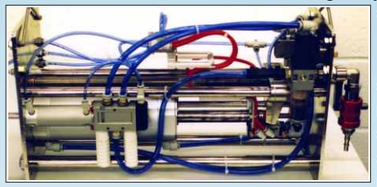
Upgrade Efficiency and Accuracy

A number of factors are involved in depositor accuracy, not least the product itself. Let's assume that a depositor is fitted with a close tolerance valve and valve block, (as fitted to Steck upgrades). The product cylinder is the correct size, in good condition and the piston seals are new. Then there should be no real reason to doubt the accuracy and repeatability of the machine.



But, any one of these variables can affect the performance:

- Incorrect nozzles
- Outlet pipe-work configurations
- Product density changes
- Incorrect setting up of the machine
- Variations in air entrainment of the product
- The product

Incorrect or oversize nozzles can have a significant affect on accuracy and this has been proved during recent trials conducted by Steck in conjunction with a major food manufacturing group.

Outlet pipe work can also affect repeatability as product can expand and contract in flexible pipes, air pockets can form and aerated products may compress.

Product density changes either within a batch or from one batch to another can also be a problem especially if the machine is not adjusted to compensate for the changes.

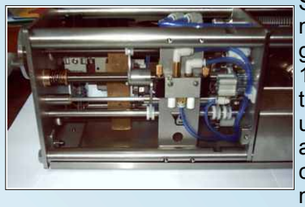
Some products may require different machine settings for optimum performance. If a machine is left at a given pump priming speed for example then this setting may not be suitable for a different product.

Products can behave quite differently when running through a depositor and quite often results can be unexpected. Again, the only way of counteracting this phenomenon is having the depositor configured for optimal performance with settings adjusted correctly for various products.

The Steck upgrade can provide a solid base from which to ensure the best possible results both in terms of accuracy and reliability. The front-end upgrade comprises a chromed block and ground valve with tolerances far closer than competitors provide. This is the basis for improved accuracy.

The 'D' valve is driven by a patented 'Steck Link' drive system which is a one piece arm that simply hooks onto the valve itself. There are no clips, springs or pins to lose or damage. The valve and block is a two-piece assembly with only two quad ring seals and makes for a more hygienic front end that is easier to strip and clean.
Because of the closer tolerance of the valve and block the machine will still run effectively on most products even without the seals.

Recent trials carried out at a major ready meal manufacturer revealed that a new, leading competitors machine gave away 4.4gms of product whilst the same competitors model fitted with a Steck upgrade package gave away 3.8 gms. In both cases the machines used the competitors nozzle. The upgraded machine was then fitted with a Steck manufactured nozzle and the giveaway was reduced even further to 2.8gms. The test was again repeated using a Steck Dimension model and the giveaway was only 1.7gms thus proving that the Steck upgrade is more accurate than a competitive new machine, that correct nozzle selection is critical, and that the Steck Dimension is a clear winner overall.



Whilst the front-end upgrade is the business end' of the machine where results can be measured, we should not ignore the back-end pneumatic system. The pneumatic upgrade provides increased reliability providing reduced down time and increased profitability. The upgrade consists of a full pneumatic replacement kit utilising standard SMC components and results in a unique pilot-less operating system.

The Steck upgrade package represents excellent value for money. The results of the upgrade are measurable and provide improved performance with increased reliability.

Steck spread north of the border

Steck have received an order from Cosmo Pasta Products, Edinburgh for a Steck Dimension depositor with a Pizza head for automatically topping and spreading tomato sauce onto 10" pizza bases. The system, already in use at a number of major Pizza manufacturers in England is the first to be sold in Scotland and clearly demonstrates Steck's dominance in the Pizza market for this type of equipment.

STECK

Welcome to the second issue of Depositor News. The newsletter that will keep you informed on new product development, interesting articles, editorials and much more.

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'We wish all our customers both present and future a very prosperous new year'.

