



## TEST REPORT

on behalf of

Shanghai DaAo Safety Protection Equipment Co.,Ltd.

Emergency eye washer

Prepared For: Shanghai DaAo Safety Protection Equipment Co.,Ltd.  
No.8559,Chuannanfeng Rd,Situan Town,Fengxian  
District,Shanghai,China

Prepared By: Shanghai Global Testing Services Co., Ltd.  
No. 968 Meilong West Road, Minhang District, Shanghai,  
China.

Report No.: THSH17050210774  
Date of Test: May 02, 2017 to May 10, 2017  
Date of Report: May 10, 2017



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Date: 2017/05/10

The following sample(s) was/were submitted and identified by the client as:

Applicant	: Shanghai DaAo Safety Protection Equipment Co.,Ltd.
Address	: No.8559,Chuannanfeng Rd,Situan Town,Fengxian District,Shanghai,China
Sample Description	: Emergency eye washer
Style/Item No.	: DaAo6610, DaAo6613, DaAo6618, DaAo6615, DaAo6625; DaAo6620, DaAo8620; DaAo6623, DaAo8640, DaAo6645, DaAo6643; DaAo6690, DaAo6693, DaAo6688; BX-1, BX-2, BX-5, BX-6, BX-8, BX-10
Test Model No.	: DaAo6610
Sample Receiving Date	: May 02, 2017
Testing Period	: May 02, 2017 to May 10, 2017
Testing Performed	: SELECTED TEST(S) AS REQUESTED BY APPLICANT
Test Requested	: AMERICANNATIONALSTANDARD FOR EMERGENCY EYEWASH AND SHOWER EQUIPMENT (ANSI Z358.1-2014)
Test Result(s)	: FOR FUTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S)
Conclusion	: THE SUBMITTED SAMPLE MET THE TEST REQUIREMENT



For and on behalf of  
Shanghai Global Testing Services Co., Ltd.

Authorized Signature

Shi Lei/Kevin

General Manger -GTS/SHO



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### Test Conducted:

**AMERICAN NATIONAL STANDARD FOR EMERTENCY EYEWASH AND SHOWER EQUIPMENT  
(ANSI Z358.1-2014)**

### Test result:

Test Property	Test Method	Test Principle / Requirements	The Result
<b>Performance of Plumbed and Self-Contained Showers</b>			
Flow Velocity	ANSI Z358.1-2014 Clause 4.1.1	A means shall be provided to ensure that a controlled flow of flushing fluid is provided at a velocity low enough to be on-injurious to the user.	Pass
Installation Height	ANSI Z358.1-2014 Clause 4.1.2	Emergency showers shall be designed and located so that a flushing fluid column is provided that is not less than 208.3 cm (82 in.) nor more that 243.8 cm (96 in.) in height from the surface on which the user stands.	Pass Height: 2340mm
Water Quality	ANSI Z358.1-2014 Clause 4.1.3	Plumbed and self contained shower equipment shall be constructed of materials that will not corrode in the presence of the flushing fluid. Stored flushing fluid shall be protected Against airborne contaminants.	N/A (Conducted by user)
Flow Rate	ANSI Z358.1-2014 Clause 4.1.4	Plumbed and self contained shower equipment shall be capable of delivering flushing fluid at a minimum of 75.7 liters per minute (20gpm) for a minimum of 15 minute. If shut off vales are installed in the supply line for maintenance purposes, provisions shall be made to prevent unauthorized shut off.	Pass 75.7L/min



