



## **VERSATECH V's PAINTED or POWDERCOATED METALS**

### **COST COMPARISON**

Companies that manufacture components from sheet metals will have heard the arguments in favour of switching to pre-finished materials such as Versatech. But how many will have conducted a thorough cost analysis before deciding either to continue post painting or to switch to Versatech?

To obtain a true comparison it is necessary to look at every process, overhead and direct cost. To determine the relative cost of Versatech it is easy to obtain accurate unit costs for components produced from Versatech strips. This simply involved dividing the cost per square meter by the number of components produced from each square meter of material. To obtain the same degree of accuracy for painting it is necessary to include every item of cost which is either directly or indirectly incurred in converting sheet from its dirty, raw state into a clean, pre-treated and fully-finished product. It is wrong to assume that production cost can be arrived at simply by adding the cost of steel plus paint!

However, an overhead is not eliminated just by switching processes. And if less work is carried out on a piece of capital plant the effect is that other parts made on it will become more expensive. The same overhead has to be recovered over fewer components.

One of the major costs in any finishing plant is that rectification or recovery of rejected work. The costs of this are rarely shown, or even known, although it is not unusual for rejection rates to be as high as 20 percent. Of course, components made from Versatech materials can also be rejected, although common sense handling precautions can considerably reduce reject rates to an acceptable level. Similarly, valuable production time lost during paint color changes should also be entered into the cost analysis, where applicable.

On the subject of productivity, with painting you have to produce a stock of components ahead of the paint line and another stock of components to transfer to assembly. With Versatech all this costly stocking can be ruled out by siting component manufacture alongside assembly, and only making components as and when demanded. This can then be allied to just in time delivery of blanks, punched and notched if required.

### **ENVIRONMENTALLY FRIENDLY**

From an environmental standpoint, there can be no doubt that Versatech is preferable since pre-treatment chemicals such as methyl chloroform, which is widely used for metal cleaning, have a damaging environmental effects and, in some cases, their use will be prohibited with corresponding implications for companies with paint shops. A great deal of time and money can also be spent on complying with legislation changes. With materials, the responsibility of complying with regulations such as the Environmental Protection Act is simply transferred to the manufacturer of Versatech materials.

In the sheet metal industry there is a tendency for production managers to stick with processes and materials of which they have experience. However, many companies would be surprised at the true cost of their painting / powder coating operation. Do you know what yours costs?

### **Paint Finishing Materials – Factors to consider**

A paint or powder coat finish shop requires many services, accessories and materials, and these are often taken for granted and not included in a cost assessment. In addition, other important elements should be included to perform a detailed cost analysis. These are capital items such as buildings or plant, which together with their associated costs such as rent and rates or depreciation, can add up to sizable sums.

These items include: paints, paint filters and straining materials, spray booth chemicals, spray booth cleaning materials and tools, abrading materials and abrasive papers, soaps and detergents, compress air filters, spray equipment replacements, thinners, rags, cleaning chemicals, spray booth filters, protective clothing, masking materials, sealing compounds, burnishing materials, stripping chemicals, barrier creams, plenum filters, outer wrappings, cartons, boxes, solvents, pre – treatment chemicals, spray masks, stop-off materials, polishing materials, brushes, lubricants, wrapping, etc.

### **SERVICES**

**i) Labour** - Paint application, pre-treatment, inspection, paint mixing & preparation, refurbishment or reclamation of rejects, cleaning, paint – testing, maintenance, waste disposal, packing.

**ii) Electricity** – Lighting, space heating, stoving, cleaning process, exhaust fans, plenum fans, oven fans, pumps, etc

**iii) Gas** – Space heating, stoving, cleaning process heating

**iv) Water** – Cleaning process, spray booths, cooling

**v) Others** – Water softening & demineralization, fire protection, internal transport, first aid, paint storage & distribution, product storage at all stages of finishing, compressed industrial gases, drainage, refrigeration, effluent disposal, chemical recovery, vacuum, insurance, compressed air, steam, COSHH testing