



## Four Decades of Dedication to Thread Roll Tooling

Kadimi Group has been operational in India for 4 decades. Kadimi Tool Manufacturing Co. Pvt. Limited has been established and operational since 1987 in India. It is a leading global supplier of thread rolling dies and offers a comprehensive range of products and services to the automotive and industrial fastener manufacturers worldwide including U.S.A, Germany, Italy, Japan, Taiwan, China, Brazil, Turkey, and Korea.

Several global leading fastener makers have used its products for over 30 years. Kadimi Tool manufactures special form flat thread rolling dies for specific needs and supplies worldwide to automotive, aerospace, industrial, electronics and other applications in special materials and surface treatments.

Production Size Range: #000 (1-25/32"/1-1/2"/15/32") to 1000D (21"/19"/2-3/16") with 160mm FW.

Product Range: Flat Thread Rolling Dies, Gimlet Dies, Standard Thread Forms, Knurl Dies and various Licensed Products.

Kadimi also does Special Dies like Straightening Dies, Ogival Dies, Lap Free Dies, Hose-Clamp Dies, Spiral Form Dies and Knurls.

Kadimi is committed to maintaining its leadership in thread roll tooling by providing unmatched product quality, exceptional technological innovation and superior customer service, resulting in the best cost per piece produced for our customers.

Kadimi has its manufacturing facility in India with the latest CNC machining technology & dedicated skilled team to set and maintain standards of quality and performance that exceed customer expectations.

Kadimi Tools also provides Tool Re-grinding services to its customers for Flat Thread Rolling Dies. It may give cost savings to customers through re-use of tool materials. Kadimi is proud to manufacture reliable and consistent thread rolling dies with a long service life and excellent performance during the production process. ■

## Choosing a Fastener Testing Laboratory

by Guy Avellon

**From time to time we occasionally need to have samples taken to a testing facility to verify the product's mechanical properties or to have a failure analysis performed. Some may be regular mechanical testing laboratories or metallurgical facilities. Just because they know how to test steel products, doesn't always mean that they know how to properly test fasteners or that they know how fasteners are made.**

There have been many chemical and metallurgical testing labs in existence who have now branched out to include fastener testing, though this was not their main line of expertise. Likewise, there are many new testing facilities that are beginning to include fasteners.

Why does this matter?

It matters because the generic testing facilities may not recognize the true root of the problem or use an incorrect test procedure. The preeminent testing standard for metals has been the ASTM A370 for iron and steel. There were of course, less sophisticated steel test methods written when the ASTM first published test procedures and specifications for iron and steel over 100 years ago well before the A370.

The A370 was written in 1953 when samples were machined from the product themselves into round test bars since there was no specification for full sized testing. Since that time, they have adopted a brief summary of the F606/606M testing procedures into an Appendix A3.2. The ASTM F606/606M was first published in 1979 and is specifically written for fasteners.

The following are real examples of how the true cause of a fastener failure may be overlooked because of a lack of knowledge of fastener processes and manufacturing.

### Case 1:

The following is a photograph (Photo 1) of the failed head of a #10-24 socket head cap screw. There were several SHCS that failed, all in similar locations. The initial laboratory assessment was hydrogen embrittlement since the product was plated, has a hardness over 38 Rc and failed soon after assembly.



Photo 1