



# MOBILE PLANT SOLUTIONS

FOR THE CONCRETE, CONSTRUCTION  
AND ENVIRONMENTAL INDUSTRIES

## rapidmix

The Rapidmix is a fully mobile, high capacity continuous mixing plant for semi-dry mixes. With outputs of up to 600 tons per hour, the Rapidmix is well suited to roller compacted concrete, concrete paving and environmental remediation.

## rapidbatch

The Rapidbatch is a high capacity mobile batching plant suited to large construction, infrastructure and civil engineering projects. With outputs of up to 130yds<sup>3</sup>/hr and fast setup times the Rapidbatch is well suited to wind farms, airports, construction and readymix applications.

## transbatch

The Transbatch is a single load, fully mobile batching plant with a maximum output of 109yds<sup>3</sup>. With quick setup and fast mix times this makes for one of our most efficient plants to date.

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# HOME OF THE CONCRETE MIXER



Rapid mixer 1983

## A HOME GROWN SUCCESS STORY

Established in 1969, Northern Ireland based Rapid International delivers high quality, reliable equipment to the concrete, construction and environmental industries. Today, with a presence in more than 20 countries worldwide via an ever expanding international dealer network, Rapid is a trusted partner to a wide variety of customers, ranging from multinational construction groups to small concrete producers.

## RAPID IS A GLOBAL LEADER IN THE MANUFACTURING OF:

- ▶ Pan, Planetary and Twin Shaft Concrete Mixers
- ▶ Mobile Continuous Mixing Plant/Pugmills
- ▶ Specialized Mobile Continuous Mixing Plant
- ▶ Mobile/Fixed/Bespoke/Compact Batching Plants
- ▶ High Pressure Mixer Washout Systems
- ▶ Silos
- ▶ Spare Parts

Rapid's vast experience over the last four decades ensures the highest quality design and manufacture of all equipment. Quality, reliability, efficiency and technological advancement are the greatest aims of Rapid's workforce, based at its impressive 50,000sq ft production facility and headquarters in County Armagh, Northern Ireland. Always innovating, Rapid's emphasis on product development is driven by the needs of its wide-reaching customer base, and the company's in-house technical team consistently strive to meet the demands of total quality while exceeding customers' expectations.

## RAPID INTERNATIONAL USA, INC

Located in Commerce City, Colorado, Rapid International USA, Inc was established in 1996 by its current President Dennis Bauer. No stranger to the industry, Dennis has over 25 years experience in the concrete and construction industries. Via its large nationwide network of sub dealers, Rapid USA, Inc has acted as a US sales partner for Rapid's Rapidmix range for over 17 years.



Aerial shot of the Rapid site

## Craigavon Engineering Ltd.

1969

1983



1983

1996



1996

2013



## A WORLD-CLASS PRODUCT RANGE



### MIXER RANGE

The heart of any concrete plant, Rapid's quality, durable concrete mixer range includes Pan, Planetary and Twin Shaft options. Built as standard with chill cast tiles, Rapid delivers low maintenance costs across the entire range. Rapid's Planetary option is ideal for the pre-cast industry as well as mixing semi-dry colored concrete. Planetary outputs range from 0.5yds<sup>3</sup> to 4yds<sup>3</sup> per hour.

The Rapid Pan (outputs 0.75yds<sup>3</sup> to 5yds<sup>3</sup>) is the ultimate mixer for the ready mix industry due to its high outputs and Rapid is the sole UK manufacturer of 5yds<sup>3</sup> output Pan mixers.

Rapid's range of Twin Shaft concrete mixers (outputs 4yds<sup>3</sup> - 5yds<sup>3</sup>) are ideal for the ready mix industry due to their high outputs, fast mixing time and compact design. Rapid's Twin Shaft mixers have heavy duty extra thick chill cast tiles throughout, offering low maintenance costs.



### MOBILE BATCHING PLANTS

Rapid's fully mobile Rapidbatch 70 and 120 mobile batching plant offers super mobile batching with outputs from 77yds<sup>3</sup> to 130yds<sup>3</sup> per hour. Fast on-site set up within one day means less downtime and increased efficiency for large construction projects.

