

# Digital Water Curtain Technical Rider

2020

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## Overview

This technical rider lists all the requirements necessary for an installation of the Digital Water Curtain. Should any concerns or queries regarding the requirements listed in this document arise, please contact the Wildfire Account Manager to discuss alternative solutions.

### **ACCOUNT MANAGER**

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# 1. General Information

## 1.1. General Information

A Digital Water Curtain performance is conducted as a feature performance and may occur at any point in the event schedule. The Digital Water Curtain may be used for additional segments with or without performers at other points during the event.

Videos of *Digital Water Curtain* routines can be viewed at:

<https://www.wildfire.sg/digitalwatercurtain>

## 1.2. Booking Process

### Step A: Enquiry Process

In order to confirm a dance performance, an enquiry email shall be sent to [email@wildfire.sg](mailto:email@wildfire.sg) with the following details:

- Event Date
- Performance Timing
- Event Venue
- Choice of Routine
- Customisation Requests (if any)

### Step B: Quotation Sign-Off

*Wildfire Entertainment* will send an official quotation for the performance to the client requiring official sign-off.

### Step C: 50% Deposit Payment

Together with Step A, a 50% deposit payment shall be paid in order to secure the performance via:

- Cash or;
- Cheque addressed to "Wildfire Holdings Pte Ltd" or;
- Bank transfer to "Wildfire Holdings Pte Ltd"

Bank Name: DBS BANK  
Account number: 025- 902769-2  
Account type: DBS Current  
Swift Code: DBSSGSG  
Branch Address: 12 Marina Boulevard, DBS Asia Central, Marina Bay Financial Centre, Tower 3, Singapore 018982

#### Step D: 50% Balance Payment

3 days prior to the event date, the final 50% payment shall be paid via the aforementioned methods.

## **2. Duration of Performance**

### 2.1. Standard Routine Durations

The duration of standard dance performances ranges from 3 minutes to 4 minutes for a single item, and up to 6 minutes for a medley performance of multiple items.

These durations are the recommended length for stage performances that serve as a feature in the event program. This ensures the maximum amount of lasting impact on audiences.

The Digital Water Curtain can also run continuously and indefinitely as an installation piece, either without performers or in coordination with roving performers. When performers are present, the duration of their performance sets will not exceed twenty minutes and they will be given appropriate breaks between sets. The duration and frequency of breaks is to be set by the Wildfire Entertainment Production Manager on duty.

## **3. Hospitality**

### 3.1. Dressing Room Requirements

#### 3.1.1. Air Conditioning

All dressing rooms shall be equipped with air-conditioning or electric fan systems to ensure proper ventilation and circulation of fresh cool air.

### 3.1.2. Tables and Chairs

All dressing rooms shall be equipped with two tables and enough chairs to seat all performers and technicians.

### 3.1.3. Security

A Stage Manager from *Wildfire Entertainment* shall have the ability to lock or ensure security of all dressing rooms within which dance costumes, technical equipment and cast personal belongings are stored.

## 3.2. Drinking Water

Ample supply of pure drinking water shall be provided for the performers and technicians from the pre-event rehearsal stage until the allotted performance time.

## 3.3. Meals

A light meal shall be provided for the performers, technicians and coordinators. All food provided requires a "Halal" certification.

## 3.4. Restrooms

Restroom facilities shall be within close proximity to the dressing room. Restrooms shall be clean, sanitary and separate from restrooms for audience members if possible.

## 3.5. Overseas Performances

Should the performance be held outside of Singapore, all travel, accommodation and other related costs for dance performers and technicians as well as all roundtrip shipping costs of the Digital Water Curtain equipment shall be borne by the client. If preferred, *Wildfire Entertainment* can provide arrangements for travel and accommodation and will endeavour to do so with cost-effectiveness and convenience in mind.

