

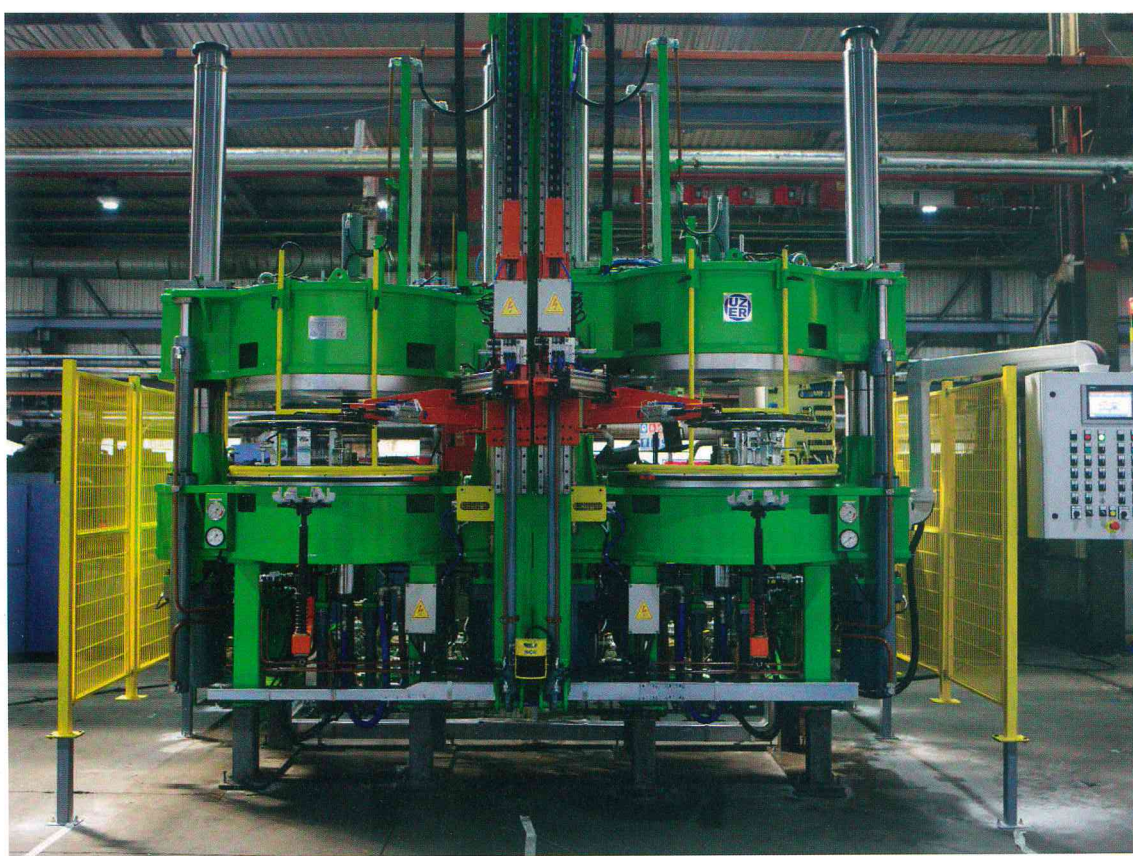
**U**zer Makina, a global company, has been serving the tyre industry more than 35 years and also established an impressive client list in the global market place and serves many leading tire manufacturers in Turkey, Europe, United States, Middle East, Far East and Russia. Since its founding in 1978, Uzer Makina has been on a constant growth path widening its range of curing presses for tire industry.

Uzer Makina has continuously invested millions of dollars in state-of-the-art technology, new and improved operating systems and dynamic, highly qualified and experienced employees. The company applies total quality management for its production base in Izmit and has ISO 9001 certificate since 2002.

Uzer Makina is mainly focused on tyre curing process, including tire curing presses, container mechanisms, and wide range of tyre molds. Beside mechanical types of presses in different types and sizes, Uzer Makina manufactures hydraulic tyre curing presses again in different types and sizes.

The press production started almost 20 years ago with the 65" twin BOM dome type mechanical presses. Since then, from mechanical to state-of-art hydraulic presses, the company has delivered more than 500 sets of curing presses worldwide. The range of the mechanical presses starts from 45" twin cavity to 104" single cavity slide back models. Since full-steel OTR production requires segmental moulding, Uzer Makina has developed slide back type 104" curing press for its customers. The first group of large type presses went to Middle East and China in the 2004-2005 periods, and the latest ones have been supplied to companies in Europe.

Uzer Makina started hydraulic



## UZER MAKINA Eyes Indian Market

press production in 2004 with the 51" twin BOM column type hydraulic presses. In year 2007, second generation hydraulic curing press is developed with the floating column feature. With a new generation hydraulic tyre curing press has been developed with a very unique floating column feature (internationally patented), which is eliminating mould height adjustment equipment and process completely. All presses comply with CE regulations and all pressure vessels are certificated and tested by notified bodies such as TUV Germany. In 2009, the company developed and manufactured third generation fully independent hydraulic press with again floating column feature. Uzer Makina manufactures Floating Column Type of Hydraulic Tyre Curing Presses for passenger and light truck tyre sizes from 45" to 52". These sizes of presses can replace existing smaller

size mechanical presses on the same factory footprint. More than 350 sets of floating column type presses are delivered until today. Both common cavity and fully independent cavity floating column type hydraulic curing presses are working very successfully in around 15 different tire-manufacturing plants all around the world.