DEPOSITOR news

Issue 2 Jan 2007

Take Stern action, switch to Steck

With the Stern Report warning the world of the consequences of ignoring the problem of CO2 emissions and greenhouse gases, Steck Depositors are able to demonstrate that they are helping to save the planet - while saving their customers money - with more efficient depositors.

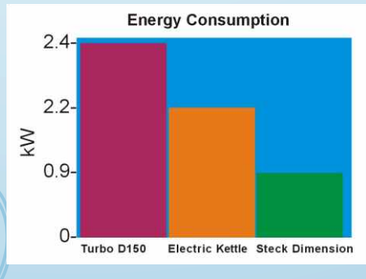
During a recent site test at a major ready meals manufacturer, they were able to measure the Steck Dimension against a leading competitor, and the Steck machine showed a 62% reduction of energy consumption.
"The Dimension engines had energy savings designed in from the beginning, and the new 'B' series, suction economized engine takes this even further" says Mike Wilkinson, Managing Director.

" We've always been able to show energy savings on paper and in the lab, but this is the first customer co-ordinated demonstration in production conditions."

In an energy consumption like-for-like test run over 100 ready meals, the Steck Dimension depositor was using 290 litres of air while the rival depositor, was using 800 litres. This equates to 0.9kW and 2.4kW of electricity used in the compressor room, the Steck Dimension showing a 63% energy saving! By comparison, a domestic electric kettle, recognised as a power hungry appliance, is rated at around 2.2kW.

With a little bit of maths and help from the Carbon Trust's website, Nick Neef Sales Director at Steck, worked out that over a year, assuming a typical shift pattern, annual savings would be 4,600 kWh, saving about £350 in electricity per machine - plus saving 1.90 tons of carbon dioxide per year.

"This is approximately 15% more electricity than an average UK household uses in a year, and it would require the planting of 63 trees to offset this carbon dioxide emission," Mike Wilkinson comments.
"Other costs to a business of compressed air include equipment maintenance, depreciation, etc., meaning that an actual cash saving for the business is likely to be perhaps twice the electricity saving."
Any business looking to invest in new depositing equipment will take into consideration the running costs. Now energy saving can be part of the decision making process too. For the first time buyers and specifiers know that not only better accuracy and reduced maintenance costs justify new Steck machines, but energy savings and environmental issues do too.



Finally Nick comments "By buying Steck machines, business's can actually save money and become more efficient in their energy usage while making a contribution to reducing global warming".

Safeguard your capital expenditure

Following the success of the Steck rental plan for short term hire of single depositors, Steck recognise that there is a need for longer term financing of equipment which can be used for not only single depositors but for the whole Steck range.

To this end Steck have introduced a leasing scheme in conjunction with Universal Leasing which is both flexible and affordable. For instance; a Dimension depositor could cost as little as £375.00 per month over 36 months with the right to purchase at the end of the term for the equivalent of one months rental or less.

All leasing arrangements are flexible and can be tailored to suit the customer's requirements in terms of leasing periods and payment options.

Other benefits of leasing equipment include:
Customers find leasing a more affordable way of acquiring equipment, it spreads the cost and fixes the payments.
Cash flow is enhanced protecting capital for other projects and with fixed payments through-out the leasing period, it makes budgeting much easier. In many cases the payments can be financed by the extra revenue, or savings made by having the new equipment.

By leasing, the customer can easily upgrade to the latest technology as it becomes available, rather than making do with outdated or outgrown equipment.

In the case of lease rental, all payments are deductible as an expense for tax purposes, often providing tax savings.

Steck believe that in an increasingly competitive market customers should be given more choice in how they finance new equipment, allowing them to decide which is the most flexible and affordable method to suit their business.

Fair Trade policy for spare parts

Ever mindful of the operating costs of depositing machinery, Steck have introduced an open access initiative for the purchase of spare parts.
This basically means that any part used in a Steck product that is not actually manufactured by Steck, can be bought directly from the original supplier. This enables our customers to further consolidate suppliers, maximise benefits of group purchasing initiatives, and above all help maintain machinery in the field in good condition at minimum cost.

