# Waste Processing Systems

## Featuring BloApCo Piggy-Back* Shredders

High volume, single stage, efficient waste processing systems for conveying, shredding and baling/compacting of formed or flat material. Handles virtually any material including paper, cardboard, corrugated materials, light metals, foam rubber, and many rigid plastics.

Used in warehouses, distribution centers, retail stores, manufacturing plants, paper and foil converters, newspaper and printing operations, processing plants, etc.



BLOWER APPLICATION COMPANY
Germantown, WI 53022

*Blower Application Company originated the Piggy-Back concept.

# Piggy-Back Shredding For Cost-Effective Baling

**Shredding before baling or compacting can save you money in many ways.**

- Shredding can often be used to make previously unbalable material suitable for baling.
- Shredding affords an efficient, labor-saving means of handling waste material.
- Shredding increases baler capacity.
- Shredding increases baler or container weight.
- Shredding cuts haul-away costs.
- Shredding often reduces pilferage.

## BloApCo Piggy-Back Shredding

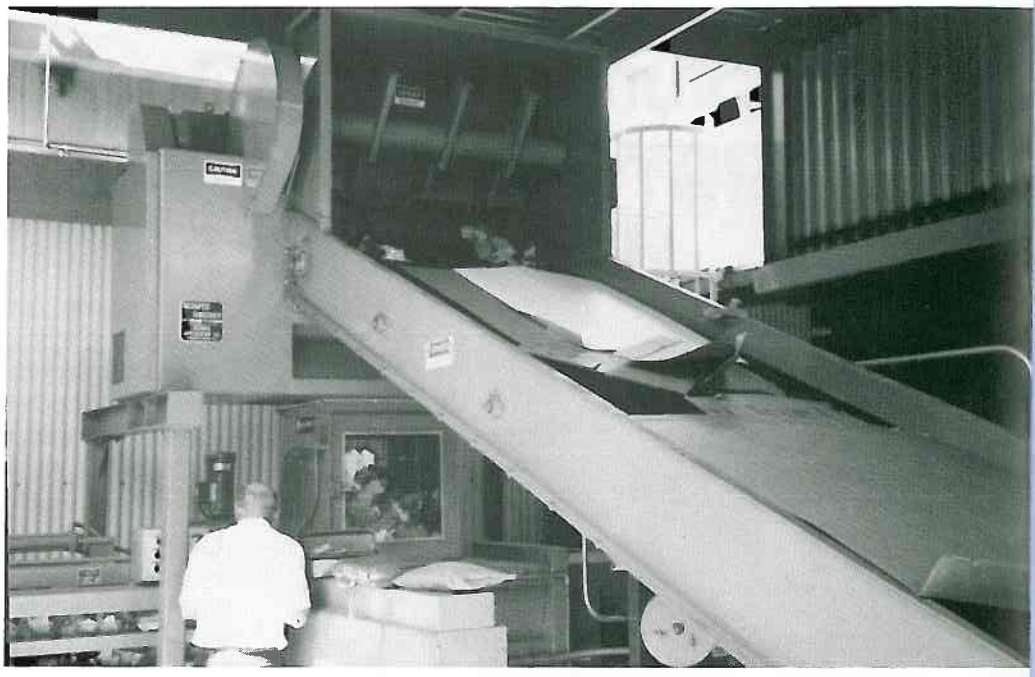
With BloApCo's Piggy-Back concept, the BloApCo Shredder is positioned over a baler or compactor for direct gravity feed of shredded waste.

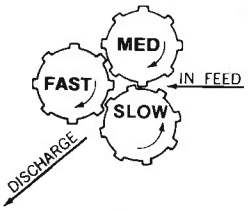
## Advantages

- Piggy-Back lets you choose shredder type, size and configuration best suited to your application.
- Gives you the choice of any horizontal, automatic baler (including those with automatic tieing) or any compactor.
- Reduces need for costly pneumatic material handling systems.

## Less Noise and Dust — Less Energy

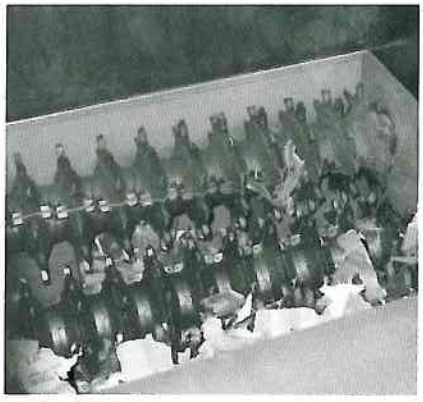
BloApCo Shredders use low horsepower motors and V-belt driven gear reducers for high torque, low speed shredding. This concept assures longer service life, while using less energy, and producing less noise and dust. In fact, BloApCo Shredders are the quietest available with an operating noise level below 80 db.






