



Hydraulophone Information Guide

A close-up photograph of a person's hands interacting with a public water fountain. The hands are wet and positioned over a perforated metal plate from which multiple streams of water are spraying upwards. The water droplets are captured in mid-air, creating a dynamic and sparkling effect. In the background, a blurred view of a park or playground area is visible, featuring a grey metal fence and some greenery under bright, natural light.

“If there is magic on this planet, it is
contained in water.”
– Loren Eisley



The Hydraulophone: A truly hydraulic musical instrument

The **Hydraulophone** is an interactive water feature that produces a rich and unique sound when a player blocks or partially blocks its water jets. It is easy to play for people of all ages and musical abilities.

As an **architectural landmark**, the Hydraulophone combines feats of art, science, and engineering into truly one-of-kind centrepieces to engage the community in music and waterplay.

As a **musical instrument**, it allows people to experience the soothingly therapeutic flow of water past their fingers while enjoying the combined effects of music and water therapy.



A B C D E F G A B C D E

The notes of the Hydralophone are set to a musical scale.

A product of science, art, and engineering.

The Hydralophone is like a woodwind instrument that runs **on water rather than air**. As the world's first instrument to run on water, it offers a unique and exciting music making experience for people of all ages. In the hands of an experienced player, it is a fully capable and tremendously expressive instrument. By changing by the way that you press down and manipulate each water jet, you can control the intensity, pitch, and timbre of the sound continuously.

The word **hydraulics** comes from the Greek word for “water organ”, a musical device consisting of hydraulically blown wind pipes used to imitate the chirps of birds. A similar ancient Greek device, the hydraulis, was a water-powered pipe organ, in which water power was used to blow air into organ pipes. In contrast, the Hydralophone is a pipe organ where sound is produced by water using hydraulic action. Most notably, it is played by directly interacting with the hydraulic fluid.

Hydraulophone Body

Hydraulophones are designed with durability, repairability, and ease of installation in mind.

The standard Hydraulophone body is crafted from a straight or curved PVC pipe. It is smooth, sturdy and tolerant to chlorinated or brominated pool water and light cleaning chemicals.

The minimal design hides infrastructure like water supply tubes, drainage, extra audio out, volume control, and power cable for the instrument inside the vertical pipe legs. These can be made of PVC or stainless steel to a custom length to suit your needs. They also use a standard pipe size that can be changed or replaced later.





Hydraulophone Options

Whether you are looking for our standard, ready-to-install Hydraulophone or for a custom Hydraulophone to meet your architectural and thematic requirements, we offer 2 options:

A **standard Hydraulophone** comes in the PVC body, is simple to setup and install, and is a great option for sites in need of an interactive, aquatic installation.

They are also suited for a potentially mobile or movable instrument, or personal use.

A **custom Hydraulophone** allows you to compliment your site with a one-of-a-kind interactive architectural centrepiece to fit your project.

	Standard Hydraulophone	Custom Hydraulophone
Ready-to-install and play instrument	✓	
Custom design		✓
Design documentation	✓	✓
3 Year free parts exchange warranty	✓	✓
Water recirculation	Optional Based on needs	Optional based on needs
Body Construction	PVC	PVC, SS, Other



Custom Hydraphophone

Our custom design option allows the flexibility of creating new Hydraphophones in any shape, size, and architectural structure. It includes all innards components of a Hydraphophone to be installed as part of themed designs for water parks, museums, science centres, FECs, and other public spaces.

Seen here is a custom designed Hydraphophone architectural installation at the Ontario Science Centre.





Ontario Science Centre
Toronto, Canada



This Hydraulophone installation was selected out of over 200 project proposals to be the architectural centrepiece at the Ontario Science Centre.



