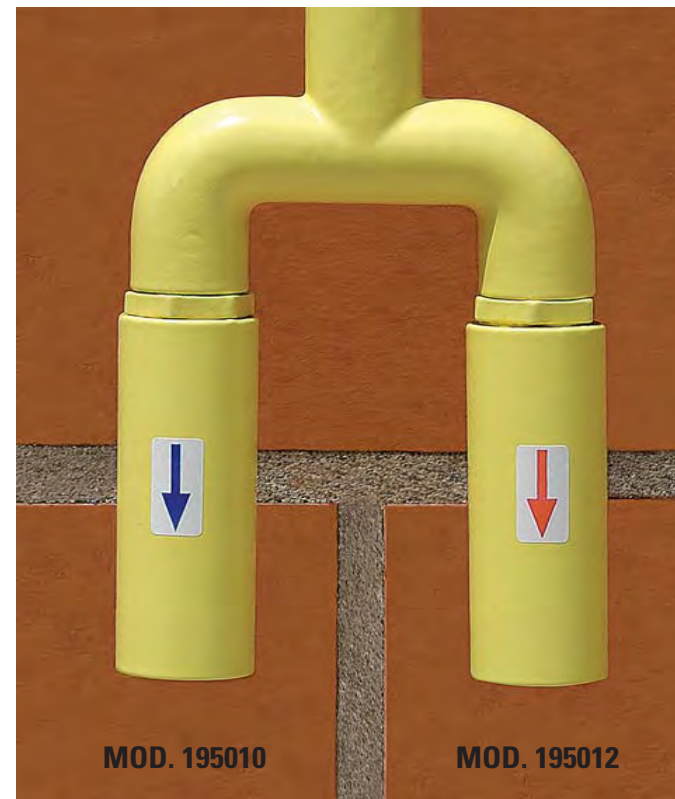
DIMENSIONS IN MM

MODEL 195020  
THERMOSTATIC SAFETY VALVE 150

## TEMPERATURE PROTECTION

Thermal actuated valves continually sense the water and the ambient temperature and automatically bleed the Shower/Eyewash systems to establish flow until the over temperature water is eliminated.

Operation: When the temperature exceeds safe limits, the thermal actuator modulates the valve open. A small quantity of water from the pipe system flows through the valve until the makeup water temperature returns to the safe range.



MODEL 195010  
FREEZE PROOF VALVE

MODEL 195012  
ANTI SCALD VALVE

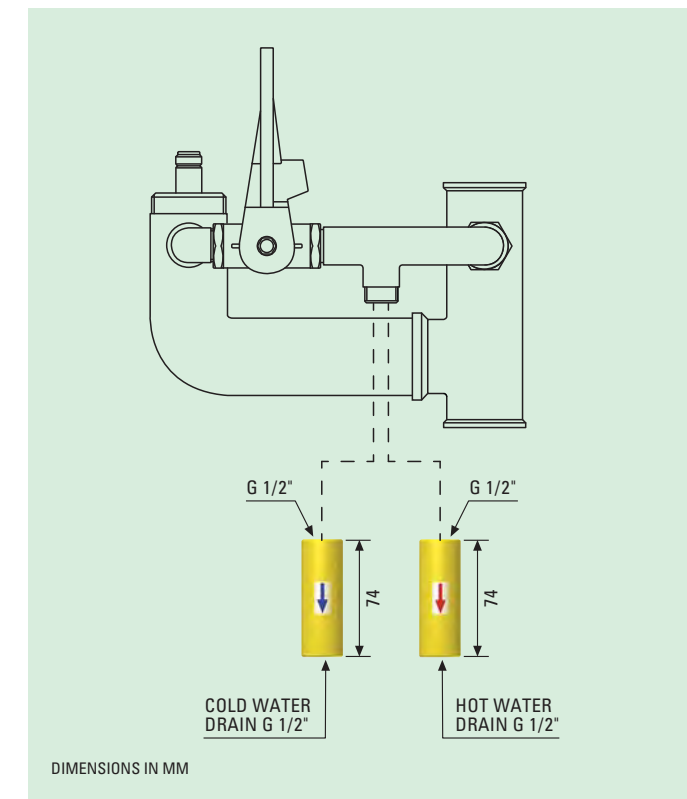
### SPECIFICATIONS

#### MODEL 195010

- Freeze protection valve
- Nominal pressure 2 bar.
- Maximum working pressure 4 bar.
- Temperature of maximum opening 2° C.
- Full close temperature 4.4° C.

