



# CAVALIER

## Industrial Specialties



Houston, Texas Location

In the late 1990s Cavalier's market insight led to a focus on quality detailed products. Cavalier implemented a Quality Management System in accordance with MIL-Q-9858A which opened doors to the military and government markets. Cavalier found success servicing these markets with standard and specialty engineered fasteners for many years.

As Cavalier identified new markets, the company's development grew with the manufacturing of machined assembly components and engineered studs requiring custom design expertise and precision quality. Based on customer requirements, quality documentation and procedures were expanded from standard Certification Material Test Reports to full traceability of each line item, beginning with the melt of material through finished product testing. All testing requirements are completed at A2LA, accredited laboratories.

The company with "Passion for Precision" for custom forgings and custom manufactured studs began business in 1980 as a stud bolt manufacturer for the petrochemical and oil and gas industries. Cavalier grew adding threading and manufacturing equipment to service the local area with general purpose fasteners on a quick turnaround basis. The company has continually promoted growth through expansions in raw material inventories and equipment.



Quality Assurance Lab



PMI Gun

# Passion for Precision

**ISO 9001:2008** — Cavalier has successfully achieved its ISO 9001:2008 accreditation from the Steel Related Industries Registrar to fully service its new customer base. Cavalier's markets consist of the pump and valve, power generation, turbo machinery, military, shipyard and marine industries along with ASME pressure vessel and nuclear requirements.

Today, Cavalier has two manufacturing locations to service customer needs; one is located in Virginia Beach, Virginia and the second is located in Houston, Texas.



Houston, Texas Location

## Quality in Action

A documented Quality Management System (QMS) has been maintained for over 20 years for the consistent improvement of our processes and products.

Accreditation of Cavalier's QMS to ISO 9001:2008 - ANSI/ISO/ASQ Q9001-2008 has been certified by the SRI Quality System Registrar. Cavalier's accreditation also includes the Pressure Equipment Directive (PED) 97/23/EC 7/2, Annex I, Paragraph 4.3.

Cavalier products are supplied to the Military / Defense and Nuclear industries manufactured under the current QMS which meets and exceeds the established requirements of MIL-Q-9858, MIL-I-45208A and MIL-C-45662A.

CAGE code # 3Y787

CCR registered

NAICS - 332722

Federal Supply Class FSC- 5306/5307

Main Product Supply Class PSC - 5307

On the Quality team there are three active members of the American Society of Testing and Materials (ASTM). Two of the three have participated as ASTM members since 1994.

Cavalier's supply chain is capable of meeting all domestic requirements, and the DFARS requirement as it relates to Specialty Metals.

Our Quality System maintains full material traceability to the original melting mill on all materials as well as complete chemical and mechanical certifications, all testing requirements are completed at A2LA, accredited laboratories.

Cavalier can also provide Positive Material Identification (PMI) and Laser Dimension Inspections when requested.



# Industrial Manufacturing for Custom Made Studs



Precision Tolerance Cut Threading

Cavalier produces precision finishes and close tolerances on cut pieces.

Cavalier's metal cutting service is supported by ten automated band saws and two CNC cold saws that produce precision finishes and close tolerances on cut pieces. Cavalier's shearing capabilities for supplying blank pins for manufacturing range from 1/4" to 1-1/2" in diameter.

Standard rolled threads, annular forms, knurled surfaces and fins on tubes are some of the shapes that Cavalier roll forms on cylindrical surfaces. The thru-feed capacity ranges from 1/4" through 3". In-feed capacity continues through 3" diameter.



Metal Cutting for Stud Production





# Machined Parts per Drawing Quality Detailed Fasteners



Machined Parts per Drawing

CNC lathes, CNC milling machines, and conventional lathes are used to perform drilling, grooving, milling, slotting, threading and turning operations on metal parts and components. Cavalier produces fasteners requiring characteristics such as dog points, radius points and machine finished ends that are suited for identification marking.



