



**Application Bulletin** 

#### **Tag Attachment Techniques**

For Industrial Processes and High Value Assets

InfoSight offers many methods of attaching our tags to your products. Permanent attachment methods make the tag a part of the product. Other attachment methods allow the tag to be intentionally removed. Several methods have been developed in cooperation with customers to meet their specific needs.

Choosing the right technique means understanding what is being tagged and how it will be processed or handled. Detailed information on each technique is on the following pages. InfoSight is as committed to finding the right technique for each customer, and as a research & development company, we will continue to develop new attachment methods to meet each customer's requirements.



#### **Typical Attachment Techniques for Industries & Applications:**

#### Steel Mills

Welding, Nailing, Wire, Hog Rings

#### **Fabricators & Galvanizers**

Welding, Wire, Hog Rings, Banding, Nut & Bolt

#### **Manufacturing**

Banding, Rivets, Metal Tacks, Push Pins, Embedding, Pipe Clips, Adhesives



Wire, Chain

#### Concrete

Embedding, Press Posts, Barbed Screws, Adhesives

#### Life Science

Adhesives, Wire

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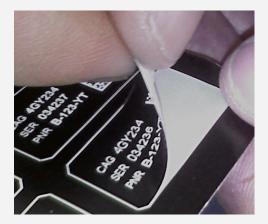
Adhesives	Pg 2	Embedding	Pg4	Nailing	Pg 6
Banding	Pg 3	Fasteners (Press Posts, Barbed Screws)	Pg 4	Pipe Clips	Pg 6
Clean Finish (Rivets, Tacks, Push Pins)	Pg 3	Loose Methods (Hog Ring, Wire, Chain)	Pg 5	Welding	Pg 7





# Tag Attachment Techniques—Adhesives Manufacturing, Concrete, Life Science

- Adhesives are available for both metal tags and polyacrylic labels.
- Adhesives are available for almost every combination of material and surface.
- Longevity, resistance to oil & cleaners, and removal will vary.
- Recommended for applications in temperatures less than 250°F (121°C).
- Your InfoSight Representative can recommend the right adhesive for your application.



Polyacrylic labels are supplied as "peel and stick" labels—LabeLase® Vector printers will cut the shape of the label during printing.



Silicone construction adhesive works well for applying tags to concrete products.





Different adhesives are used for metal tag to metal surface (far left) versus metal tag to glass surface (left).





## Tag Attachment Techniques—Banding Fabricators & Galvanizers, Manufacturing

**Banding** methods use tags with holes or slots toward each end through which a metal or plastic band is threaded.



Weld bands attach permanently. This technique also allows tags to be welded onto steel work pieces.



Cinch bands feed around the product and then tighten.

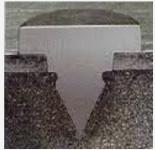
### Tag Attachment Techniques—Clean Finish Manufacturing

Rivets require holes entirely through the face of the product. The tag is aligned with the holes and the rivets are inserted. Then the shop head is deformed with a crimping tool or a bucking bar. Rivets are the preferred technique for asset identification tags on finished sheet metal.

Attachment with Metal Tacks is similar to operating a nail gun. The operator uses a portable impact tool to position the attachment before fastening. No drilling or surface preparation is required. This technique works well on thicker materials and eliminates the need to precisely locate and align holes in the base material.

Push Pin attachments require studs designed into the work piece. The tag holes are pressed over the pins. Then collar buttons are pushed or hammered onto the studs.













# Tag Attachment Techniques—Embedding Aluminum Casting, Concrete Casting

- Embedding tags into cast products before they solidify makes the tag an actual part of the product.
- Tabs on the ends of the tag are bent backwards to inset into the product during casting.
- As the product solidifies around the tabs, the tag becomes permanently attached.
- Embedding is recommended for cast concrete and cast aluminum.



