

## B-TEK Horizontal Anti-Skid Material Boilers



### Technology

B-TEK Anti-Skid horizontal boilers are robustly constructed to cope with demanding working conditions and are specially designed to overcome the problems generally linked with heating high-friction anti-skid type materials.

The gas fired preheater features a heavy duty burner providing direct heat to the preheater base, and is fitted with a gas management system.

The preheaters use Liquefied Petroleum Gas (LPG) to heat the anti-skid material and provide high melting capacity. Propane is considered the preferred choice of LPG gas as it is less prone to freezing at low temperatures in harsh climates.

The heating system includes thermostatic temperature control, flame failure device, pilot burner and main burner features.

An electric start diesel engine drives the hydraulic material agitator which has the main shaft bearings fitted with adjustable packing glands at each end of the shaft to eliminate leaks.



**B-TEK FABRICATION**

*"Road marking equipment experts"*

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## B-TEK Horizontal Anti-Skid Material Boilers

The agitator is controlled by a directional forward / reverse variable speed control valve which can be set in neutral, forward (clockwise) and reverse (counter clockwise) positions.

### Specification

The preheaters and diesel hydraulic agitation system are mounted onto heavy section 102mm x 51mm steel channel.

The material holding tanks are constructed of boiler plate mild steel with the exterior clad in stainless steel to provide easy cleaning.

The unit is protected from the elements with durable enamel paint, and supplied as standard in Adheron Black colour. Other colours are available upon request.

The complete system is subjected to rigorous quality control inspection throughout manufacture, fully tested and supplied ready for operation.

### Material Tank

Inner Trough: 12 mm.

End Plates: 20 mm.

Side Plates: 10 mm.

Lid: 5 mm.

Cladding: 0.7 mm Stainless Steel.

Insulation: 30 mm mineral fibre RWA 45.

Agitators: 10 mm steel profiles with 5mm blades welded to split steel drive shafts, welded to split drive shafts bushed and gland packed on adjusters.

### Diesel Power Pack and Hydraulic System

Diesel Engine: Lombardini / Kohler single cylinder or twin cylinder air cooled engine fitted with electric start, auxiliary manual start and 13 Amp recharge system.

Hydraulic Pump: Direct coupled gear type single or tandem pump.

Hydraulic Agitator Motors: Orbit type high torque, low speed motors.

Directional Control Valve: Detent Spool Valves, forward and reverse with pressure relief.

Hydraulic Oil Tank and Filter: Reservoir filled with 181 Litre nominal capacity SAE 46 hydraulic oil fitted with filler, breather cap and cartridge type suction filter.

### Gas System

Fuel: LPG Propane gas @ 2 bar working pressure.

Temp Control: Danfoss RT 123 Capillary type.

Gas Solenoid: Danfoss EVI 3 12 volt DC.

Flame Fail Valve: Cavagnia Eng Type 50.

Thermocouple: Heavy Duty Tip.

Main Burner: 2 high output bar type.

Pilot Burners: 2 wind-proof JB 50.



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### Dimensions and Capacity

Type	Capacity gals (litres)	Overall Dimensions L x W x H mm	Weight dry Kg	Burner Output Kw (BTU)
As 80S	80 (364)	1600 x 850 x 1050	925	50 (170,460) @ 2
As 80T	160 (728)	1650 x 2440 x 1050	2,250	Bar per main burner

Note: 60 gal and 100 gal can be supplied as single or twin configuration upon request

### Maintenance

#### Caution

Do not attempt to heat any vessel containing water as this can cause foaming.  
Engage agitators as soon as melting starts to prevent local overheating.

#### Maintenance

The diesel engine should be maintained in accordance with the manufacturer's instruction manual.

Before operation check for loose bolts and fittings, and gas and hydraulic leaks.

Clean gas jets and adjust air wheels if blockage is suspected.

The hydraulic control system is designed to give a long life with minimum maintenance. To ensure maximum life the hydraulic oil should be drained and refilled to cover the level indicator in the bottom of the filler / strainer using high quality SAE 46 hydraulic oil.

The hydraulic oil filter should be replaced after 2 weeks operation and thereafter every 6 months.

Drain and refill the hydraulic oil at 6 month intervals and replace the filter cartridge. Reduce the interval if there is a high risk of contamination.

Drain the preheater and inspect the paddle, drive shafts, gland packing and adjusters at 3 month intervals.



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