

NEW RANGE

Economic Range Sizes

This table replaces the one currently shown in our Minibulk® brochure.

This new metric range optimises material use & manufacturing techniques.

Larger Volumes

The stated tank sizes give 110% of the gross working capacities.

For added safety, the bund sizes shown add an extra 10% on these gross working capacities giving a total of 120% gross volume.



FORBES

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NEW RANGE

MINIBULK®

MB RANGE

STANDARD SIZES

MINIBULK®

MINIBULK® PLUS

MODEL	CAPACITY (LITRES)	TANK DIAMETER (MM)	NOMINAL TANK WALL HEIGHT (MM)*	NOMINAL CONED TOP HEIGHT (MM)	NOMINAL BUND DIAMETER (MM)	NOMINAL BUND HEIGHT (MM)
MB 15	1500	1250	1500	167	2000	600
MB 20	2000	1450	1500	194	2300	600
MB 25	2500	1375	2000	184	2300	750
MB 30	3000	1500	2000	201	2500	750
MB 40	4000	1750	2000	234	2900	750
MB 50	5000	1750	2500	234	2800	1000
MB 60	6000	1900	2500	255	3050	1000
MB 80	8000	2000	3000	268	3150	1250
MB 100	10000	2250	3000	301	3250	1500
MB 125	12500	2200	3750	295	3600	1500
MB 150	15000	2420	3750	324	3500	1900
MB 200	20000	2550	4500	342	4111	1850
MB 250	25000	2850	4500	382	4111	2300
MB 300	30000	3100	4500	415	4300	2500

*Consideration should be given to inspection manway fittings and pipe connections which project above the coned top.

If these standard sizes do not suit your applications, dimensions can be tailored to your requirements. We manufacture tanks in a wide range of materials from 200 litres to 200,000 litres capacity and for a host of applications in many industries.

MINIBULK®

Chemical Storage Systems



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PLASTICS TANKS AND
ENVIRONMENTAL TECHNOLOGIES

MINIBULK® Chemical Storage System

SAFETY AND EFFICIENCY

Drums and carboys are an inconvenient, risky and expensive way to transport and store hazardous chemicals and in some circumstances do not comply with legislation on manual handling (Manual Handling Regulations 1992).

Intermediate Bulk Containers (IBCs) can prove a practical option but their benefits are compromised both by restrictions on handling large volumes of dangerous chemicals by fork lift truck (Management of Health and Safety at work Regulations 1992) and by the nuisance and expense of deposits and rentals.

MINIBULK® systems allow users to take delivery by low pressure discharge (up to 14 psi) from tankers or lorry-mounted IBCs with the minimum of danger and with no rental or cleaning charges.

Employee health is, more than ever, a high priority and MINIBULK® systems remove the dangers associated with manual lifting, reduce opportunities for exposure to chemicals to a minimum and provide the assurance of bundled 'total containment'.

Major chemical suppliers offer guidelines regarding the safe storage and handling of their products – Forbes works closely with these companies to ensure that MINIBULK® systems satisfy their recommendations.

By standardising designs around the economical use of materials, manufacturing costs are minimised. Standard features and optional equipment are listed on pages 3 and 7 of this publication.

Every MINIBULK® system is designed for its specified application. Those of thermoplastic construction will usually be black to protect the contents from the effects of UV light.

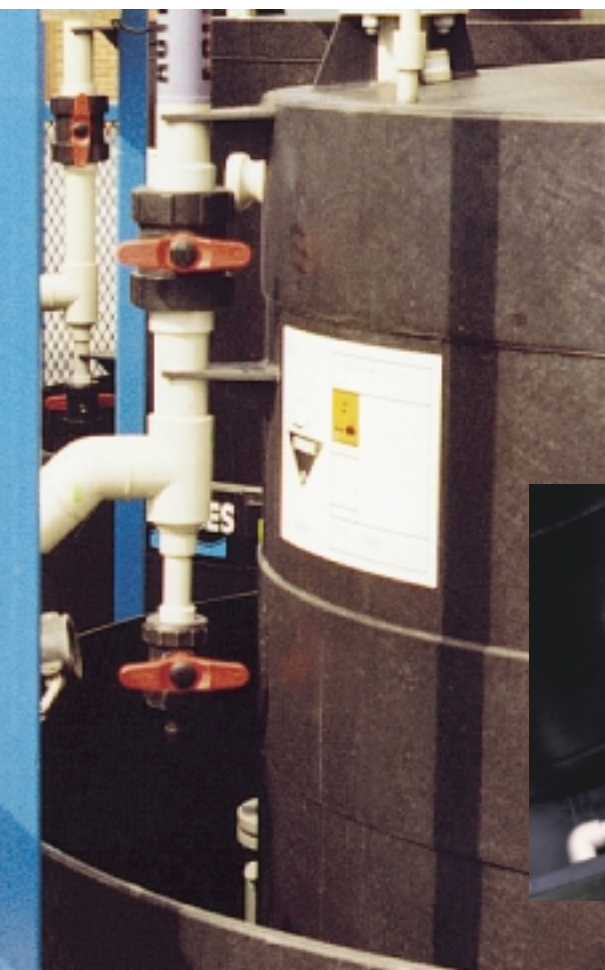


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BULK[®]



STANDARD FEATURES for all MINIBULK[®] systems

- ◆ Storage tank to suit specified duty
- ◆ Safety bund (110% of tank capacity)
- ◆ 600mm diameter top inspection manway (bolted)
- ◆ Vent with cowl
- ◆ Inlet feed pipe, with fitting to suit chemical supplier's recommendations, and valving
- ◆ Outlet with valve
- ◆ Overflow with downpipe and spill catchment area with separate drain
- ◆ Spindle-operated outlet valve isolation
- ◆ Bund drain plug
- ◆ Tank-to-bund fixing lugs
- ◆ Bund bolt-down lugs

