Value for Money in Fasteners – mass markets vs specials. Who gains – who pays?

by Peter Standring

Profit is the only reason for being in business. This rather obvious statement is true for the vast majority of businesses although, around the darker edges there exist financial entities like zombie companies which apparently do not make profit?

Being philanthropic is great but before cash can be given away, it must first be earned.

Recently, I needed a large washer to provide a watertight seal between a curved ceramic surface and a threaded pipe/nut. The item was not a standard size and so I searched for a rubber or polymer item I could use.

In days gone by, such an item would have been available for purchase from most family owned hardware shops in any small town. Today, such locations have gone the way of the dinosaurs. In what is rapidly becoming a ‘disposable’ society, small items, generally used to hold things together, are only available to the domestic customer for purchase on-line or from a few racks in a retail park superstore.

In my own search for a washer, I did find a single thin (~1.0mm) polymer washer (of the wrong size) packaged in a transparent plastic bag, labelled etc., and priced at ~$1.5. The particular rack it was hanging on had perhaps 200 other such bagged items each containing a few screws, nuts, etc., all equally exorbitantly priced relative to the cost of manufacture. Interestingly, I was informed by a member of the superstore staff who was helping in my search, that virtually all the assembled goods in store from furniture to tools, lighting, etc., did not have available replacement parts with which they could be repaired.

Clearly, the difference in manufacturing costs of repair/replacement and/or single sourced items relative to the price paid by the domestic customer is potentially very large. However, in the commercial world this variation depends on where the product is sold and who makes the purchase. It is the difference between the manufacturing cost of fasteners and the purchase price which this article considers.

Fastener Manufacture

The manufacture of all fasteners has cost structure based on the following items: material, labour, equipment, tooling, transport, currency, tax. These are ‘Direct’ costs which must be paid whether one or a million parts are made. Clearly a million parts would cost less per part than one. Additional costs would be incurred ‘Indirectly’ by including: premises, services, administration etc., which could be itemised or lumped together as ‘overhead’ charges. Groups of manufacturing centres can mitigate ‘Indirect’ costs by sharing locations and back office activities which is often a goal of company acquisition and mergers. The ‘Direct’ costs are fundamental because they hold the key to manufacturing profitability. In a global environment where: material, equipment and transportation costs can be very similar, the major differences between manufacturing centre costs often revolve around labour, currency and tax.

In the three decades since 1990 and the collapse of the Soviet Union, international OEM’s have opened up plants in Central and Eastern Europe, followed by China and latterly other developing Far Eastern countries. Their goal; always seeking to achieve greater profit margins by utilising low labour costs, taxation and currency exchange. Even within the USA, where currency is not an issue, major new centres of regional automotive manufacture have been established by both US based and transplant companies well south of what has been termed the ‘rust belt’ of the northern states to exploit labour costs and obtain tax benefits.

The OEM rush into low labour cost areas has been facilitated by the satellite location of global supply chain companies which directly feed the OEMs with the parts they require. This activity boomed until the Financial Crisis of 1998/9 hit many Far Eastern countries and was repeated globally in 2008. The currency fluctuations caused by those perturbances led to serious disturbances in the smooth running needed for the now well established complex global supply chain based system. Exactly the same problem with currency volatility is experienced by manufacturers and trading houses faced with the on-off imposition of tariffs in overseas markets. Where tight margins are in play, the addition of a small percentage increase in an intensely competitively priced product can, at an instant, completely eliminate profit.

Fastener Markets

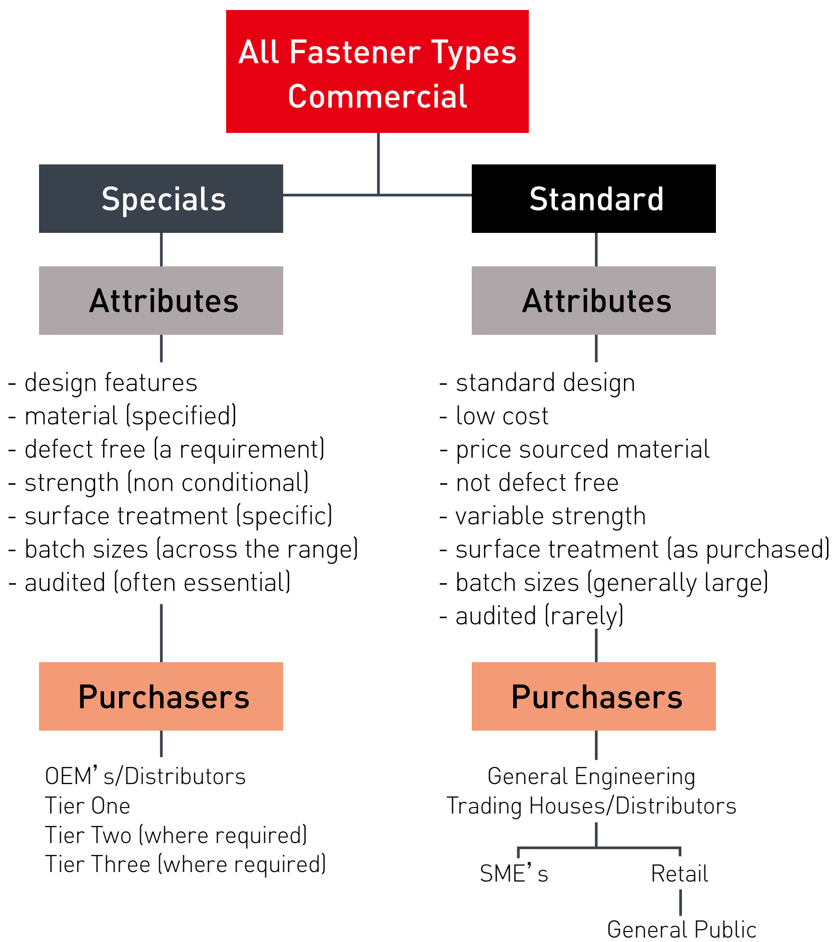
In essence, the fastener industry produces ‘standard’ products or ‘specials.’ The classification of a product’s usage may be based on, clamps to hold flat, round, wiggly shaped things which may be permanent, temporary or moveable. Some, like nuts, bolts, washers, screws, rivets etc., conform to a standard size and shape. Others, like a pipe clip or anchor device will be functionally similar but probably be better known through a Trade Name. All such ‘standard’ parts as the term states are standard and are available as the basic fastener for all market applications.

