



**SHEET WAVE ATTRACTION**



# FLOWRIDER®

POWERED BY WAVELOCH®

## We surf

We at Wave Loch are passionate about our product. We love to share the stoke with our customers and our end users. This is our commitment to you. Conceived in the shallow reef breaks off La Jolla California, Wave Loch was founded in 1991 and is now the world leader in human generated wave technology. We hold over 30 patents world wide and have installations spanning the globe. We're a technology company and a lifestyle company. It's Wave Loch's connection to the lifestyle that offers enduring value to your venue. Take the time to understand our product offerings, and how our lifestyle approach can generate reward beyond a financial return. We love what we do and look forward to sharing our passion with you.



Tom Lochtefeld  
Founder and President



# FLOWRIDER®



**BEGINNER**

**INTERMEDIATE**

**ADVANCED**

## SKILL VS. THRILL.

Boardsports such as surfing, snowboarding, skateboarding and flowboarding are skill-based activities that challenge riders to develop new tricks to emulate their heroes. By comparison, the typical water park or theme park rides are thrill-based rides. No skill is required and no reward or accomplishment is earned. The more you ride a thrill ride the less thrilling it becomes. This is what we call thrill fatigue.

Wave Loch's skilled-based technology is the antidote to thrill fatigue. The adrenaline rush of successful challenges met, inspires riders to achieve a never-ending cycle of skill based reward, thereby increasing rider visitations and loyalty.



## SAFETY

Thrilling to do, thrilling to watch, our ride is designed to handle wipeouts. The FlowRider's waveform is a proprietary composite membrane ride surface that is designed to absorb the energy of impacts. Flowboarders may wipe out, but they'll get back up again and again and again.



**"I had never surfed before, when I wiped out I got right back on until I got it."**

*Sally - age 11*

# THE SPORT

Flowriding is not just a ride, it is a sport... a 21st Century alchemy that has the look of surfing, the ride of snowboarding, the tricks of skateboarding, and boards derived from wakeboarding. Since the early '90s, the world's best board riders have cross pollinated into flowboarding. This new alternative board sport is taken seriously from the mountains to the sea. Flowriding will energize your facility with aspiring athletes (and 'wannabes') who will pay again and again to enhance their board riding skills. Not only does this repeat business enhance revenue and spread word of mouth, but the better a rider gets, the greater the show for your viewing audience.

# THE LIFESTYLE

Wave Loch DNA is a double helix of wave calculus and wave riding passion. We surf. We live and work at the beach. We infuse our products with our passion and stay close to our roots. Our products are icons of the California beach lifestyle.

Wave Loch attractions create an emotional connection to the multi-billion dollar board sports industry. Our wave technologies attract the valuable youth market, families and boardsport enthusiasts.