Embed-A-Tag<sup>™</sup> in cast concrete



AlumaTag™ in cast aluminum

#### Tag Attachment Techniques—Fasteners Concrete



- Fasteners such as press posts and barbed screws can be used to attach tags to concrete products.
- Press posts deform when inserted to hold the tag in place.
- Barbed screws grab the concrete to hold the tag in place.





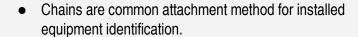
# Tag Attachment Techniques—Loose Steel Mills, Fabricators & Galvanizers, Power Generation & Industrial Maintenance, & Life Science

These methods can be used indoors or outdoors and are inexpensive, simple to attach, and survive occasional handling. Wires, chains, or rings are threaded through holes or slots on the tag and attached to the product.

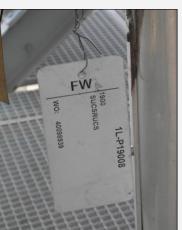
- Hog rings are available in many sizes.
- Hog rings achieve secure attachment that won't fall off during material handling.
- Hog rings are easily removed when intended.



- Wires are a versatile attachment method.
- Wires are simple and easy to use.
- Secure attachment is achieved by threading the wire around the product or through a slot in the product and through a hole or slot in the tag and twisting the wire multiple times around itself.
- Wires are easily removed when intended.



- Chains allow the tag to be moved around, yet remain securely attached.
- Chains are simple, easy, and cost effective.









### Tag Attachment Techniques—Nailing Steel Mills, Aluminum

- Nailing is common in high volume metal casting operations.
- Nailing requires pneumatic or powder-charged nailing equipment.
- Nailing guns with magnetic tag holders simplify the process and make it safer.
- Nailing is common for cast steel and cast aluminum.







AlumaTag<sup>™</sup> nailed to cast aluminum.

## Tag Attachment Techniques—Pipe Clips Pipe & Tube Manufacturing

- Pipe clips use heavy gauge wire to secure a tag to pipes & tubes.
- Spring Loaded clip is squeezed and inserted into a pipe, where the spring tension secures the tag.
- "Paper Clip" Style has a tab that inserts into a hole in the tag and bent points on the back side for grip.



Spring Loaded Pipe Clip



Paper Clip Style Pipe Clip





### Tag Attachment Techniques—Welding Steel Mills, Fabricators & Galvanizers

Stud Welding securely attaches tags on steel products stored in service yards, and leaves the tags to hang loosely at the same angle, making it easy to read text and scan bar codes.



Resistance/Spot Welding is performed on tags with bare edges. The method works on hot or cold steel with light or no scale. It is ideally suited for coils, plates or sections, intended for in-process inventory or shipment to a reheat mill.



MIG Welding forms an electric arc between a consumable wire electrode and the workpiece metal(s), causing them to melt and join. It is used for hot or cold steel products that have rough surfaces and scale, such as billets, blooms, slabs, etc. MIG Welding is quick and cost effective.



An InfoSight customer created Angle Weld to insure permanent identification on galvanized steel beams. The tag attaches before galvanizing and includes worksite installation information. One end of the angled band welds to the beam. Then the slotted tag slides on and the opposite end and the band is bent down onto the beam.



Nut and Bolt methods require welding or embedding a bolt onto the work piece. Double bolting is an excellent way to secure the tag so that it stands off from the piece during shot blasting, painting, or galvanizing.









#### Tag Attachment Techniques—Custom

- InfoSight takes pride in being a research and development company.
- If none of the attachment techniques are appropriate for your application, we will work with you to develop one that is.
- Many of these now common techniques were developed at the request of and in cooperation with a customer.
- The snap ring below is an example of a custom technique for a specific customer:



Snap Rings (Circlips) are used by a forge shop manager who wanted a removable tag to identify his dies and trace each dies' resurfacing history. A two dimensional bar code was printed on half-inch square die-cut tags. The tags were then inserted in shallow slotted pockets that were milled into the side of the dies, and retained by the clip.

## InfoSight LabeLase® Printers Durable Printers for a Variety of Applications