#### MODEL 195012

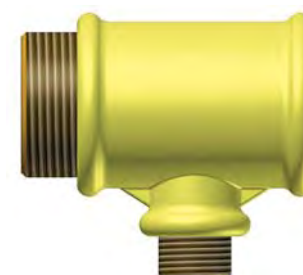
- Scald protection valve
- Nominal pressure 2 bar.
- Maximum working pressure 4 bar.
- Temperature of maximum opening 40.5° C.
- Full close temperature 35° C.



DIMENSIONS IN MM

VALVES ARE PROVIDED WITH G 1/2" FEMALE THREAD

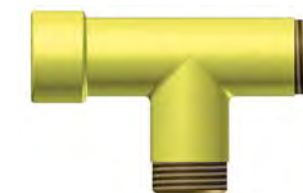
### EXTRA PARTS REQUIRED FOR INSTALLATION



MODEL 180600  
TE 1" 1/4 x 1/2"



MODEL 190500  
DERIVATION "U"



MODEL 860043  
TE 1/2" x 1/2" x 1/2"

**BOOTH STRUCTURE**

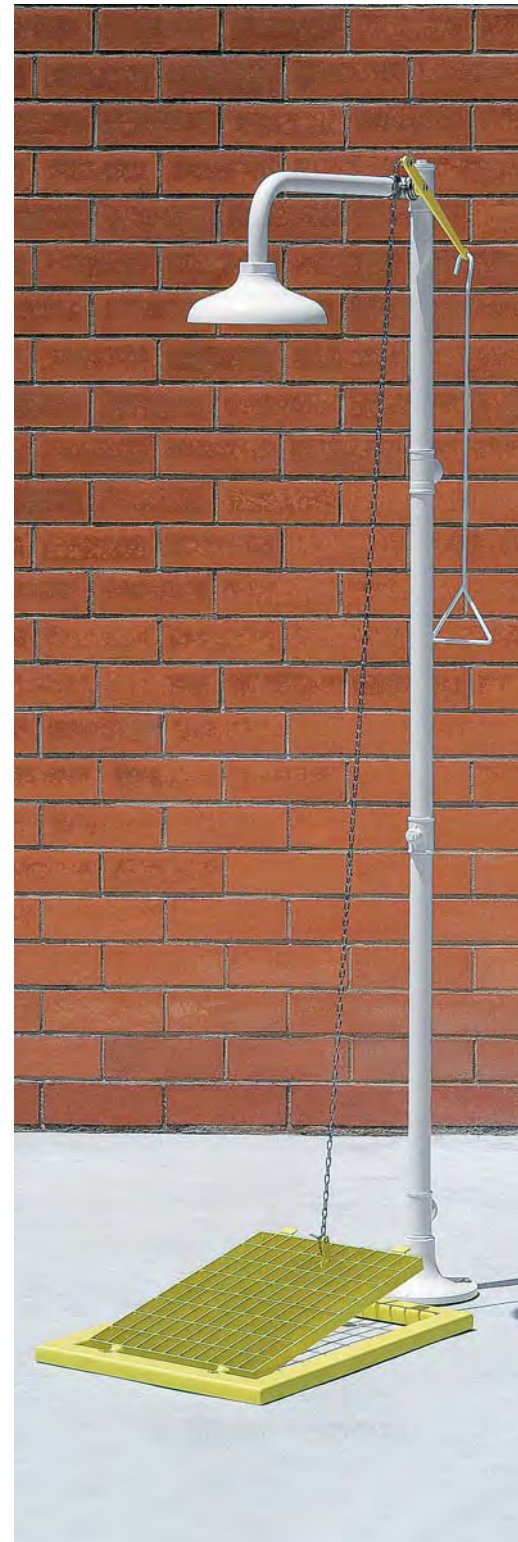
Made from coated steel to be fastened on the floor. The three sides are closed by PMMA panels in high-visibility yellow. The structure reduces the thermal shock, and protects from the wind and cold.