Rapid's Transbatch (outputs of 44, 66 and 109yds<sup>3</sup> per hour) offers a more compact solution for mobile batching in a single load road towable unit, which folds and dismantles for transport. The Transbatch is perfect for remote location projects.



### MOBILE/SPECIALIZED CONTINUOUS MIXING PLANTS

Totally mobile and fully self contained with its own power source and self erecting system, the Rapidmix mixes up to 400 or 600 tons per hour depending on application. Rapidmix is fully operational within 2-3 hours and is typically used for RCC (roller compacted concrete), road sub base and a wide range of environmental applications including contaminated land treatment and soil stabilization.



### HIGH PRESSURE MIXER WASHOUT SYSTEMS

Proper mixer cleaning and maintenance is critical to prevent build up. The compact Rapid Jetwash High Pressure Mixer Washout System offers powerful concrete mixer cleaning in just 4 minutes using 2,000PSI (140 BAR) water pressure, reducing mixer wear and increasing the potential lifespan of the mixer. Available in both 2, 3 and 4 pump models.

### FAST-TRACK SPARES

Rapid's service doesn't stop the moment your plant is erected: our in-house spares department provides a wide range of spare parts for all mixer types, silos and plant. Rapid offers high inventory levels and a FAST-TRACK service, combined with highly competitive rates.



**rapidmix**

The Rapidmix is a fully mobile, high capacity continuous mixing plant for semi-dry mixes. With outputs of up to 600 tons per hour, the Rapidmix is well suited to roller compacted concrete, concrete paving and environmental remediation.

**CEMENT / BINDER SILO**

- ▶ Capable of storing 54 tons.
- ▶ Shut off slide plate closes silo, allowing maintenance to the hopper below.
- ▶ Fully galvanized folding access ladder with safety cage.
- ▶ Access hatch.
- ▶ 26 yds<sup>2</sup> reverse jet fan assisted filter.
- ▶ Pressure relief valve.

- ▶ Storage vessel for receiving cement/binder material from road tankers.
- ▶ Level probes control and monitor silo filling and emptying.
- ▶ Volumetric version fitted with a large rotary valve capable of up to 60 tons/hr.
- ▶ Weighed version fitted with dual rotary valves and load cell suspended screw conveyors.

**OUTLOADING CONVEYOR**

Transports the mixed material from the mixing chamber to the truck:

- ▶ Fitted with gob hopper allowing truck changeover and preventing filling segregation:
  - 800mm (31.5") – 400 model
  - 1,000mm (40") – 600 model
- ▶ Polyurethane blade belt cleaner scraper mounted on the face of the head drum.
- ▶ Rubber lagged motorized drive drum.



Outloading conveyor



Rapidmix gob hopper



Mixing chamber



Rapidmix silo



Rapidmix in transit

**AGGREGATE HOPPER WITH VARIABLE SPEED BELT FEEDER**

Hopper receives the aggregates into the plant from a standard loading shovel:

- ▶ Capacity of 15.6yds<sup>3</sup> and loading width of 14ft 2 1/2ins.
- ▶ Steep sides for difficult materials. (end slopes of 60 degrees).
- ▶ Removable division plate allows two materials to be used.
- ▶ Adjustable level gates enable the material height on the conveyor belt to be varied.
- ▶ Belt feeder provides feed from the hopper to the mixer.
- ▶ Belt width is 4ft and a heavy duty 3 ply belt is fitted.
- ▶ Conveyor fitted with heavy duty geared motor drive, adjustable rubber skirts and heavy duty support rollers.
- ▶ Weighed version is fitted with an additional weigh belt, weighing material from the aggregate hopper to the mixing chamber.

**TWIN SHAFT CONTINUOUS MIXER**

Twin shafted, pugmill mixer features 72 specially phased paddles to give a high velocity, aggressive mixing action:

- ▶ All mixing tools are manufactured using chill cast, hard wearing steel paddles.
- ▶ Total access to the mixer via the top and the sides for cleaning and maintenance.
- ▶ Dual spraybars for water dosing.
- ▶ Floor conveyor for mixer cleanout.