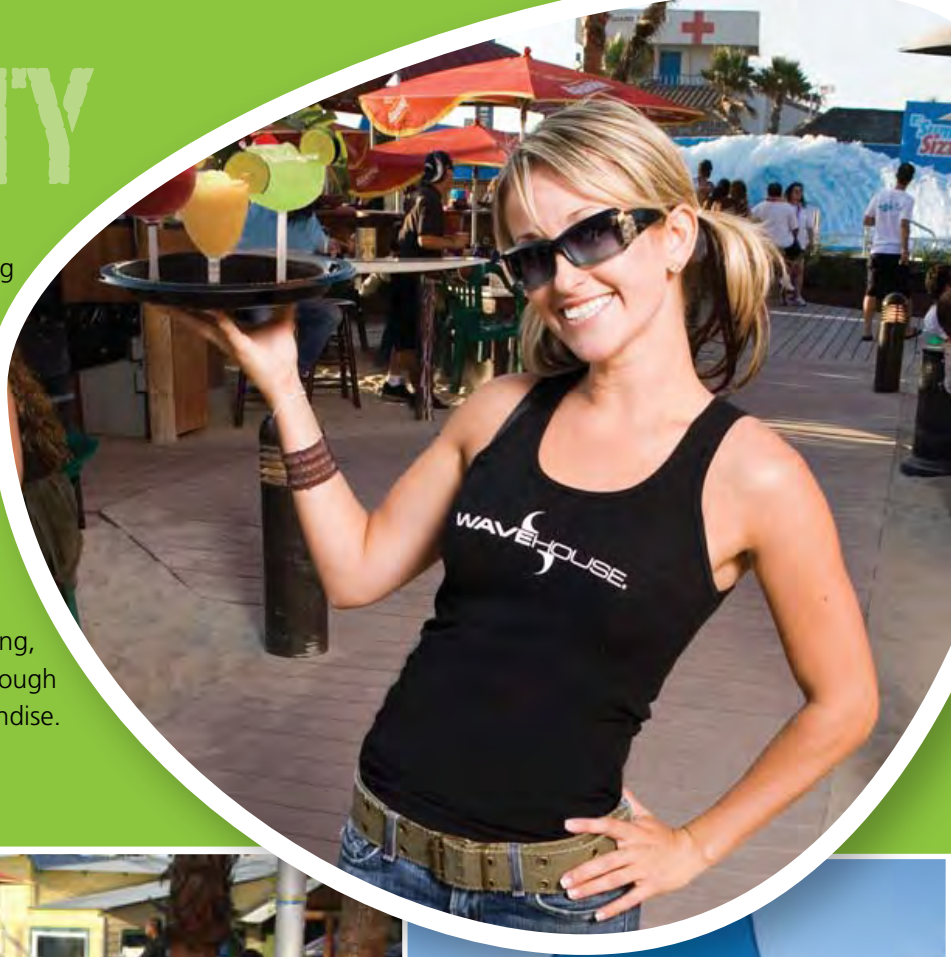
When orchestrated correctly, the lifestyle identification inherent in Wave Loch technologies can increase venue revenues beyond those generated by the waves, including sales of food and beverage, retail products, sponsorship opportunities and corporate and competitive events.



# OPPORTUNITY

The FlowRider® draws the most challenging demographic to retain; the 13-21 year old. "If you can get the teen, you can get the entire family." As recognized by Jessica Correa, Director Brand Innovation and Alliance Marketing for Royal Caribbean International, "Kids drive 70% of our guests' vacation planning decisions. In that the FlowRider® appeals to kids, it is money in the bank."

The sport of Flowboarding creates a lifestyle following, enhancing your revenue earning potential through board sports retail and FlowRider® brand merchandise.



## FOOD AND BEVERAGE

The FlowRider's liquid stage captivates an audience, boosting F & B sales!

## SPONSORSHIP OPPORTUNITIES

The media-friendly and youth-oriented FlowRider is a sponsor's dream.

## RENTALS AND PARTIES

The FlowRider gives you operational flexibility for all kinds of group activities.



# VERSATILE APPLICATIONS

The FlowRider® fits comfortably in a variety of venues including indoor waterparks, outdoor waterparks, municipalities, restaurant/retail, ski resorts, and malls.

## Ideal for Indoor: Endless summer = endless fun!

Do you wish your facility was summer busy year round? With a compact footprint, the FlowRider is perfect inside a building for year-round revenue generation.

## The Municipal Solution

Traditional municipal competition swimming pools are money losing operations. However, a enhanced aquatic facility can subsidize the cost of a traditional competition pool, as well as provide additional aquatic recreational services to the local community.



Aerial vista of the FlowRider™ at The Wave Waterpark in Vista, California.



The first of many indoor FlowRider's at the Adrenalina Extreme Store in Orlando, Florida.



**"The media success of the FlowRider and the reaction by the public has completely exceeded our expectations. This product sets us apart in the cruise industry."**

Charly McDonald,  
Manager Guest Activities,  
Royal Caribbean International



**"We hit a home run with the FlowRider. Our hotel guests love it. We love it. Order me another one."**

Todd Nelson,  
President Kalahari Resort

*Dutch flowboarders score a triple double with three FlowRider Doubles, No waiting at Dutch Water Dreams in the Netherlands.*

# TECH SPECS

The FlowRider® generates a thin sheet of water that flows over a stationary wave form. The resulting “wave-like” shape permits riders to slide down, carve a turn, and ride up the wave surface, emulating the maneuvers of other board sports.