**MODEL 194740**  
STRUCTURE FOR DECONTAMINATION BOOTH AND PLATFORM SHOWERS

**SHOWER PLATFORM**

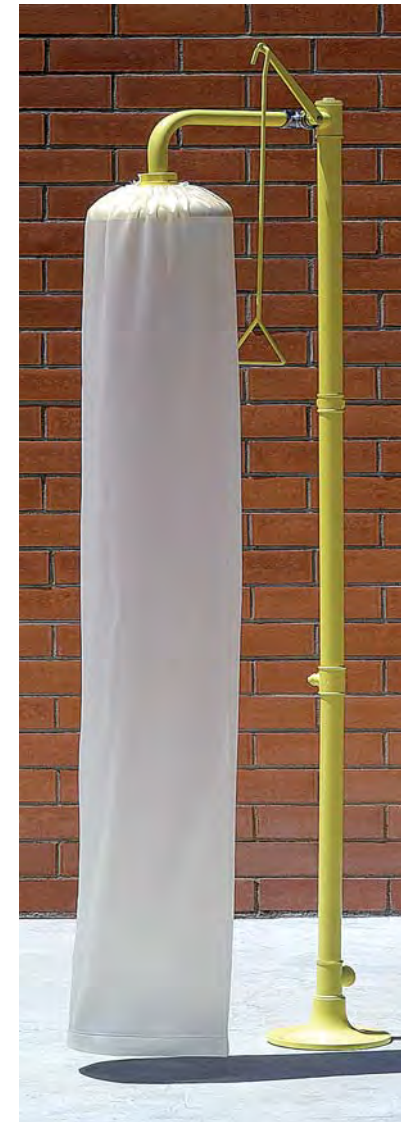
Accessory to activate all to the platform Showers, models 1120 - 4220 - 4230 - 4250 - 4260, and close the Shower by a lever.



**MODEL 194900**  
SHOWER PLATFORM  
FOR MODELS 1120 - 4220 - 4230 - 4250 - 4260

**SHOWER TEST**

Essential for flow control of the Emergency Shower Stations. Made of a PVC plastic tube.



**MODEL 195003**  
TEST FOR SHOWER



**MODEL 190121**  
WALL SUPPORT MODEL 1110

**ALARM**

Visual and sonorous alarm activated when the water flows through the piping when activating the Emergency Equipment. Optionally, it sends an operation signal to the control or emergency room of the facility.



**MODEL 195030**  
ALARM KIT FOR NON-EXPLOSIVE ATMOSPHERES FOR SHOWERS/EYEWASH

**MODEL 195040**  
ALARM KIT FOR EXPLOSIVE ATMOSPHERES FOR SHOWERS/EYEWASH

**ALARM KIT**

**SUPPLY CONDITIONS**

Installation must be carried out by qualified personnel.

**CONNECTIONS**

- G 1" male connection (to water supply piping)
- G 1" 1/4 male connection (to safety equipment's water inlet).

*Other connections are available*

**WATER SUPPLY PRESSURE**

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



**MODEL 195030**  
**ALARM KIT FOR NON EXPLOSIVES ATMOSPHERES**

220-240 VAC 1 A 50/60 Hz (Schuko connection).  
IP43 Protection.

**FLOWSWITCH**

- Max swichting voltage 230 VAC, 48 VDC.
- Max swichting current 1A.
- Connecting cable lenht 1.5 m, 2 x 0.5 mm 2.

**VISUAL AND AUDIBLE ALARM**

- Orange flashing light 110 flash/min.
- Continous sound 92 db.

**MODEL 195040**  
**ALARM KIT FOR EXPLOSIVES ATMOSPHERES**

220-240 VAC 1 A 50/60 Hz (Schuko connection).  
Group II, Zone 1, Category 2G.

*Other classifications available upon request.*

**FLOWSWITCH**

- Max swichting voltage 250 VAC/VDC.
- Max swichting current 5A AC/1 A DC.
- Connecting cable lenht 2.5 m, 3 x 0.75 mm 2.