**CONTROL PANEL**

The system uses a Siemens S71200 PLC (Windows-based PC) to control all of the plant functions for automatic control with manual backup:

- ▶ Manual option on control panel complete with manual rate meters which display and allow adjustment on the speed of the in feeds.
- ▶ Control panel allows the operator to store, edit and retrieve multiple recipes for the proportioning of different materials.
- ▶ Siemens MP277 touch screen panel has facility to archive production information such as current stock levels and production records.
- ▶ Displays speed of the in feeds during manual operation.
- ▶ 40 characters per line thermal printer.



Rapidmix control panel



Erection of mobile plant – no crane required



On board hydraulic system for erection



Gen set

**GEN SET**

This unit provides electrical power for all machine functions:

- ▶ Powered by a 6 cylinder, turbocharged diesel engine with directly coupled brushless alternator.
- ▶ Heavy duty steel skid type base frame with anti-vibration mounting pads.
- ▶ Electric starting system.
- ▶ Automatic engine shutdown protection equipment.
- ▶ On board 84 gallon fuel tank.

## OPTIONS

Rapid's vast ranging experience has led us to the understanding that every application is unique. Rapid offers a range of optional extras enabling customization of your Rapidmix to provide a superior solution for your specific application requirements. Available optional extras include:

- ▶ **Cold feed bin system** 3 or 4 bins available in a fully mobile unit allowing for additional aggregates to be used.
- ▶ **Auxiliary silo** a second silo will open up further application options, again the silo can be mobile for ease of transportation.
- ▶ **Additional chemical admixtures** can be fitted to broaden the range of possible applications for which the plant is suitable.
- ▶ **Steering axles** can be fitted to the plant to comply with specific road regulations in certain countries.
- ▶ **Customizable paint options** the plant can be painted in any color, our standard colors will be applied if no color is specified, however for branding purposes customer colors can be used.
- ▶ **Vibrating/hydraulic grid for aggregate hopper** grid fitted to avoid oversized materials from entering the hopper.



Cold feed bin unit



Rapidmix in white



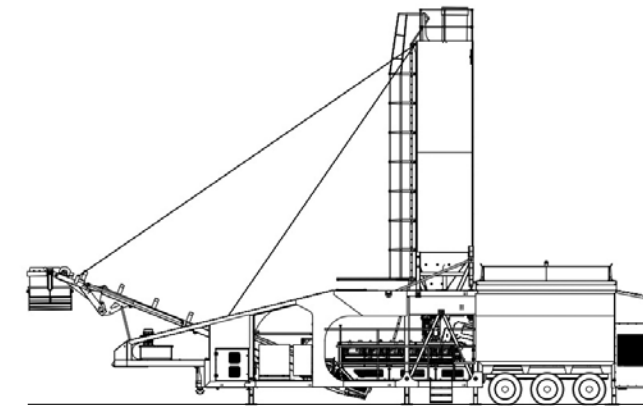
Auxiliary silo



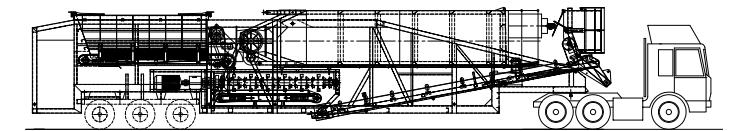
Vibrating/ hydraulic grid

## SPECIFICATIONS

MODEL (Transport dimensions)	TOTAL WEIGHT	WEIGHT ON REAR TRI-AXLES	WEIGHT ON FRONT PIN	LENGTH	WIDTH	HEIGHT	HEIGHT when erected
<b>RAPIDMIX 400</b>	73,679 lbs	48,877 lbs	24,802 lbs	20yds	3yds	4yds	14yds
<b>RAPIDMIX 600</b>	79,058 lbs	53,705 lbs	25,353 lbs	20yds	3yds	4yds	14yds



Rapidmix erected



Rapidmix in transit



Rapidmix in Canada

## SUITABLE FOR FOLLOWING PROJECTS AND APPLICATIONS:

- ▶ Mixing roller compacted concrete (RCC).
- ▶ Bentonite enriched soils for land fill sealing.
- ▶ Airport runways.
- ▶ Contaminated land treatment.
- ▶ Mine backfill.
- ▶ Cement treated base (CTB).
- ▶ Environmental remediation.
- ▶ Soil stabilization.
- ▶ Dam construction.
- ▶ Paving quality concrete.
- ▶ Soil cement.

