

# RAPID BLOCS<sup>®</sup>



## Features

### ✓ Construction cost

The galvanised steel Unistrut used in the channel floor to position the blocs is relatively inexpensive and your construction contractor will already be familiar with it.

### ✓ Stackable

You can make just about anything from these blocs: try making a weir to flood the first story of a building! Or perhaps a set of steps, capped with grip textured square lids.

### ✓ Reconfigurable

Want to move things around? That's easy; although we're always on hand for course design and setup (with years of experience in flow modelling) if you need us.



Mounting track

Wherever you need it.



Groynes

Flush with 3:2 sloping walls.



Lids

Safe radiuses and clean look.



Wave formers

Tweak features + wave trains.



Tamper proof

With security head bolts.



So many possibilities ...

Rescue, rafting + competition.

Patent Application Number 61/168098  
Registered Design 4011933  
International Design Classification  
LOC (07) Cl. 21-02

... 3D adjustable



# RAPID BLOCS<sup>®</sup>

## Product range

Available in a range of colours (just ask)



### STANDARD BLOC

- ✓ 1m x 0.5m x 0.25m
- ✓ galvanised steel frame
- ✓ inc. 4x steel anchors



### ROUNDED LID

- ✓ 1m x 0.5m x 0.08m
- ✓ rounded smooth edges
- ✓ covers anchors



### SQUARE LID

- ✓ 0.5m x 0.5m x 0.06m
- ✓ grip tread pattern
- ✓ covers anchors



### HALF BLOC

- ✓ 0.5m x 0.5m x 0.25m
- ✓ galvanised steel frame
- ✓ inc. 2x steel anchors



### GROYNE BLOC

- ✓ 1m x 0.5m x 0.75m
- ✓ galvanised steel frame
- ✓ inc. wall attachments



### SAFETY / WAVE WEDGE

- ✓ 1m x 0.5m x 0.25m
- ✓ mount on channel floor or on another bloc
- ✓ upstream for safety / downstream for waves

### Strength

Build rigid structures from these simple shapes. Moulded from HDPE plastic with galvanised steel bolts and inserts.

### Mounting

We recommend Unistrut P3270 PG concrete inserts set 500mm apart to form the rail system.

### Samples

Contact us for samples of the blocs or rails. Rails are also available from your local Unistrut dealer.

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... easy to fit



# RAPID BLOCS<sup>®</sup>

London, Lee Valley  
Olympic competition course



## The client

We worked for Morrison Construction on this new build Olympic standard whitewater channel. The course is operated by Lee Valley Regional Park Authority.

## What we did

This course design was completed in just 3 months and commissioned in days. World class whitewater flowed from the moment the pumps were turned on.

- ✓ construction oversight
- ✓ obstacles development
- ✓ detailed flow analysis
- ✓ bloc setup
- ✓ whitewater commissioning
- ✓ and much more ...

This Olympic and World Championship venue demanded stable yet powerful rapids; which meant an exceptionally 'clean' and efficient channel.



**“The blocs can be fine tuned to create a fair and challenging course for all competitors. New blocs, like the wave formers, allow us to continue to develop our course for everybody.”**

— Simon Ricketts, Manager, Lee Valley

The RapidBlocs system converts just 5.5m of head into one of the best whitewater courses in the world. Wedges, lids and half blocs subtly tweak features; a sticky hole transformed into a loose hole, breaking wave or smooth glassy wave. Clusters of blocs at key locations make the groynes very strong, suitable for the operator to use ten man rafts. The bloc configuration has evolved with input from the world's top slalom coaches and competitors. Only RapidBlocs can fundamentally change an entire channel, quickly and with no specialist tools or lifting equipment.

... whitewater with



# RAPID BLOCS<sup>®</sup>

## Prague, Troja barrage, Czech Republic Slalom competition course



### The client

Working for Labska Construction, this was a retrofit of the RapidBlocs system. The city of Prague and the operators wanted to bring this successful slalom site up to the highest level for the 2012 Slalom World Cup and 2013 World Slalom Championships. The course is operated by University Canoe Slalom Sport Club.

### What we did

The channel is now more adaptable and now has the best freestyle feature the course has ever seen.

- ✓ retrofit
- ✓ obstacles development
- ✓ bloc setup assistance

The most well-known slalom site in the Czech Republic. RapidBlocs have been used on several sections of the course to make the features more flexible and to improve depth and stability.



**“The best choice for Troja with respect to flexibility, safety, and resistance to flooding and ice flows.”**

— Pavel Přindiš, Manager, Troja White Water Centre

Using the RapidBlocs system the channel now has some excellent features, including the powerful Tlama freestyle playhole. Continued evolution of the channel with new RapidBlocs sections during 2012, the course will continue to improve on the classic Troja features and renowned whitewater, keeping hydraulic efficiency and great carry though of energy. The RapidBlocs were retrofitted with minimal downtime for installation. The course has to deal with ice flows when the river melts and the RapidBloc system copes well in this environment.

... reinvigorated by



# RAPID BLOCS<sup>®</sup>

## Teesside, Tees Barrage Slalom competition course



### The client

Refurbishment of the Tees Barrage channel and retrofit of RapidBlocs for British Waterways. The course is operated by Tees Active.