**VISUAL ALARM**

- Orange flashing light up to configurable 120 flash/min.

**AUDIBLE ALARM**

- Continous sound, regulable 90-110 db.

# EMERGENCY SHOWER AND EYEWASH

The following are the basic installation standards for Emergency Equipment.

## INSTALLATION

### EMERGENCY EQUIPMENT LOCATION

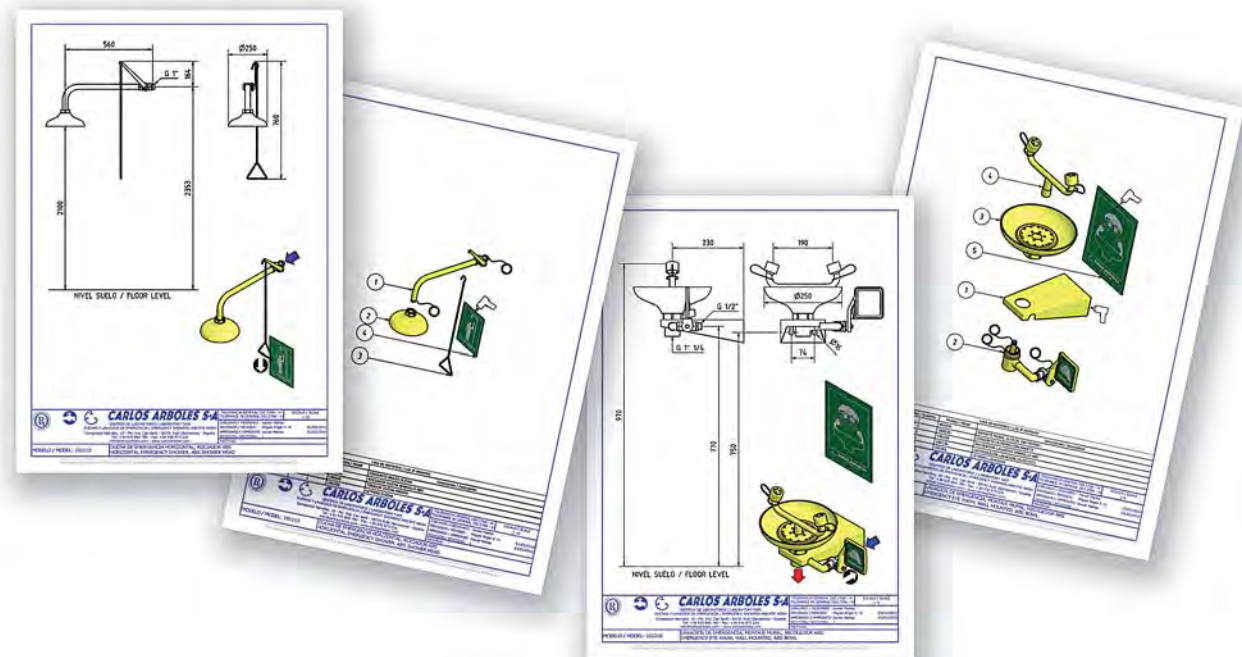
The location of Emergency Equipment should comply with the following conditions:

- It should be installed in places that are highly-visible and easily accessed from at least in three directions.
- It should be installed in those areas where there is danger, and should not be more than 10 seconds away from the area where accidents can occur. Where there is an immediate risk from concentrated chemicals, equipment should be adjacent to the risk.
- It should be placed at the same level as the source of danger, without any obstruction in the path to the Emergency Equipment, such as doors, trip hazards, steps or matting, etc..

### ASSEMBLY

It is recommended to assemble the Emergency Equipment as indicated by the assembly drawing. The necessary means are as follows:

- Pipe sealings.
  - Tools to fasten the equipment to the surface.
- It is recommended to install the Emergency Showers that are not fastened to the ground at a height where the spray head is between 210 and 230 cm above the level where the user will stand.
- It is recommended to install the Emergency Eyewashes that are not fastened to the ground at a height where the output nozzles of the Eyewashes are between 90 and 110 cm above the level where the user will stand.