Long Length Bolts

Cavalier manufactures a variety of assembly components for industrial applications including machined parts per drawing, upset forgings and quality detailed fasteners.

## Assembly Components for the Extremes



Step Studs

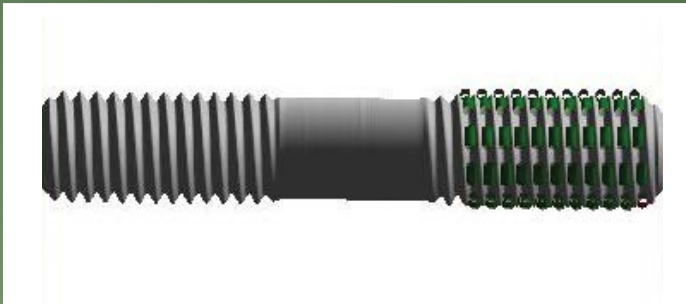
Cavalier manufactures long length bolts from 1/4" through 3/4" diameter in lengths up to 40" long in a variety of material grades in standard or custom designed head styles.



# Thread Inspection

**System 21:** In this standard system the thread Go & No Go functionality is verified by gages Go Ring/Go Plug, No Go Ring/No Go Plug, and a micrometer is used to measure the major diameter of thread. Cavalier carries a whole range of Go & No Go Ring gages for external thread inspection and Go & No Go Plug gages for internal thread inspection.

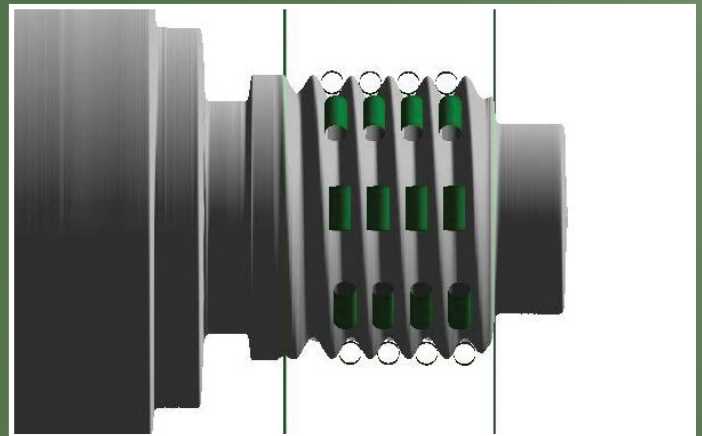
Precise measurements  
and high accuracy



3D image of the Inspection by laser

**Advanced Technology for measuring external threads:** When customers require precision tolerances with precise measurements and high accuracy then Cavalier's advanced inspection system is utilized which uses laser technology as a means to measure the thread attributes such as thread count, thread pitch, pitch diameter, major diameter, functional diameter, lead deviation, root radius, flank and angle.

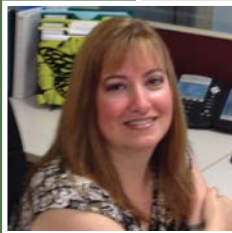
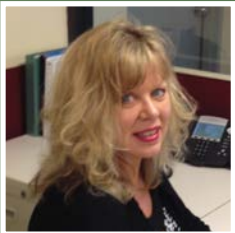
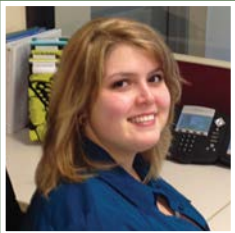
**System 22:** This system covers all the requirements in 21 and in addition requires the threads to be measured for pitch diameter, lead, flank angle, minor diameter, and root profile using tri-rolls and optical comparator. Cavalier is equipped with tri-rolls and optical comparator to provide the customers with System 22 requirements.



3D image of the Inspection by laser



# Commitment to Quality and Service



The Cavalier Team includes an experienced, knowledgeable, friendly sales staff; a skilled, quality-driven production staff and management that is dedicated to quality in action throughout the company.

*“Cavalier’s great customer service is what keeps us coming back!”*

- Industrial Distributor

