



MOBILE BATCHING PLANT SOLUTIONS

FOR THE CONCRETE, CONSTRUCTION
AND ENVIRONMENTAL INDUSTRIES

transbatch

The Transbatch is a single load, fully mobile batching plant which offers outputs from 40m³/hr to 100m³/hr. With quick setup and fast mix times this makes for one of our most efficient plants to date.

rapidbatch

The Rapidbatch is a high capacity mobile batching plant suited to large construction, infrastructure and civil engineering projects. Offering outputs of up to 120m³/hr and fast setup times, the Rapidbatch is well suited to wind farms, airports, construction and readymix applications.

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Rapid mixer 1983



Aerial shot of the Rapid site



Craigavon Engineering Ltd.

▶ 1969

▶ 1983



▶ 1983

▶ 2013



HOME OF THE CONCRETE MIXER

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 twenty 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
- ▶ Specialised 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 50,000 sq 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.



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 coloured concrete. Planetary outputs range from 0.375m³ to 3m³.

The Rapid Pan (outputs 0.5m³-4m³) is the ultimate mixer for the ready mix industry due to its high outputs and Rapid is the sole UK manufacturer of 4m³ output Pan mixers.

Rapid's range of Twin Shaft concrete mixers (outputs 1.7m³-4.5m³) are ideal for the ready-mix industry due to its 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.



BATCHING PLANTS

Rapid's fully mobile Rapidbatch 70 and 120 mobile batching plant offers super mobile batching with outputs from 70m³ to 120m³ 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 40, 60 and 100 m³ 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/SPECIALISED 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 tonnes 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 stabilisation.

Trakmix is a track mounted, totally mobile and self-contained, fully weighed high volume mixing plant. Offering outputs of up to 250TPH, Trakmix is ideal for applications where all types of binders or neutralising powders are required in the mixing process, such as road construction, road paving, ground works/civil engineering, environmental stabilisation projects, aggregate recycling and many more.



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 2,000 PSI (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.



COARSE
SAND

transbo
mobile

transbatch

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PLANT MODELS

- ▶ **TRANSBATCH 100**
RT3000 Twin Shaft (3m³ output)
with chill cast tiles and mixing tools.
- ▶ **TRANSBATCH 60**
RT1700 Twin Shaft (1.7m³ output)
with chill cast tiles and mixing tools.
- ▶ **TRANSBATCH 40**
R1000 Pan (1m³ output) with chill
cast tiles and mixing tools.

FEATURES

- ▶ 4 x 10m³ 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 optional extras).
- ▶ Stairs and access walkways around
mixer fold and dismantle for transport.
- ▶ Chassis structure with support legs, twin
axle bogie and fifth wheel coupling.



Transbatch in operation



Transbatch in transit

PLANT CONTROL FEATURES

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

OTHER FEATURES

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



Twin Shaft mixer



Internal of Twin Shaft mixer



Aggregate bins

OPTIONS

Our vast experience over the last 40 years has led us to the understanding that every project has unique requirements. As such, Rapid can offer a selection of optional extras to accompany our entire range of plant. Available optional extras for Transbatch include:

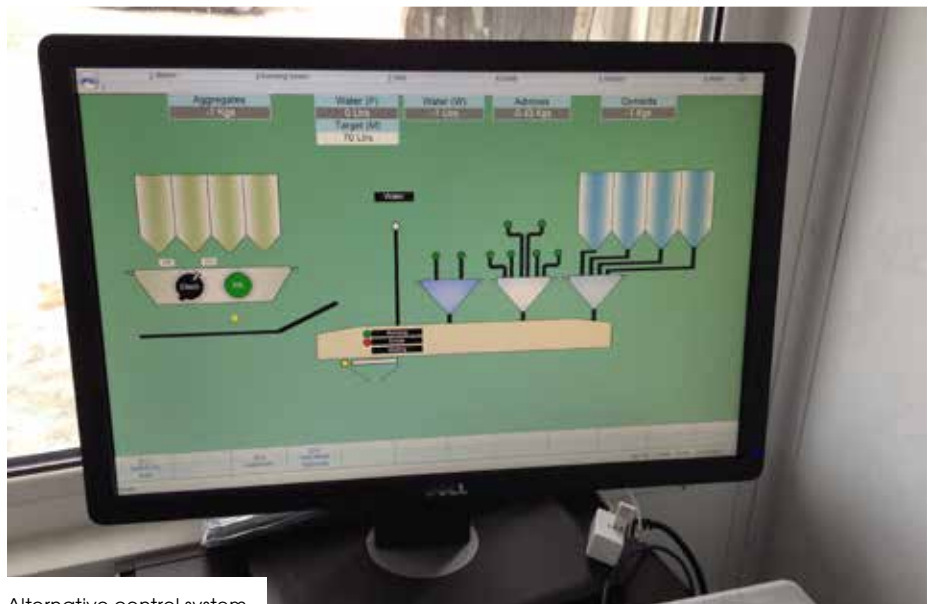
- ▶ **Silos** Sizes range from 30 tonnes to 1000 tonnes.
- ▶ **Precast bases** Rapid can provide precast bases to mount silos on for mobile and remote applications.
- ▶ **Admixtures** Additional admixtures can be added to the system if needed.
- ▶ **Wash-out system** The Rapid Jetwash system can be added to Transbatch for automatic mixer cleaning.
- ▶ **Winter Package** Fully winterised 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



