

Double Pillar Box Lift

Double Pillar Box Lift

BTM/1000/4440/B/G

Double Pillar Box Lift Description

This double pillar box lift was designed to lift and tip a 1000 Litre Octagonal container at a discharge height of 4440mm. The double pillar box lift was constructed from Grade 304 stainless steel and is fully TIG welded throughout. Lifting with the double pillar box lift is accomplished via chains driven by a motor gearbox mounted at the top of the one column with a crossover shaft to the other column. This double pillar box lift was designed to be bolted to the floor.



Double Pillar Box Lift for 1000 Litre Octagonal Container

Call now on **01495 312 172**

webenquiry@basehandling.co.uk

Base Handling Products Limited, Unit 20, Barleyfield Industrial Estate
Brynmawr, Gwent, NP23 4YF.



Safety Guard to PD 5304:2005 Safety of Machinery

The safety guard is constructed from 40 x 40 x 3mm stainless steel box section, 2mm creased stainless steel sheet and laser cut 2mm perforated sheet to meet the requirements of PD 5304:2005 Safety of Machinery. It encloses the double pillar box lift to a height of 6600mm on two sides. The guard door is electrically and mechanically interlocked preventing the double pillar box lift from operating with the door open. In addition, the guard door can only be opened when the lifting carriage is at the full down position. The double pillar box lift control system has provision for a 'Call for Product' signal to be connected.

Double Pillar Box Lift Specification

DESCRIPTION	DOUBLE PILLAR BOX LIFT
MODEL No.	BTM/1000/4440/B/G
CAPACITY	1000Kgs
TIPPING HEIGHT	4440mm
TIPPING ANGLE	130 DEGREES
OVERALL HEIGHT	6730mm
MACHINE HANDING	LEFT OR RIGHT HAND AVAILABLE
TIPPING CHUTE	OPTIONAL
CONTAINER DESCRIPTION	STAINLESS STEEL 1500 LITRE OCTOBIN
BASE ARRANGEMENT	BOLTED TO THE FLOOR
CONTROL CIRCUIT	24Vac (STANDARD)
ELECTRICAL RATING	IP65
LIMIT SWITCHES	ADJUSTABLE ROD
MOTOR DETAIL	2.2kW, 415V, 3 PHASE, 50 CYCLE
MOTOR BRAKE	415V SEPARATELY EXCITED
GEARBOX DETAIL	FLENDER
LOAD CHAIN	1" SIMPLEX SEDIS DELTA Z
TENSION CHAIN	¾" SIMPLEX DELTA Z
LIFT SPEED	ADJUSTABLE VIA AN INVERTER

Double Pillar Box Lift Application Story***New equipment increases Campbell's production by 30%***

Production at Campbell's Grocery Products in Worksop has increased by approximately 30%, thanks in part to new machinery designed by hoisting and tipping manufacturers, Base Handling Products Limited. The seven machines have been a key factor in the re-launch of the entire Homepride cook-in-sauce range, completely transforming the production process.

Manufacturing various soups and sauces involves the loading and mixing of many different ingredients; from vegetables and meat, to herbs and spices. Before the new equipment was introduced, there were various restrictions with this process. Previously only defrosted ingredients could be handled. This meant that all ingredients had to be defrosted before production. The new machinery allows frozen materials to be used, which speeds up the production process. There were also problems involved with the double handling of materials and damage to delicate ingredients.

David Presho, Sauces Technical Manager at Campbell's, wanted to purchase new machinery that would eliminate these restrictions and allow them to increase production. In order for the new machinery to increase the number of batches produced per hour and allow a wider variety of ingredients to be used, it had to speed up the loading time of each batch processed. The time limit Campbell's gave Base for the loading process was short, so Base had to design bespoke hoisting and tipping equipment that would effectively meet Campbell's quota.

The main ingredient in most recipes is frozen vegetables which are supplied in 1000 Kgs cardboard Octoboxes. These boxes are loaded directly into double pillar box lifts using a powered hand pallet truck and tipped into the cooking vessel. The design of the double pillar box lift and its interface with the cooking vessel are such that 100% of the products are delivered into the vessels with no spillage.