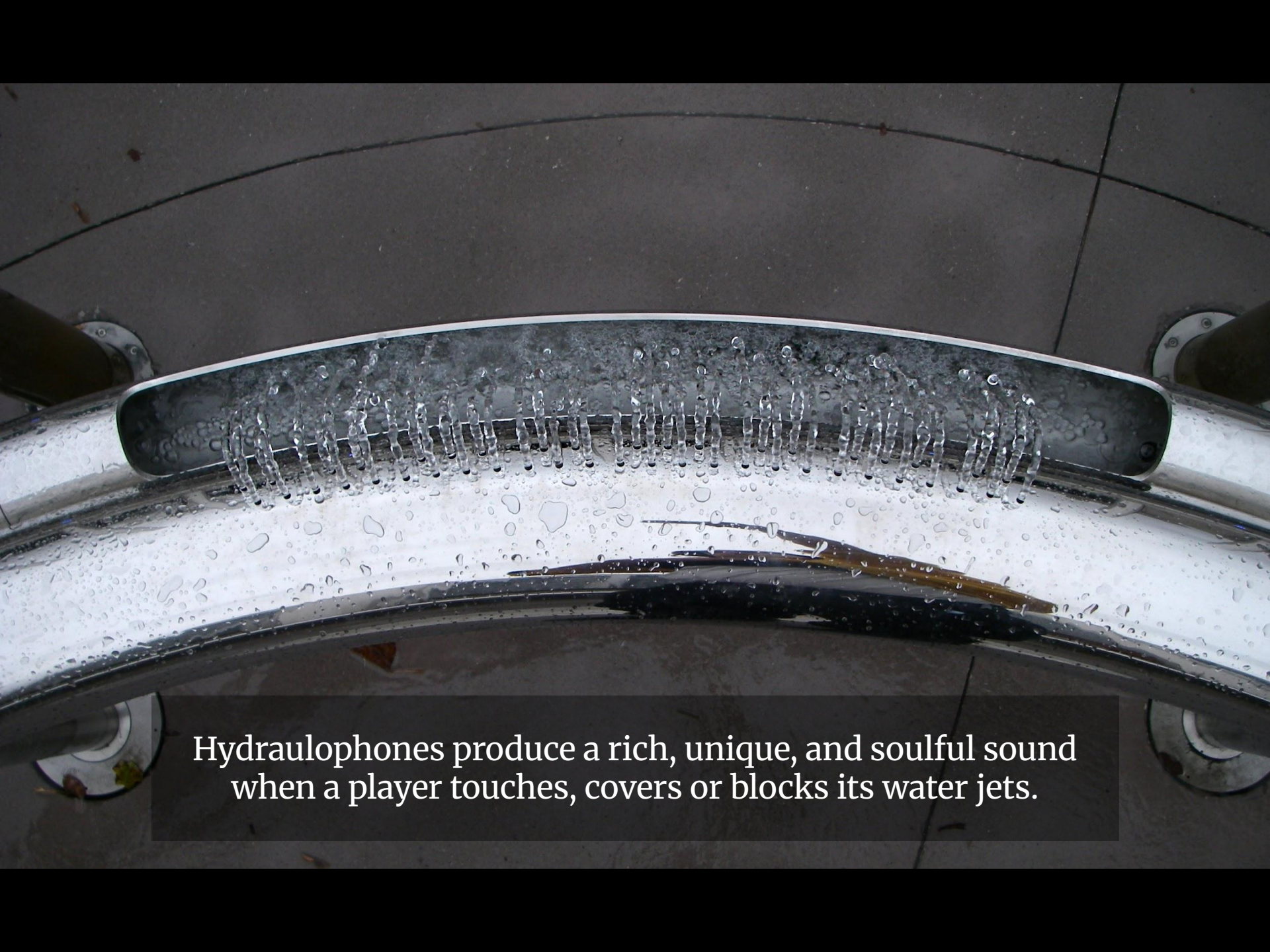
It is accessible to the public 24/7 and serves both as a landmark installation and as an interactive water feature.



Aerial View



The instrument has separate panels for two or more people to make music together.

