



***galp bitubag***  
***the integrated system 3 in 1***

Galp Energia introduces in the market the innovating system Bitubag\*, the integrated solution for your needs overseas.

- Package
- Storage system
- Transport unit at ambient temperature

Galp Bitubag is an integrated system for packing and transport of bitumen in solid condition. This solution simplifies the current bitumen logistics and leads your company to different markets all over the world. Discover it in detail and take the opportunity to increase your business.

\*Bitubag is a patented system developed by BCS

## LOGISTIC CHAIN WITH GALP BITUBAG



## GALP BITUBAG SYSTEM

### 1. COOLING AND PACKING UNIT (CPU)

CPU unit is used to fill the bitubag. The bitumen is exactly cooled down to a temperature slightly higher than the softening point of the bitumen and lower than the melting point of the plastic material of the packaging.

### 2. BITUMEN STABILIZATION INSIDE THE BIG BAG

The big bag is designed to allow the bitumen to self-stabilize the packed unit when filling. This bag is made of a flexible plastic fabric bag (polypropylene) and an inner liner bag made of plastic (polyethylene) with low temperature melting point.

## ADVANTAGES OF GALP BITUBAG

### 1. QUALITY AND ENVIRONMENT

The inner liner bag material is melted and therefore integrated with the bitumen at final application, reducing the waste production. The bitubag system reduces the number of heating-cooling cycles, therefore guarantying the bitumen quality.

### 2. SAFETY

The bags can be stored at any place available for an extended period of time.

The bags can be easily handled by a forklift (3.5 ton for handling of two bags simultaneously) and loaded. Any means of transportation is applicable: truck, container, train, high-sea ship.

### 3. STOCKS MANAGEMENT

As the bags can be stored at any place and for an extended period of time the customer can counter-act season price drifts.

The bitubag is a self-stabilizing, flexible bag made of plastic and has been specifically optimized for loading into 20 ft. containers and on trucks.

Stacking in two layers is possible to utilize volume and weight capacity of the container.

### 4. REDUCING TRANSPORT COSTS

Based on 950 kg bags, the container can be loaded with 20 tons, representing a reduction of 20% on transport costs, compared with most alternative solutions.

### 5. REDUCING ENERGY COSTS

The bitubag is stored at ambient temperature, without energy costs.

Melting the product is less expensive when compared with traditional solutions (metal drums and bitutainers).

## BITUMELT – MELTING UNIT

The bitumelt is similar to a bitutainer, designed for a continuous melting heating of big volumes as bitumen (2-7 tons per hour over 24 hours in average a day) from ambient temperature to approximately 135°C. The plant is built up in modules:

- Collecting tank (base and cover) with internals, heating coil, manhole, insulation;
- Hopper and melting grid with hot gas system and burner on top of collecting tank (demountable);
- Bitubag is loaded from top by lifting equipment forklift.

The design fulfills the following requirements:

- Large heat transfer area for efficient input of energy to cold bitumen and efficient PE – film melting;
- Design of melting elements optimized for the thermo-viscous properties of bitumen;
- Oxidation of the bitumen and melting is minimized by limitation of temperature and air contact.

The design includes the required instruments and control devices to keep operating temperatures and other operating conditions controlled and safe.

Type	Trough pull	Heating	Holding capacity	Weight (ton)	Energy consumption	L (mm)	B (mm)	H (mm)	H1 (mm)
Melting Grid *	2 ton/hr	Electric / Hot air	-	0,6	60 kW/hr	1850	1620	1190	-
Melting Grid D **	3,5 ton/hr	Diesel / Hot Air	-	0,8	8,4 kg/hr	2040	1620	1190	-
Basic	2 ton/hr	Diesel / Hot Air	3,5 m <sup>3</sup>	1,8	9,6 kg/hr	2420	1920	2470	1370
Standard 1D	3,5 ton/hr	Diesel / Hot Air	5,0 m <sup>3</sup>	2,0	16,8 kg/h	3440	1920	2470	1370
Standard 2D	7 ton/ hr	Diesel / Hot Air	8,0 m <sup>3</sup>	3,0	33,6 kg/h	4960	1920	2470	1370
Standard 1G	3,5 ton/hr	Gas / Hot Air	5,0 m <sup>3</sup>	2,0	n/a	3440	1920	2470	1370
Standard 2G	7 ton/hr	Gas / Hot Air	8,0 m <sup>3</sup>	3,0	n/a	4960	1920	2470	1370

\*Melting Grid only to be mounted on bitutainer.

\*\* At 25°C ambient temperature.



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**Product Management and bitumen technical support**

Rua Tomás da Fonseca, Torre A, 1600-209 Lisboa – Portugal

Tel: (+351) 809 500 809 / Fax: (+351) 210 058 888

e-mail: [betuminosos@galpenergia.com](mailto:betuminosos@galpenergia.com) / [www.galpenergia.com](http://www.galpenergia.com)