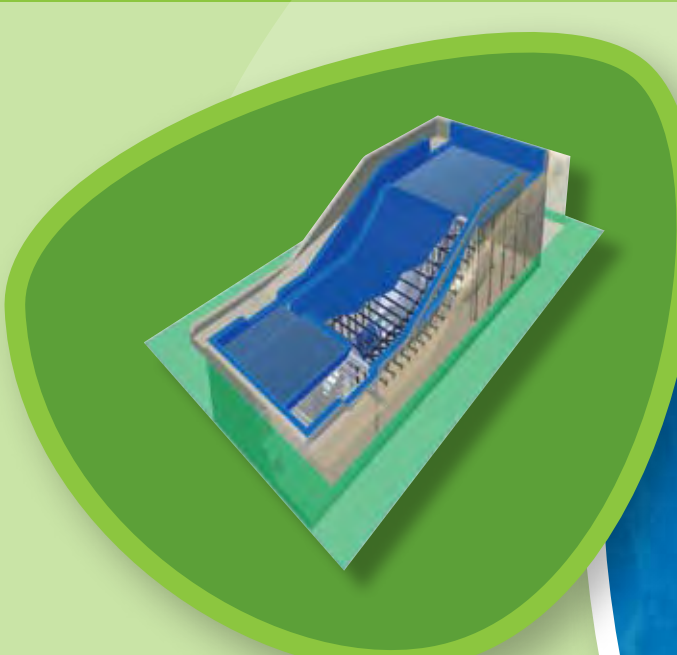
## INTRODUCING

### FLOWRIDER® JUNIOR



#### FlowRider Junior

- Attraction footprint:
  - width 5.5m (18') x length 12.8m (42')
- Adjacent walkways: 1m (3'3") minimum
- System elevation:
  - Grade elevation is adjustable based on site.
  - Assumes front nozzle deck 0 (at grade)
  - Height at back deck  $\approx +1.1$  m ( $\approx 3.5'$ )
  - Tank depth  $\approx -1.4$  m ( $-4.5'$ )
- Rider Capacity: 160-240 rides per hour
- Weight  $\approx 80,000$ kg (180,000lbs)
  - 1,100 kg per sq. m (240lbs per sq/ft)
- Electrical rating: 75kW @100hp
- Tank volume: 75,000 litres (20,000 gallons)