## 4. Technical Requirements

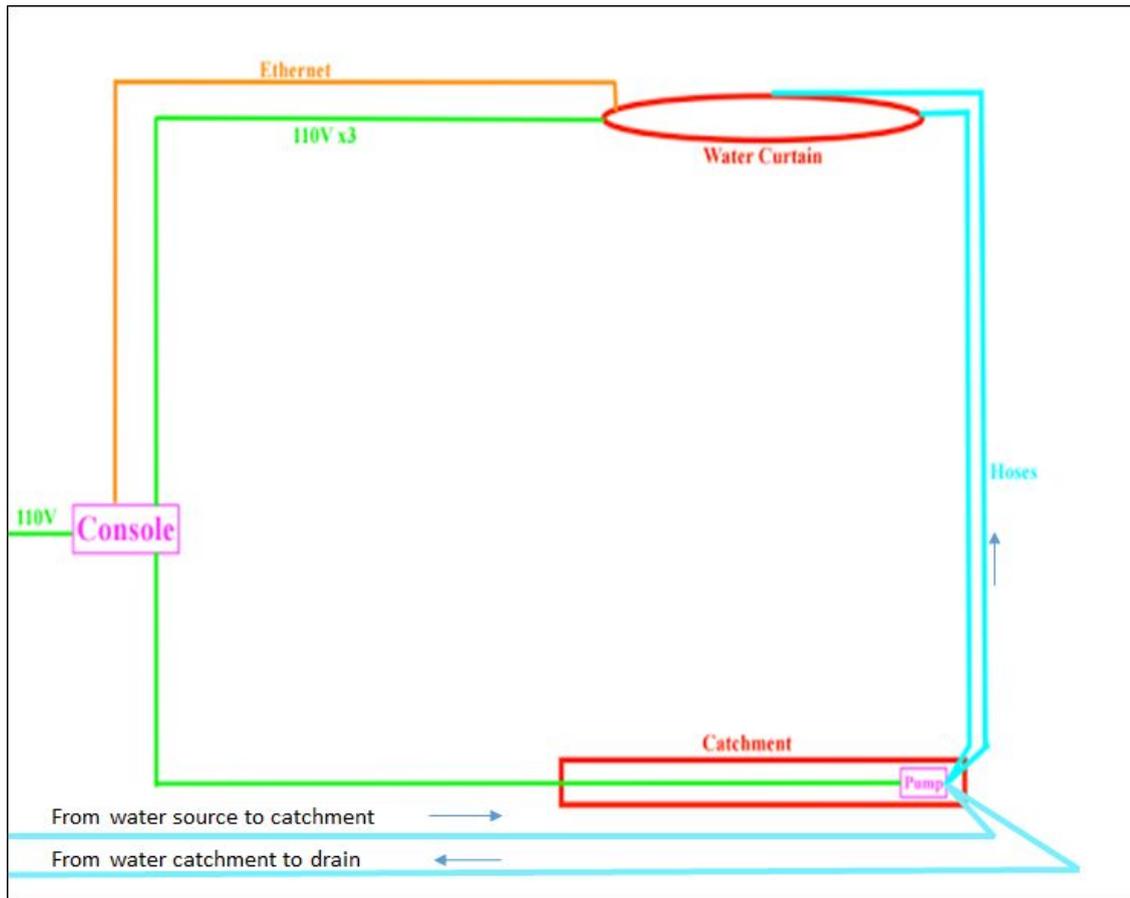
### 4.1. How Does the Digital Water Curtain Work?

The Digital Water Curtain system consists of a water catchment system, the assembled water curtain ring, and a control system.

The water catchment system is installed underneath a grated stage to collect the water that comes out from the water curtain. It also contains water pumps that are able to pump water through hoses up to fill the water curtain.

The water curtain contains many valves which control the water flow out of the water curtain, creating patterns and shapes.

The control system is connected to the water curtain and is able to control the patterns and shapes that the water curtain produces. The water pumps that are in the water catchment are operated via the control system, to ensure that sufficient water is being supplied to the water curtain.



## 4.2 Rigging

The water curtain weighs the following:

- Without Water - 800kg
- With Maximum Water Capacity - 1,330kg

The water curtain is 4m in diameter and has two rows of steel extrusion running the length of the circumference. Spansets can be used to wrap around these extrusions. The extrusions and weld joints are rated for 500-600kg each with the whole water curtain capable of 2000-6000kg tension. PE endorsement for water curtain structure can be provided. Chain motor hoists should be used to raise the water curtain up/down.

The ideal rigging arrangement involves four or more attachment points. Please seek advice from a qualified rigger to determine the best rigging arrangement for your venue and setup.

