

# Knock out tool receives European patent

Ramsey engineers have developed a variety of products in recent years, many of which have earned patents. Now, the company's innovation is on display with the RKO Knock Out Tool. According to the Ramsey Technical Development Team, this product is already covered by US Patent 9,174,269 but recently received a second patent, the tool's first in Europe: EU Patent # 2905092.

The RKO Tool is engineered to assist customers when connecting and disconnecting Ramsey wear-protected chains, such as Lifeguard and Allguard. It is especially beneficial on the plant floor, where it allows chain to be easily installed, repaired or replaced.

## BENEFITS AND CHALLENGES

Due to their specially developed protective side links, Ramsey's wear-protected chains are extremely durable and long lasting. They protect the chain pin heads from wear and allow chains to be run in direct contact with lateral guides. Additionally, wear-protected chains can improve ware handling and reduce maintenance. These are a few of the reasons glass producers around the world have switched to Ramsey wear-protected conveying chains.

Despite these many benefits, connecting and disconnecting wear protected chains can be a challenge. In order to disconnect a Lifeguard or Allguard chain, it is necessary to remove the head of a pin and then extract the pin from the chain. With pin heads recessed below the surface of side links, chain disconnection can be especially difficult. The pin heads are not easily accessible and traditional methods such as grinding or hammering do not work well. Attempts to remove pins often produce damage to the surrounding chain.

Also, when connecting a chain, a pin must be inserted through laced sections and then 'headed' or riveted so



Quick and easy connection and disconnection of chain.

it stays in the chain. Heading the pin is traditionally performed using a hammer. But when the pin is recessed, a hammer usually cannot make sufficient contact with the pin to properly form a head. Often, surrounding chain links are damaged by repeated hammer blows.

## THE SOLUTION

The Ramsey RKO tool answers both of these problems. The tool provides three distinct stations. Station one uses a special ram to safely and easily break off the existing pin head. Once the pin head is removed, the chain is slid to position two, where the pin can be easily removed. Station three is for chain connection.

Modular guide plates maintain link and spacer alignment for smooth insertion of a special connecting pin. A treaded head insert is then pressed into the pin to form a durable, lasting chain connection, with no hammering, grinding or welding required.

## CUSTOMER FEEDBACK

The RKO tool is now being used by glass plants throughout the world, with Ramsey continuing to receive positive feedback about its benefits. The tool

can save hours when connecting the chains on a typical IS machine or cross conveyor. A job that once took more than an hour to complete now takes between five and ten minutes.

## WORKING WITH MANY CHAINS

RKO tools can be ordered to fit most styles of Ramsey Lifeguard or Allguard chain. The tool's toothed guide blocks are modular in design and can be stacked to accommodate a wide range of chain widths and guide types.

When a customer orders a tool, Ramsey's customer service personnel help select the exact module configuration to fit the chain at hand. But the RKO tool is also very adaptable to changing needs. Modules can be easily removed and re-oriented at any time to fit different chain widths and guide types. For the customer, this means one tool can handle many different chain styles. ■

## FURTHER INFORMATION:

Ramsey Products,  
Belmont, NC, USA  
tel: +1 704 394 0322  
email: sales@ramseychain.com  
web: www.ramseychain.com



Time-saving RKO Tool (US Patent 9,174,269, EU Patent #2905092).



Modular design, with three work stations.