Steck do not believe in 'controlling' parts made by suppliers. This is a practice that leaves the customer no choice but to buy an otherwise commonly available part from the depositor manufacturer, often at inflated prices.

Mike Wilkinson, Steck's Managing Director, comments “If Steck ask, say, a pneumatic supplier to modify a standard part to our design, we will not ask them to restrict the sale of that part to us alone. We believe this is a practice that can benefit the supplier only, and is more likely to lead to poorly maintained equipment in the field. We would rather forego the profit on such parts and see better maintained, more reliable equipment to enhance Steck's reputation for reliability and robust engineering still further,” he added. This philosophy is driven by Steck's long experience in upgrading and refurbishing equipment from other depositor manufacturers.
“We have seen many examples of poorly maintained, even unsafe, equipment where controlled parts have been substituted in order to reduce servicing cost,” comments Alan Moss, who coordinates Steck's re-engineering program for Turbo and Apple depositors.

In addition, if proprietary parts are purchased from Steck the selling price is no more than buying direct from that supplier (excluding any discounts).

Steck believe that a consideration of cost of ownership and maintenance should be a key part of the buying process when considering new equipment.
“While give-away (repeatable accuracy) and energy consumption are by far and away the biggest two costs of ownership of a depositor, maintenance costs come a close third,” comments Nick Neef, Sales Director at Steck.
“Steck want to be 'best in class' on these top three costs of ownership,” adds Nick.

“We can already demonstrate the best performance on the first two, and with this new initiative, the third too.”

Wash & Store

To prevent damage and loss of parts in equipment wash rooms Steck have developed a mobile rack which houses all the wet end parts from Dimension depositors.

The rack securely holds in place such items as; product cylinders, pistons, rotary valve blocks, 'D' valves, nozzles and the depositor hopper, the lid of which is held in the open position for thorough cleaning.

It is also equipped with stainless steel trays to hold smaller items such as seals and clamps.

When all the items are located, the rack can be wheeled into the wash room and all parts can be high pressure hose cleaned in place.

The rack is also ideal for storing parts when the machines are not in use or for quick product change over, change parts can be stored ready for use by the line.

Manufactured entirely from 304 stainless steel with heavy duty lockable castors, the depositor wash & store rack is the ideal low cost solution for keeping wet end depositor parts safe and clean.

The standard flies high in Wales

The **Red Dragon of Wales** (y ddraig goch), although perhaps of Chinese origin, was introduced to Britain by the Romans some eighteen hundred years ago. Initially a military standard, in time this mythical beast developed into the flag of a nation. The welsh may be the only people to have entered this millennium with the "same" flag as they entered the current one. But when it comes to depositing standards, the welsh are moving forward rapidly and the Steck Dimension is now the fastest selling depositor in Wales.

From the South Wales valleys to the northern hills of Snowdonia Steck have provided depositing solutions to numerous food manufacturers.
Major installations at Avana Bakeries, Rogerstone include; two fully automatic depositing lines each with a Steck Dimension triple head depositor with a combined single nozzle for the depositing of a variety of cake batters including viscous gluten free mixes into slab cake tins. The two lines were engineered in conjunction with Western Mechanical Handling Ltd., Callington, Cornwall who manufactured the tin handling equipment, which comprised of infeed conveyors, fully programmable indexing chain depositing conveyor and out feed to oven conveyors.
The Steck machines were chosen after an extensive trial program involving 4 leading depositor manufacturers with the main criteria for success being accuracy of deposit, cleanability, hygiene, safety plus speed and ease of maintenance. Using a points system Avana personnel were able to evaluate all aspects of the various depositors performance and the Steck machine scored highly in all categories and came out a clear winner overall.

Since the installation of the two slab lines Steck have consolidated their presence at Avana with the supply of another three single machines all depositing cake batters and a further machine which was included in a line supplied by Qualitech Food Systems, Mickley, Nr Rippon, North Yorks for handling tiramisu (as featured in the recent M&S advertising campaign).