# rapidbatch

The Rapidbatch is a high capacity mobile batching plant suited to large construction, infrastructure and civil engineering projects. With outputs of up to 130yds<sup>3</sup>/hr and fast setup times, the Rapidbatch is well suited to wind farms, airports, construction and readymix applications.





## BUILT TO LAST

- ▶ Fully galvanized.
- ▶ Auto greasing system.
- ▶ Hard wearing liner on weigh belt conveyor and bin outlets.
- ▶ Hard wearing inner mixing chamber.
- ▶ Heavy duty gearboxes.
- ▶ Multiple mixer door discharge positions.
- ▶ Heavy duty hydraulic power pack.
- ▶ Reduced wear with extra thick chill cast tiles and paddles.
- ▶ Hexagonal heavy duty mixer shafts.
- ▶ Aerofoil arm design offering reduced wear and thorough mix.
- ▶ Rhombus style wear tiles.



Mixer unit in transit



Dust filter for mixer



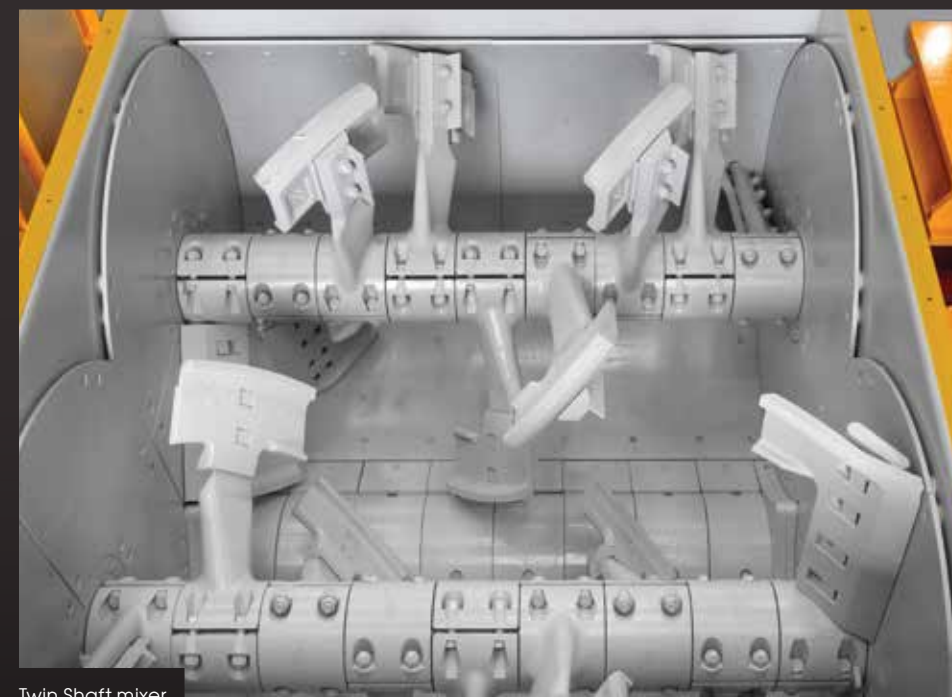
Easy access to readymix chute



Bin unit



Rapidbatch 120 and bin unit



Twin Shaft mixer

## INCREASED PRODUCTION

- ▶ Enlarged outlet on bins for quick charging.
- ▶ Short mixing times and high outputs with Twin Shaft mixer.
- ▶ Computerized control system.
- ▶ Accurate metering.

## COMPACT DESIGN

- ▶ Small plant footprint.
- ▶ Easily transported.