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PLASTICS TANKS AND
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MINIBULK STANDARD

MINIBULK®

MINIBULK® PLUS

MODEL	CAPACITY (LITRES)	TANK DIAMETER (MM)	NOMINAL TANK WALL HEIGHT (MM)*
MB 15	1500	1250	1500
MB 20	2000	1450	1500
MB 25	2500	1375	2000
MB 30	3000	1500	2000
MB 40	4000	1750	2000
MB 50	5000	1750	2500
MB 60	6000	1900	2500
MB 80	8000	2000	3000
MB 100	10,000	2050	3000
MB 125	12,500	2200	3750
MB 150	15,000	2420	3750
MB 200	20,000	2550	4500
MB 250	25,000	2850	4500
MB 300	30,000	3100	4500

* Consideration should be given to ins and pipe connections which project

If these standard sizes do not suit you, discuss custom designs with us. We manufacture tanks in a wide range of sizes from 200 litres to 200,000 litres capacity for a wide range of applications in many

BULK®

SIZES

NOMINAL CONED TOP HEIGHT (MM)	NOMINAL BUND DIAMETER (MM)	NOMINAL BUND HEIGHT (MM)
167	2000	600
194	2300	600
184	2300	750
201	2500	750
234	2900	750
234	2800	1000
255	3050	1000
268	3150	1250
301	3250	1500
295	3600	1500
324	3500	1900
342	4111	1850
382	4111	2300
415	4300	2500

Inspection manway fittings above the coned top.

For your application, please contact our sales engineers. We offer a wide range of materials from polyethylene to stainless steel for a host of different industries.



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PLASTICS TANKS AND ENVIRONMENTAL TECHNOLOGIES

This MINIBULK® PLUS installation for the storage of 36% hydrochloric acid incorporates a Forbes 'TUF' tanker unloading pumpset and a vent scrubbing unit.

The success of the MINIBULK® concept for the storage of bulk chemicals in quantities up to 8,000 litres inspired the introduction of a further range to accommodate bulk tanker deliveries by high pressure discharge (up to 30 psi). Offering tank capacities from 10,000 litres to 30,000 litres, the MINIBULK® PLUS range is available in 6 standard sizes - all supplied complete with safety bund and associated pipework. MINIBULK® PLUS systems are available with the full range of MINIBULK® optional equipment.

MINIBULK® PLUS storage tanks are invariably designed to BS 4994:1987 using a thermoplastic/GRP dual laminate with a polypropylene, UPVC or PVDF inner shell or chop hoop wound GRP as appropriate to the specified duty. Both the tank and its integral bund, fabricated in chop-hoop wound GRP or dual laminate, are externally pigmented to customer specification from the BS 4800 range.



MINIBULK





BULK[®] PLUS



OPTIONS for all MINIBULK[®] systems

- ◆ Lockable inlet valve
- ◆ Seal pot to overflow (standard for hydrochloric acid and ammonia)
- ◆ Internal dip pipe
- ◆ Vent ducting and fume scrubber (standard for hydrochloric acid and ammonia). See separate leaflet for Bulk Tank Vent Scrubbers.
- ◆ Pneumatic contents gauge
- ◆ Sight gauge tube with valving
- ◆ Electronic level monitoring for tank
- ◆ Control panel
- ◆ High level alarm switch
- ◆ Low level alarm switch
- ◆ 'Wet bund' warning switch (& panel)
- ◆ Overflow warning switch (& panel)
- ◆ Thermal insulation and cladding
- ◆ Heating
- ◆ Weather protection shroud for bund
- ◆ JetGuard™
- ◆ TC Shield™
- ◆ Platform
- ◆ Full installation service
- ◆ Secondary containment pipework
- ◆ System package with integral pumps

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MINIBULK[®]

TYPICAL APPLICATIONS

- ◆ Acetic Acid
- ◆ Ammonia Solutions
- ◆ Battery Acid
- ◆ Calcium Chloride
- ◆ Caustic Potash
- ◆ Caustic Soda
- ◆ Detergents
- ◆ Ferric Chloride
- ◆ Ferric Sulphate
- ◆ Formic Acid
- ◆ Formaldehyde
- ◆ Hydrochloric Acid
- ◆ Hydrogen Peroxide
- ◆ Nitric Acid
- ◆ Phosphoric Acid
- ◆ Sodium Hypochlorite
- ◆ Sulphuric Acid
- ◆ Water (Distilled, Deionised)

This list is not exhaustive and we can offer systems for many chemicals not mentioned here. The chemicals listed are commonly supplied in a range of concentrations and it is important to determine the precise duty when specifying a MINIBULK[®] system. Systems are of course dedicated to particular duties, and contents should not be changed without reference to Forbes.

PRODUCT RANGE

- ◆ Thermoplastics Tanks
- ◆ Tanks, Vessels & Fabrications
GRP/THERMOPLASTICS DUAL LAMINATES
- ◆ Tanks, Vessels & Silos
GRP COMPOSITES
- ◆ MINIBULK[®] Chemical Storage Systems
- ◆ Sectional Tanks
- ◆ Silos FOR SOLIDS & LIQUIDS
- ◆ Salt Saturators
- ◆ Pressure and Vacuum Vessels

- ◆ Fume and Odour Scrubbing Systems
- ◆ Vent Scrubbers
- ◆ CO₂ Degassers
- ◆ Stripping Towers
- ◆ Carbon Adsorption Units
- ◆ Bio Treatment Systems

- ◆ Ancillary Steelwork
- ◆ Skid Mounted Modules
- ◆ Turnkey Projects

For further information visit our website at: www.forbesgroup.co.uk



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