The recommended height clearance of 4-7m should be maintained between the bottom of the water curtain and stage surface.

Pictured below: Motor hoists with spansets wrapping around the water curtain's rails.

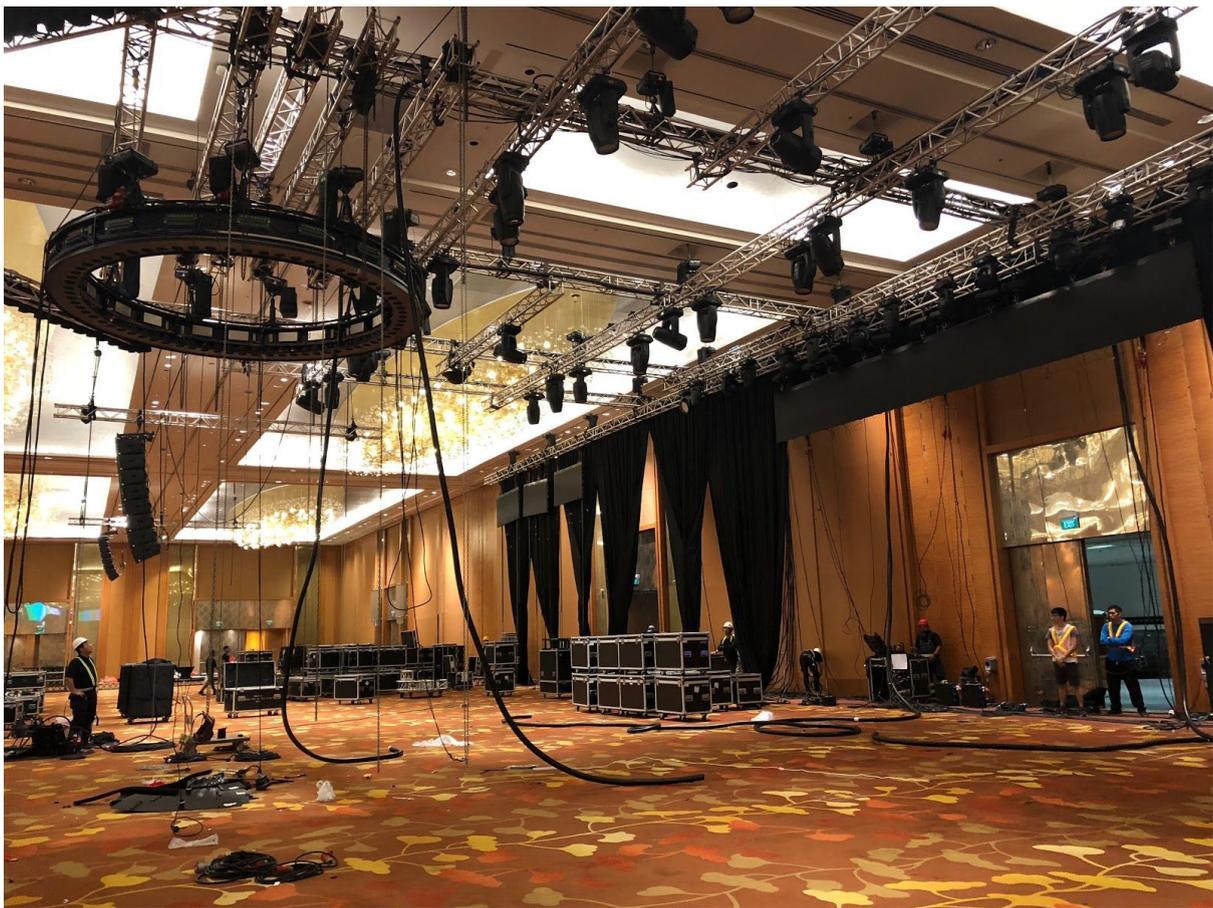


#### 4.3 Digital Water Curtain Installation

Assembling of water curtain, rigging it and connecting cables/hoses requires approximately 6 hours. Assembling and rigging can be done concurrently with the venue's set up and rigging of their light/AV equipment. However, rigging can only be done after the water curtain has been assembled. Assembly of the water curtain requires two hours duration.