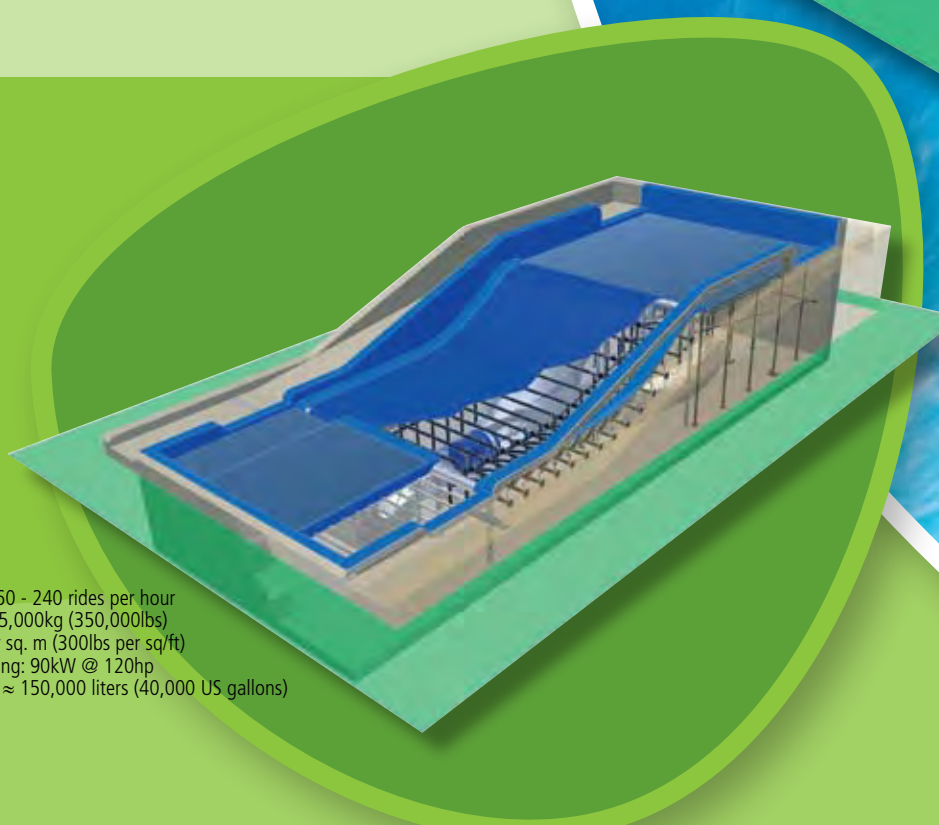


### FLOWRIDER® SINGLE



#### FlowRider Single

- Attraction footprint:
  - width 6.7m (22') x length 15m (49')
- Adjacent walkways: 1m (3'3") minimum
- System elevation:
  - Grade elevation is adjustable based on site
  - Assumes front nozzle deck 0 (at grade)
  - Height at back deck  $\approx +1.2$  m ( $+4'$ )
  - Tank depth  $\approx -1.8$  m ( $-6'$ )
- Capacity  $\approx 160 - 240$  rides per hour
- Weight  $\approx 155,000$ kg (350,000lbs)
  - 1,500 kg per sq. m (300lbs per sq/ft)
- Electrical rating: 90kW @ 120hp
- Tank volume  $\approx 150,000$  liters (40,000 US gallons)



# FLOWRIDER® DOUBLE

Riders exit on the padded beach grating and water returns for recirculation to the pool below.

Flowing water is shaped into a perfect unbroken swell allowing participants to perform surfing maneuvers.

Padded walls.

Flygt® submersible propeller pumps Wave Loch's proprietary nozzles.

## FlowRider Double

- Attraction footprint:
  - width 9.8m (32') x length 15m (49')
- Adjacent walkways: 1m (3'3") minimum
- System elevation:
  - Grade elevation is adjustable based on site
  - Assumes front nozzle deck 0 (at grade)
  - Height at back deck ≈ +1.2 m (+4')
  - Tank depth ≈ -1.8 m (-6')

- Capacity ≈ 320 - 480 rides per hour
- Weight ≈ Total 235,000kg (525,000lbs)
  - 1,500 kg per sq. m (300lbs per sq/ft)
- Electrical rating ≈ 180kW @ 220hp
- Tank volume ≈ 200,000 liters (55,000 US gallons)
- Divider can be removed with ease.

# FLOW WORLD

The FlowRider community is a living network that links the young and young at heart around the world.



