



# Commercial Explosives

# Worldwide Commercial Explosives Industrial Production Solutions

TIPPER TIE begins the 21st century as the world's leading producer of clipped packaging systems. Our products are used on an everyday basis to process and package foods vital to feeding people all over the world. It is hard to find a refrigerator case anywhere that does not include foods packaged with TIPPER TIE clipped production systems. We also serve pet food manufacturers, adhesive producers, fish wholesalers, oil boom and sand bag producers; just to name a few! TIPPER TIE has served the Commercial Explosives Industry for more than 50 years with the world famous Single Table Top Clipper which has been dutifully operating in hundreds of commercial explosives production operations globally.

TIPPER TIE production systems are used successfully in commercial explosives in:



## **Mining**

More than 40 different minerals are used to make a cell phone and at least 30 are used to make a flat screen TV. Even everyday products such as talcum powder, toothpaste, cosmetics and medications contain minerals, all of which must be mined using commercial explosives. Commercial explosives are used extensively throughout mining applications as the main charge or boosters in surface and underground blasting applications. TIPPER TIE equipment meets these challenges by providing commercial explosives manufacturers with automated packaging equipment producing cartridges ranging from 25 mm through 240 mm.



## **Quarrying**

Quarrying delivered materials such as limestone, cement and concrete, which have become common building products, replacing bricks and cobblestones. Harbors were deepened and widened; railways and roads pushed into the wilderness and dams have been built creating enough electricity to pave the way into the 20th century. Commercial explosives are used extensively throughout quarry operations applications as the main charge or boosters in surface and underground blasting applications. TIPPER TIE equipment meets these challenges by providing commercial explosives manufacturers with automated packaging equipment producing cartridges ranging from 25 mm through 240 mm.



## **Construction Blasting**

The roadways we travel on, the buildings we live and work in, and train tunnels we travel through are built by first breaking rock using commercial explosives. Commercial explosive emulsion cartridges combine high effectiveness, water resistance and detonator sensitivity which are important requirements for modern bridge building. Packaging in cartridges offers essential safety-related and logistic advantages.



## **Canal & River Engineering**

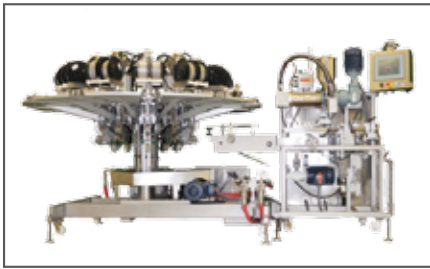
For more than 90 years, the Panama Canal has provided an extraordinarily valuable service to world trade. The Panama Canal currently serves more than 144 different transportation routes from nearly every corner of the globe, connecting the world's major trade arteries. The Panama Canal is in the midst of an ultra large expansion project to build a new lane of traffic along the Panama Canal through the construction of a new set of locks, which will double capacity and allow more traffic and longer and wider ships. Commercial explosives made on TIPPER TIE equipment are used extensively throughout surface and submarine Panama Canal blasting operations. TIPPER TIE equipment meets these challenges by providing explosives manufacturers with automated packaging equipment producing cartridges ranging from 25 mm through 240 mm.



# Commercial Explosives Industrial Production Solutions

TIPPER TIE provides high technology, automated and safe commercial explosive production solutions that increase productivity and reduce human exposure in commercial explosives production facilities. TIPPER TIE production equipment is used to produce both UN 1.1D and UN 1.5D water-based emulsion, water-gel and slurry commercial explosives.

Our commercial explosives production equipment and production solutions meet global requirements for use within explosives production facilities and have been thoroughly examined by many Hazards Analysis and Operability Studies (HAZOP) during the course of many installations worldwide. To address the requirement for high-speed, automated commercial explosives production, TIPPER TIE introduced the Rota-Clip® to the commercial explosives industry in early 2000. Since that time, more than 35 have been installed globally and are in service every day producing commercial explosives.



## Rota-Clip®

The Rota-Clip RCEG-12 is our the state-of-the art flagship and high speed production system to produce commercial explosives or most any pumpable product including emulsions and water gels. Rota-Clip is capable of producing explosives in cartridge diameters ranging from 25 mm through 130 mm with film speed approaching 330 feet/minute (100 meters). Known for its reliability and durability this machine takes economical roll stock plastic film and seals it using the explosion-resistant extruded glue seal module to form a strong casing. Variable speeds available, producing up to 300 packages/minute.