### WATER SUPPLY

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

- It should be supplied from the main or the emergency piping. The diameter of the supply tube should be at least G 1" BSP.
- An inlet pressure of 2 bar is recommended for the Emergency Equipment. For correct operation, the minimum pressure is 1.5 bar, and the maximum pressure is 4 bar or 8 bar depending on equipment.
- A water temperature between 15° C and 37° C is recommended.
- It is recommended to install a filter, as well as to drain the piping before installing the Emergency Equipment.
- Potable water, or of similar quality is required.
- Drainage system are recommend for Eyewash and floor drains for Showers in order to avoid hazard or slippery surfaces. After use waste water may be connected waste disposal system or neutralization tank.

## OPERATION

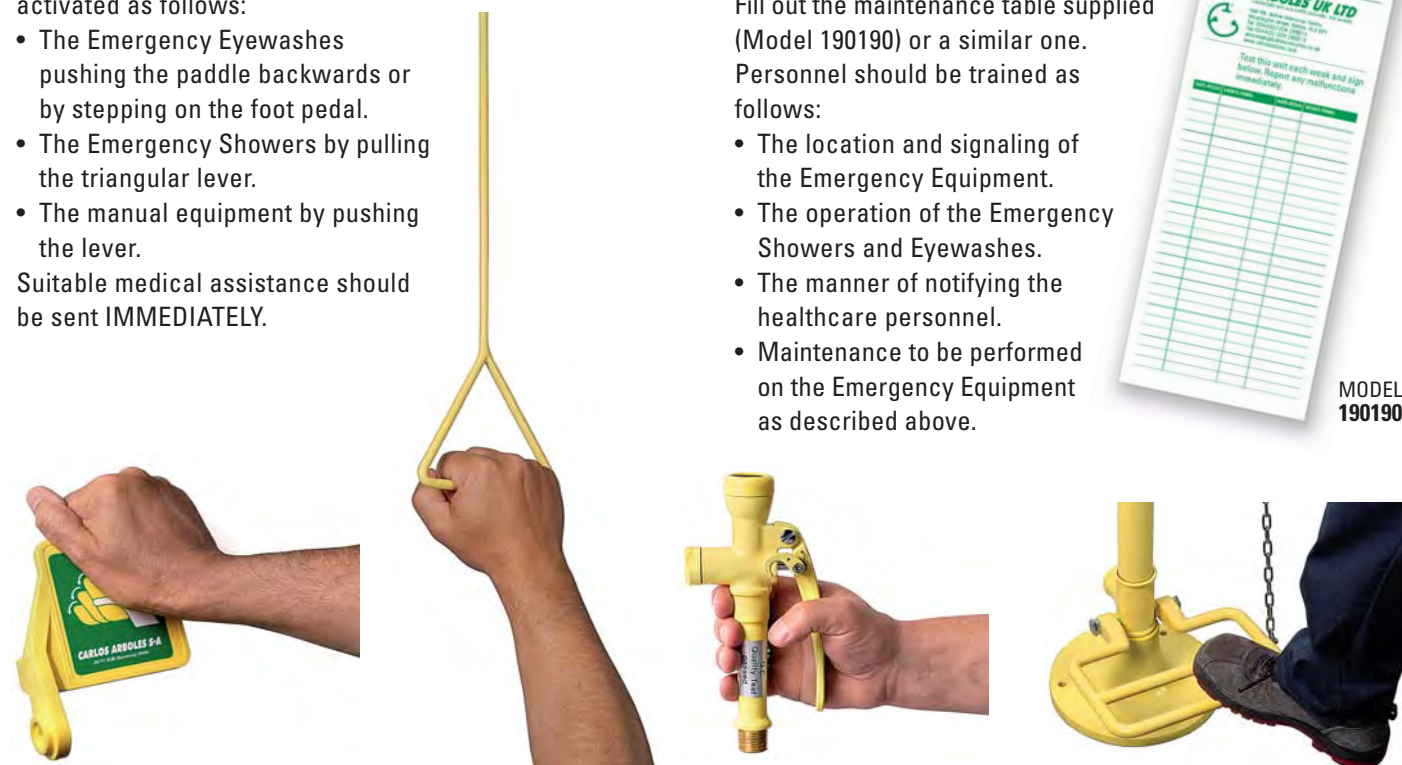
### ACTIVATION

In case of accident, the injured person should shower or wash his/her eyes IMMEDIATELY for a minimum of 15 minutes.