### Unique Pierce-and-Tear Shredder Action

BloApCo Shredders incorporate slow-turning, high torque, ripping teeth mounted on shafts. Each shaft rotates at a different speed (from 20 to 70 RPM). This produces a highly efficient pierce-and-tear shredding action which reduces material into small, irregular pieces for easy compaction into neat, tight bales.



5-shaft BloApCo shredder design

## Safety

**Automatic reverse and jog** — Virtually eliminates need for personnel to enter shredder to manually remove overload and/or jammed material. Under jam conditions, to protect motor and shredder drive, an instant-acting trip relay automatically cuts power, disengages conveyor clutch and shuts off motor. Automatic reversal will then reposition material for another shredding pass.

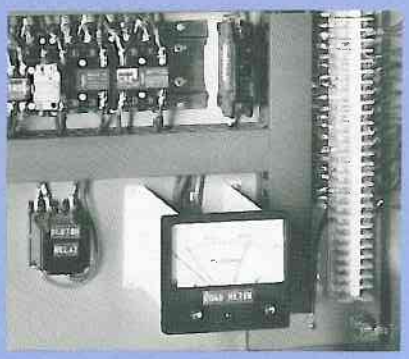
**Safety guards** — Durable guards and doors cover drive and reduction gearing, providing protection with quick, easy access for routine maintenance.

**No throw outs** — Slow speed, high torque pierce-and-tear shredding prevents material throw-out.

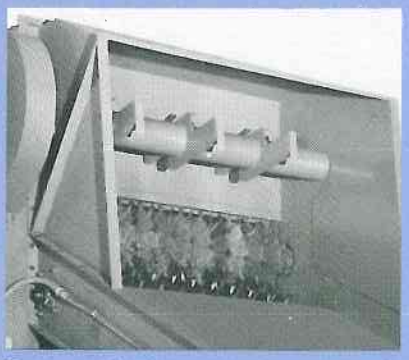
**Minimum maintenance** — Quality design and construction, plus use of proven, readily available components, give long life with normal, routine care . . . easily done by in-house maintenance people. Central lube blocks make greasing the bearings a snap.

# Innovative Features

**High level discharge monitor**
Should "back-up" occur in baler feed chute, monitor stops shredder feed conveyor until level drops to operating point. System feed conveyor then automatically restarts.

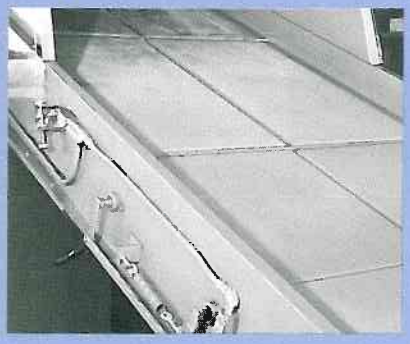


**Dual function loadmeter sensor**
Controls water mist system. Used to improve balability of some materials. Monitors shredder motor current. Relay actuates water mist solenoid valve only when level exceeds preset (no load) condition. Sensor is also used to cycle feed belt on and off as shredder approaches full load to help prevent overloading.



**Box crusher**
Recommended when majority of boxes to be shredded exceed 12" height. Crusher accepts boxes up to 38" high by pre-crushing them to a size that can be accommodated by the shredder configuration.

**Vacuum filter unit**
Ultra-sanitary operations such as in the food industry, pharmaceutical plants, printing operations and electronic manufacturing, require absolute dustless working conditions. A vacuum filter, positioned atop shredder discharge chute, employs a small fan to create a negative pressure throughout the piggy-back system by discharging air up through filter bags, preventing dust escapement.



**Safety overweight plate**
Dual pivotally-mounted conveyor bed treadles are counter-balanced by adjusting coil springs. Whenever loads over 60 to 80 pounds reach this conveyor area, clutch drive is disengaged and shredder motor power is cut.

## Common Specifications For All Systems

**Drive:** Speed reducer mounted on ripper shaft, driven by V-belt from electric motor. Heavy-duty roller chain drives ripper shafts. Standard drives range from 15 to 30 HP. Greater horsepower, if required, available.

**Electrical:** Primary 460 volt, 3 phase, 60 Hz control voltage . . . 115 volt, 60 Hz fused disconnect. Other voltages are available at extra cost.

**Controls:** Oil-tight industrial pushbuttons and pilot lights convenient to operator's position located in NEMA 12 enclosure with reversing starter and fused disconnect.

