Eye wash series

Introduction: Eye wash is an emergency rescue facility mainly used for emergency flushing when toxic, harmful or corrosive chemicals splash into the eyes or body, in order to reduce the further harm of chemicals to the human body. Eye wash stations are usually equipped with eye wash nozzles and spray systems. Eye wash nozzles are used to clean the eyes and face, while spray systems are used to rinse other parts of the body. These devices are generally installed near workplaces that may come into contact with harmful chemicals, such as chemical plants, laboratories, electronics factories, etc., so that they can be quickly found and used in emergency situations. The safety spray eye wash is an essential equipment for safety and labor protection. It is an emergency and protective facility necessary for situations where toxic and corrosive substances such as acids, alkalis, and organic matter come into contact. In the event of an accidental injury accident, the rapid spraying and flushing of this product can minimize the degree of injury. Its main performance parameters are selected and determined taking into account the medical safety required for the harm and irritation of harmful substances to human skin and eye surface during accidents, and referring to the provisions of the American ANSI Z358.1 standard.

3.1 Selection of eyewash and shower equipment

When choosing eyewash or shower equipment, in addition to considering the environmental factors of on-site use, it is also necessary to consider the standards and technical requirements that the eyewash or shower equipment itself should meet, as well as the after-sales service and safety performance of the equipment. Due to the special requirements of eyewash and shower equipment, there will be corresponding regulations on the materials of the equipment. At present, in the domestic market, the eyewash and shower heads of imported eyewash and shower equipment generally use ABS material, while other components are made of stainless steel or copper pipes coated with ABS material. Domestic eyewash and shower equipment generally use corrosion-resistant, rust resistant, non-toxic stainless steel materials that are sturdy and durable. In the cold weather of the north, it is possible to consider installing antifreeze devices or other requirements, such as installing lighting equipment.

3.2 Installation of eyewash and shower equipment

3.2.1. Installation requirements: According to the ANSI Z358-1-2004 American eyewash standard, the installation of eyewash and shower equipment should be carried out in accordance with the relevant user instructions.

3.2.2 Eye wash and shower equipment should be installed near the source of danger, preferably within 10 seconds of quickly reaching the area of the eye wash and shower equipment. They should also be installed on the same horizontal plane as much as possible, preferably in a straight line to avoid crossing the rescue layer.

3.2.3 There are conspicuous signs around the eyewash and shower equipment. It is best to use

bilingual Chinese and English signs and illustrations to clearly indicate the location and purpose of the eye wash and shower equipment to the workers on the production site.

3.2.4 During normal operation, each component of the eyewash and shower equipment should meet the requirements of the ANSI Z358-1-2004 standard, and each nozzle should be able to be used independently at the same time. In areas in the north where ice may freeze in winter, it is necessary to add antifreeze devices or install antifreeze protection facilities next to the equipment.

3.2.5 After the installation of various components of the eyewash and shower equipment is completed, the following requirements should also be met:

a. When the eye wash and shower equipment are correctly connected to the water source and all valve switches are closed, there should be no water leakage in the connected pipelines.

b. When the operation switches of the eyewash and shower equipment are fully open, all valves must remain normally open, except for human factors. When all switches of the equipment are fully operational, the entire equipment should meet the requirements of the ANSI Z358-1-2004 standard.

3.2.6 Requirements for installation location of eye wash and shower equipment

3.2.7. Eye wash and shower equipment should be installed near the source of danger, preferably within 10 seconds of quickly reaching the area of the eye wash and shower equipment, and should be installed on the same horizontal plane as much as possible, preferably in a straight line, to avoid crossing the rescue layer.

3.2.8 In special circumstances, eye wash and shower equipment should meet specific requirements. For example, when working in environments that may come into direct contact with strong acids or alkalis, or other toxic and harmful substances that have strong corrosive properties or are easily absorbed by the skin, eye wash and shower equipment must be installed in the nearest location to the source of danger.