There will be cables/hoses connected to the water curtain that have to run along the main rig. This is dependent on different venue setups such as position of grated stage and water curtain, power source, water source, ability to mask water hoses/power cables.

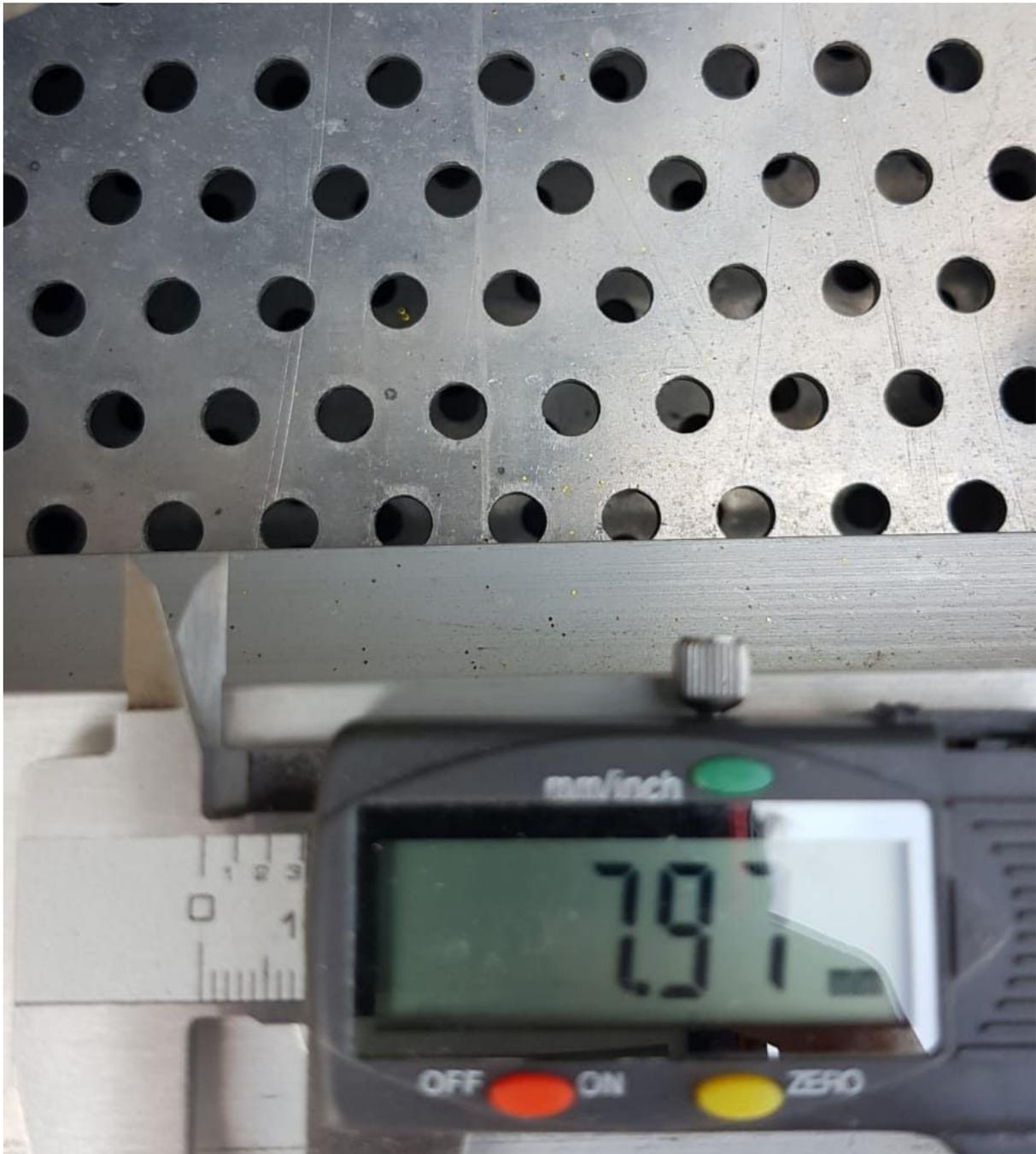
Pictured below: Water hoses and power cables running along main rig, from power source/water source (not shown) to water curtain



### 4.3 Staging & Basin

Wildfire will provide a 16ft x 16ft modular stage with grated surface, at height 2ft or 2.5ft. One section of modular staging measures 4ft x 4ft. Performers and guests will be able to walk across the stage. However, please be informed that surface may be slippery when wet.