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Water Distribution	ANSI Z358.1-2014 Clause 4.1.5	The spray pattern shall have a minimum diameter of 50.8 cm (20 in) at 152.4cm (60 in.) above the surface on which the user stands, and the center of the spray pattern shall be located at least 40.6 cm (16 in.) from any obstruction. The flushing fluid shall be substantially dispersed throughout the pattern.	Pass
<b>Performance of Control Valve</b>			
Valve requirement	ANSI Z358.1-2014 Clause 4.2	The valve shall remain open without the use of the operator's hands until intentionally closed. The valve shall be simple to operate and shall go from "off" to "on" in 1 second or less. The valve shall be resistant to corrosion. Manual or automatic actuators shall be easy to located and readily accessible to the user. Valve actuator shall be located not more than 173.3 cm (69in.) above the level on which the user stands.	Pass (less than 1 second)
<b>Shower Enclosures</b>			
Enclosure requirement	ANSI Z358.1-2014 Clause 4.3	Enclosures, if used, shall provide for a minimum unobstructed area of 86.4 cm (34in.) in diameter.	N/A
<b>Performance of Plumbed and Self-contained Eyewash Units</b>			
Flow velocity	ANSI Z358.1-2014 Clause 5.1.1	A means shall be provided to ensure that a controlled flow of flushing fluid is provided to both eyes simultaneously at a	Pass



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		velocity low enough to be non-injurious to the user.	
Installment Height	ANSI Z358.1-2014 Clause 5.1.2	The eyewash unit shall be designed and positioned in such a way as to pose no hazard to the user.	Pass See instructions
Nozzles requirement	ANSI Z358.1-2014 Clause 5.1.3	Nozzles shall be protected from airborne contaminants. Whatever means is used to afford such protection, its removal shall not require a separate motion by the operator when activating the unit.	Pass See photo
Operation	ANSI Z358.1-2014 Clause 5.1.4	The eyewash unit shall be designed, manufactured and installed in such a manner that, once activated, it can be used without requiring the use of the operator's hands.	Pass See instructions
Material requirement and water quality	ANSI Z358.1-2014 Clause 5.1.5	Plumbed and self-contained units shall be constructed of materials that will not corrode in the presence of the flushing fluid. Stored flushing fluid shall be protected against airborne contaminants.	Pass
Flow Rate	ANSI Z358.1-2014 Clause 5.1.6	Plumbed and self contained eyewash equipment shall be capable of delivering flushing fluid to the eyes not less than 1.5 liters per minute (0.4 gpm) for 15 minutes. If shut off valves are installed in the supply line for maintenance purposes, provision shall be	Pass 1.5L/min



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		made to prevent unauthorized shut off.	
Free space	ANSI Z358.1-2014 Clause 5.1.7	The eyewash unit shall be designed to provide enough room to allow the eyelids to be held open with the hands while the eyes are in the flushing fluid stream.	Pass
Dimension requirement	ANSI Z358.1-2014 Clause 5.1.8	The eyewash unit shall provide flushing fluid to both eyes simultaneously. A test gauge for making determination of a suitable eyewash pattern shall be a minimum 10.16 cm (4 in.) in length with two sets of parallel lines equidistant from the center (See Illustration 3c). The interior set of lines shall be 3.18 cm (1.25 in.) apart and the exterior lines shall be 8.26 cm (3.25 in.) apart. Place the gauge on top of the stream of the eyewash. The flushing fluid should cover the areas between the interior and exterior lines when the gauge is lowered not more than 3.81 cm (1.5 in.) below the fluid's peak.	Pass
<b>Performance of Control Valve</b>			
Valve requirement	ANSI Z358.1-2014 Clause 5.2	The valve shall remain open without the use of the operator's hands until intentionally closed. The valve shall be simple to operate and shall go from "off" to "on" in 1 second or less. The valve shall be resistant to corrosion. Manual or	Pass (less than 1 second)



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		automatic actuators shall be easy to locate and readily accessible to the user.	
<b>Performance of Combination Units</b>			
Shower performance of combination unit	ANSI Z358.1-2014 Clause 7.1.1	Showers shall meet the performance requirements of Section 4.	Pass
Eyewash performance of combination unit	ANSI Z358.1-2014 Clause 7.1.2	Eyewash units shall meet the performance requirements of Section 5.	Pass

Remark:

1. N/A denotes not applicable

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Sample Photo:





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\*\*\*\*\*End of Report\*\*\*\*\*