Trends For The Drywall Screw

By Richard C. Holmberg

The lowly "drywall screw" has now been around the world as both a construction fastener and a core product to fastener manufacturers. Early predictions were for a short life. Competing fastening systems were continually claimed to be the replacements for this simple screw. The heir apparent was touted by the infamous "they" as either a revolutionary adhesive or a high speed pneumatic nailer. The fact is, this functional U.S. invention is now enjoying its fourth decade of dominance. The drywall screw fits the now familiar pattern of U.S. industrial manufacturing: invention, introduction, modification, mass production, technological transfer or licensing loss of domestic manufacturing dominance, product importation, and finally domestic joint venture production

The Hi-Lo Type S drywall screw invented and patented by ITW was a critical component of United States Gypsum's metal stud and gypsum board building system This uniquely American technology created a new building procedure fueled by its speed and flexibility. This system can be found in industrialized countries around the world. The non-load bearing steel stud partition continues to be used most, but new advances in load bearing systems will expand the potential market for this versatile system.

The majority of drywall screws for lightweight steel framing are now manufactured outside of the United States. The largest production facilities are in Taiwan Japan and Korea. Certain manufacturers in Japan operate under license agreement, but significant quantities of drywall screws are manufactured without payment of royalties to patent holders.

The following domestic companies continue to manufacture lightweight steel framing drywall screws in the United States. ITW/Buildex manufactures the Hi-Lo screws and selfdrilling S-12 screws. Twin-Fast screws are made by Interior Fasteners, and Streakers and Streaker II are made by TWN Fastener,

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a joint venture of John Wagner Associates, Topura Ltd., and Nissho Twai Trading Company. There are several other domestic manufacturers who produce self-drilling drywall screws for structural steel, but they are also under increasing price pressure from foreign manufacturers.

The European market has developed its own domestic manufacturing base, but they are now losing ground to imports from Japan, Taiwan, Korea, and china.

The drywall screw has been modified over the years. The original ITW/ Buildex Hi-Lo slotted point Type S drywall screw is still used by many contractors. The double lead Twinfast screw was introduced early on and remains on the market. However, a significant number of the drywall screws presently manufactured employ the patented John Wagner Streaker and Streaker II thread and head configurations. The Streaker's design success is based upon speed of penetration and ability to penetrate up to 20 gauge material.

The drywall screw created opportunities for the electric power tool manufacturers. Domestic companies like Black and Decker, Milwaukee, Skil, and Miller Falls all contributed to the expansion of this technology by developing state of the art drywall screw guns. The original screw guns were 2500 rpm and heavier. The new models are lighter, with speeds of 4000 rpm for lightweight steel framing. Cordless technology has made considerable progress. These advances will increase the potential uses of this American technology. The highly industrialized countries of Germany and Japan have become significant suppliers of electric and cordless screw guns with successful brands like Makita, Bosch, AEG, and Hitachi.

The future of the drywall screw, while always vulnerable to new technological advances, appears to be relatively secure in the short term The current mood lends itself more to improvement and enhancement rather than replacement. The trends encourage additional cordless technology and the ever-present quest for a reliable, efficient, and cost effective automatic screw gun.

Three major industrialized economies are all working on an automatic "collated" screw gun The United States effort includes a Duo-Fast Corporation/ John Wagner Associates collaboration and a separate ITW/Buildex program. The German effort is being pushed by Holz Her. The Japanese have several companies working on the technology, but no one has emerged as a clear leader. Present estimates indicate less than 5% of drywall screw attachments are through automatic screw guns. The fact that three major economies are aggressively pursuing an automatic screw gun suggests potential breakthroughs in the near future.

The drywall screw is finding expanded use in the residential "stick" markets. The drywall screw is now a multi-purpose fastener advanced by new plating technologies for exterior uses such as decks and fences, while replacing interior nails for superior drywall attachment, subfloor attachment, cabinet installations, electrical box installations, heating and air conditioning duct installations, stair tread installations, and a host of general construction applications (a surprising rebirth for an overlooked systems component). The residential market holds exciting potential for the drywall screw as builders recognize the fact that there is always a market for quality.

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The drywall screw has been routinely undervalued by all except those charged with its installation. We would be hard pressed to find a professional commercial drywall contractor who has not cursed or blessed the drywall screw. Manufacturing has been chased around the world as purchasing departments try to find the new low-cost supplier. The professional applicator has been saddled with the frustrating responsibility of being both applicator and quality control manager. The industry is rife with stories of how dissatisfied professional applicators have discarded inferior products.

Figures indicate that between one billion and 1.5 billion drywall screws are installed each month around the world. The irony is that those most involved with this unique fastener, the professional applicators, have less and less to say about the buying decision. Many manufacturers, distributors, dealers, and contractors have decided that purchase price determines the buying habit. The farsighted contractor listens more to the professional installer learning the answer to the age-old question Is a screw a screw? America and the world will continue to "turn walls white," and hopefully along the way we will not take the drywall screw for granted.

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