Mixer Jetwash

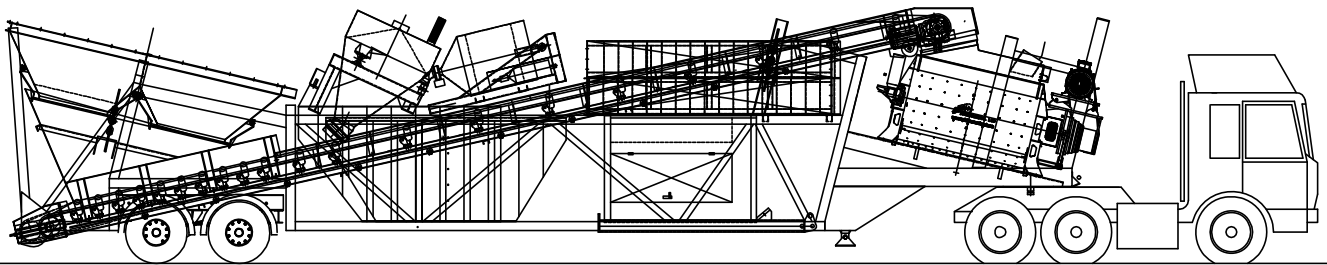


Alternative control system

TRANSBATCH SPECIFICATIONS

MODEL (Transport dimensions)	MIXER	OUTPUT CAPACITY (per hour)	BATCH SIZE	LENGTH	WIDTH	HEIGHT	WEIGHT
TRANSBATCH 100	RT3000	100m ³	3m ³	18m	3m	4.2m	36,520kg
TRANSBATCH 60	RT1700	60m ³	1.7m ³	18m	3m	4.2m	33,500kg
TRANSBATCH 40	R1000	40m ³	1m ³	18m	3m	4.2m	31,100kg