Pictured below: The holes of the grated stage surface are about 8mm in diameter.



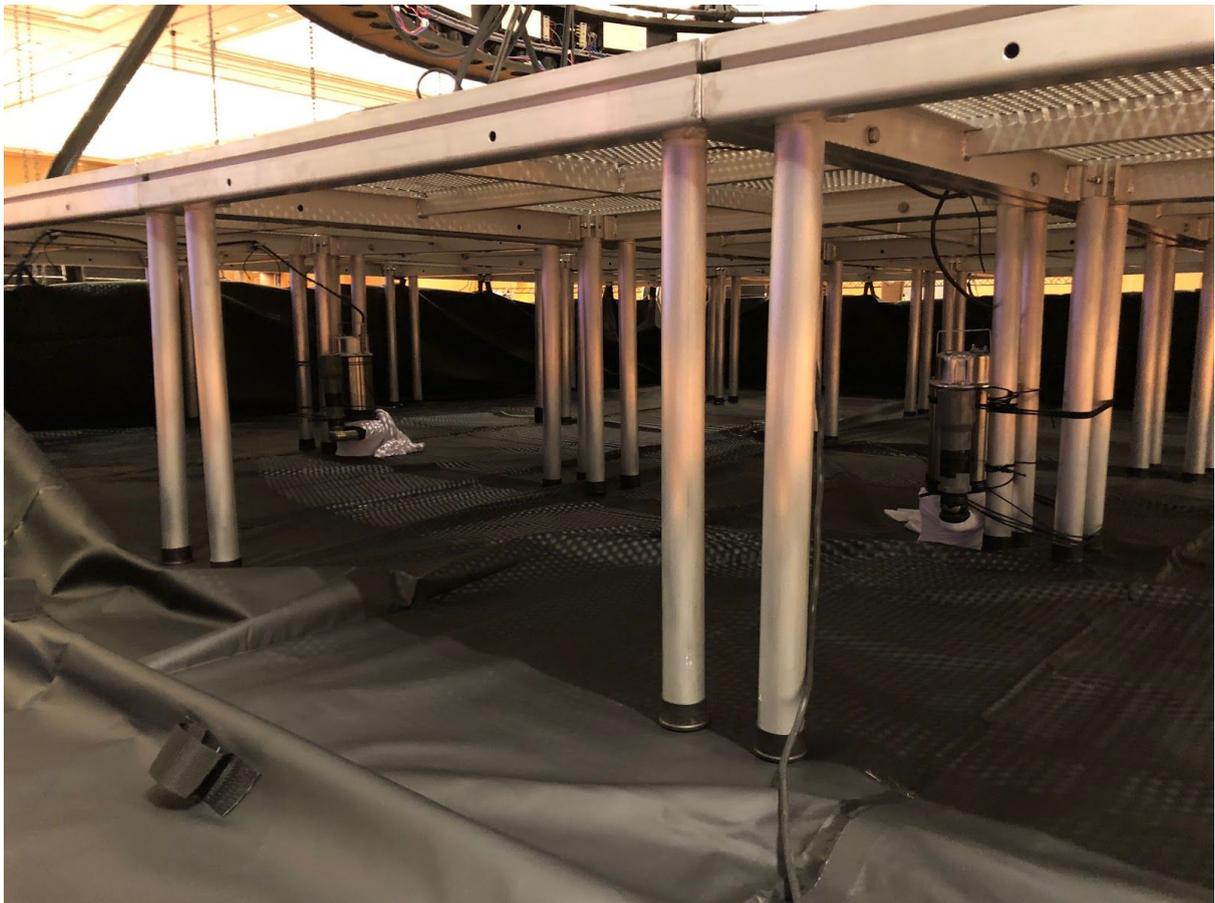
A double-layer heavy tarpaulin is attached to the stage, to create a catchment underneath the stage to contain the water. Water pumps under the stage, in the catchment, will recirculate the water to the water curtain above. One hour duration is required to set up the stage, catchment and pumps. This is done after the assembled water curtain has been hoisted up.

