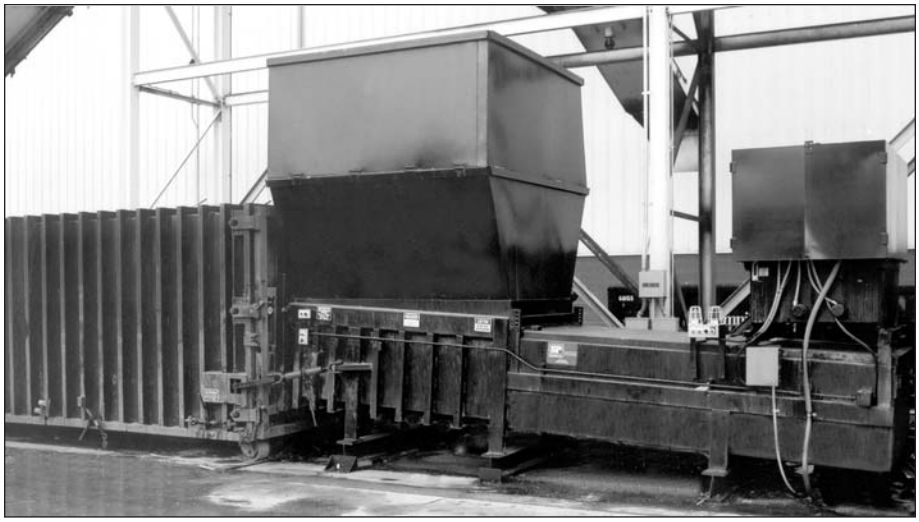
Industries Inc.



This CP-6002-D, six cubic yard capacity stationary compactor, is one of two machines used at this production plant to compact metal clips for transportation to a recycling facility.

Metal Clip & Scrap Compaction

This facility in Eastern Michigan is a large industrial automotive stamping plant that produces a variety of metal components for cars and trucks. The parts range in size from small trim parts to hoods, and door and side panels.

During production, a large volume of scrap is created from trimmed components. The material that is used for these parts is a high grade #1 mill steel called busheling or clip. This material is highly sought by the scrap steel industrial market and consistently brings a substantial market price.

When the facility was originally built, an underground conveyor system was constructed that transferred the material from the production area to the scrap collection area outside. Once outside the clip was conveyed to an overhead system that loaded open top containers. Four open tops were arranged so that the two pivoting conveyors could load any one of the containers in a continuous operation.

As the containers were filled, the salvage company would switch them out with empty containers, then transfer the material to the recycling facility. The four 80 cubic yard capacity containers would only hold 7,000 to 15,000 lbs. of material each. These light loads resulted in a constant flow of trucks between the two locations.

When the salvage company turned to SP Industries' dealer, Tom Stevens of Wolverine Recycling, to find a way to reduce the cost of equipment operation and labor, Stevens looked to SP Industries' extensive line of industrial compactors for answers. His goal was to efficiently pack dense loads into compaction containers and to reduce the equipment and labor costs associated with the open top system.

Using the existing conveyor system, Stevens was able to place two compactor units back-to-back in place of two open top containers. One compactor can be loaded at a time. The flow of clip material is diverted to the other compactor when the full container is transported to the salvage yard.
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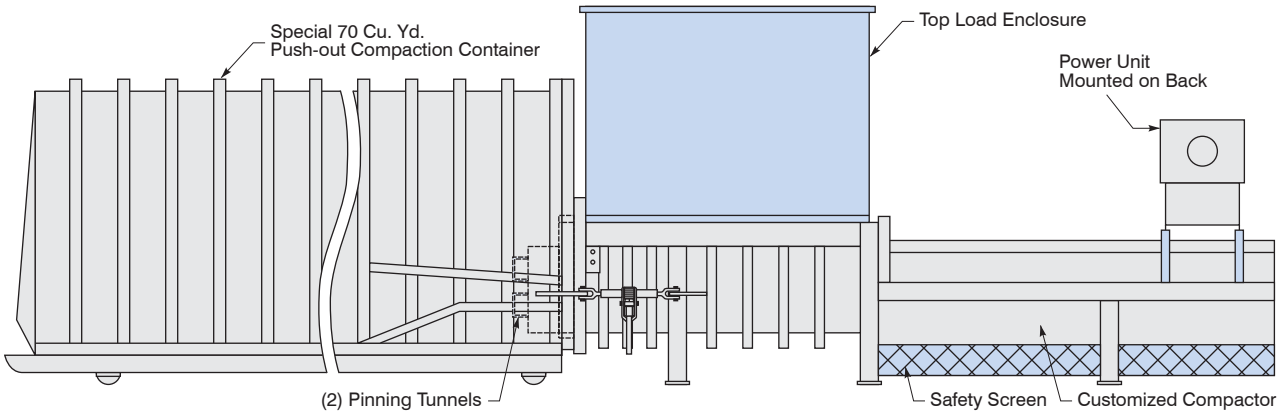
A bar grate system helps to keep the metal clips from working their way around the ram and interfering with ram movement. The pinning tunnels attached to the ram face allow the operator to pin the load in the container to reduce material fall-out when the container is pulled away from the compactor.



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Each compactor is a CP-6002-D, high density six cubic yard capacity unit. The compactors are raised and leveled for compaction above the container floor. A steel bar grate system of 1" x 2" cold rolled steel bars is installed in the compaction chamber and on the ram to help prevent clip material from wedging around or under the ram. Two Pinning tunnels mounted on the ram face are used to pin the load in the container to reduce material spills when the container is pulled away from the compactor.

A top load hopper directs the material into the compaction chamber from the loading conveyor, then a programmable start system automatically starts the compactor when the compaction chamber is full. To reduce the cycle time, both power units were upgraded to 50 HP/63 GPM units. An oil cooler was also added to maintain oil temperature.

When the 70 cubic yard capacity push-out container attached to the compactor is full, the load is pinned and a closure door is closed over the compaction opening to prevent any small pieces from spilling during transportation.

This new system packs a container in an average of six hours. During certain production runs that result in an increase in the volume of scrap, a container may be packed in as little as one and one-half hours. These loads, on average, weigh 50,000 lbs. The result is a greater than five to one compaction ratio.

The final outcome of the project is an efficient cost saving system that substantially reduced the salvage company's operating costs, increasing overall revenue. In addition, it allows the company to use its people and equipment more efficiently to improve service to existing and future customers.

System Information

Compactor: CP-6002-D
- Capacity: 6 Cubic Yards
- Cylinders: (2) 7″ Bore x 5″ Rod
- Compaction Force: 138,500 Lbs. Maximum
- Power Unit Upgrade: 50 HP/63 GPM
- Cycle Time: 55 Seconds, Continuous Under Pressure
- Metal Clip Options:
  - Bar Grating for Metal Clip Compaction
  - 5 Special Hinged Breaker Bar Teeth 1-1/2" Thick
  - Lengthened Legs to Level and Raise the Compactor 12" For Compaction Above the Container Floor
  - Pinning Tunnels for Retaining the Compacted Load

Container: FPO-3470-150-RT
- Capacity: 70 Cubic Yards
- Force Rating: 150,000 Lbs.
- Metal Clip Options:
  - Raised Compaction Opening to Pack Above the Container Floor
  - Compactor Opening Closure Door
  - Pinning Tunnels w/Cables

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Metal Clip 3/01