Above weight does not include tractor unit



Rapid Transbatch in transport



Transbatch assembly



Aggregate bin filling

APPLICATIONS

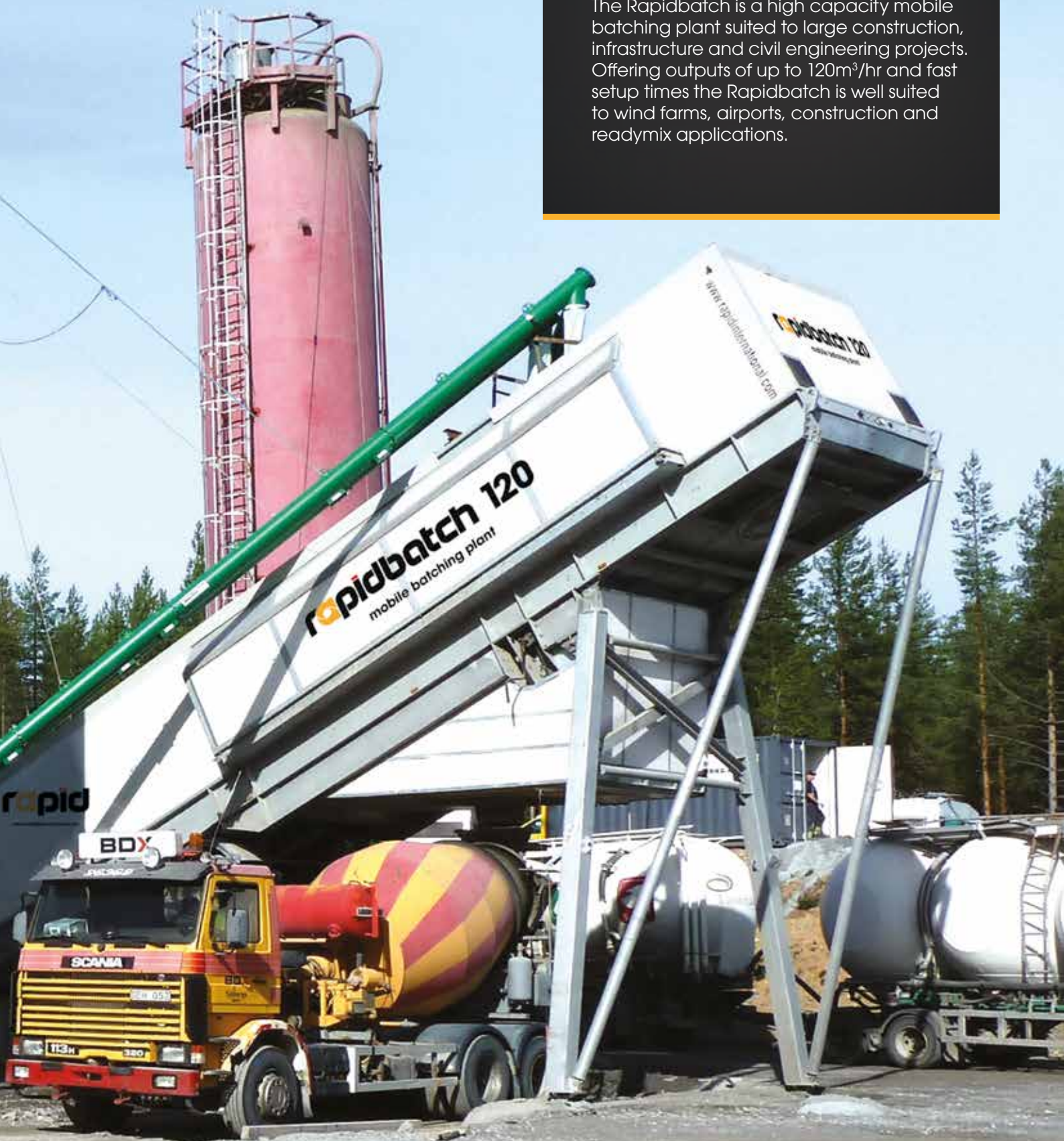
Rapid's Transbatch is a superior choice for a wide varying selection of construction projects, including but not limited to:

- ▶ Road building
- ▶ Housing developments
- ▶ Commercial yards
- ▶ Car parks / parking lots
- ▶ Pavements / sidewalks
- ▶ Wind farm bases
- ▶ Warehouse flooring



rapidbatch

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BUILT TO LAST

- ▶ Fully galvanised.
- ▶ 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



Rapidbatch 120 typical layout



Easy access to readymix chute



Bin unit



Twin Shaft mixer

INCREASED PRODUCTION

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

COMPACT DESIGN

- ▶ Small plant footprint.
- ▶ Easily transported.

SHORT INSTALLATION TIME

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

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- ▶ **Silos** Sizes range from 30 tonnes to 1000 tonnes.
- ▶ **Precast bases** Rapid can provide precast bases to mount silos on for mobile and remote applications.
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- ▶ **Winter Package** Fully winterised enclosure for plant, including heating systems for aggregates, water and mixer.



Admixtures



Precast base



Silo



Winter package

SPECIFICATIONS

MODULE	MIXING CAPACITY	BATCH SIZE	GENERATOR REQUIREMENT	LENGTH (Transport dimensions)	WIDTH (Transport dimensions)	HEIGHT (Transport dimensions)	WEIGHT
MIXING UNIT	120m ³ /h	3m ³	450KVA	17.7m	3m	4m	38,500kg

MODULE	BIN CAPACITY	LENGTH (Transport dimensions)	WIDTH (Transport dimensions)	HEIGHT (Transport dimensions)	WEIGHT
BIN UNIT	84m ³	16.6m	3m	4m	35,000kg