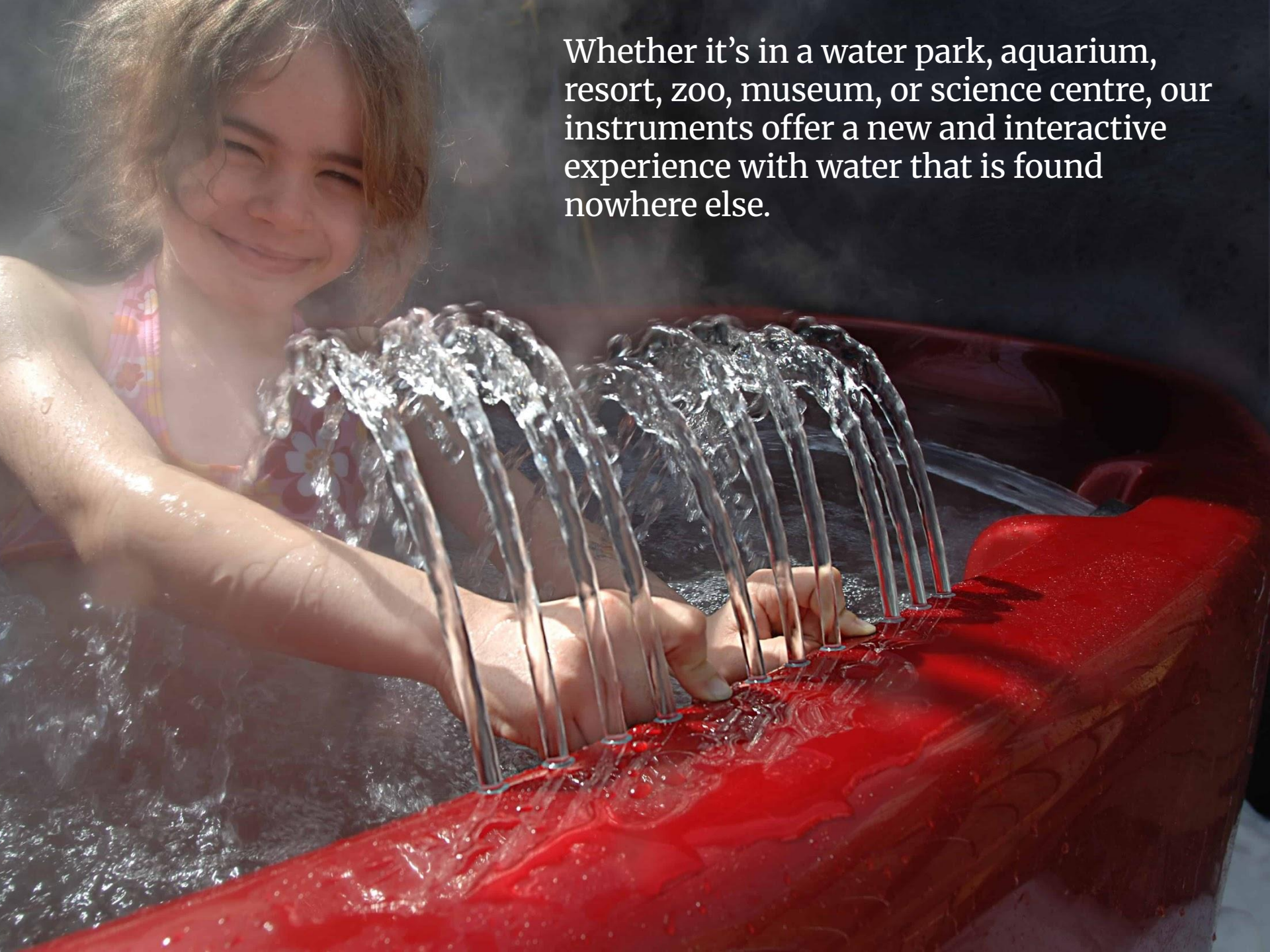


Hydraulophones produce a rich, unique, and soulful sound when a player touches, covers or blocks its water jets.