## SHORT INSTALLATION TIME

- ▶ No foundations required.
- ▶ Single crane lift.
- ▶ Plug and play electrics.

## OPTIONS

Rapid's vast ranging experience has led us to the understanding that every application is unique. Rapid offers a range of optional extras enabling customization of your Rapidbatch to provide a superior solution for your specific application requirements. Available optional extras include:

- ▶ **Silos** sizes range from 30 tons to 1,000 tons.
- ▶ **Precast bases** Rapid can provide precast bases to mount silos on for mobile and remote applications.
- ▶ **Admixtures** additional admixtures can be added to the system if needed.
- ▶ **Winter package** fully winterized enclosure for plant, including heating systems for aggregates, water and mixer.



Precast base



Silo



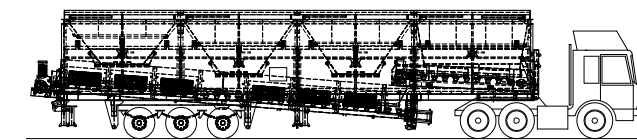
Winter package

## SPECIFICATIONS

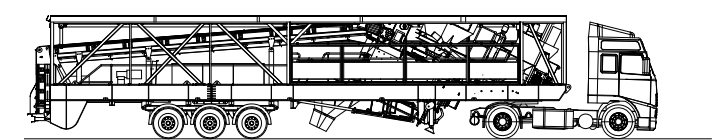
MODULE	MIXING CAPACITY	BATCH SIZE	CURRENT GENERATOR	LENGTH (Transport dimensions)	WIDTH (Transport dimensions)	HEIGHT (Transport dimensions)	WEIGHT
MIXING UNIT	130yds <sup>3</sup> /hr	3yds	400kVA	19.3yds	3.2yds	4.4yds	84,878 lbs

MODULE	BIN CAPACITY	LENGTH (Transport dimensions)	WIDTH (Transport dimensions)	HEIGHT (Transport dimensions)	WEIGHT
BIN UNIT	92yds <sup>3</sup>	18.2yds	3.2yds	4.4yds	77,162 lbs

MODULE	LENGTH	WIDTH	HEIGHT	WEIGHT
CONTROL CABIN	5yds	2.7yds	2.7yds	7,716 lbs



Rapidbatch bins in transport



Rapidbatch mixing unit in transport



90 degree configuration



In line configuration

## APPLICATIONS

The Rapidbatch is a superior choice for a wide varying selection of construction projects, including but not limited to:

- ▶ Road building
- ▶ Housing developments
- ▶ Commercial yards
- ▶ Parking lots
- ▶ Sidewalks
- ▶ Wind farm bases
- ▶ Warehouse flooring



Wind farm project



# transbatch

The Transbatch is a single load, fully mobile batching plant with a maximum output of 109yds<sup>3</sup>. With quick setup and fast mix times this makes for one of our most efficient plants to date.

**transbatch 100M**  
compact mobile batching plant

## PLANT MODELS

- ▶ **Transbatch 100**  
RT 3000 Twin Shaft (3yds<sup>3</sup> output) with chill cast tiles and mixing tools.
- ▶ **Transbatch 60**  
RT 1700 Twin Shaft (1.9yds<sup>3</sup> output) with chill cast tiles and mixing tools.
- ▶ **Transbatch 40**  
R 1000 Pan (1yds<sup>3</sup> output) with chill cast tiles and mixing tools.

## FEATURES

- ▶ 4 x 11yds<sup>3</sup> aggregate bins with pneumatic discharge doors. Folds and partly dismantles for transport.
- ▶ Weighing belt that transports the material to mixer.
- ▶ Cement weigh hopper with aeration and pneumatic vibrator. Pneumatic outlet butterfly valve.
- ▶ Water weigher with pneumatic butterfly valve and pipework to mixer.
- ▶ Twin additive meters with 2 x pumps (more additive meters can be added as options).
- ▶ Stairs and access walkways around mixer, fold and dismantling for transport.
- ▶ Chassis structure with support legs, twin axle bogie and fifth wheel coupling.



