

GLASS CANADA, OUTSOURCING: WIN, WIN, WIN PARTNERSHIPS OCTOBER, 2002

By Robyn T. Braley

Outsourcing is fast becoming a key business strategy in the metal and commercial glass industries. But, what exactly is outsourcing, and how does it work? The answer can be summarized with the slogan, "We do what we do really well, so you can do what you do really well."

Bill Grant, President and Founder of Grant Metal Products in Calgary, says the practice has become so common that his company periodically fabricates products for customers in one sector that may be competitors in another. He notes, "Both companies win, and most of all, the end-use customer wins by receiving higher quality products and better service."

Outsourcing preserves the distinct identities of informal partners while combining their respective strengths to take advantage of market opportunities. "You are still the manufacturer because your products are custom designed," Grant continues. "The beauty of outsourcing is that you receive the finished product ready to install while someone else does the detail work."

Outsourcing is a form of collaborative or strategic alliance partnership, terms used to describe anything from a formal joint venture to informal supplier relationships. Such alliances allow companies to respond rapidly to emerging trends, new technologies, and changing market forces. With outsourcing, the partnership can be easily dissolved or reshaped.

Perhaps the greatest benefit of outsourcing is the ability to tap into knowledge and experience. For example, knowing what materials are available, how to interpret colour coding differences, or being able to suggest alternative approaches to difficult jobs injects value added consulting expertise into the formula.

ATTENTION-TO-DETAIL

So, what products can be outsourced? Products can range from high volume curtainwall or storefront components to seldom used specialty products.

Column Covers	Sill covers	Corners
Flat Panels	Fascia panels	Stiffeners
Spandrel Panels	Back Pans	Support Systems (angles, channels, etc.)

Commercial glass components require high levels of attention-to-detail in manufacturing. It sounds like common sense, but the need for specialized procedures makes outsourcing an easy decision for Dan Pappas, Vice President of Griffin Glass in Calgary.

"We are very focused on what we do and work hard to do it very well. As a company, we have a clear understanding of what we must do to grow. We're not interested in investing major capital into equipment, space, and manpower for specialized jobs someone else can do better." For Griffin, outsourcing products like insulated backpacks to metal fabricators like Grant is central to their business strategies.

EXTENSIVE INVENTORY

Grant Metals is known within the glass industry for carrying an extensive inventory. Glaziers have instant access to common and specialized metals that may be difficult to source and expensive to inventory on their own.

Dan Barker, President of Desa Glass in Calgary, says that carrying a large inventory does not make sense. "When a particular type of material is required, it is often needed "now!" The way the industry operates, waiting for specialized or large volumes of metals to be shipped is not an option. If you don't carry it, you have a major problem. Outsourcing solves it!"

John Reitmeier, General Manager at Grant, goes further, "Specialized equipment and materials allow us to fulfill unique needs. For example, a process like computer-generated cutlists almost always saves material and money. Customers only pay for material used."

We have built our business through being the recipient of outsourced Storefront and Curtain Wall fabrication," ads Barker. "In turn, we outsource parts manufacturing. But, we also benefit from other services. With Grant, for example, we can also develop mock-ups and prototypes. We can test ideas and determine material requirements before making final commitments to big jobs."

WHAT YOU NEED TO KNOW

Quality control in metal fabrication begins when you order. Metal sheets can be ordered with a plastic film, which protects finishes during storage, production, shipping, and installation. Proper storage and careful handling by experienced workmen minimizes contact between sheets or objects that can scratch metal surfaces. The slightest scratch may show through post-painting or anodizing.

Exact specifications are critical if a product is to tie-in properly with other components. Specifications must show whether dimensions are inside, outside, or inside-to-outside.

For example, each material and set of dies has a different bend allowance, the measurement of the degree to which metal will stretch during forming. When determining the cut size for component dimensions and press settings, calculations must allow for it. While various manuals include guides for calculating bend allowances, major metals shops often establish their own standards to accommodate material and dies they normally use.

Different materials and dies also yield different inside radii. Drawings may depict shapes with perfectly sharp inside corners, but even the thinnest aluminum will have a degree of inside radius. This usually applies only to extrusions.

Inside radius of heavier metal like stainless steel may be large enough to effect how the piece fits other components. If a column cover is designed to fit snugly over a metal frame, a large inside radius may cause it to sit out from the other components.

When prefinished metal is press-formed, the outer surface is stretched. Some base aluminum will show through when using heavier gauge dark colored anodized sheets. Clear anodized aluminum will not show a line.

Today's improved quality paints will stretch around the bend if correct dies are used. Inferior paints often crack and flake off along bend lines.

If invisible fasteners are required, stud-welding can be used to attach stiffeners or mounting clips to the back of flush panels. Unfortunately, the weld position may show through the face side if the panel material is less than 1/8" thick. It is important to test the procedure on material being used before proceeding into full production.

CAPITOL COSTS ELIMINATED

The greatest benefit of outsourcing is the elimination of investment capitol for specialized equipment. Using inappropriate equipment can make installation difficult and ultimately effect product quality.

For example, sheet shearing is best accomplished using a low rake power shear because slitters, or high rake shears, tend to twist materials, especially those with heavier gauges. Cutting irregular shapes is best-accomplished using CNC routers or lasers. Punching Centres are used for notching and punching.

Press Brakes offer the best method for forming pre-finished materials. As explained earlier, contact surfaces must be protected to prevent scratches during this process. If incorrect dies are used, visible pressure marks may form at bend points. Bending options for each die can limit sizes and shapes.

So, how much can you save by eliminating equipment for this work? With a full menu of choices you can virtually pick a number. Equipment costs can easily vary from \$100,000 to \$1,000,000 or more if you want to do each job right.

Unfortunately, there is more. The cost of space, operator training and increased liability is often not considered. This is an area of special concern to Bill Grant. Bill has been in metal fabrication for 45 years and is a mentor to many younger people who have come into the business.

"If equipment is not operating full time, it costs money. You must provide shop space, heat larger areas, carry extra insurance, and provide operations and safety training. The cost of pulling operators away from other jobs must also be considered. The real cost of producing a simple product in limited quantities can be astronomical."

THE BOTTOM LINE

When all said and done, outsourcing only works when both partners deliver. If one partner fails, everyone loses.

Regan Loeher, a partner and the Construction Manager for Inland Glass in Kamloops explains, "Three dynamics make outsourcing work; quality products, value pricing, and on-time delivery." He continues, "In certain instances, we will pay a slightly higher price if we have confidence a supplier will deliver quality products on time."

Some companies continue to handle all fabrication in-house. However, as the industry becomes increasingly specialized, it will be harder to maintain product quality and large inventories, as customers demand wider choices. When the true costs are considered, outsourcing becomes a win, win, win option.

ACKNOWLEDGEMENT

Grant Metal Products manufactures precision-made sheet metal components. Services include shearing, punching, notching, bending, welding, and assembly. The company is located in Calgary, Alberta and can be reached at 1-800-672-6088.

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