A one-time fill of approximately 7500 litres of water is required to fill the catchment and water curtain. One hour duration should be allocated to fill the catchment with water. However, this is dependent on the water flow rate available at the venue. The water supply will be provided by the client. If water supply at the venue is not available, please contact Wildfire's Account Manager to discuss alternatives such as water truck rental.

Access to drainage point at venue, closest to the water curtain, is required. Drainage will be done only at the end of the event, before tearing down of the water curtain. Draining of water is controlled by the water pumps in the water catchment.

Wildfire will provide standard lengths of water hose to connect between water supply/drainage point and water catchment. Please consult Wildfire's Account Manager to determine if our standard lengths of hoses are sufficient for your venue. Provision of additional lengths of hoses will incur additional costs.

Pictured below: Assembled grated stage with tarpaulins attached (one side not yet attached) and water pumps.



The grated stage can be incorporated into your event stage, provided planning discussion with the Wildfire Production Team takes place prior to your event date. However, it is required for the grated stage and catchment underneath to be accessible to the Wildfire Team at all times. A suitable entry point to access the grated stage should be planned into your event stage. If you wish to supply your own grated stage/water catchment, please consult with the Wildfire Production Team.

Any stage or performance area intended for dance performances must be clear of structures such as podiums, rostrums or technical equipment unrelated to the

performance. The stage floor shall be flat, level and clear of any trip hazards. The stage floor shall be able to withstand the weight of all performers and technicians.

## 4.4 Lighting

The water curtain contains 70 individual miniature LED PAR lights along the bottom circumference of the water curtain. The lights can be controlled by a light board via 3-pin DMX cables. Wildfire shall only provide DMX cables to daisy-chain each lamp together. Light board, other DMX cables and lighting programmer/operator shall be provided by the client.

Please note that the lights in the water curtain is not sufficient to illuminate the performance space. The performance space should be supplemented with the venue's stage lighting, which shall be provided by the client.

The Wildfire team member will be present to discuss the required lighting states with the lighting crew assigned to the event. This includes general stage lighting, follow-spots, backdrop and podium lighting if necessary. Generally, full stage lighting is recommended for illuminating the performers.

### 4.4.1 Projection

Projection mapping onto the waterfall may be considered. Wildfire will not be responsible for the set up and operation of projections onto the digital water curtain but will be able to coordinate our set up and operation with your projection vendor.

## 4.5 Electricity

To be provided by client:

1. 220/240V Three Phase Supply
2. 1 x 63A Breaker

Provided by Wildfire:

1. LEW certified distributor box
2. Power cables from distributor box to electrical components

Wildfire will provide standard lengths of power cables to connect water curtain components. Please consult Wildfire's Account Manager to determine if our standard lengths of cables are sufficient for your venue. Provision of additional lengths of cables will incur additional costs.

## 4.6. Audio Technology

### 4.1.1. Sound System

A suitable sound system to project audio throughout the performance venue. Music tracks will be provided by Wildfire Holdings Pte Ltd via email in digital format prior to the event.

### 4.1.2. Monitors

No less than two monitors, synced with the front of house speakers playing the act's track, shall be placed on stage left and stage right for the performers during the performance.

## 4.7. Placement of Technicians During Performance

All Wildfire crew shall have a clear line of sight of the stage from their stations placed near the stage during the time of all onstage rehearsals as well as the performance itself.

For rental of Digital Water Curtain as an installation, at least one Wildfire team member must be present for the entire duration of the Digital Water Curtain's operation. Additional crew fees will apply.

# 5. Scheduling

## 5.1. Set Up Schedule

A minimum of 6 consecutive hours is required for setting up of the digital water curtain, the stage and running of tests/rehearsals, prior to the start time of your event.

The set up can also be divided into different stages to be done at different points in time of your bump-in schedule. The different stages of set up can be done concurrently with similar elements of your event set up.

Below is the estimated duration of each stage of set up and personnel involved.