**Bearings:** Shafts are journaled in piloted, self-aligning heavy-duty ball (standard) or extra heavy-duty spherical roller bearings (optional) mounted in machined hubs.

**Ripper wheels:** Wheels, of cast ductile iron, are in halves, bolted together on shafts and keyed to adjacent wheels so teeth form spiral pattern along shaft length. Teeth are double-edged so wheels can be reversed on the shaft, extending useful life. Five and more years service from one set of wheels is not uncommon. Various styles and spacing provided depending on application.

**Wheel speed:** Less than 70 RPM for most applications.

**Material size:** Handles cartons up to 12" high. With pre-crusher, handles cartons up to 38" high. Up to 1/2" of solid paper sheets.

**Shred size:** Standard ripper wheels on corrugated material produce shreds averaging 40 square inches.

**Material weight:** Shredded corrugated averages 1 1/2 lbs. per cubic foot before baling.

**Capacity:** 300 pounds per hour, per HP, of corrugated. With closed baler, up to (3) 800 lb. bales per hour . . . higher with open end and auto tie presses.

**Conveyor:** Center-guided belt serves as loading table, keeping personnel away from ripper teeth. Conveyor driven by main shredder drive through clutch. A safety drop plate designed to protect personnel.

**Conveyor speed:** 40 FPM (nominal)

**Installation:** Shredder shipped pre-wired and knocked down, ready for erection. Normally two men and a lift truck can completely assemble the unit, including attachment to baler, in less than eight hours.

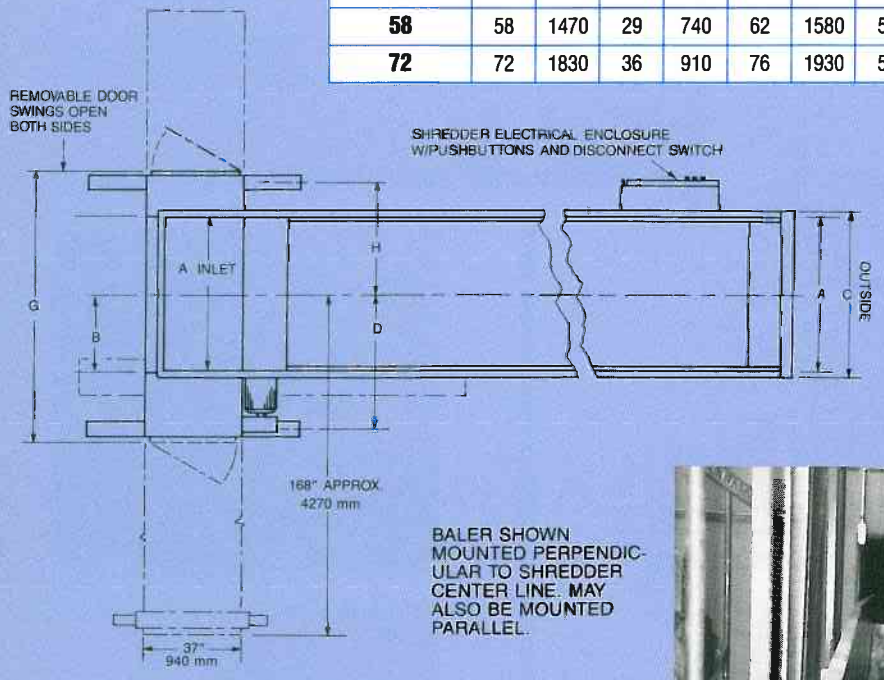
**General:** Drive parts, electrical components and bearings are standard units, readily available. Tramp metal seldom causes damage, but can sometimes break a ripper tooth. A few broken teeth will not materially affect machine efficiency. Ripper wheels can easily be replaced when convenient. Because of slow operating speeds, there are no balancing or vibration problems.

# BloApCO
# Piggy-Back Vertical Shredders

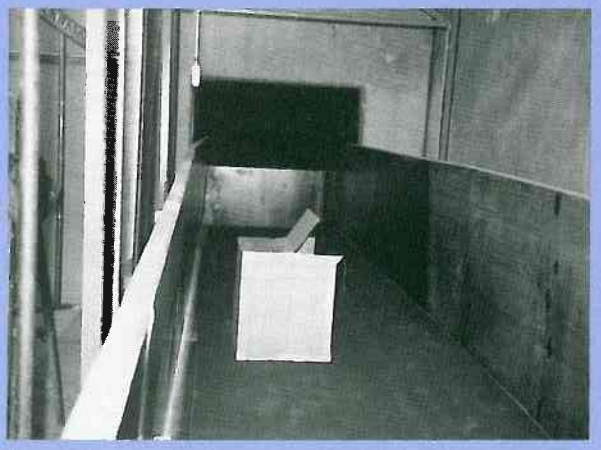
Vertical shredders are ideally suited for use in printing and box plants for signature waste, roll strippings, die cuttings, sheet waste and for book and magazine destruction. When equipped with an optional metering conveyor, the unit becomes self-feeding under many conditions. This permits the operator to load material on the conveyor and leave for other duties, or to pick up another load.

