

# **Bitumen & Surfacing Products**







Quality Engineered Excellence Since 1911



# Advanced bitumen handling technology

Through its Cartem brand, Parker Plant is the foremost specialist manufacturer of Bitumen Handling Systems servicing numerous industries. Established in 1949, Cartem is synonymous with quality, safety and reliability, and continues to provide customers throughout the world with unrivalled expertise and advice on all bitumen handling requirements.

Parker Plant aims for the highest standards of quality and paramount importance is given to regulatory compliance and health and safety considerations throughout a product range designed for the storage and handling of a variety of hazardous materials. Competitively priced, Parker products are engineered to offer the benefits of long term reliability, simplicity of operation and low cost maintenance.









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Relocating operations in 2007 to Parker Plant's well established 18 acre site on the outskirts of Leicester, England, the Cartem brand benefited from Parker's large facilities. Offering a diverse number of specialist machine tools as well as having an extensive fabrication shop, guillotines, press brakes, steel rollering and sub-arc welding machines, enabling it to carry out all machining operations in-house, fully independent of third parties.

The comprehensive machining and a fabrication capability is supported by a shot blasting facility, paint spray booths and extensive fitting bays where all manufactured equipment undergoes full inspection and final testing prior to delivery to the client. In addition the Company can offer a full design







## **Manufacturing & Assembly**

package utilising an in house drawing office while all Parker electrical systems are designed and built in house. Management procedures ensure that quality is continuously monitored and maintained throughout all aspects of the manufacturing process, to ensure unrivalled end user satisfaction.



## **Distributors & Sprayers**

Parker Plant supply a comprehensive range of binder distributors which cover all aspects of bitumen and bitumen emulsion application such as surface dressing and bond coat application. The available range of spray bars enables customers to carry out a comprehensive range of contract types.

> Two options for heating the product are available; direct oil fired or indirect thermal oil heating. Both systems use high efficiency, fully automatic light fuel oil burners as the primary heat source.

> > Parker supply a range of spray bar types to cover all aspects of bitumen and emulsion application. Hydraulically extending, fixed width and fixed width with folding extension are available. The spray bars utilise either tangential swirl jets or the latest slot jet technology.

Tank capacities from 3,000 to 18,000 litres are offered and three shape configurations allow ease of vehicle mounting. The tanks are insulated using high density insulation and can be offered with stainless or galvanised steel cladding.

The tanks are supplied complete with a submersible binder pump which can be driven by auxiliary engine or PTO. All pipework is included to enable loading, off-loading, circulation and application of the product.







Captions Opposite top: 6000L capacity tank with HyEx hydraulically extending spraybar. Opposite middle right: 9000L sprayer with an Embibar. Opposite bottom right: Ecobar testing. Opposite left: Submersed pump and pipework. Above right: 18,000L distributor with extending spraybar. Above left: Ecobar testing. Middle left: Dual burners fitted on a 9000L oval tank. Bottom left: Direct oil fired heat exchange unit. Right: Sprayer applying binder prior to SAMI application.















DENALS

Opposite top: Spreading operation in progress. Opposite bottom: Travel mode (rear hopper wings folded and spreading hoppers retracted) and with lockable maintenance doors open. Above: Spreading operation in progress. Left: Joystick controlled spreading operations. Above right: Rear hopper extended and lockable maintenance doors open. Bottom right: Hydraulically operated feed gates allow for easy adjustment of the spread width.



## **Chip Spreader**

The Parker Plant 'Spreadmaster' chipping spreader has been designed as the ultimate solution for surface dressing works. Controls have been centralised to simplify operation and minimise the time needed for driver training with a single joystick for all chip spreading controls and a steering wheel and accelerator to drive the machine.

> ecomony and performance, enabling the Spreadmaster's hydraulic 4 wheel drive train to tow fully loaded chipping supply trucks which feed into the folding 3m<sup>2</sup> rear hopper.

