

### Valves and Fittings - (5th Largest Steel Castings Market)

The Valves and Fittings market as related to the steel casting industry in the United States is highly fragmented. The largest producer is reported to control less than 3% of the total market with the top 20 manufacturers supplying approximately 30%.

The Valve Manufacturers Association, the major industry trade association, projects the following domestic user industries for 1983 to be as follows:

<u>Industry</u>	<u>Percentage of Total Consumption of Valves</u>
Chemical Production	15.3%
Petroleum Production	13.9%
Power Generation	13.3%
Petroleum Refining	12.4%
Water and Sewage	9.8%
Oil and Gas Transmission	8.3%
Pulp and Paper Production	5.8%
Commerical Construction	5.8%
All Other	15.4%

The Valves and Fittings segment of the steel castings industry is highly competitive and is the segment most heavily penetrated by foreign imports. A Steel Foundry Society of America study conducted in February 1983 indicated that approximately 27% of the United States steel valve requirements are imported, although other estimates vary from 11% to 40%.

The primary source of these imports is reported by the U.S. Department of Commerce as follows:

<u>Country</u>	<u>Percentage of Total Valve Imports</u>
Japan	29%
Canada	11%
United Kingdom	11%
France	8%
Italy	8%
West Germany	8%

The compound annual growth rate for steel valve and valve part castings from 1983 through 1985 is forecast to be approximately 16% with the projected requirements in 1983 to be 70,000 tons of carbon and low alloy.

Corrosion resistant valve requirements for the same period are expected to increase at a compound annual rate of approximately 33% with the 1983 requirements projected to be 17,000 tons.

Of the eight basic types of valves manufactured, the use of ball types shows the greatest increase, from 22% to 33% in the last 10 years, and butterfly valves increasing their share by 2.5% over the same period.