### Session IV: Peer Share Handout

Sort: Plastic - Injection Molded; Blow molder; Tooling molds; Small batch to large production; Recycled content; Innovators/Inventors assistance;

Manufacturer: J & T's Molded Plastic Enterprises

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# **Describe the Business:**

J&T is a manufacturer and contractor for products and parts made from plastic, including recycled content products.

Manufacturing processes: Injection and blow molded Contact us for a bid on your :

New product design

- Present product as designed or a redesign, for local/regional/national company
- American made product preference
- Recycled content preference

Manufacturing of small, medium, or large size batches for

- New product,
- Just-in-Time inventory,
- Local product production,
- Recycled content production,
- Custom redesign to better meet manufacturer or distributors needs.

#### Production: Materials Used -

- Up to 2000 different grades of plastic resins
- Local #2 HDPE plastic both colored and transparent from recycling centers if post-consumer recycled content is requested. The percentage of recycled content is dependent on size of product and other considerations.

#### **Business Services**

Specialize in low-cost tooling:

- We can help you own your product mold and innovate changes you want to see
- Mold(s) and tooling can be amortized over a quantity of products.
- We have mold bases that can be used to reduce the cost for some product designs.
- · Ability to work with plastic, metal, wood

#### **Innovator Services:**

- New product prototype assistance
- Small batch production

Injection molding is a manufacturing process for producing parts or products by injecting material into a mold. Injection molding with plastic starts with pellets and/or plastic flakes and melts with temperatures up to 450 degrees. Then the machine injects the plastic into the mold. The mold is water cooled, opens, and the part drops out. Cost of molds can be \$600 to \$60,000 or more. The cost of molds can be worked into product or part production cost.

**Blow molding** is a manufacturing process by which hollow plastic parts are formed. The blow molding process begins with melting down the plastic and forming it into a parison or preform. The parison is a tube-like piece of plastic with a hole in one end in which compressed air can pass through. The parison is then clamped into a mold and air is pumped into it. The air pressure then pushes the plastic out to match the mold. Once the plastic has cooled and hardened the mold opens up and the part is ejected.

# Equipment: Injection Molders

- (3) Injection Molders
- Size of product: Very small: size of a dime or pea up to 2 cubic feet.
- 20" x 20" x 10"
- Weight up to 2 lbs.
- Simple to very complex products single to multi cavity molds
- Recycled content from 25 50% Depending on size of product

# Equipment -Blow molder:

- (2) Rocheleau model spd-2
- Dimension minimum maximum pint up to one gallon
- Mold up to one gallon bottles: .5 pint, pint, quart, .5 gallon and gallon, large mouth, handles\*
- Recycled content up to 50%

## **Manufacturing Present Products:**

- **Perfect Pots:** This square Perfect Pot measures 8.5" x 8.5" x 7.5". The pot holds 2 gallons of soil other growing materials. It is reusable and made from at least 25% recycled Humboldt post-consumer plastic.
- **Net or Orchid Pots**: 3 sizes: 3", 5" 8" net pots used for orchid growing or hydroponics (available through American Hydroponics at www.amhydro.com.
- Architectural Tube ends made with 50% recycled content
- Blow molded products (bottles) soil amendments

### Other Benefits and Highlights:

- Fill a just- in- time order without having money tied up in your inventory
- Simplify your supply chain
- Easier to work with local manufacturers
- Make your product in the U.S.A.
- Made in Humboldt using Humboldt labor and recycled materials
- Recycled content green supply chain

# References Available on Request

<sup>\*20</sup> molds for containers are available to use at J&T (ask for details)