

Baker Oil Tools – Navigation Facility Summary

Location:

Baker Oil Tools
6023 Navigation Blvd.
Houston, Texas 77011

Established:

1936

Facility Site:

22.87 acres

Overall Size:

334,690 sq ft

Number of Employees: 673

Manufacturing: 484
Engineering: 121
Marketing: 67

Quality Accreditations:

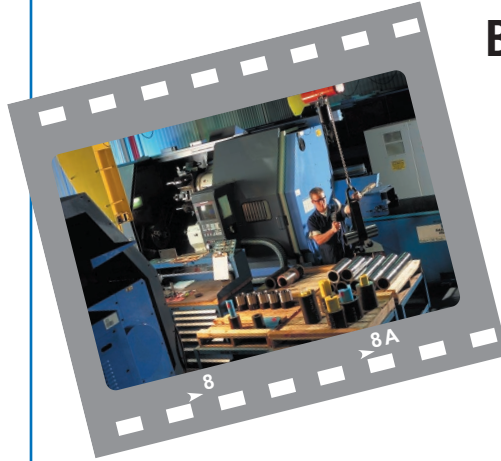
ISO 9001: 1994
(Certificate No.: 98-HOU-AQ-9285)
Expiration Date: 2/26/01

Manufacturing Capacity:

500,000 hours per year

Product Manufacturing Range:

20 in. dia. x 10 ft turning and
24 in. x 32 in. x 96 in.
22 in. x 22 in. x 52 in. vertical milling



Production Testing:

14,850 sq ft area. The Assembly Department has pressure testing capability to 20,000 PSI with remote camera monitoring and on-line acquisition monitoring system. All testing equipment is calibrated and certified to national standards.

Prototype testing:

The Engineering Test Lab has pressure testing capability to 30,000 PSI and temperatures of 680°F. Each of the five test cells is equipped with data acquisition systems and the three high pressure cells have video monitoring.

Electronic Manufacturing:

The Electronics Manufacturing Group at Navigation has been in operation since January 1994. It supports the manufacture of all circuit boards and battery packs associated with the new EDGE® electronic actuated packers. All circuit boards are assembled and tested in-house. Assembly capability includes surface mount and thru-hole technology. In addition, the group also supports the downhole instrumentation products, which include the GUARDIAN™ pressure/temperature monitoring tool as well as TEC™ cable. The Manufacturing Lab consists of an electronic assembly area, electromechanical area, and an oven/environmental chamber area for simulation and testing of pressure and temperature parameters.

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Baker Oil Tools Houston - Navigation Facility



The industry's leading
designer and manufacturer of
downhole completion products

People and Products Providing Solutions for
Completions, Workovers and Fishing



Baker Oil Tools

Baker Oil Tools

Houston Navigation Facility

The Navigation facility is the industry's leading designer and manufacturer of downholes products including completion and service packers and their associated components, sand control completion systems, flow control products, remedial and stimulation products and downhole instrumentation.

The facility is located at 6023 Navigation Boulevard in Houston, Texas, along the ship channel on the east side of the city. The site, in continuous operation since 1936, has increased in size to its current 23 acres. The workforce includes engineering, marketing and manufacturing personnel.

Our Mission

Our employees are dedicated to the manufacture of quality products for today's challenging environments and innovative designs for tomorrow's solutions. Each day we focus on three key components: E-O-Q: E for excellent service, O for on-time delivery, and Q for quality products.

Quality

Baker Oil Tools has a strong commitment to quality and continued process improvement in order to maintain its leadership position. Baker Oil Tools quality is an all inclusive attitude that includes people, equipment, technology, processes and services. A total product quality assurance system governs every step of each process in the design, manufacture and testing of our products. This system is enhanced and supported by expert field technicians and technical support personnel who are available anywhere, anytime, to address and solve problems.