**"The FlowRider is the most popular ride at our park. Buying the FlowRider was the best move we made."**

Jared Keeling, Parks & Recreation Director,  
City of Republic, MO



Schlitterbahn Waterpark & Resorts, New Braunfels, Texas, USA • WaterMania Water Theme Park, Kissimmee, Florida, USA • Telemark Sommarland, Bo, Norway • The Wave Municipal Waterpark, Vista, California, USA • Water Park Orange-One Nishiwaki, Nishiwaki City, Hyogo, Japan • El Rollo y Las Olas, Tlaquiltenango, Morelos, Mexico • Pharaoh's Lost Kingdom, Redlands, California, USA • Caribbean Bay Waterpark, Kyongei-Do, Korea • Jozankei View Hotel, Sapporo City, Hokkaido, Japan • Honey Lake Country Club, Shenzhen, China • Chunan Sangrok Resort Waterpark, Seoul, Korea • Karakami-Kanko, Chuo-Ku, Osaka, Japan • Hyland Hills WaterWorld, Denver, Colorado, USA • Nagashima Spa Land, Kuwana-gun, Japan • Jeddah Tourist City Waterpark, Jeddah, Saudi Arabia • Paramount's Kings Island, Kings Island, Cincinnati, Ohio, USA • Pacific Islands Club, San Antonio, Saipan, USA • Tarza Waterpark, Tumon, Guam, USA • Lake Lanier Islands Resort, Lake Lanier Islands, Georgia, USA • Jumeirah Beach Resort & Aquapark, Dubai, United Arab Emirates • Six Flags Hurricane Harbor, Arlington, Texas, USA • Electric City Waterpark, Great Falls, Montana, USA • Alpamare Waterpark, Bad Tölz, Germany • Wave House South Africa, Durban, South Africa • Center Parcs, De Eemhof, Netherlands • National Aquatic Centre of Dublin, Dublin, Ireland • Yasenevo, Moscow, Russia • Aqua Park Zambone, Zambone, Italy • The City, Cancun, Mexico • Kalahari Indoor Waterpark, Wisconsin Dells, Wisconsin, USA • Cayman Grand Harbor, Grand Cayman, Cayman Islands • Troy Aquapark - Belek Rixos, Belek, Turkey • Republic Aquatic Center, Republic, MO, USA • Wave House San Diego, San Diego, CA, USA • Massanutten Indoor/Outdoor Waterpark, McGeheysville, VA, USA • Kalahari Resort, Huron, OH, USA • Six Flags Great Escape Waterpark/Hotel, Lake George, NY, USA • Avalanche Bay, Boyne Falls, MI, USA • Gezeitenland, Borkum, Germany • Adrenalina Houston, Houston, TX, USA • Adrenalina Tampa, Tampa Bay, FL, USA • Adrenalina Atlanta, Atlanta, GA, USA • Hawaiian Waters Adventure Park, Kapolei, HI, USA • Freedom of the Seas, Royal Caribbean Cruise Lines • Mavericks Club, Sunriver, OR, USA • Waterville USA, Gulf Shores, AL, USA • City of Moses Lake, Moses Lake, WA, USA • Schlitterbahn Waterpark & Resorts, South Padre, Texas, USA • Schlitterbahn Waterpark & Resorts, Galveston, Texas, USA • Waterpark of America, Minneapolis, MN, USA • Adrenalina Orlando, Orlando, FL, USA • Adrenalina Miami, Miami, FL, USA • Adrenalina Denver, Denver, CO, USA • Adrenalina Dallas, Dallas, TX, USA • Camelbeach/Camelback Ski Resort, Tannersville, PA, USA • Ogden High Adventure, Ogden, UT • Hershey Park, Hershey, PA • Center for the Intrepid, Fort Sam Houston, TX • Da'Rush Maui, Kihei, HI • Spring Hill Resort and Waterpark, Spring Hill, FL, USA • Silver Mountain, Kellogg, ID • Splash City, Collinsville, IL • Split Rock Resort, Lake Harmony, PA • Sahara Sam's Indoor Waterpark, Berlin, NJ, USA • Pensacola Christian College, Pensacola, FL, USA • Wave House Santiago, Chile • Dutch Water Dreams, Netherlands • DreamWorld, Gold Coast, Australia • Kazan Waterpark, Kazan, Russia • Big Kahuna, Destin, FL, USA • Black Pearl, Grand Cayman, Cayman Islands • Blake Roney, Provo, UT • Carnival Cruises, Grand Turk, Turks and Caicos Islands British W. Indies • Ekopark Turizm Insaat, Serik Antalya, Turkey • Great Wolf Lodge, Williamsburg, VA, USA • Mission Aquatic Center, Kelowna, BC, Canada • OCT China, Yantian District, Shenzhen, China • Radisson Resorts, Albuquerque, NM • Raging Waters, San Dimas, CA, USA • Surf N Slide, Moses Lake, WA, USA • Swimplex, Kalgoorlie, Australia • Tierra Del Sol, Orlando, FL, USA • Water World Water Park, Manama, Bahrain • Wave House Singapore, Sentosa Island, Singapore • Leonia Resort, Hyderabad, India ... and growing by the day!



*Flowboarder ripping it up on the FlowRider Single at Wave House San Diego.*



[www.flowrider.com](http://www.flowrider.com)

Visit our website for more information, PDF Downloads, photos and video.

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Powered by ITT Flygt®  
submersible propeller pumps

The FlowRider sheet wave attraction is a proprietary technology covered by one or more of the following U.S. patents: 4,564,190; 4,792,260; 4,905,987; 4,954,014; 5,171,101; 5,213,547; 5,236,280; RE 34,407; 5,271,692; 5,393,170; 5,401,117; 5,421,782; 5,503,597; 5,564,859; 5,628,584; 5,664,910; 5,667,445; 5,738,590; 5,766,082; 5,860,766; 5,899,633; 5,899,634; 5,911,190; 6,105,527; 6,132,317; 6,319,137; 6,460,201; 6,491,589; 6,676,530; 6,716,107; 6,738,992; 6,758,231; 6,928,670; 6,957,662; 7,040,994; RE 39,171.

Other U.S. patents pending. Global coverage is provided by patents and pending applications in foreign countries.

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