A Hydraulophone is installed in front of the Ontario Science Centre, accessible to the public 24/7 as an architectural centrepiece and interactive water feature.

Whether it's in a water park, aquarium, resort, zoo, museum, or science centre, our instruments offer a new and interactive experience with water that is found nowhere else.





Hydraulophone built into hot tub for the National Capital Commission. Main act for Winterlude, North America's largest winter festival, played to audience of more than 10,000 people in Ottawa, Canada.





Legoland California
Carlsbad, California

A woman with long, wavy brown hair is submerged underwater, looking intently at a complex electronic device. She is wearing a dark, sleeveless top and large, ornate earrings. Her hands are positioned on the device, which appears to be a custom-built electronic instrument or a piece of scientific equipment. The device has a transparent, rectangular body with various internal components, including wires, tubes, and small electronic components. The background is a murky, greenish-blue underwater environment. The lighting is dramatic, with strong highlights on the woman's face and arms, and deep shadows in the surrounding water. The overall mood is one of intense focus and exploration.

Aquasonic Music Group
Denmark

Experimentarium

Copenhagen, Denmark





African Lion Safari
Toronto, Canada



Canadian National Institute for the Blind
Calgary, Canada

The Thinkery Children's Museum

Austin, Texas



Stanford University

Palo Alto, CA





Water Supply & Recirculation

Hydraulophones can be supplied with water in two ways:

- 1) **Continuous supply:**
From a continuous water supply pipe that mates with the 3/4" GHT or 1/2" NPT inlet of the instrument.
- 2) **Recirculated water:**
Water in a **water recirculation basin** is pumped back into the instrument continuously, using a pump. This is the environmentally-friendly water-saving option.

For installations using recirculation, water from the instrument's jets falls into a dedicated water basin. This basin artistically adds a symbolic feature of tranquility to the installation. The basin also serves a practical purpose for top-up filling, collection, and recirculation. The system uses a pump to pressurize and recirculate this water back through the instrument. The water pressure may be adjusted to vary the height of the water jets. The pump may be replaced by a continuous water supply or a combination of the two.

To ensure clean water inside the instrument, use either **potable municipal water** or **treated/filtered freshwater**. The instrument can operate in chlorine levels up to 3.0 ppm (parts per million).



Water Filtration

High quality water filtration is integral to the continued health and operation of the instrument. Hydraulophones come standard with an easy-to-clean screw-top filter canister, with a removable pleated filter cartridge.

The cartridges must be periodically taken out of the canister and washed to prevent clogging. You may purchase replacement filter cartridges from us or you may choose to source your own replacement cartridges with a 100 Mesh-size or finer. The cartridges are standard and widely available.

Aquatic Play Experience

Hydraulophones are suitable for both **indoor** (neat and tidy) or **outdoor** (splash-friendly) experiences, and can be fitted with a water recirculation basin to collect the water runoff from the instrument, and allow recirculation if desired.

When the water jets are flowing without being touched, water sprays out to a maximum of 6" (15cm) in front of the Hydraulophone. When the instrument is being played, sprayed water may reach distances of up to 4' (120cm) away. The water pressure can be adjusted to accommodate any type of aquatic play experience desired.

Hydraulophone Warranty & Serviceability

All Hydraulophones are covered under a 3 year free parts exchange warranty and lifetime free support via Email or video conference. For the first 3 years if a component fails under reasonable circumstances Hydraulophone inc will exchange it for a new one.