Our quality program conforms to applicable codes, standards, specifications, and unique customer requirements. We were issued ISO 9001, the Certificate of Accreditation by the International Standards Organization.

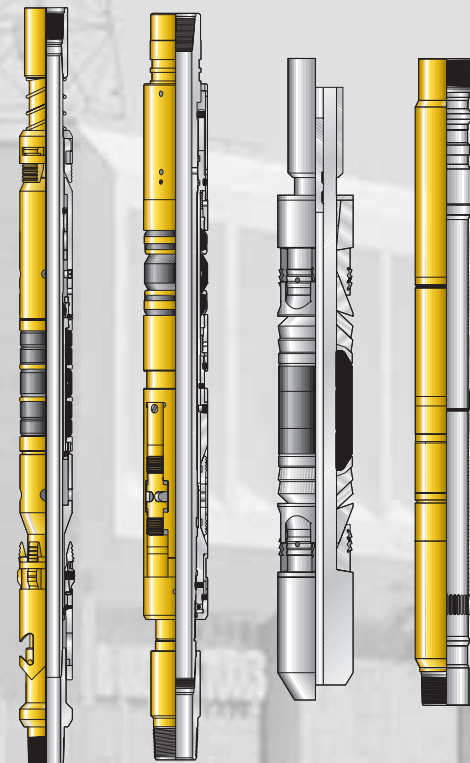
Engineering

The engineering groups for packers, flow control, emerging technologies, intelligent well systems and remedial and stimulation tools call the Navigation facility home. Close coordination with manufacturing through concurrent engineering guarantees continued success in the design and manufacture of leading-edge products for the oil and gas industry. The technical expertise of our engineers, designers and drafters establishes and preserves a proud tradition of Baker Oil Tools innovation. These skills were honed by decades of custom-tailored solutions as well as the industry standards that our customers have come to expect from us.

Baker Oil Tools pioneered comprehensive testing. Extensive testing at the Navigation Test Lab allows our engineers to recreate nearly any downhole environment, including pressures to 30,000 PSI and temperatures to 680° F. In 1997, three new state-of-the-art test cells were constructed. Safety was the top priority in the design of the new cells along with creating an environmental friendly design with water and heater circulation systems. Each cell has a video monitoring and data acquisition system. Our philosophy of thorough product testing carries over into material testing and selection. All elastomers must pass rigorous inspections using advanced spectrometers and automated tensile testing equipment.

Marketing

Baker Oil Tools' marketing groups for packers, flow control, intelligent well systems, remedial and stimulation, emerging technologies, gas lift and instrumentation reside at the Navigation facility. The groups provide focus on future needs for the marketplace while supplying technical information necessary to match the right products to the customers' applications for today's completions. They investigate current and future trends in order to anticipate requirements and enhance our product portfolio.



Manufacturing

Manufacturing is a core competency of Baker Oil Tools. Our machine shop fills more than 140,000 square feet with an additional 110,000 square feet allocated to warehouse, assembly and test. The remaining 80,000 square feet is office space.

The Navigation facility has more than 90 modern machine tools, less than five years old. Most of these tools are computer controlled – many with the capability of state-of-the-art conversational controls for fast, accurate and repeatable output. We sustain this significant investment with a comprehensive rebuilding and preventive maintenance program.

To augment Navigation's manufacturing facilities; a dedicated machine shop is located in Yorktown, Texas. This satellite facility has 60,000 square feet of roofline and 40 CNC machine tools. Our machinists average more than 10 years experience.

Total machining capacity is approximately 600,000 hours per year. Our equipment is capable of machining components consisting of a variety of mild steels and corrosion-resistant alloys.

Processes used in the manufacture of our products include milling, drilling, boring, turning, deep hole drilling, welding, polishing, grinding, sawing, honing, etching, stamping, coating, plating, assembly (including composite and printed circuit boards), testing and painting.

The Navigation Facility is ISO 9001 certified and the winner of the 1999 BOT Plant Safety Award.

