

## **Mannesmann – More than 130 years of tubes history**

### **It began with a revolutionary invention**

At the beginning of Mannesmann's history stood a technological breakthrough: Reinhard and Max Mannesmann invented the world's first rolling process for the production of seamless tubes at their father's file factory in Remscheid. After many years of development work they filed a patent application in 1885. In 1886 the patent was granted and the rolling of the first seamless steel tube commenced.

With this invention as their capital contribution, by 1889 together with various partners they had set up tube works in Bous an der Saar, in Komotau in Bohemia (which at the time belonged to Austria), in Landore in Great Britain and in their native Remscheid. It was not until the 1890s, however, that the brothers made the final technical breakthrough with the invention of the pilger-rolling process, which turned their concept into a truly marketable prospect and laid the basis for their economic success. The combination of pilger-rolling and pierce-rolling subsequently became known throughout the world as the "Mannesmann process". It unlocked new potential in many fields of technology and revolutionized the engineering, piping and vehicle construction industries in the following decades.

On July 16, 1890 the previously independent continental Mannesmannröhren-Werke tube works were amalgamated to form the *Deutsch-Österreichische Mannesmannröhren-Werke Aktiengesellschaft* with head offices in Berlin. With share capital of 35 million marks, the new company immediately found itself among the ten largest corporations in the German Reich. Reinhard and Max Mannesmann were the first executive directors of the company, but stepped down from the board as early as 1893. In the same year the company moved its head office from Berlin to Düsseldorf.

### **Ever international**

From the very beginning Mannesmann products were manufactured at several locations in Germany and abroad and distributed worldwide. The tube works in Bous supplied Western Europe, the works in Remscheid served customers in Northern Europa, the Austrian works supplied the Balkans, Eastern Europe and the Mediterranean area, and the Mannesmannröhren-Werk plant in Wales, which was finally taken over by the Group in 1899, had access to the worldwide British Empire market and North America. Before the end of the year in which the company was first formed, the world's first pressurized oil pipeline was laid in the Caucasus using Mannesmann pipes, and further shipments of pipes were subsequently destined for water supply systems, pipelines, utility poles and modern street lighting the world over.

In order to offer a complete range of tubes, in the second half of the 1890s Mannesmann built both a new seamless tube works and a plant to produce welded tubes in the Düsseldorf suburb of Rath. Having previously cooperated with independent agents and exporters, the company began to develop its own global sales organization after the turn of the century. From 1908, another international production plant was developed in Dalmine, Italy. In the same year the *Deutsch-Österreichische Mannesmannröhren-Werke AG* was split into *Mannesmannröhren-Werke AG* with head offices in Düsseldorf, which from then on headed the Group, and its subsidiary *Österreichische Mannesmannröhren-Werke GesmbH* in Vienna. The interests in the British and later also the Italian companies was also held by *Mannesmannröhren-Werke AG*.

### **From a tube manufacturer to a coal and steel conglomerate**

Mannesmann initially remained purely a processor of steel and was therefore dependent on supplies of input stock from other companies. At the start of the 20<sup>th</sup> Century therefore, the primary strategic goal was to develop the company's ability to supply its own material requirements. The first step was taken in 1906 with the acquisition of *Saarbrücker Gußstahlwerke AG*, in order to supply the Bous plant with the requisite high-quality input stock. Further acquisitions included the Blechwalzwerk Grillo Funke, which had its own steel-making facilities, as well as collieries, ore mines and limestone quarries. Finally, in 1929, the company's own iron and steel works was commissioned in the Duisburg suburb of Huckingen. Mannesmann was now a vertically structured coal and steel group, an arrangement which remained typical of German heavy industry until the 1970s.

For Mannesmann, too, the 1930s and 1940s were dominated by the armaments and self-sufficiency policies of the National Socialist government. To compensate for the lack of labor during World War II the company employed prisoners of war and forced labor to maintain production.

After the end of the War Mannesmannröhren-Werke was liquidated by order of the Allies and divided in 1952 into three independent companies, *Mannesmann AG*, *Consolidation Bergbau AG* and *Stahlindustrie und Maschinenbau AG*. By 1955, however, the business was reunited under the management of *Mannesmann AG*, which from then on became the head of the Group.

Between 1952 and 1955 Mannesmann established tube works in Brazil, Canada and Turkey. The operation in South America was combined with a smelting and steel-making plant.

## **A pioneer in diversification**

In 1969 Mannesmann's coal mining operations were folded into *Ruhrkohle AG*. In 1970 Mannesmann took over Thyssen's pipe and tube manufacturing and pipelaying businesses and in return handed over its own rolled steel manufacturing and plate processing operations in Germany to Thyssen. The resulting new company *Mannesmannröhren-Werke AG* ranked as one of the world's largest tubes manufacturers.