MODULE	LENGTH	WIDTH	HEIGHT	WEIGHT
CONTROL CABIN	4.6m	2.5m	2.5m	3,500kg

APPLICATIONS

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

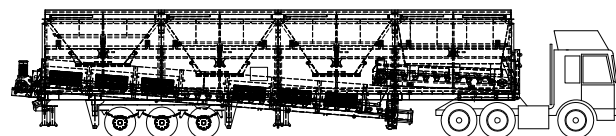
- ▶ Road building
- ▶ Housing developments
- ▶ Commercial yards
- ▶ Car parks / parking lots
- ▶ Pavements / sidewalks
- ▶ Wind farm bases
- ▶ Warehouse flooring



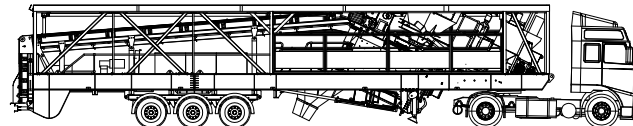
In line configuration



90 degree configuration



Rapidbatch bins in transport



Rapidbatch mixing unit in transport



Wind farm project

rapid STATIC BATCHING PLANT

Rapid International also offer a comprehensive range of standard concrete batching plant suitable for ready-mix, precast, block, paver and all types of concrete product manufacturers.

Our standard batching plant designs offer production capacities for both small and large producers with output options from 20m³ per hour up to 200m³ per hour.

All plant designs incorporate our very own range of high quality pan, planetary or twin-shaft mixers, offering the benefit of access to a one stop shop for genuine spares.

Rapid plant offers compact designs, pre-wired modular sections for easy installation, ultimate safety features and maximum access for maintenance all considered.

BESPOKE PLANT

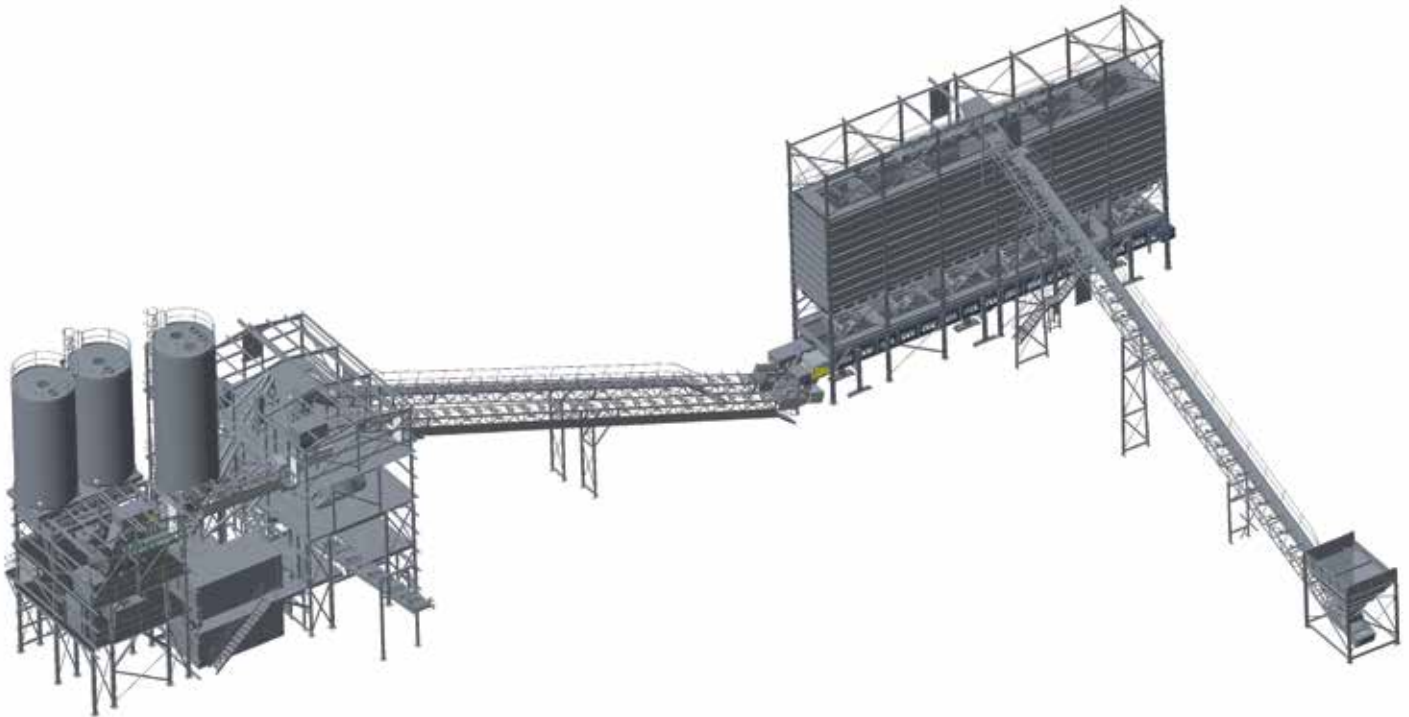
With the benefits of our highly experienced in house design team and production engineers, Rapid can offer wide-ranging bespoke concrete batching and continuous mixing plant solutions to match customer requirements.