> Optional equipment includes: air conditioned cabin, banksman bridge platform at the rear, remote radio control of spreading operations and front screen heater.

With a variable width twin section front aggregate hopper which is continuously expandable and a series of cut off gates the chipper is capable of spread widths of 300mm to 4.4 metres. The power unit and drive train have been designed to enable high speed travel capability between jobs to minimise down time and maximise productivity.

The Tier 4 Final / EU Stage IV Power Plant maximises torque output, fuel



#### Captions







The Parker Plant range of towed and demountable sprayers is perfectly suited for smaller contracts including bond coat and surface dressing works. Available in a range of tank sizes they are self contained units which come complete with a hand lance and can also be offered with a spray bar.

> The onboard engine powers the fully automatic burner system to heat the material and the binder pump which supplies binder to the hand lance or spray bar.

Towed and demountable sprayers are offered in a range of capacities from 500 – 2,000 litres. Larger sizes of demountable can also be offered if required.

The compact sprayer range is ideally suited to working with drummed emulsion on smaller projects where spraying of large areas is not required. Unlike larger distributors/sprayers they do not require to be mounted on a dedicated truck and can be towed or carried by any suitable vehicle giving operators' greater flexibility in planning the use of their vehicle fleet.









Captions pposite top: 800 litre towed sprayer with hand lance. Opposite bottom: Demountable 5000 litre tank. Above left: 2000 litre towed sprayer with spray bar. Above right: 800 litre towed sprayer. Middle right: Demountable sprayer being lifted. Bottom right: Typical sprayer with Ecobar. Bottom left: Towed sprayer.









Energy costs are high and trends would suggest a continuing rise in the longer term. Within the quarrying industry bitumen storage is a significant contributor to energy costs but due to its secondary nature in the day to day operation of a coating plant it may often be overlooked. Parker supply a range of high quality bitumen storage tanks and associated equipment designed to minimize heat loss and energy usage, thus reducing energy costs.

Parker offer a range of high efficiency vertical storage tanks in sizes from 30 - 200 tonnes. Insulated to the highest specification they offer a 30% improvement in heat retention over a standard insulated tank and will reduce energy usage resulting in early pay back on the initial investment. Parker also provide a range of horizontal tanks which are of use on sites where conditions or planning constraints restrict the height of any development. All tanks and tank farms







## **Bitumen Storage**

can be offered fully compliant with current RBA requirements, available either ex works or delivered, installed and commissioned.

The Fast Mover range of bitumen tanks is designed for use with mobile asphalt plants and can be moved rapidly between sites using conventional haulage trucks. The tank can be set up as a single supply point or a number can be linked together with a supplied bitumen pump to form a mobile tank farm.



### **Bitumen Emulsion Storage**

Bitumen emulsions are used in a wide variety of road construction and maintenance processes such as surface dressing, recycling and velocity patching. Many of these processes benefit from a local supply of bulk materials to maximise productivity. Parker Plant provide a range of mobile and static units specifically designed for the storage and handling of bitumen emulsion to meet this need.

The Parker Road Head Storage Tank is available in a range of sizes from 30,000 – 60,000 litres. This highly mobile system is ideal for operations such as surface dressing or bond coat/tack coat works where there is a requirement for on site storage facilities on a number of sites during a contract. Completely self contained these tanks offer thermostatically controlled heating and a pump system which can load in, load out and circulate the product. The Self Bunded Tank is designed as a system for use where a permanent or semi permanent emulsion storage tank is required on site. Available in three configurations, hook lift, static or mobile, the tanks include electric heating, stirrer, pump and an integral bund for spillage prevention. Designed for rapid on site deployment all that is required to bring them into service is a suitable hard standing and three phase electrical supply.















The Parker Bitumen Transporter range of heated road tankers provides the ideal solution for the transportation of bulk bitumen over long distances. Fully compliant with ADR regulations concerning the transportation of hot bitumen products the transporters are of rugged construction for both on and off highway use.