### What we did

The refurbishment has seen a re-birth of a previously bland channel with diverse and exciting features.

- ✔ retrofit
- ✔ obstacles development
- ✔ bloc setup
- ✔ feature development

This channel previously had a GRP bollard system that although progressive for its time, developed repetitive features. RapidBlocs have been fitted as part of a major refurbishment of the site.



**“remarkably versatile ... we have been able to keep the course challenging for canoeists, rescue training and rafting.”**

— Simon White, Head of Adventurous Activities, Tees Active

There have been remarkable results: 300m of continuous well-formed and stable whitewater. With limited energy (3.7m) and a flow of 5 to 13 cumecs the channel has been configured with the RapidBloc system to provide a great rafting experience, challenging slalom moves and an exciting and progressive course for beginners and intermediate whitewater paddlers when the flow is lower. With a couple of alterations, made in minutes, the channel is ready to receive power boats as they train for flood rescue scenarios.

... new possibilities with



# RAPID BLOCS<sup>®</sup>

**Budweis, České Vrbné barrage, Czech Rep.  
Slalom competition course**

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## The client

Working for Zanovec  
Construction on this new  
build slalom and recreational  
channel operated by the  
Sport Club of Whitewater  
Slalom Kayaking České  
Budějovice.

## What we did

We assisted in the design  
specifying track and obstacle  
arrangements.

- ✓ bloc setup + numbers
- ✓ construction assistance

A new 210m long whitewater course, near the site of an old and well known whitewater channel. The course uses the full RapidBlocs system in a concrete channel with aesthetic stone insets in the high sections around the main pools.

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**“Every day I am surprised by what we have created on 3.5m drop. An amazing variety of whitewater features. The warm-up area playspot is a bonus.”**

— Jakub Průher, Sport Club České Budějovice Chairman

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The water is fast, continuous, stable and has good depth. The versatility of the RapidBloc obstacle system allowed the course to be commissioned in two weeks and was quickly open for training and recreation with a stable and exciting configuration forming excellent whitewater. The Czech 2012 canoe slalom team qualification culminated with an exciting event at Budweis with world class racing and compliments all round for the new whitewater.

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**... build it with**



# RAPID BLOCS<sup>®</sup>

London, Lee Valley  
Legacy Channel

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## The client

We worked for Morrison Construction on this new build recreational channel. The course is operated by Lee Valley Regional Park Authority.

## What we did

A new build recreational channel with exceptionally stable and balanced features on a low head and medium flow course.

- ✓ flow analysis
- ✓ obstacles development
- ✓ bloc setup

A short course designed to service the main Olympic channel as a warm up area and as a recreational legacy to the games. It's used for freestyle, rafting, intermediate slalom and recreational paddling. The course is now associated with some excellent freestyle features.

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**"... one of the biggest advantages of this system is how easy it'll be to play around and tweak features."**

— James Bebbington, 2011 World Freestyle Champion

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The course is powerful, despite its limited flow, and the features are well defined. Good speed between the features and sufficient depth throughout allows this course to excel despite its low energy pumping head.

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... fine tuned with



# RAPID BLOCS<sup>®</sup>

## Teesside, Tees Barrage Short course



### The client

New build of an extreme whitewater channel and rescue area at the Tees Barrage for British Waterways. The course is operated by Tees Active.

### What we did

This recent addition to the Tees Barrage course enables the flow to be diverted down a steeper short course. RapidBlocs make this otherwise straightforward channel extremely adaptable.

- ✓ flow analysis
- ✓ obstacles development
- ✓ bloc setup

One of the steepest whitewater channels in the world with a substantial drop, expertly sculpted with RapidBlocs. It has been used as a hydraulic modelling laboratory and also as a film set for water and flood scenes.



**“We can quickly set up ‘buildings’ that recreate an urban flood. We can also replicate hazards like low-head weirs in a controlled environment.”**

— Paul O'Sullivan, Manager Director Rescue 3 (UK)

The success of this channel is its ability to completely change in character, from a 2m deep pool with tranquil flows, to full release and a steep chute. Or changing from a freestyle feature to a swift water rescue training facility. The blocs are used to control depths and power accurately at a range of flows; directing water onto or away from obstacles for swimming and vehicle rescue practice. The blocs can also be used to build mock facades for building rescue practice by the emergency services.

... total control with





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## Small scale projects

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### Cardiff, CIWW Wave former

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#### The client

Cardiff International  
White Water.

#### What we did

We supplied and fitted  
RapidBlocs to overcome  
a limitation in the existing  
obstacle system.

- ✓ flow analysis
- ✓ obstacles development
- ✓ custom bloc setup



The course, which opened in 2010, has shallow and surging water. They needed a safe feature former on the floor that the rival obstacle system, already installed, couldn't offer. Our wave forming wedges provided smooth flow transitions for green surf waves in this low flow course.

### Reading, Mapledurham Weir improvement

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#### The client

Environment Agency.

#### What we did

Adding Unistrut in the  
re-concreting of the  
radial control gate we  
made an adaptable wave/  
hole canoe feature.

- ✓ flow analysis
- ✓ obstacles development
- ✓ bloc setup



An experimental installation to demonstrate the ease of installing RapidBlocs during weir refurbishment; making a recreational feature from an otherwise single purpose structure.

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... what's your project?