Transbatch in transit



Transbatch on site



Twin Shaft mixer



Internal of Twin Shaft mixer



Aggregate bins

## PLANT CONTROL FEATURES

- ▶ Built-in secure cabin positioned at truck loading area.
- ▶ Automatic control system with load cells, starter panel, pneumatics panel.

## OTHER FEATURES

- ▶ Water connection pipe at rear of machine to allow supply to be connected.
- ▶ Compressor with receiver and drier.
- ▶ Discharge chute with rubber sock.

## OPTIONS

Rapid's vast ranging experience has led us to the understanding that every application is unique. Rapid offers a range of optional extras enabling customization of your Transbatch to provide a superior solution for your specific application requirements. Available optional extras include:

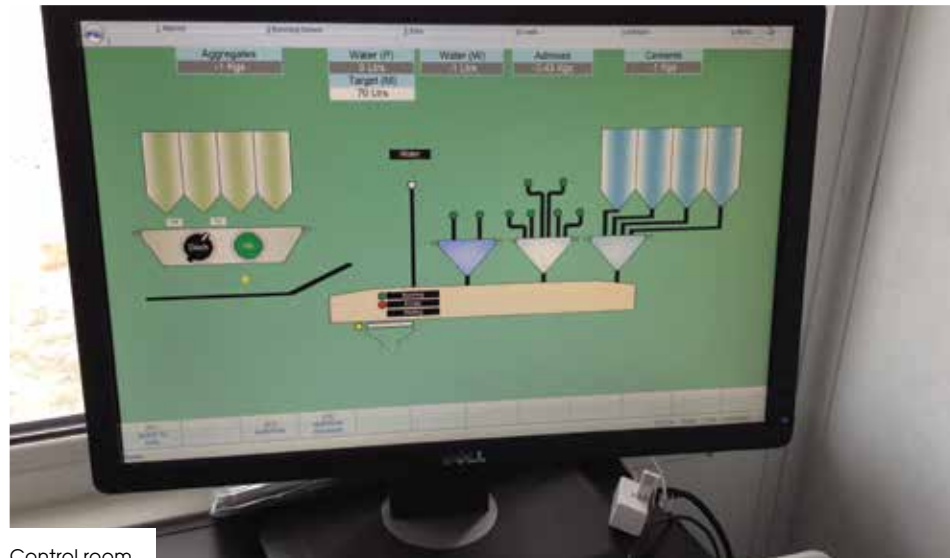
- ▶ **Silos** Sizes range from 30 tons to 1,000 tons.
- ▶ **Precast bases** Rapid can provide precast bases to mount silos on for mobile and remote applications.
- ▶ **Admixtures** Additional admixtures can be added to the system if needed.
- ▶ **Wash-out system** The Rapid Jetwash system can be added to Transbatch for automatic mixer cleaning.
- ▶ **Winter Package** Fully winterized enclosure for plant, including heating systems for aggregates, water and mixer.
- ▶ **Control System** Alternative automated control systems are available.
- ▶ **Ice / Microsilica weigh hopper** Additional weigh hopper for warm climates.