The latest sale again through Qualitech Food Systems is for a further two single Dimension machines for handling jam and fresh cream deposits onto scones. The equipment is due for delivery early February 2007. Chris Woodbridge, Technical Manager of Avana Bakeries comments, "Through both trials and constant use, Steck depositors have proven to me they make the best machines for reliability, cleanliness and maintenance of food safety, I recommend Steck as the leaders in depositor design.”

Keeping with a bakery theme Steck have developed a special length rotary spreading nozzle for the depositing of cake batters into long strap tins at Welsh Hills Bakery, Hirwaun. A Steck dimension depositor with a purpose designed hopper is used to deposit the batter through the nozzle which has, in built flow control ensuring the product is distributed evenly into the tins.

Along the coast in Swansea ready meal manufacturer Ethnic Cuisine has upgraded half a dozen Apple machines as part of a continual improvement program and this in turn has led to the purchase of three Steck Dimension depositors handling a range of ethnic sauces and products. The first machine supplied was equipped with a force feed unit to handle a minced chilli chicken mix which was then wrapped in a pastry case. The chilli mix up until that time was hand fed as no other depositor was capable of handling the viscosity of the product. The second machine was originally designed to fill small pots with a salmon mix and a beef mix but is capable of depositing a wide range of products from thin sauces up to heavy meat pastes. Finally the third machine was for the depositing of sauces over ready meal dishes and differed from the first two as it was a low level model with large capacity 'boat hopper'.

Moving north, Steck have supplied various sauce spreading nozzles and mash potato heads to a major own label ready meal manufacturer in Wrexham. This ensured that when this particular company was in the market for new mashed potato topping depositors, Steck were well placed to take up the challenge. After lengthy trials and a demanding specification issued by the companies engineering team, Steck satisfied all concerned and won the order for three machines. Subsequent to this Steck have received an order for 11 ready meal sauce machines, part of phase one of a replacement program involving 44 machines in total. (Full story in the next issue)

In Flintshire, Steck have and continue to have unrivalled success. Last year saw the completion of a major Apple and Turbo depositor upgrade program at RHM Frozen Foods which comprised a total of 20 machines. This in turn has resulted in the site looking at the Steck Dimension machine for future requirements as an even more cost effective depositor solution in terms of accuracy and energy savings.

A key name in food service Brake Bros chose Steck to upgrade their ageing fleet of Apple and Turbo depositors, a task which was completed efficiently and to the satisfaction of Brakes. This subsequently led to an order for a low level, two depositor system with a built in low level transfer pump. The depositing system comprised two Dimension units which connected to adjustable height pipe-work up to 4 nozzles that operated in sequence to fill pockets on a thermo forming machine. The nozzle opening and closing sequence was controlled by a PLC as was the fill start cycle and fill complete cycle. The transfer pump was mounted in the same cabinet as the depositors to save valuable space and provide a small footprint and operates on demand from a float level switch in the machine hopper, transferring product from tote bins to the hopper. The hopper itself was fitted with a variable speed electrically driven horizontal mixer to ensure that product particles were kept in suspension especially on thinner hot mixes. The machine handles a variety of different sauces, hot, cold, with and without particulate.

On the Flintshire side of the river Dee and as the name suggests, Headland Foods is a major ready meal producer of own label and contract label products. One of the most popular lines contracted to Headland is beef slices in gravy, but how to get the gravy into the packs at speed without splashing and all the while maintaining accuracy. Based upon an already proven design of a machine supplied to a food service manufacturer in Stockport, depositing similar products, Steck set about the problem. The result was a twin dimension machine with eight heads, four per depositor, mounted over an existing 4X2 format thermo forming machine. To maintain accuracy each pair of heads opened and closed in sequence and was controlled by a small PLC mounted on the top of the machine. This enabled 80 - 100 pockets to be filled per minute without splashing or contamination of the pocket seal area. A float level control fitted to the hopper ensured that a transfer pump fed the machine on demand providing continuity of production.

Subsequent installations at Headland have also included upgraded Turbo depositors and a secondhand Turbo depositor again upgraded to Steck specifications.