3.2.9 In laboratories that may come into contact with the toxic and harmful chemicals mentioned above, eye wash stations and shower equipment are generally installed on the internal passages of the laboratory. But sometimes the work location is far away from the eye wash and shower equipment, which may delay the rescue time. In this case, it is recommended to install hoses for eye wash and shower equipment next to the laboratory sink. This type of device is more convenient and practical. When dangerous chemicals accidentally splash onto the eyes, face, or other parts, this device can be used as soon as possible for flushing, providing timely protection.

3.3 Types of eyewash products

3.3.1 Standard composite eye wash

1. Pedal (optional), hand foot linkage, more convenient operation. Step on the pedal or push open the hand push board, turn on the eye wash switch, turn off the hand push board, and turn off the eye wash switch.

2. High performance drainage and antifreeze device. After use, turn off the water inlet control

switch to manually drain the accumulated water inside the equipment for antifreeze effect, effectively solving the serious consequences caused by pipeline icing and inability to use due to low ambient temperature.

3. Flow regulator, which can adjust the size of water flow according to the pressure of the water source. Effectively prevent secondary injury to the injured caused by high water pressure.

Basic technical parameters:

1. Design and Manufacturing Standards: ANSI Z358.1-2014, GB-T 38144.1 2-2019, SH T 3205-2019

2. Main material: SS304 (optional SS316L)

3. Function: Eye wash+shower

4. Working environment temperature: 0 '℃~55' ℃ 5. Applicable medium: normal temperature, drinking water or clean water that meets hygiene standards

6. Nominal pressure: 1.0MPa

7. Work pressure: 0.2MPa~0.4MPa

8. Inlet size: 1-1/4 "internal thread (customizable according to user requirements) 9. Drain size: 1-1/4" internal thread (customizable according to user requirements)

10. Flushing flow rate: ≥ 75.7L/min

11. Eye wash flow rate: ≥ 11.4L/min. The eye wash nozzle is equipped with a buffering device to prevent secondary damage to the injured person's eyes caused by water flow

12. Shower nozzle: standard ABS shower nozzle, optional stainless steel shower nozzle

13. Eye wash nozzle: standard ABS eye wash nozzle, optional stainless steel eye wash nozzle



3.3.2 ABS composite eye wash

Surface sprayed with ABS anti-corrosion coating, effectively resistant to various chemical corrosion such as acid, alkali, salt, oil, etc.

①. Pedal (optional) with hand foot linkage, making operation more convenient. Step on the

pedal or push open the hand push board, turn on the eye wash switch, turn off the hand push board, and turn off the eye wash switch.

②. High performance drainage and antifreeze device. After use, turn off the water inlet control switch to manually drain the accumulated water inside the equipment for antifreeze effect, effectively solving the serious consequences caused by pipeline icing and inability to use due to low ambient temperature.

③. A flow regulator can adjust the size of water flow according to the pressure of the water source. Effectively prevent secondary injury to the injured caused by high water pressure.