Transbatch silo



Precast base

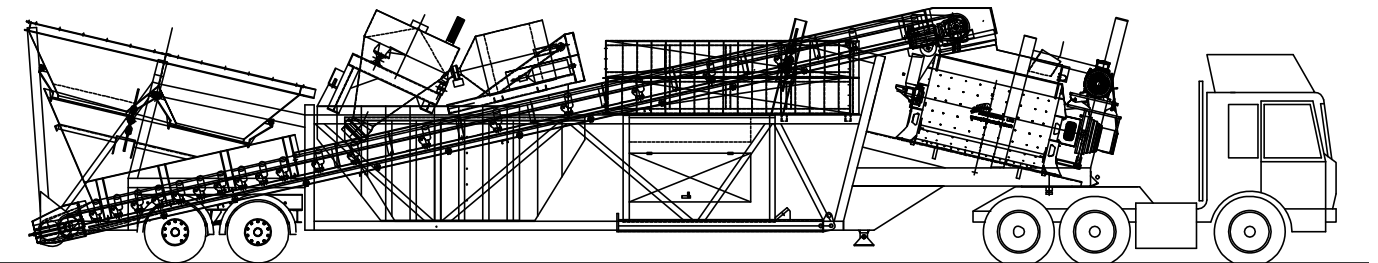


Control room

## TRANSBATCH SPECIFICATIONS

MODEL (Transport dimensions)	MIXER	OUTPUT CAPACITY (per hour)	BATCH SIZE	LENGTH	WIDTH	HEIGHT	WEIGHT
<b>TRANSBATCH 100</b>	RT3000	109yds <sup>3</sup>	3.3yds <sup>3</sup>	20yds	3.3yds	4.6yds	80,513 lbs
<b>TRANSBATCH 60</b>	RT1700	66yds <sup>3</sup>	1.9yds <sup>3</sup>	20yds	3.3yds	4.6yds	73,855 lbs
<b>TRANSBATCH 40</b>	R1000	44yds <sup>3</sup>	1.1yds <sup>3</sup>	20yds	3.3yds	4.6yds	68,564 lbs

Above weight does not include tractor unit



Rapid Transbatch in transport



Readymix concrete



Concrete being poured

## APPLICATIONS

Rapid's Transbatch is a superior choice for a wide varying selection of construction projects, including but not limited to:

- ▶ Highways / roads construction
- ▶ Housing developments
- ▶ Commercial yards
- ▶ Parking lots
- ▶ Sidewalks
- ▶ Wind farm bases
- ▶ Warehouse flooring

# CASE STUDIES

Rapid International products have successfully been deployed on numerous different projects around the world, some examples of which are below:

## rapidmix



**Airport runway**  
Russia



**Dam building**  
Mexico



**RCC**  
Canada



**RCC**  
South Carolina



**Soil stabilization**  
California



**Road project**  
Russia

EXPERIENCE COUNTS. FOUR DECADES IN THE INDUSTRY GUARANTEES THE HIGHEST QUALITY DESIGN AND MANUFACTURE OF ALL OUR EQUIPMENT.

## rapidbatch



**Airport project**  
Latvia



**Concrete road building and readymix**  
Russia



**Wind farm project**  
Sweden

## transbatch



**Readymix concrete**  
Northern Ireland



## BENEFITS OF USING RAPID INTERNATIONAL



### SMART SOURCING

We only use components of the highest quality, all of which are sourced from internationally recognized brands. This not only ensures that we have the highest quality components but we have a strong network of distributors throughout the world, reducing lead times and offering superior customer support.

### ENVIRONMENTAL CONSIDERATIONS

We take our environmental responsibility seriously. Our facility is powered by eco electric using our own 500Kw wind turbine.

### SPARE PARTS

We carry a large stock of all our Rapid genuine spare parts. In order to reduce plant down time Rapid can offer a same day dispatch on most items.

### IN HOUSE DESIGN

All Rapid products are designed by our team of highly qualified engineers, using the latest 3D design software.

### MANUFACTURING FACILITY

Everything is produced in our 50,000 square foot factory. We take pride in our manufacturing capabilities and have the latest equipment, including:

- ▶ Kaltenbach KBS620 DG/T Drill and Saw Line
- ▶ Esab Suprarex SXE-P 3500 Plasma
- ▶ Ermaksan HGD3100X13 Guillotine
- ▶ LVD PPEB 220 Press
- ▶ Excel AHS30/04 Plate Rolls
- ▶ Akyapak APK100 Section Rolls
- ▶ Colchester Combi K2 Lathe
- ▶ Colchester Combi 4000 Lathe
- ▶ Richmond VMC1020 Mill

We have recently added a new state-of-the-art painting facility.

We also incorporate lean manufacturing, which starts at the design stage of our products and is implemented throughout the process to reduce waste.



### AFTER SALES SUPPORT

With a Service and Support team of highly qualified technical operatives and service engineers, Rapid will ensure that all your after sales requirements are met with total professionalism and quality.





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