The Role of the Distributor for Medical Grade Raw Materials

Stephen R. Smith
President, Edge International
The Role of the Distributor for Medical Grade Raw Materials

* What are medical grade raw materials?

* Who are the customers?

* Role of the distributor vs manufacturing mill

* Value added services from specialty distributors
What are Medical Grade Raw Materials?

* Cobalt-based Biomaterials (CoCrMo; L605 etc.)

* Plastics (UHMWPE; PEEK etc.)

* Specialty Metallic Biomaterials (Ceramics etc.)

* Specialty Steel (Stainless 316L; 455; 17-4PH etc.)

* Titanium-based Biomaterials (C.P.; Ti6Al-4V etc.)
Who are the Customers for Medical Grade Raw Materials?

OEMs

* 5 majors (61% of the worldwide market in 2015):
  with their own in-house manufacturing, but also use contract manufacturers

* Less than 100 smaller OEMs:
  generally limited in-house manufacturing, mainly use contract manufacturers
Who are the Customers for Medical Grade Raw Materials?

Contract Manufacturers

* Major:
  with full spectrum of capabilities and products

* Specialty
  specializing in a specific segment of the market

Other Distributors

No-one can stock everything
Trends and Projections in Volume of Raw Materials

* OEMs - 3/5% growth in volume year-on-year for next 5 years

* Contract Manufacturers - 40% growth 2015-2018 (US$4.0 billion to US$5.59 billion)

Note on Titanium Supply:
Medical is a relatively small percentage of overall titanium demand, so any change in demand particularly from the aerospace sector will have an impact on titanium pricing and availability.
Role of Distributor vs Mill

Every manufacturer has to purchase something from somebody. So every manufacturer has suppliers. What is an ideal supplier profile?

* Basic Criteria:
  * Quality; Delivery; Technical Support; Competitiveness; Customer Service

* Strategic Purchasing goes further:
  * What role does each commodity play in achieving corporate vision?
  * Who is the ideal supplier for that commodity?
  * How can different types of suppliers help?
Manufacturing mill - Goals:

* Fill the mill
* Fill the mill profitably

Mills need to make a solid ROI on the extensive investment in plant and equipment
Role of Distributor vs Mill

Manufacturing mill - Strategy:

* Plan production
* Consider process constraints
* Determine lead times
Role of Distributor vs Mill

Manufacturing mill - Constraints:

* Enquiries take time to be processed through the system
* Scheduling of material types through melt cycle
* Rolling schedule
* Finishing availability (grinding etc.)
* Wide range of industries to serve
Role of Distributor vs Mill

Manufacturing mill:

* Ideal Customer:
  * Heat lot quantities
  * Repetitive grades/sizes

* Not Ideal:
  * Small volume (less than mill heat lots)
  * Special sizes/lengths
  * Prototype projects
Role of Distributor vs Mill

Distributors:

* AKA Stockists or Service Centers

* Tend to specialize:
  * in an industry (e.g. medical)
  * in a type of material (e.g. titanium)
Role of Distributor vs Mill

Distributors - Goals

* Turnover inventory several times a year
* Turnover inventory several times a year profitably

Inventory, not plant and equipment, is the investment
Role of Distributor vs Mill

Distributors - Strategy

* Quick response to enquiries
* Use the crystal ball to determine what to order from the mills
* Have material readily available
  * From stock
  * Or from orders already in production
Distributors - Constraints

* Cash Flow

* Lack of forward visibility of customer requirements
Role of Distributor vs Mill

Distributors - Ideal Customer

* Contract Manufacturers
* Specialty job shops
* Back-up supplier for OEMs
* Prototype projects
* Other distributors
Benefits of using a specialty distributor:

* J.I.T.
* Frees up customers’ capital for new equipment
* Prototype/R & D projects
* Value Added Services
Value Added Services from a Distributor

Precision Grinding:

* Need a special size?

* Need a tighter than standard mill tolerance?
Value Added Services from a Distributor

Precision Sawing:

* Need a specific length?
  * Cut slugs
  * Physical facility constraints
  * Optimize throughput
  * Save on freight costs
Value Added Services from a Distributor

Non-Standard Specification:

* Need a non-standard grade of material?

* Distributors may have multiple outlets for the non-standard grades/sizes, so they can combine volumes to purchase mill quantities

* Flexibility to locate from network of contacts in the industry
Value Added Services from a Distributor

Just In Time Inventory:

* Need to make replacement parts quickly after rejection or design change?

* Need to reduce inventory costs?
  * Blanket orders for delivery of an agreed volume over a specific time period, delivering as little as one bar at a time whenever needed to meet your production schedule
The Role of the Distributor

Summary

Work with a Distributor on blanket orders whenever possible.

This commitment enables the distributor to negotiate long-term price agreements and raw material hedge contracts with the mills.

Thereby enabling the distributor to offer firm pricing, with material always available on the shelf, for delivery as you need it to meet your production schedule.
Conclusion

* Growth for medical grade raw materials of 3-5% p.a. over next 5 years
* Keep an eye on other industries’ demand for raw materials
* Manufacturing mills need to optimize sales with full heat lots in order to fill their mills

* Distributors play a key role in the medical grade raw material supply chain
Thank You

Stephen R. Smith
President, Edge International