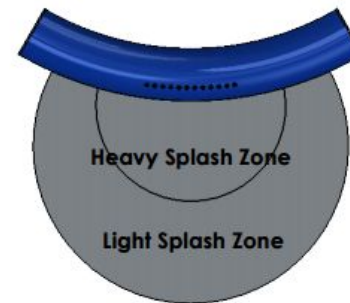
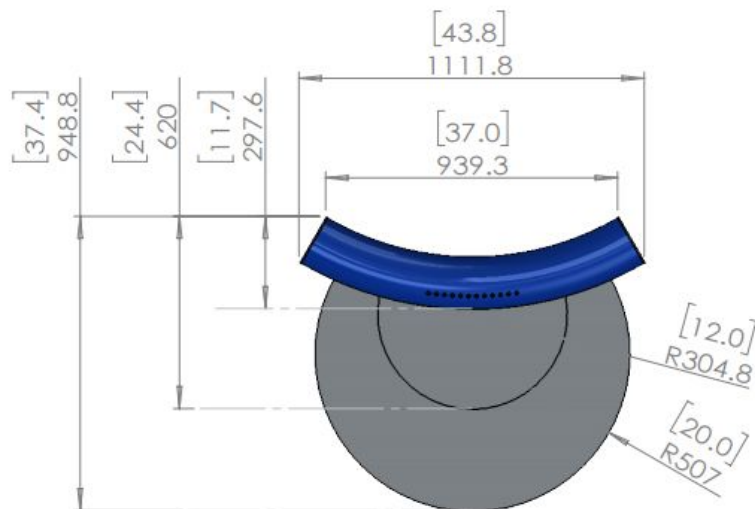
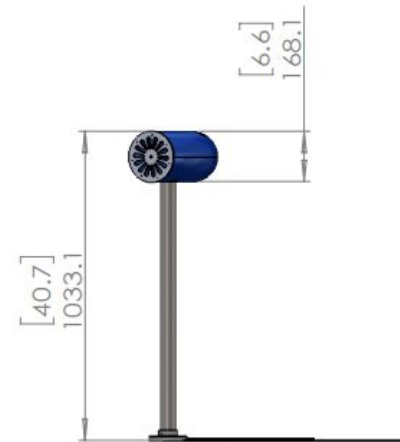
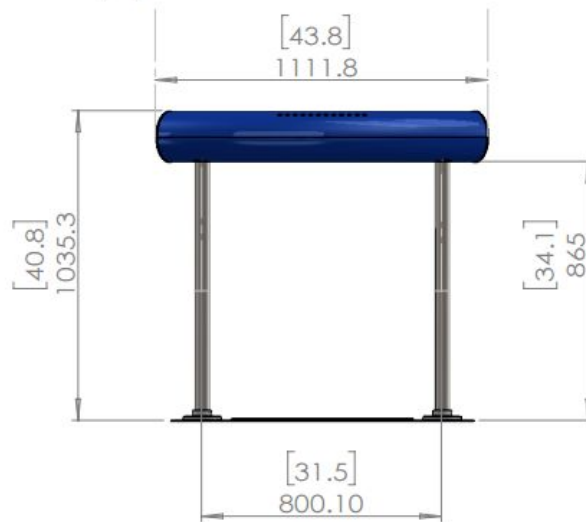


Hydraulophone Specifications

Water Inlet Connection	3/4" GHT or 1/2" Pipe Fitting
Pump Flow Rating	800 - 1,100 GPH
Flow Rate Requirement	7~19 GPM @ 1~5 PSI
Recommended Water Temperature	50° to 122° F
Filter Canister (included)	Easy-cleanable screw-top strainer
Filter Cartridge (included)	100 US-mesh size
Power Supply (included)	12V DC 50W
Water Jets	12 or 13 or 21
Tonal Frequency	220 Hz (A ₃) to 659.25 Hz (E ₅)
Sound Levels	Adjustable: Silent to 80 dB @ 1m (typical); max. 100 dB @ 1m
Weight (instrument body)	PVC
	27.5 kg

Standard Hydraulophone Drawings

All Dimensions in [in]mm



The height of the Hydraulophone legs is may be varied to accommodate the target audience. The recommended total height of the Hydraulophone for teenagers and adults is 37 inches. For children, the recommended total height is 12 to 24 inches. Some dimensions will vary a small amount due to the instruments being made by hand.



Hydraulophone Inc.
hydraulophone.inc@gmail.com | +1-647-850-9056
105 McCaul st, unit #203 Toronto, Ontario
M5T 2X4 Canada