Whether it is the wider concrete manufacturing industry, soil or aggregate recycling, bulk material handling or the glass industry, Rapid can cater for a design that is right for the client.

Our expert design team use the latest 3D modelling software to develop the plant to suit the customer's site, budget and application. At every stage of our process our customer is central to the design. We pride ourselves on listening to our customers, acting on feedback and delivering what we are asked.

Rapid have delivered and commissioned bespoke in a wide range of locations throughout the world including UK, Ireland, Russia, Belgium, West Africa and many more.





PLANT FEATURES / OPTIONS:

- ▶ Aggregate Storage bins from 6 to 130 m³ capacity. Options on multiple outlets, belt feeders or pneumatic doors. Safety grids are fitted for direct tip bins.
- ▶ Sturdy walkways for ultimate maintenance access.
- ▶ High quality European branded components, supported by a reliable spares supply & service.
- ▶ In-feed options - In-ground direct tip (direct by truck) dump hoppers, loading shovel fed, low level ground receiving conveyors.
- ▶ Sheeted dust enclosures can be fitted above the hoppers for weather protection. Safety grids are fitted to the hoppers.
- ▶ Transfer to storage bins: Via radial or fixed conveyor- shuttle conveyor combination or direct tip by lorry into the bins if a ramp is available.
- ▶ Aggregate Weighing: By Weigh Hopper or Weigh Conveyor, mounted on loadcells.
- ▶ Transfer to Mixer: By conveyor or mixer filling skip.
- ▶ Mixers – pan, planetary or twin-shaft.
- ▶ Lattice conveyors available with galvanised belt covers for weather protection and galvanised access walkway(s) for maintenance access.
- ▶ Mixer platforms: to support the mixer and ancillary hoppers feeding the mixer, with access for maintenance. Access to platforms by stairs or ladders. Platform can be supplied sheeted or un-sheeted depending on application.
- ▶ Platform may be for multiple mixers.
- ▶ Silos for cement storage (see silo section of website)
- ▶ Screw conveyors for cement and filler batching
- ▶ Dust control systems: To reduce airborne dust, filtration systems or airbag can be supplied.
- ▶ Automatic PLC modular control systems are fitted to the plants for accurate control of plant batching and safety. Full site wiring and plumbing to starter panels and valve boxes. Water control system – metered or weighed, aggregate and cement weighing systems with automatic in-flight compensation. Safety relay system for CAT 3 or 4 machine safety.
- ▶ Optional wear linings to aggregate hoppers.



Rapid manufacture a wide range of steel bulk storage solutions for powder or granular materials. Rapid's quality engineered silos not only form component parts of Rapid's concrete batching plants, they are also available as stand-alone equipment for other industries. Materials stored and handled by Rapid's silos have included: Cement, PFA, Lime, GGBFS, Marble Dust, Paper

Ash, Plastic Granules and more. Rapid silos are engineered to provide many years of reliable service. Each silo project is bespoke and is uniquely designed and manufactured using standard modular components, that are chosen to suit the specific plant set-up. With a wide range of sizes and components Rapid can tailor the silo design to suit the individual plant requirements.

Standard silos range from 30m³ to 700m³ capacity (40 T to 1000 T of cement). The smaller silo sizes (30m³ to 127m³) are of one piece, factory built, construction, whilst the larger sizes are comprised of bolted panel sections for easy assembly on site.



SILO FEATURES / OPTIONS:

- ▶ Fully welded plate construction (one piece silos), for strength and long life.
- ▶ Silos are fitted as standard with robust vertical access ladders with safety cage and intermediate rest platforms. For operator safety the ladder platforms and the top of the silo are surrounded by double tubular handrails with kicking strip. Optional 2 metre high mesh panel fencing can be fitted instead of handrails for increased operator safety.
- ▶ Filling pipe with low wear bend and optional shut-off valve (pinch valve or butterfly), for protection against damage and dust emissions
- ▶ Range of different outlet valves: butterfly valve, slide valve, manual, pneumatic or electric operation. Other types of valves are available depending on material characteristics.
- ▶ Twin compartment silos available to save space on small sites.
- ▶ Discharge aids such as aeration pads or vibrator can be fitted depending on application.
- ▶ WAM Reverse Jet Filter for silo venting.
- ▶ Pressure relief valve with optional high air volume version, with optional systems for fault detection.
- ▶ Level probes (paddle, microwave or capacitance types).



