

**JKS BOYLES**



B L A S T M A S T E R

A N F O - A M M O N I U M N I T R A T E B U L K M I X E R S

The Innovators

# Designed by experts – used by professionals

JKS Boyles **Blastmaster** offers the ultimate in specification and choice when selecting ANFO bulk mixers. Specified by the major operators in the civil engineering, mining and quarrying industries. **Blastmaster** is readily customised to meet your exact requirements in terms of bulk mixing capacity, mobility and work performance and offer proven reliability and low maintenance costs.

The **Blastmaster** series offers standard capacities from 50 kg to 15,000 kg in

various body lengths. All models can be readily adapted for mounting on suitable trucks, 4×4 vehicles, trailers, tractors or can be supplied on a steel skid frame.

All **Blastmasters** are built in accordance with the strict guidelines set out by the United Kingdom Health and Safety Executive for manufacture of ANFO mixer units and have full approval from the H.S.E. for use in mines and quarries.

This approval covers the relevant legislation contained in:

- The Explosives Act 1875 and 1923
- The Health and Safety at Work Act 1974
- The Ammonium Nitrate Mixtures Exemption Order 1967
- The Quarries (Explosives) Regulations 1988
- The Control of Substances Hazardous to Health Regulations 1989

For use outside the United Kingdom, JKS Boyles will endeavour to comply with all national and local legislation covering the manufacture and use of ANFO mixers.

## Blastmaster Mini-Mixer

A compact one bag ANFO mixer designed to meet the needs of the smaller quarry or open-cast site where the size of the operation or environmental considerations require a low volume unit. The **Blastmaster Mini-Mixer** can be supplied as a free standing unit or, as shown in the photograph, mounted to the back of an agricultural tractor.

An enlarged version of the **Mini-Mixer** is also available with a hopper capacity of 300 kg subject to the stability criteria of the mounting option selected.

Stainless steel hopper and auger flights are options.

Power is supplied from a separate 6hp diesel driven hydraulic power pack or can be taken directly from a vehicle's hydraulic system where suitable.

As with all **Blastmasters**, the **Mini-Mixer**, shares the same fuel injection system as the larger models ensuring a constant and accurate blend of ANFO at all times.



“A compact one-bag  
ANFO mixer”



The Blastmaster 3000 and 5000 models have hopper capacities of 3,000 kg and 5,000 kg respectively and can be supplied truck mounted, trailer mounted or supplied as a skid-mounted unit.

Both models have twin compartments with separate unloading controls to adjust the weight distribution of the hopper unit during discharge operations. This feature is particularly important when the mixer is trailer mounted.

Available options include: stainless steel hoppers, stainless steel augers, power raise and rotation of discharge boom and overhead discharge boom.



*Blastmaster 4000*

## Operation

Blastmaster ANFO mixers are units which mix Ammonium Nitrate with Fuel Oil in the correct proportion and produce the required blend on demand.

All Blastmaster units have an epoxy coated hopper, where necessary divided into equal compartments. Material is conveyed by a covered auger located centre bottom which travels the full length of the hopper. Fuel Oil is injected and the blend discharged directly to where it is needed.

The fuel oil pump is mechanically driven from the lower auger so ensuring that the blend ratio remains constant at any delivery rate.

All augers are driven hydraulically and the logical hydraulic design makes the mixing and discharge process a single lever operation.

## Mixer mounting

JKS Boyles undertake to supply and mount any of the Blastmaster range of ANFO mixer units to a suitable carrier.

All carriers are modified to comply with the relevant safety legislation referred to earlier.

## Safety features include:

- Top walkways with safety handrails and access ladder
- Hazard lamps and warning notices
- Electrical modifications to the vehicle's wiring loom (truck mount only)
- Fire screen (truck mount only)
- Truck mounted cranes, where supplied are tested and certified
- Digital counter for discharge metering of ANFO

## Mounting options

- 4x4 Truck
- 4x4 Truck with hydraulic crane
- Single-axle trailer (not suitable for model 3000)
- Twin-axle trailer
- Frame with 3 point tractor hitch (Mini-Mixer only)
- Steel skid frame

## Fuel system

- Mild steel fuel tank with level indicator
- Positive displacement piston pump
- Fuel filter and water trap
- Relief valve
- Pressure gauge
- Diverter valve (isolator)
- Fuel meter (totaliser)
- Twin stainless steel injector assemblies

## Power pack options

- Truck PTO
- Diesel/petrol engine, hand start
- Diesel/petrol engine, electric start
- Tractor PTO and 3:1 speed increaser
- Tractor hydraulic pump (Mini Mixer only)
- Hydraulic powerpack (Mini Mixer only)

## Hydraulic system

- Reservoir tank with level indicator
- Return line filter with gauge
- Hydraulic pump (type depends on power option)
- System relief valve
- 'Orbit' type motors for each auger
- Spring centred discharge control valve
- Lower auger bypass control valve option
- Diverter valve (truck crane option only)
- Discharge positioning (power raise/rotate only)

Specifications	3000	1500	mini-mix
Capacity	3,000 kg	1,500 kg	50 kg (300 kg option)
Mild Steel Hoppers	Standard	Standard	Standard
Stainless Steel Hopper	Option	Option	Option
Compartments	2	1	n/a
Lower Auger	127 mm dia	127 mm dia	n/a
Incline Auger	152 mm dia	152 mm dia	n/a
Discharge Auger	152 mm dia	152 mm dia	152 mm dia
Stainless Steel Auger(s)	Option	Option	Option
Discharge Tube (flexible hose)	102 mm dia	102 mm dia	102 mm dia
Discharge Rotation 250 Degree	Manual	Manual	n/a
Discharge Raise/Lower	Hand winch	Hand winch	n/a
Discharge power raise & rotate	Option	Option	n/a
Discharge Rate	340 kg/min	340 kg/min	170 kg/min
Discharge Rate Counter	Standard	Standard	Standard
Access walkways, safety rails & ladder	Standard	Standard	n/a
Assembly overall length	2906 mm	2306 mm	1960 mm
Assembly overall width	1830 mm	1830 mm	1000 mm
Assembly overall height	1735 mm	1735 mm	1500 mm
Assembly unladen weight	900 kg	800 kg	300 kg



Specifications subject to change

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