### *Smart, Flexible*

Curing presses are becoming smarter and more flexible in response to increased number of tire sizes and types in a tyre plant. Nowadays "Efficiency" is the top topic in this sector; energy efficiency, and of course machine efficiency. However these features should be sustained with high technology and also safety.

***How does Uzer Makina provide these points to their customers? What are their significant demands, investments?***

Uzer Makina does not differentiate these items in terms of importance as a machinery maker, the company accepts these points as minimum requirements and supply some extra features with fully automatic, non-stop working machineries. Automation is a must for a tyre curing press with automatic loading and unloading abilities which serve reducing dry-cycle time and increasing machine efficiency, which is a direct factor for a tyre manufacturer to decide necessary number of curing presses in the limited curing area.

The aim is to 'Decrease the overall dead-time' which consists of set-up time, dry-cycle time, cycle (curing) time itself, in order to increase output of a curing press. It will help us to decrease number of machines in curing area and help 'Space Limitations' as well. Especially, Fully Automatic Mold Height Adjustment



System should be supplied with Hydraulic Curing Presses. It will decrease necessary time for mould change with help of, fully automatic and quick mould change operation.

Simple Design without some auxiliary mechanisms, like mould height adjustment system, is also essential for Less Maintenance and Less Energy Consumption. Isolation and also an advanced Hydraulic Power Unit are very important for Less Energy Consumption as well, Flexible Curing Ability is required for curing some special sizes with only one mould or curing the last green tyre available at the end of the lot. It means to have the press with Independent Cavity like a Single Cavity press.

Safety Requirements is strictly important to avoid any injury. But, it is necessary to keep press running without sacrificing safety by using some advanced safety concepts like safety fences, area scanners and safety controllers etc.

### Post Cure Inflation

Tyre labelling is mandatory in European market right now and it will become popular in other regions as well. This fact leads tyre manufacturers to use PCI (Post Cure Inflation) Units just behind of curing presses to be able to achieve better values on the labels; it means to equip the curing press with an advanced two stage PCI Units. Most of Uzer Makina's clients have started to use PCI units for cooling the tyre under pressure after the curing cycle. This operation assures better uniformity values and hence better rolling resistance too.

Beside "floating column type press for passenger and light-truck tyres, Uzer Makina has developed a frame type hydraulic tyre curing press as well in 65" and 67" sizes with double cavity for Truck and Bus Tyre (TBR) manufacturing.



Recently, Madras Rubber Factory Limited (MRF Limited) awarded Uzer Makina with an order for a 67" double cavity hydraulic press for TBR production. Uzer Makina entered in Indian market by this way with a global company. This press will be a pilot press for MRF's new investment and Uzer Makina will have a chance to show top level of quality and technology in that press. This step will create some new challenges to make business in Indian market as well.

In addition to being a top level curing press manufacturer, Uzer Makina is one-stop-shop for tyre curing equipment, including tyre curing moulds, container mechanisms and bladders moulds.

Uzer Makina has adopted direct milling method in modern 5-axis CNC machineries as main tire mold manufacturing method. The company uses state-of-the-art, high level CAD and CAM softwares in tire mold design

department. By using modern manufacturing technologies, the company is able to reduce the time for producing moulds. The manufacturing time for the first moulds is almost reduced to 4-6 weeks. If the pattern does not require any blades, then it is even reduced to four weeks.

Bladder moulds are also one of the main products of Uzer Makina. From smaller size BOM bladders to large AF bladders, the company has the capability to produce hundreds of bladder moulds. Furthermore, container mechanisms are other important and standard products for the company. 25 to 30 sets of container mechanisms are delivered monthly to Tire Manufacturers in Europe, North and South Americas.

Uzer Makina supports each of these product groups with some new investments for new machineries and new closed areas. The company increased total closed area from 2500 square metres (in year 2000) to 12000 square

metres (in year 2015) in parallel with investing for new CNC machineries with highest technology.

Uzer Makina has been giving a big importance and priority to training, which is necessary to catch the global developments by Uzer's employees. Therefore, some of training were completed in 2015 as "Process Management", "ISO 9001 -Quality Management", etc.. Meanwhile it is planning to have "OHSAS-18001 Occupational The Health and Safety", "ISO-14001 Environmental Management" certificates, and other basic departmental trainings will continue during 2016.

Uzer Makina continues to deliver its products based on customer needs and design capabilities satisfy customer requirements completely. It seems that the success of Uzer Makina will be rising up day by day with willingness to have good cooperation with customers and high level of sensibility for customer satisfaction. ▲