- ▶ Silo protection system to protect the silo from damage by over-filling or over-pressurization. The system provides an audible and visual indication for both high level and high pressure and activates a shut-off valve in the fill pipe to protect the silo. It also prevents damage to the environment by eliminating dust emissions.
- ▶ Cement Storage and Tankerchosen to suit your particular plant set-up. With such a wide range of sizes and components we can tailor the silo design to suit your individual plant requirements.
- ▶ Special paint finishes are available for silos in coastal locations, whilst a wide range of internal paint finishes can be applied for storing special products.
- ▶ Multiple outlets to enable more than one mixer or process to be fed.
- ▶ Silo weighing (by loadcells or strain gauges).



HORIZONTAL STORAGE SILO:

- ▶ **CAPACITY** 50 tonnes
- ▶ **DESIGN** Horizontal Rectangular welded construction supported by mild steel box section supports and skids. Long trough outlet.
- ▶ **CONSTRUCTION** Cone and Barrel 5mm mild steel plate with stiffener flats. A section of the roof where the filter and manhole is surrounded at its perimeter by double tubular handrailing.
- ▶ **OUTLET** Long flange with to accept troughed screw conveyor.
- ▶ **MANUAL ACCESS** A manhole is provided on top of the silo for maintenance access.
- ▶ **PRESSURE RELIEF VALVE** Situated for ease of maintenance on the manhole lid. Designed to protect the silo from becoming over or under pressurised.
- ▶ **PRESSURE SWITCH** A pressure switch will be fitted to the lid of the silo to signal when a preset pressure (approx 1 psi) is exceeded. This can be used to close the fill pipe valve.
- ▶ **FILTER UNIT** 24 m² Wam Reverse Jet type Filter.
- ▶ **FILLER PIPE** 100 mm dia terminating in a unicone fitting at 1450 mm above ground level. A pneumatically operated butterfly valve (failsafe spring closing) is fitted in the pipe, close to the uni-cone fitting, which will close when the high level is reached, preventing the driver from over filling the silo.
- ▶ **DISCHARGE AID** 12 No. Aeration Nozzles located along the cone of the silo.
- ▶ **LEVEL INDICATION** Rotating paddle type high level probe.
- ▶ **ACCESS TO SILO ROOF** By ladder with safety cage from ground level.
- ▶ **EXTRACTING SCREW CONVEYOR** 250 mm diameter approx 7m long, geared motor drive, outlet flanged to connect the inclined screw conveyor.
- ▶ **INCLINED SCREW CONVEYOR** 273 dia screw conveyor approx 13.5m cc, inclined at 42 deg, geared motor drive, outlet butterfly valve, rubber sock, wire rope support from the silo.
- ▶ **CONTROLS** Panel located inside lockable protective cabinet. Silo safety control system; a fill pipe shut off valve will be closed if over pressure or high level is detected.

CASE STUDIES

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

transbatch



Readymix concrete
Northern Ireland



Readymix concrete
Ireland



Warehousing Project
England



Football Stadium Project
England

rapidbatch



Airport project
Latvia



Concrete road building and readymix Russia



Wind farm project
Scotland



Wind farm project
Sweden

rapid STATIC BATCHING PLANT



Roof tile production
Northern Ireland



Readymix concrete
Scotland



Rail Project
England



Readymix concrete
Scotland

WE ARE PROUD TO BE SUPPLIERS TO THE FOLLOWING LEADING GLOBAL COMPANIES:-

CEMEX, HOLCIM, HEIDELBERG, LARFARGE/TARMAC, ODEBRECHT AND MANY MORE...



Large spares inventory

BENEFITS OF CHOOSING RAPID INTERNATIONAL



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:

- ▶ Kaltfenbach KBS620 DG/T Drill & 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
- ▶ Hodge Clemo shot-blasting room and Dalby paint booth

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

SMART SOURCING

We only use components of the highest quality, all of which are sourced from internationally recognised 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.

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.



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.

ENVIRONMENTAL CONSIDERATIONS

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





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