

## BUILT TOUGH IN AUSTRALIA FOR GLOBAL CONDITIONS

ANFO TRUCKS >>

BLEND TRUCKS >>

PUMP TRUCKS >>

UNDERGROUND LOADING  
VEHICLES >>

SURFACE AND UNDERGROUND  
UTILITY VEHICLES >>

LUBE AND FUEL CARRIERS >>

MECHANICS TRUCKS  
AND MODULES >>

EMULSION STORAGE  
FACILITIES >>

PNEUMATIC LOADING  
MACHINES >>

AN STORAGE AND  
HANDLING EQUIPMENT >>

MAGAZINES FOR  
STORAGE OF  
HIGH EXPLOSIVES >>

EXPLOSIVES PLANTS >>

CONTROL SYSTEMS  
FOR PLANTS + MOBILE  
EQUIPMENT >>

EXPLOSIVE DELIVERY  
EQUIPMENT OF  
VARIOUS SIZES >>



INTERNATIONAL EXPLOSIVES EQUIPMENT



Since the 1980's **INTERNATIONAL EXPLOSIVES EQUIPMENT (IEE)** has risen to the task of designing and manufacturing explosive mixing equipment for the harshest conditions Australia and the Asia Pacific Rim can generate eg. sandy deserts, tropical rainforests, rugged rocky terrain.

With a loyal worldwide customer base our reputation as a leading manufacturer of explosive mixing equipment is the measure of our success.

**WE BUILD RELATIONSHIPS WITH OUR CUSTOMERS AND BELIEVE THAT PARTNERING TO REACH A COMMON GOAL AND OBJECTIVE IS THE KEY TO OUR SUCCESSFUL BUSINESS. WE CAN ASSIST YOU WITH PLANNING OF EQUIPMENT AND INITIAL DESIGNS BEFORE YOU SUBMIT YOUR EQUIPMENT OUT TO BID.**

**THE FINISHED PRODUCT ALWAYS EXCEEDS THE REQUIRED STANDARDS AND NATIONAL REGULATIONS.**

**TEAMWORK - ITS WHAT WE ARE ALL ABOUT!**



Our equipment is manufactured from corrosive-resistant materials with many unique design features, which provide easy maintenance and a longer life.

**THESE FEATURES INCLUDE: >>**

- Curved or rounded tanks to assist in strength design. This also provides easier cleaning and better appearance
- Bearings fitted to both ends of augers which support the load of the auger thus providing increased life for auger drive motors
- Taper lock couplings on each drive which allow for easily maintenance
- Drive hoods which support the motor on auger and pump drives. This allows the motor to be removed while the auger remains in position
- Turntable mounting under side discharge auger which supports the weight of the auger
- Most mobile mixing units use the chassis supplied PTO to operate the hydraulic pumps.

- Specialised controls, which cater for the needs of the truck operation and hydraulic system. The controls use ready available components from major instrument manufacturers

**OPTIONAL FEATURES >>**

- Bin gates over belly auger which prevents weight build up on the auger due to the packing of the prill while travelling long distances.
- Pneumatically operated aluminium folding handrails
- Safety shut down systems for each pump when emulsion is used on the unit
- Complete "decking" under the equipment on the unit. Popular finishes are aluminium checker plate or stainless steel

Our track record to date is second to none, with our equipment fully functioning on the very first time it is tested and commissioned. With our proven quality equipment, once the units have left the factory, warranty and re-work is near zero.

Some of our tailor made, specifically designed products include the following equipment:

**ANFO MIX MODULES >>**

These units are the simplest way to manufacture ANFO. They consist of an Ammonium Nitrate storage tank and fuel oil tank. ANFO Discharge is either using an auger or pneumatic hose. Systems are self-contained and are manufactured as so they can easily be fitted to standard flat bed trucks or a variety of other equipment. Diesel engines are provided to operate the hydraulic system. This hydraulic system operates the various augers and pumps.

Units can be controlled either electrically or manually via hydraulic levers. Electric controls allow batch and total amounts to be recorded. Specialised controllers can also provide ingredient percentages and individual ingredient rates.

Bin capacities range from 1 - 8 tonnes, with discharge rates from 50kgs - 400kgs per minute.

## FEATURES OF MULTIPLE MIX UNIT BELOW

1. Discharge auger approx. 4 metres long, mounted on bearing turntable with movement controlled from In-cabin, fitted with optional reducing chute
2. Incline Auger
3. Process Fuel Tank with dished ends for added strength
4. Ammonium Nitrate Bin with rounded corners for appearance
5. Optional one piece sliding lid for ammonium nitrate bin
6. Optional aluminium checker plate deck to cover complete unit
7. Emulsion tank complete with dished ends and rolled side for added strength
8. Emulsion filler points located at working height and angled to relieve hose stress
9. Hydraulic oil tank in same shape as emulsion tank
10. Large capacity hose reeler fitted with in-cabin controls which enable auto retract during the pumping operation
11. In-cabin controls which enable the unit to be operated by a single person
12. Down-hole mono pump system complete with level indicators to enable fill in cabin operation



### ANFO MIX UNITS >>

These units also manufacture ANFO, however the bins are permanently fixed to a cab chassis.