1) Basic technical parameters

1. Design and Manufacturing Standards: ANSI Z358.1-2014, GB-T 38144.1 2-2019, SH T 3205-2019

2. Main material: SS304 (optional SS316L)+ABS

3. Function: Eye wash+shower

4. Working environment temperature: 0 ℃~55 ℃

5. Applicable medium: drinking water or clean water at room temperature that meets hygiene standards

6. Nominal pressure: 1.0MPa

7. Work pressure: 0.2MPa~0.4MPa

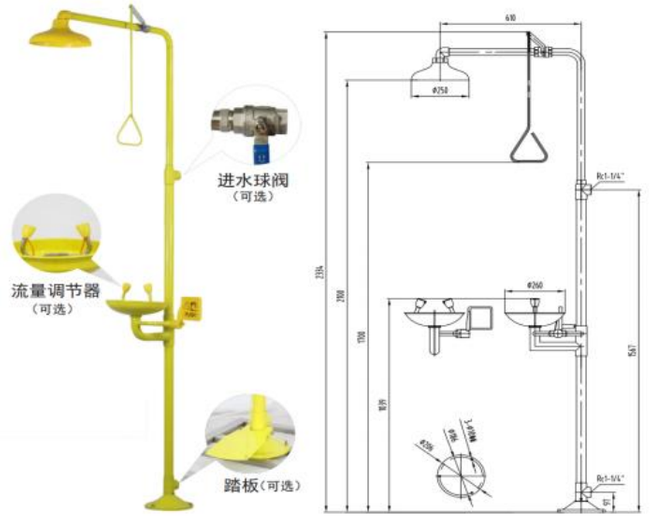
8. Inlet size: Internal thread 1-1/4 "(can be customized according to user requirements)

9. Drainage outlet size: Internal thread 1-1/4 "(can be customized according to user requirements)

10. Flushing flow rate: ≥ 75.7L/min

11. Eye wash flow rate: ≥ 11.4L/min. The eye wash nozzle is equipped with a buffering device to prevent secondary damage to the injured person's eyes caused by water flow

12. Shower nozzle: standard ABS shower nozzle, optional stainless steel shower nozzle



3.3.3. Automatic emptying and antifreeze composite eye wash

Easy to use and convenient to operate. When in use, stepping on the pedal will automatically release water, leaving the pedal will automatically turn off the water inlet control switch, and the equipment will automatically switch to an empty state, automatically draining the accumulated water inside the pipeline and achieving the effect of anti freezing. Optional flow regulator, which can adjust the water flow size according to the water source pressure. Effectively prevent secondary injury to the injured caused by high water pressure.

1) Basic technical parameters:

1. Design and Manufacturing Standards: ANSIZ358.1-2014,GB-T 38144.1 2-2019,SH T 3205-2019

2. Main material: SS304 (optional SS316L)

3. Function: Eye wash+shower

4. Working environment temperature:- 10℃~55℃

5. Applicable medium: drinking water or clean water at room temperature that meets hygiene standards

6. Nominal pressure: 1.0MPa

7. Work pressure: 0.2MPa~0.4MPa

8. Inlet size: 1 "internal thread (can be customized according to user requirements)

9. Drainage outlet size: 1 "external thread (can be customized according to user requirements)

10. Flushing flow rate: ≥ 75.7L/min

11. Eye wash flow rate: ≥ 11.4L/min, the eye wash nozzle is equipped with a buffering device to prevent secondary damage to the injured person's eyes caused by water flow

12. Shower nozzle: standard ABS shower nozzle, optional stainless steel shower nozzle

13. Eye wash nozzle: standard ABS eye wash nozzle, optional stainless steel eye wash nozzle



3.3.4 Explosion proof electric heat tracing composite eye wash

Using electric heat tracing and heat tracing to provide insulation and antifreeze for pipelines. The electric heat tracing belt adopts a dual temperature control system of self limiting electric heat tracing belt and temperature control, effectively preventing the continuous heating of the pipeline water temperature due to temperature control failure of the electric heat tracing belt, causing secondary injury to the injured, and effectively ensuring the safety of the equipment. Power indicator light, when the device is powered on, the light indicates that the device is in a powered state. Work indicator light: When the electric heat tracing is heating, the work indicator light lights up, indicating that the equipment is in working condition. Efficient automatic emptying device: The equipment can empty the accumulated water in the eye wash elbow within 3 seconds, effectively preventing the water in the pipeline from freezing during the emptying process due to low ambient temperature. Causing the device to be unusable. Optional flow regulator, which can adjust the water flow size according to the water source pressure. Effectively prevent secondary injury to the injured caused by high water pressure.