The Emergency Equipment is quickly activated as follows:

- The Emergency Eyewashes pushing the paddle backwards or by stepping on the foot pedal.
- The Emergency Showers by pulling the triangular lever.
- The manual equipment by pushing the lever.

Suitable medical assistance should be sent IMMEDIATELY.



## MAINTENANCE

### MAINTENANCE AND TRAINING

The operation of the Emergency Showers and Eyewashes should be verified at least ONCE a week in order to guarantee the water supply and to prevent the proliferation of microbes.

Fill out the maintenance table supplied (Model 190190) or a similar one. Personnel should be trained as follows:

- The location and signaling of the Emergency Equipment.
- The operation of the Emergency Showers and Eyewashes.
- The manner of notifying the healthcare personnel.
- Maintenance to be performed on the Emergency Equipment as described above.



## SIGNS

### PLATES

Each piece of equipment that we manufacture is provided with a plate or sign to signal the unit (except in the table assembly models). The plates are photoluminescent, with a green background, and white text.

Dimensions: 210 x 297 mm



MODEL 191004



MODEL 191005



MODEL 191006



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

THE UPDATE OF OUR MODELS IS ON THE WEBPAGE  
[www.carlosarboles.com](http://www.carlosarboles.com)

**ASK ABOUT AVAILABILITY OF OTHER SPARE PARTS**

**SPARE PARTS**



**MODEL 190100**  
SHOWER HEAD ABS HIGH VISIBILITY YELLOW G 1"

**MODEL 190112**  
SHOWER HEAD ABS HIGH VISIBILITY YELLOW G 1 1/2"



**MODEL 192100**  
SHOWER HEAD STAINLESS STEEL G 1"

**MODEL 192112**  
SHOWER HEAD STAINLESS STEEL G 1 1/2"



**MODEL 190150**  
ABS HIGH VISIBILITY YELLOW BOWL



**MODEL 191150**  
STAINLESS STEEL BOWL



**MODEL 192148**  
DOUBLE EMERGENCY EYEWASH



**MODEL 190131**  
COMPLETE FOOT CONTROL ASSEMBLY



**MODEL 190123**  
EYEWASH HEAD COVER



**MODEL 190145**  
EYEWASH VALVE G 1/2" BSP



**MODEL 190135**  
EYEWASH HEAD

**MODEL 192145**  
EYEWASH VALVE G 1/2" BSP WITH DRAIN



**MODEL 190148**  
EMERGENCY EYEWASH



**MODEL 190146**  
PUSH HANDLE PLASTIC

**MODEL 193146**  
PUSH HANDLE ALUMINIUM



**MODEL 190136**  
EYEWASH HEAD ASSEMBLY IN ABS

**MODEL 193136**  
EYEWASH HEAD ASSEMBLY IN BRASS



**MODEL 190108**  
SHOWER VALVE G 1" BSP



**MODEL 190106**  
SHOWER HANDLE



**MODEL 191136**  
EYEWASH HEAD ASSEMBLY IN STAINLESS STEEL



**MODEL 190400**  
SHOWER VALVE WITH DRAIN G 1 1/4 BSP



**MODEL 190125**  
EYEWASH BRACKET



**MODEL 190109**  
WALL BRACKET



**MODEL 190160**  
WALL BRACKET WITH WATER INLET



**MODEL 190105**  
PULL ROD



1,5 M FLEXIBLE STAINLESS STEEL HOSE

**MODEL 190149**  
FOR SINGLE EYEWASH

**MODEL 190151**  
FOR DOUBLE EYEWASH



**MODEL 190402**  
PLATFORM VALVE WITH DRAIN G 1 1/4 BSP



ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ

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## **CARLOS ARBOLES S.A**

LABORATORY TAPS AND SAFETY SHOWERS - EYEWASHES



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