These units consist of an Ammonium Nitrate storage tank and fuel oil tank. Product discharge is either using an overhead discharge auger or side mounted auger or by pneumatic hose.

Electronic controls are placed in the cabin of the unit. These controls allow batch and total amounts to be recorded. Specialised controllers can also provide ingredient percentages and individual ingredient rates. In-cabin controls allow the unit to be operated by a single person.

Bin capacities range from 1 - 18 tonnes, however weight restrictions of the cab chassis is the final limiting factor to the size of the unit. Discharge rates from 50kgs - 1,000kgs per minute.

### HEAVY ANFO MIX UNITS >>

In addition to the ANFO Mix trucks, these units manufacture Heavy ANFO (which is the addition of emulsion to the ANFO mixture). Bins are permanently fixed to the cab chassis or can be modular depending on customer requirements.

These units consist of an Ammonium Nitrate storage bin, Emulsion storage tank and fuel oil tank. Product discharge is either using an overhead discharge auger or side-mounted auger. Emulsion is generally added to the ANFO in the discharge auger.

Electronic controls are placed in the cabin of the unit. Like the ANFO Mix units, these controls allow batch and total amounts to be recorded. Specialised controllers can also provide ingredient percentages and individual ingredient rates and allow different mixtures of Heavy ANFO and ANFO to be loaded into the blast hole without the need to adjust the control settings. In-cabin controls allow the unit to be operated by a single person.

Total bin capacities range from 4 - 18 tonnes, however weight restrictions of the cab chassis is the final limiting factor to the size of the unit. Discharge rates from 50kgs - 1,000kgs per minute.

#### MULTIPLE MIX/PUMP UNITS >>

These units have the ability to manufacture ANFO, Heavy ANFO to auger or pump a blended product into blast holes. Bins are again generally permanently fixed to the chassis.

These units consist of an Ammonium Nitrate storage bin, Emulsion storage tank, fuel oil tank, water tank, hose reeler and optional product additions tanks.

Product discharge is either using an overhead discharge auger or side-mounted auger or pumped to a wet blast hole using a loading hose. Emulsion is generally added to the ANFO in the discharge auger.

A helical rotor pump is used to transfer the product during wet hole loading process.

Hose reelers can be manufactured to suit the various discharge rates and hose diameters as required. These reelers are usually driven using a reduction gearbox or reduction chain system.

Electronic controls are placed in the cabin of the unit. These controls allow batch and total amounts to be recorded.

Specialised controllers can also provide ingredient percentages and individual ingredient rates and allow different mixtures of various products to be produced.

In-cabin controls allow the unit to be operated by a single person. Controls can also allow for the automatic retraction of the loading hose from the blast hole.



MULTIPLE MIX UNIT



MULTIPLE MIX UNIT



ANFO MIX MODULE

Total bin capacities range from 4 - 20 tonnes, however weight restrictions of the cab chassis is the final limiting factor to the size of the unit. Auger discharge rates from 50kgs - 1,000kgs per minute, while pumpable rates range from 40kgs - 450kgs per minute.

Our multiple mixing units can accurately blend many ingredients (in all or part) to produce a variety of augered or pumped products related to the explosives industry requirements.

#### PRODUCT TRANSFER SYSTEMS >>

We also produce a full range of equipment, which is designed for the loading of ingredients into various mixing units. This equipment is designed for the transfer of Ammonium Nitrate or Emulsion.

Loading augers are used for the transfer of Ammonium Nitrate. These augers vary in size and discharge rates depending on customer requirements.

Augers are manufactured from corrosive-resistant material and are usually hydraulic driven. Electric or diesel drives are provided to power the hydraulic pumps. Augers can be fixed or portable which allows for easy relocation. Winch or hydraulic rams are also fitted to enable the auger to be raised or lowered to suit different height vehicles.

An Emulsion transfer system can consist of either diaphragm pumps or helical rotor pumps. These systems can be set up so they can unload road tankers and transfer the product into on-site storage tanks, plus unload the product

from the storage tank and place into the mixing unit for transfer to the blast hole. Safety shut down systems are fitted to the helical rotor systems.

#### PROCESS PLANTS >>

Process plants are manufactured specifically to the needs and requirements of each customer.



HEAVY ANFO UNIT



ANFO MIX UNIT

OUR STAFF AT IEE CAN ASSIST OUR CUSTOMERS WITH ALL PHASES OF PROJECT PLANNING, ENGINEERING, DESIGN, FABRICATION AND DELIVERY OF A FULL RANGE OF CUSTOM EQUIPMENT FOR THE EXPLOSIVES AND MINING INDUSTRY.

OUR EQUIPMENT IS SUPERIOR IN QUALITY AND DESIGN TO ANY OTHER MANUFACTURER AND IS COMPETITIVELY PRICED.

IF YOU WANT TO OPERATE THE SAFEST AND MOST TECHNICALLY ADVANCED EQUIPMENT IN THE WORLD YOU NEED THE EXPERTISE OF IEE.



NEW SOUTH WALES SITE



WESTERN AUSTRALIAN SITE