1) Basic technical parameters:

1. Design and Manufacturing Standards: ANSIZ358.1-2014,GB-T 38144.1 2-2019,SH T 3205-2019

2. Main material: SS304 (optional SS316L)

3. Function: Eye wash+shower

4. Working environment temperature:- 45℃~55℃

5. Applicable medium: drinking water or clean water at room temperature that meets hygiene standards

6. Nominal pressure: 1.0MPa

7. Work pressure: 0.2MPa~0.4MPa

8. Inlet size: 1-1/4 "external thread (can be customized according to user requirements)

9. Drainage outlet size: 1-1/4 "external thread (can be customized according to user requirements)

10. Flushing flow rate: ≥ 75.7L/min

11. Eye wash flow rate: ≥ 11.4L/min, the eye wash nozzle is equipped with a buffering device to prevent secondary damage to the injured person's eyes caused by water flow

12. Power supply: AC 220V 50HZ

13. Power: 240W

14. Explosion proof rating: Exd IIC T6 Gb (customizable according to user requirements) (customizable according to user requirements)

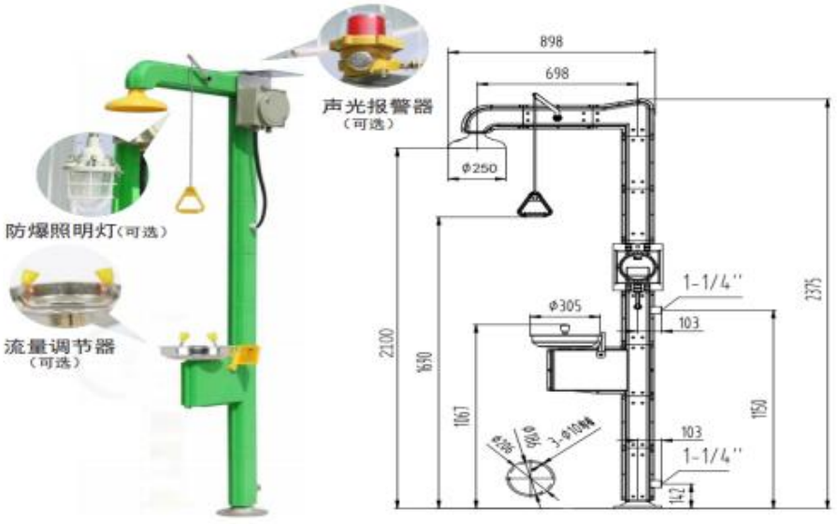
15. Protection level: IP65 (customizable according to user requirements) (customizable according to user requirements)

16. Shower nozzle: standard ABS shower nozzle, optional stainless steel shower nozzle

17. Eye wash nozzle: standard ABS eye wash nozzle, optional stainless steel eye wash nozzle

18. Equipped with a leakage protection system to prevent electric leakage from causing harm to users

19. Can be equipped with alarm and DCS remote signal transmission system



3.3.5 Wall mounted eyewash

Wall mounted eye wash stations are designed to work directly on the walls of the workplace.

1) Basic technical parameters:

1. Design and Manufacturing Standards: ANSI Z358.1-2014, GB-T 38144.1 2-2019, SH T 3205-2019

2. Main material: SS304 (optional SS316L)

3. Function: Eye wash

4. Working environment temperature: 0 ℃~55 ℃

5. Applicable medium: drinking water or clean water at room temperature that meets hygiene standards

6. Nominal pressure: 1.0MPa

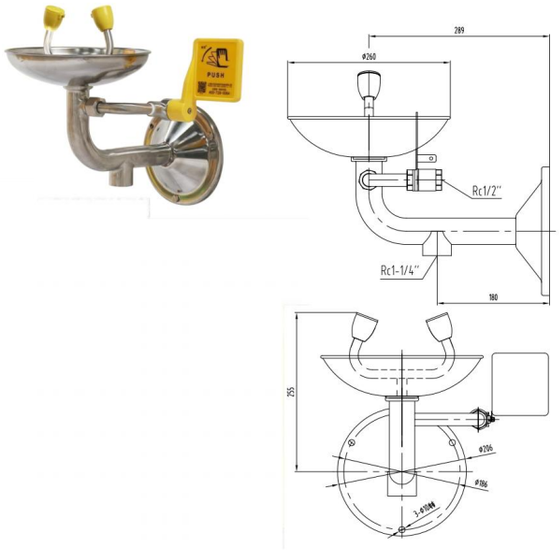
7. Work pressure: 0.2MPa~0.4MPa

8. Inlet size: Internal thread 1/2 "(can be customized according to user requirements)

9. Drainage outlet size: Internal thread 1-1/4 "(can be customized according to user requirements)

10. Eye wash flow rate: ≥ 11.4L/min. The eye wash nozzle is equipped with a buffering device to prevent secondary damage to the eyes caused by water flow

11. Eye wash nozzle: standard ABS eye wash nozzle, optional stainless steel eye wash nozzle and increased flow regulator



3.3.6 Desktop single/double mouth eye wash stations

Suitable for laboratories in the fields of education and industry, operating rooms in hospitals, and other places. Has the characteristics of resistance to oil, acid, alkali, salt, and acid solutions.

Easy to install and convenient to use.

1) Basic technical parameters

1. Design and Manufacturing Standards: ANSIZ358.1-2014,GB-T 38144.1 2-2019,SH T 3205-2019

2. Main material: ABS

3. Function: Eye wash

4. Working environment temperature: 0 ℃~55 ℃

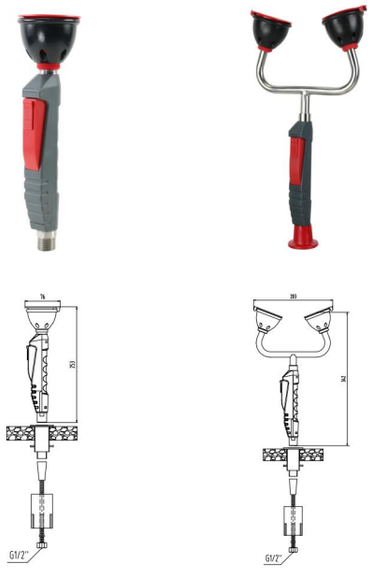
5. Applicable medium: drinking water or clean water at room temperature that meets hygiene standards

6. Nominal pressure: 0.6MPa

7. Work pressure: 0.2MPa~0.4MPa

8. Inlet size: Internal thread 1/2“

9. Eye wash flow rate:> 11.4L/min, the eye wash nozzle is equipped with a buffering device to prevent secondary damage to the eyes caused by water flow



3.3.7 Stainless steel shower room

The stainless steel shower room is made of SS304 stainless steel welded together, and is equipped with a standard composite eye wash. It is also equipped with PVC folding doors, which can effectively prevent wastewater from flowing into the workplace and avoid pollution. Optional flow regulator, which can adjust the water flow size according to the water source pressure. Effectively prevent secondary injury to the injured caused by high water pressure.

1) Basic technical parameters

1. Design and Manufacturing Standards: ANSIZ358.1-2014,GB-T 38144.1 2-2019,SH T 3205-2019

2. Main material: SS304

3. Function: Eye wash+shower

4. Working environment temperature: 0 ℃~55 ℃

5. Applicable medium: drinking water or clean water at room temperature that meets hygiene standards

6. Nominal pressure: 1.0MPa

7. Work pressure: 0.2MPa~0.4MPa

8. Inlet size: Internal thread 1-1/4 "(can be customized according to user requirements)

9. Drainage outlet size: Internal thread 1-1/4 "(can be customized according to user requirements)

10. Flushing flow rate: ≥ 75.7L/min

11. Eye wash flow rate: ≥ 11.4L/in, the eye wash nozzle is equipped with a buffering device to prevent secondary damage to the injured person's eyes caused by water flow

12. Shower nozzle: standard ABS shower nozzle, optional stainless steel shower nozzle

13. Eye wash nozzle: standard ABS eye wash nozzle, optional stainless steel eye wash nozzle