'Special' fasteners which provide the same basic function as the 'standard' fasteners are manufactured to serve a particular application. Such parts are distinguished by having attributes guaranteeing: closer tolerance, better properties, intrinsic features, surface coatings, etc.. than an equivalent standard part. Such fasteners would naturally be expected to be used where safety, performance and guaranteed success would be a given. Typically in transport, chemical plant, capital equipment, risk free, low maintenance engineering applications etc.. Also, in electrical/electronic equipment, security situations where tamper proof devices are considered a design requirement.

Who wins – who loses?

Figure 1 provides a comparative overview of the general differences which exist between the manufacture and distribution of all commercial fastener types. The field is too broad to present more than a general outline but Figure 1 gives a flavour of the major issues involved.

Figure 1. **Comparative overview of specials/standard commercial fastener manufacture and distribution**



The concept of a 'special fastener' which met all documented specifications would naturally create the assumption of value and cost. However, from the manufacturer's point of view, this may not necessarily be the case. Certainly, the manufacture of 'special' goods having the attributes as listed in Figure 1 would naturally incur greater cost than the manufacture of similar 'standard' fasteners. But, to make a 'special' fastener requires a specific customer, who can also seek the same product from all other specialist manufacturers. In the ruthless environment of managing cost, specialist fastener manufacturers could easily lose their shirt if they didn't ensure their selling price remained competitive. It is no accident that the supply chains which serve the high fashion brand designer labels where there is NEVER a hint of discounted prices, contains very few highly profitable suppliers. So, with limited outlets for their specialist products and in a highly competitive market, 'quality' based fastener manufacturers cannot expect an easy ride.

By the same token, fastener manufacturers who have set their sights on supplying high volume 'standard' fasteners, are definitely locked into a cost race to the bottom. Not only do they have a large pool of very active competitors to face off, they also operate in a totally open market which has few, if any supplier/customer loyalties. Moreover, in the global market, where standard parts at standard quality are produced on standard equipment, the cost of labour, currency exchange and import tariffs can add or subtract from the bottom line with the stroke of a Presidential pen!

The well known phrase, "being between a rock and a hard place", implies that being in the middle is perhaps not the place to be? "Squeezing the middleman", is also a popular statement, possibly because middlemen add no value but increase the purchase price?

For many years, published figures from automotive industry annual accounts have shown the OEM's have made lower profits than their suppliers but both have been well behind the margins made by the vehicle distributors.

In today's on-line world, most of the so called 'Tech' giants, represent facilitators which offer manufacturers opportunities to find a customer.

The fastener market is no different based on supply and demand. Direct sales between manufacturer and customer without a distributor can be ideal in a stable market relationship providing value for both parties. Also, for the smaller producer of fasteners, one-off orders of desperately needed supplies can be highly lucrative although with little prospect of the order being repeated.

Like all on-line sites which offer next day deliveries, fastener distributors can supply from existing stock. Their work in progress is the cash outlay they have made for the stock they hold. Their suppliers are the manufacturers who have the facilities which, unless they are producing goods, are costing them money.

As seen in Figure 1, downstream of the distributors are the retailers which consist of superstore, group outlets or independents.

Conclusions

To answer the question posed in the title of this article, - mass markets vs specials. Who gains – who pays? as Einstein showed, it is all a matter of Relativity.

To be successful as a manufacturer of 'special' fasteners requires significant investment in every facet of manufacture and a skills base which cannot be achieved overnight. Customers of 'special' fasteners will only deal with manufacturers which satisfy internationally based Quality Standards, operate fully audited process control and can supply on demand. In such a market where single source supply is not an accepted part of a customer's procurement strategy, this inevitably will encourage competition.

For the manufacturer of 'standard' fasteners, the choice is simple, make to order where you can or make to stock to keep the facilities operational. In both cases, the profitability for the manufacturer must be based on the reduced costs of manufacture since the market for all 'standard' parts is controlled by what the Trading House/Distributor will pay for them.

Direct sales between manufacturer and customer are clearly desirable particularly if it is long term and offers a stable partnership. Very large scale manufacturers of 'standard' fasteners have the option of extending their activities in the market by offering a distribution service for their products. However successful either model is, they can all be caught in a tariff war if they are exporting globally. Hence the encouragement by OEM's for suppliers to establish satellite operations around their global assembly plants.

The tariff problem also hits all Trading House/Distributors which buy locally and ship overseas.

So, who gains and who pays? It is no surprise that the on-line platform Amazon is a trillion US dollar company closely followed by Alibaba. Both are basically middlemen Distributors which point directly to where the profit lies.

And who pays? Well as always it is the end user of the product be it part of an assembly or, as in my case, with the polythene washer, a single item. On reflection, I suppose nothing changes although I imagine that 2000 years ago the Distributors who used the Old Silk Road, had to work much harder for the profits they made than perhaps 'Tech' companies do today? ■