To maintain the product temperature on long journeys the Transporter has a fully automatic, thermostatically controlled, direct oil fired heating system powered from the towing vehicle's 24 volt batteries complete with high temperature cut out and independent fuel tank.





## **Bitumen Transportation**

The product can be loaded, circulated or discharged using the fully integrated submerged pumping system which is driven by an on board auxiliary engine. Product can also be off-loaded by gravity using the main discharge valve mounted in a hot box on the bottom of the tank.



#### Captions

Opposite top and bottom: 24,000 litre bitumen transporter. *Top right:* Tank during insulation process. Middle: Side underun protection. Bottom: Heating controls. Above: Engine, burner and submersed pump.









## **Decant & Melt**

Parker Drum Decanters and Melters are primarily used with asphalt mixing plants in territories where bitumen in bulk is either not available or regular supplies are unreliable and bitumen stored in drums is used as an alternative. Parker decanters are designed for ease of operation and provide the most efficient system for ensuring a high throughput of drummed bitumen.

> The Cartemelter MLT decanters are designed for use where lower daily outputs of bitumen are required and have the added benefit of a larger built in reservoir which can be utilised as a storage tank for the product. The MLT 1 is capable of decanting up to 1 tonne per hour and has a storage capacity of 9,000 litres, the MLT 2 is capable of decanting up to 2 tonnes per hour and has a 16,000 litre storage capacity.

The Parker type 4DD Drum Decanter is the most widely used equipment of its type in the world, capable of processing up to 4 tonnes of bitumen per hour. Designed for use in association with bulk storage tanks the melted bitumen is automatically transferred from the decanter reservoir to the storage tank during the decanting process. Also available is larger type twin rail 6DD decanter which is capable of up to 6 tonnes per hour.



















As industry leaders Parker Plant have extensive experience in the provision of equipment for the processing, storage and handling of bitumen and bitumen emulsions. Over the years various types of specialist equipment have been developed to meet customer needs and have now become industry standards.

As well as continuing to develop the range within the core business Parker have designed and brought to market other specialist equipment to meet customer needs such as hot water storage tanks for the concrete industry, heavy duty mixers for the filled bitumen market, fuel storage tanks and a range of thermal oil heat exchangers and indirect hot oil thermal heating systems.





Opposite top: Thermal oil heaters ready for dispatch. *Opposite middle left:* Vertical fuel tank installation. Opposite middle right: 'Catemixer'. Opposite bottom left: Electric thermal oil heater. Opposite bottom right: 'Catemixer' double helical mixer. Above left: Hot water tank. Above right: 'Thermal oil heater. Right: Vertical 70,000L bitumen tank installation. Left: Water tank illustration.



## **Specialist Products**

Parker have remained at the forefront of equipment supply by a process of innovation in design, continuous improvement, and working closely with customers to provide them with the best equipment available to suit their needs.

#### Captions





## **Aftersales Service & Support**

Parker Plant are committed to providing support for our wide product range to ensure that customers' requirements are met. This commitment includes provision of equipment servicing, complete plant refurbishments and equipment relocation work.



Parker Plant place high importance on ease of maintenance, component accessibility and simplicity of component removal and replacement. These are major factors which are carefully considered during the design process to ensure long term plant performance and productivity. In addition Parkers's experienced, fully trained in-house service team is there to offer help and assistance.

# **Parts & Service**

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Never compromise the reliability and performance of your Parker Plant by fitting non-original spare parts or components.



Our dedicated global sourcing department maintains strict and full control over quality and component integrity to ensure each and every part faithfully respects the exacting engineering standards that are required by our team of inspectors.

In this way you can be assured of continued plant availability and performance, reduced downtime, increased productivity and longer plant life.







Email, fax or simply call our Parts Department for experienced and professional advice on maximising your productivity and protecting your significant investment in Parker Plant.

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