

# **SECTION 1**

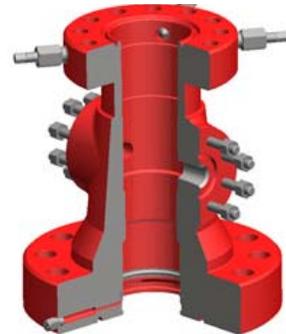
## **COMPANY OVERVIEW**



## WHAT IS A FASTENER?

Before introducing the Fastener Industry and Industrias AUGE we have to define what a fastener is. A **Fastener** is a mechanical device designed specifically to hold, join, couple, assemble, or maintain equilibrium of single or multiple components. **Fastening** is the act or process by which single or multiple components are held, joined, coupled, assembled or maintained in equilibrium.

Illustration 1.1 Fastener



Source: [www.fmctechnologies.com](http://www.fmctechnologies.com)

## FASTENER INDUSTRY OVERVIEW

Global sales of industrial fasteners are expected to grow 5.2 percent per year to \$82.9 billion in 2016, accelerating from the 2006-2011 rate of market expansion. In 2011, motor vehicle original equipment manufacturing was the largest market for industrial fasteners, and this market will post the biggest gains through 2016 in monetary terms. In addition, acceleration in manufacturing output and fixed investment spending will lead to increased demand for fasteners used in machinery. The Asia/Pacific region will record the strongest demand gains from 2011 to 2016, averaging 7.4 percent per year. This expansion will be driven primarily by the strong Chinese market, which will continue to advance at a rapid pace. Rising demand in the smaller Indian market will complement these gains. Additionally, sales of fasteners in other developing areas of the world will advance at a healthy pace. Knowing this, **INDUSTRIAS AUGE** has opened a distribution center in Singapore on December 2012 and a manufacturing site in Malaysia is foreseen for third quarter 2013.



In the Fastener Industry **SAFETY** and **QUALITY** are the most valued factors and they are critical in the selection of a fastener supplier because the failures presented in this type of product can result in:

1. Accidents
2. Permanently damaged reputation
3. Project down time
4. Costly law suits

One of the most recent examples occurred in Brazil back in 2009 where a fastener failure in subsea installations offshore Brazil resulted in remediation costs in excess of \$150 million USD. Failure was due to improperly processed raw material steel. Petrobras did not specify which company manufactured the bolt. The well operation was closed until replacement was completed. The reason for the initial failure was found to be that a set of bolts for the initial riser installation did not comply with the original specifications or certification requirements. This resulted in their failure due to cracking by hydrogen embrittlement (loss of ductility of a material). The same fault was also present on one other recently installed riser requiring similar modifications. **Because of this event, major OEM equipment suppliers and end-users are revising specifications and requirements for commodity fasteners used in these applications.** The American Petroleum Institute is standardizing the norms for bolts and **INDUSTRIAS AUGÉ** is currently seeking the API 20-E certification.