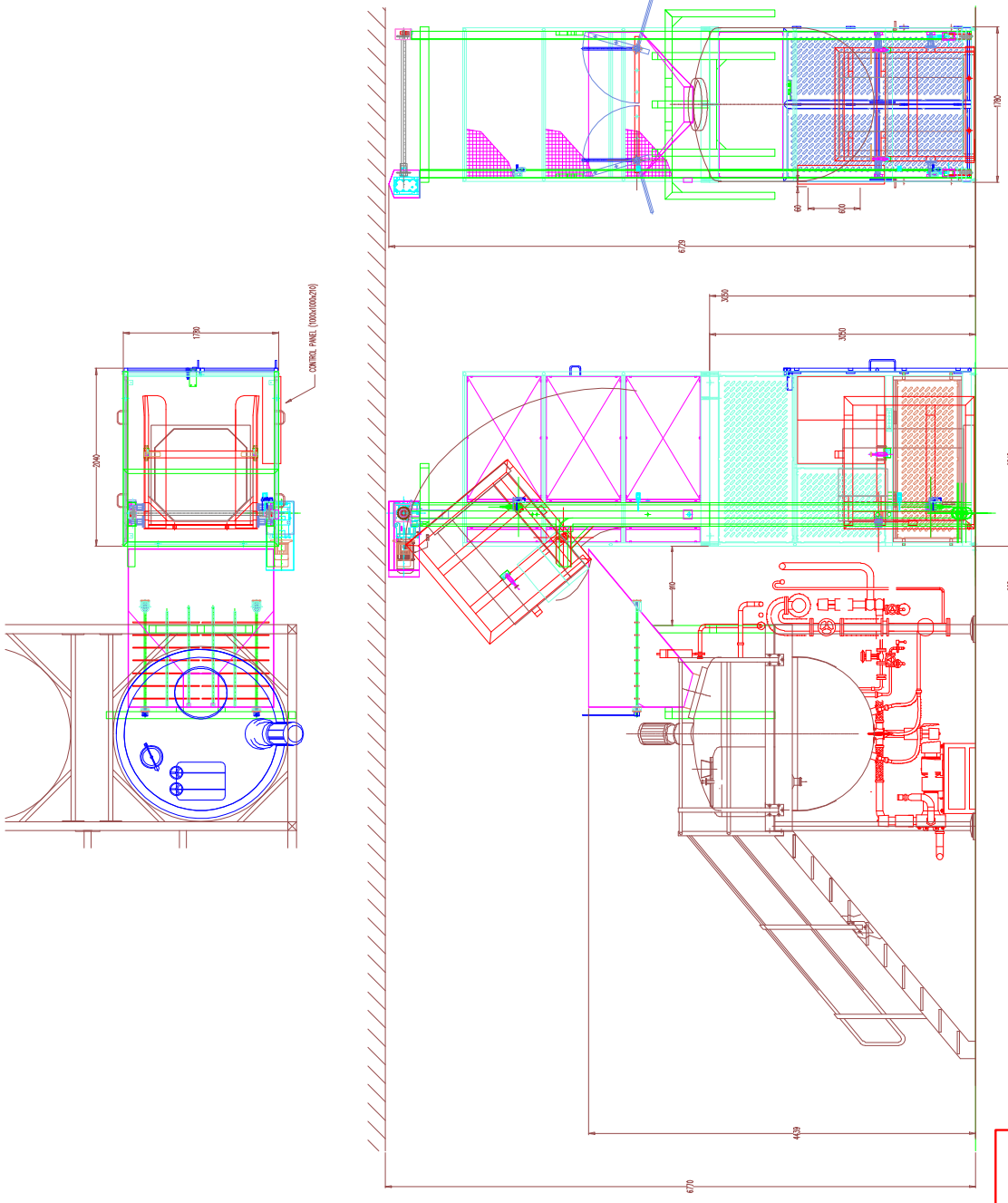
Most other ingredients are loaded into Stainless Steel Octobins that mimic the cardboard Octoboxes and can therefore be lifted and tipped using the same double pillar box lift. In the case of the tinned products, they were first decanted into 200 Litre tote bins and then tipped into the Octobins using a Single Pillar Mechanical Bin Tipper.

Finally, the high value and taste sensitive ingredients are added to the Octobins from a special purpose IBC platform and weighing system. A maximum of three 1 Ton IBC's can be mounted on the platform and the contents can be discharged directly into the Octobin which is placed on a mobile weighing platform directly underneath. The ingredients from the IBC's can be accurately metered out according to the recipe requirements ensuring consistency of product quality and taste.

Finally, at the end of each batch run or production shift, all equipment must be hygienically cleaned to a very high standard. The Stainless Steel Octobins, being so large and unwieldy, presented a further manual handling hazard. To solve this problem, Base designed and supplied their unique pneumatic tipper. This machine is used to tip the empty Octobin towards the hygiene operator so that it can be washed out using a high pressure hose.

Since the new machinery has been installed, a wider selection of materials can now be used and there is no worry of damage to delicate ingredients, due to the need for manual handling of ingredients being cut. Batch cycle times have decreased, allowing production volumes to increase in the region of 30%.

Health & Safety considerations are extremely important to both Campbell's and Base, so it was essential that the machinery met strict legislation effectively. The equipment has greatly reduced manual handling, resulting in a much safer working environment. All equipment supplied is guarded to PD5304:2005 Safety of Machinery Specification.



REMOVE ALL BURRS AND SHARP EDGES	
TOLERANCES : UNLESS OTHERWISE STATED	
FABRICATIONS : +/- 2.0mm	
MACHINING : +/- 0.2mm	
SHEET METAL WORK : +/- 1.0mm AND +/- 1.0 DEG	
DRAWN	CHECKED
JPW	
DATE	12-12-03
DRAWING NUMBER	
BP2551-1	

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BASE HANDLING PRODUCTS LIMITED
 UNIT 20 BARLEYFIELD INDUSTRIAL ESTATE,
 BRYNMAWR,
 Gwent, NP23 4JF
 TEL: (01495) 312172 FAX: (01495) 312089 EMAIL: info@baseproducts.co.uk

REVISION NUMBER
 CUSTOMER

DRAWING TITLE

DOUBLE PILLAR OCTOBIN TIPPER
 BOLTED GUARDED