In the 1960s Mannesmann became the first of the coal and steel conglomerates to address the consistent diversification of its structure. Starting in 1968, the Group acquired *G.L. Rexroth GmbH*, Germany's leading manufacturer of hydraulic components. With the acquisition of *Demag AG* in the years between 1972 and 1974 and *Krauss-Maffei AG* from 1990, Mannesmann systematically consolidated its mechanical engineering and plant construction activities. With the acquisition of *Fichtel & Sachs AG* in 1987 and the takeover of *VDO Adolf Schindling AG* and *Boge GmbH* in 1991 the Group also established itself in the automotive engineering market.

By 1990, a century after the company was first founded, Mannesmann was a broadly diversified technology group with a successful international presence in the fields of mechanical engineering and plant construction, drive systems and process control, electrical engineering and electronics and automotive engineering, while still continuing its original involvement in manufacturing and trading steel tube products.

The continuing process of structural change at Mannesmann was dramatically accelerated in its anniversary year 1990 with the acquisition of the license to develop Germany's first private mobile phone network D2 and the consequent creation of the new Telecommunications Division. The company played a pioneering role in this growth sector and became the German market leader in mobile telephony within a very short period of time. In the fixed line segment a joint venture company was established in 1996 with Deutsche Bahn, which led in early 1997 to the formation of *Mannesmann Arcor AG & Co*. Elsewhere in Europe, joint ventures were set up with Italian and French telecommunications companies and telecoms business were wholly or partially acquired in Austria, Italy and Great Britain. Within a few years, Mannesmann consistently developed its position as the leading private telecoms provider in Europe.

While the dynamic telecommunications business steadily gained in importance within the Mannesmann Group, the other divisions were also continuously developed in the 1990s and adapted to meet changing market conditions. In the field of steel-making and tubes production, new forms of inter-company, and in some cases international, cooperation were explored. From 1990, the former Mannesmann-Hüttenwerk

Huckingen in Duisburg was operated jointly by Mannesmann and Krupp as *Hüttenwerke Krupp Mannesmann GmbH*. In 1991 *Europipe GmbH* was founded in cooperation with French company Usinor Sacilor for the purpose of manufacturing large-diameter pipes, and from 1994 the stainless tube works belonging to Mannesmann, Dalmine of Italy and Vallourec of France were amalgamated under the banner of holding company *DMV Stainless BV*. Finally in 1997 the joint venture company V & M Tubes was established together with Vallourec to produce seamless hot-rolled steel tubes.

### **An end and a new beginning**

In 1999 the Executive Board of Mannesmann took the decision to focus the group on telecommunications. The industrial activities were consolidated within *Atecs Mannesmann AG*, with the intention of floating these units independently on the stock market over the coming years. At the start of the year 2000, however, the British telecommunications company Vodafone secured a majority interest in Mannesmann, putting an end to the company's corporate independence. Subsequently, *Mannesmann AG* and its telecoms activities were absorbed into the *Vodafone Group*. *Mannesmann AG* held its last AGM on August 22, 2001, among the resolutions passed was a change of name to Vodafone. The companies amalgamated within *Atecs Mannesmann AG* were sold to *Siemens AG*. Some of these activities were integrated into the Siemens Group, while the remaining businesses were sold on. The Mannesmann Group was dissolved.

The year 2000, however, also offered fresh prospects as *Salzgitter AG* acquired a majority interest in *Mannesmannröhren-Werke AG*. With the integration of the tubes company into the Salzgitter Group, Mannesmann's traditional steel tubes business, which in the 1990s within the Mannesmann Group had frequently been upstaged by newer divisions, now once again acquired strategic importance. As a core business within this Steel Group, the potential and the enduring modernity of steel tubes are clearly evident. The Mannesmann brand lives on in its original field.

### **The tubes story continues**

As part of Salzgitter Group both tubes production and Mannesmann companies develop continuously. For example in 2003 the sole ownership of the joint venture DMV Stainless and in 2004 of Röhrenwerk Gebr. Fuchs GmbH was acquired. In 2005 Mannesmann sold its stake in V & M Tubes and in 2006 in Vallourec. In 2007 Vallourec Précision Etirage was acquired.

Since 2005, the leading company within the trading business of Salzgitter Group has been named Salzgitter Mannesmann Handel GmbH.

The purpose of such purchases and sales and of the respective restructuring, changes to entity names and investments is to tailor tubes production to current and future market requirements.



**MANNESMANN. Das Rohr.**