## TT1815/1512 and SwiSeal®

The SwiSeal has been designed especially for the models TT1512 and TT1815 and offers great versatility in automatic stuffing and clipping. This combination offers many advantages including the reduction of packaging costs (as gathered casings are replaced by film rolls), longer production times between film roll changes, lower need of machine operation and storage space. It processes most types of mono and multilayer flat foils including Poly, Mylar and aluminum coated foils with a maximum foil width of 400mm. End products can be in cartridge diameter range 20-120 mm.



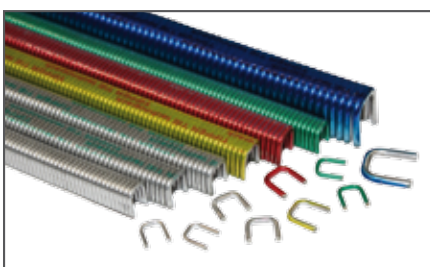
## KDCM®/KDCMA®

The KDCM/KDCMA series are two new, completely redesigned model series of semi-automatic and fully automatic machines in modular design. The basic and add-on components of these stainless steel clipping machines are exchangeable throughout the entire series, which means that each model can be easily optimized to suit the desired application in each case. Plastic casings in the cartridge diameter range of 25-120 mm for Poly or Mylar films.



## Single Table Top Clipper F625L

The TIPPER TIE Model F625L is an air powered, gate actuated clipper that can be mounted on any stand or pole. Built for use in any industry that needs a secure clip closure, this clipper applies special 600 and 700 series clips which are well suited for difficult packaging applications for Poly or Mylar films in shirred casings or for heavy-duty woven polypropylene and polyethylene shot-bags, plastic, multi-wall laminates and heavy weighted packages. One quick continuous motion gathers the bag into a neck and applies a positive, strong closure that will not slip or break under extreme conditions.



## Consumables

The alloys, profiles and dimensional precision make the TIPPER Clip® an absolute top quality product that ensures high product reliability. All TIPPER TIE clips are made of a sturdy aluminum alloy and are available in different sizes based on the applications. The TIPPER Clip is strong, light-weight, non-removable and recyclable. It is also available in a variety of different colors.

# Testimonials

"The Rota-Clip is operating smoothly, requires fewer employees and enables high speed and accurate packaging. It has improved our capacity dramatically." 21.12.2010

**Xiong Xian-Zhong**  
**Vice President**  
**Huainan Shuntai Chemical Ltd.**  
**Bagong Mountain, Huainan City, Anhui Province, China 232072**  
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In early 1992 TIPPER TIE Company approached Dyno Nobel about a high speed packaging machine they were developing for small diameter products. They invited us to see a prototype in operation and we immediately saw great value in the machine we came to know as the Rota-Clip. TIPPER TIE and Dyno Nobel worked together to perfect their machine and in late 1993 we placed the first high speed Rota-Clip into full production at the Dyno Nobel plant in Carthage Missouri. TIPPER TIE's experienced professionals, innovative thinking, and determination made the Rota-Clip a success for both companies. While Dyno Nobel proceeded to place several Rota-Clips around the world, TIPPER TIE worked on developing a Rota-Clip that would produce larger diameter products for the Carthage Missouri Plant. In 1996 a second Rota-Clip was installed. Productive, efficient, and easily maintained, the Rota-Clip has proven itself to Dyno Nobel for almost two decades.

**Jim Coombe**  
**Principal Engineer / Packaged Products**  
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BME has been using the Rota-Clip machine at its Losberg facility since 1996. The first machine has served BME successfully over the past 15 years while the supply support from both the USA and TIPPER TIE TECHNOPACK in Germany was nothing less than exceptional. A recent request to urgently supply a new Rota-Clip machine was met with enthusiasm and the professional response was remarkable. The new upgraded machine which incorporated latest technology has just been put into operation and BME has no doubt that the decision to stay with the Rota-Clip technology was the right one. The superb technology and reliability offered by the Rota-Clip machine backed up by the excellent support clearly puts TIPPER TIE and their equipment in a class of their own.

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