Process	Estimated duration	Personnel/ assistance required
Water curtain assembly.	2 hours	
Attaching of hoses and cables, running them along the truss.		Venue's rigging team to advise where hoses/cables can run along the truss.
Attaching water curtain to truss.		Venue's rigging team to attach and operate motor hoists.
Assembly of stage	1 hour	Venue's staging team to advise positioning of Wildfire's stage.
Assembly of water catchment		
Filling of water catchment	1 hour or less	Venue management to advise location of water source and turn on water source.
Testing/troubleshooting	2 hour (dependent on complexity of set up)	Venue's rigging team, if the height of water curtain needs to be adjusted with motor hoists. Boom lift operator, to access hoisted water curtain if necessary.

Please consult the Wildfire Production Manager on how to integrate the set up of the digital water curtain into your bump-in schedule.

## 5.2. Strike Schedule

A minimum of 4 consecutive hours is required for the strike of digital water curtain. Strike can also be divided into different stages to be done at different points in time of your bump-out schedule. The different stages of strike can be done concurrently with similar elements of your event bump-out.

Below is the estimated duration of each stage of strike and personnel involved.

Process	Estimated duration	Personnel/ assistance required

Draining water curtain	1 hour (dependent on the location of drainage point)	
Draining water catchment		Venue management to allow access to drainage point.
Disassemble stage	1 hour	Venue's staging team to give Wildfire access to our stage, if event stage is built around our grated stage.
Disassemble water curtain	1 hour	Venue's rigging team, to lower water curtain to the ground. If the venue wants to lower the water curtain without lowering the rig, a boom lift is required to reach the rigging water curtain to detach hoses/cables before lowering the water curtain.
Removal of hoses and cables	1 hour	Venue's rigging team, to allow Wildfire to access hoses cables running along overhead truss.

Please consult the Wildfire Production Manager on how to integrate the strike of the digital water curtain into your bump-out schedule.

### 5.3. Standard Event Day Schedule

#### 5.3.1. Technical Rehearsal

A full technical dress rehearsal (at least 1 hour of minimum length) shall be scheduled into the event program prior to the performance. This technical dress rehearsal shall include all lighting, audio and stage specifications as previously stated within this technical rider. All other event technical set-up must be in place and switched on as it will be at the time of the performance. This technical rehearsal will be conducted by the *Wildfire Entertainment* stage manager and the performers. This rehearsal will consist of marking the performers' specific stage positions onstage with tape, and will require constant replaying of the show's audio file.

### 5.3.2. Standby Notice

Once the event has commenced, all *Wildfire Entertainment* performers and technicians will wait backstage or in the dressing room. Event organisers, stage crew or the client themselves must ensure that the performers and technicians are given no less than 10 minutes notice prior to the commencement of the performance onstage, giving them enough time to assume their positions.

## 5.4. Event Delay

### 5.4.1. Penalty Rates

In the event of a scheduling delay of the performance exceeding 1 hour past the agreed performance time, the client will be subject to a penalty fee of \$100 per performer and crew per hour or part thereof.

### 5.4.2. Performer Availability

In the event of a scheduling delay of the performance exceeding 1 hour, *Wildfire Entertainment* dance performer numbers may need to be amended due to performer availability at no penalty to *Wildfire Entertainment*. Penalty rates stipulated in 5.2.1. will apply for all remaining performers and crew.

## 5.5. Additional Rehearsal or Client Viewing

All rehearsals (excluding the on-site technical rehearsal) by the *Wildfire Entertainment* crew are conducted privately. Should the client require additional viewings either prior to or on the event date, additional charges may apply. These conditions vary according to the client's specifications and shall be discussed with *Wildfire Entertainment* with reasonable notice.

## 6. Video and Photo Footage

### 6.1. Video Footage

Any professional video recordings of the dance performance(s) shall be copied and sent to the *Wildfire Entertainment* Stage Manager in digital format within 30 business days of the close of the event.

## 6.2. Photo Footage

Any professional photo footage of the dance performance(s) shall be copied and sent to the *Wildfire Entertainment* Stage Manager in digital format within 30 business days of the close of the event.

## **7. Licenses and Permits**

Clients shall be responsible for obtaining all required licenses, permits, or other approval required from any union, governmental authority, performing rights society or venue owner with respect to Digital Water Curtain performances.