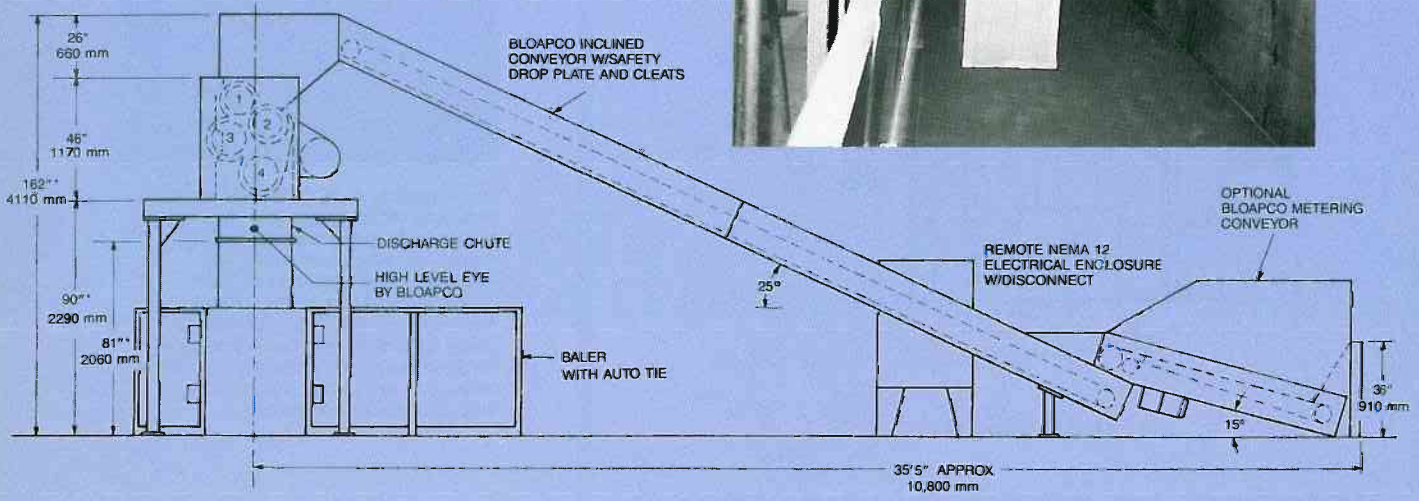
**PIGGY-BACK VERTICAL SHREDDERS**

| INLET WIDTH | A | | B | | C | | D | | G | | H | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm |
| **36** | 36 | 910 | 18 | 460 | 40 | 1020 | 40 | 1020 | 73½ | 1870 | 30 | 760 |
| **48** | 48 | 1220 | 24 | 610 | 52 | 1320 | 46 | 1170 | 91½ | 2320 | 36 | 910 |
| **58** | 58 | 1470 | 29 | 740 | 62 | 1580 | 51 | 1300 | 101½ | 2580 | 41 | 1040 |
| **72** | 72 | 1830 | 36 | 910 | 76 | 1930 | 58 | 1470 | 115½ | 2930 | 48 | 1220 |




BALER SHOWN MOUNTED PERPENDICULAR TO SHREDDER CENTER LINE. MAY ALSO BE MOUNTED PARALLEL.

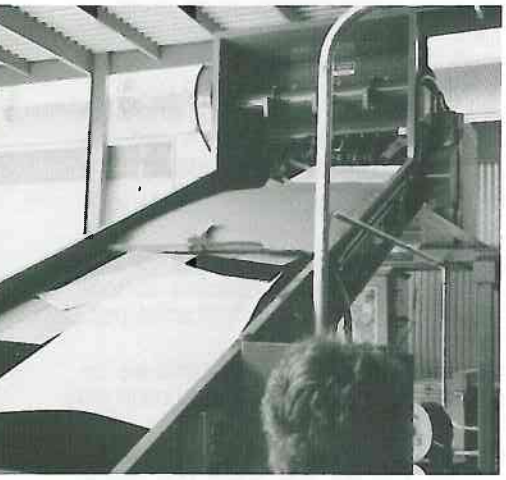




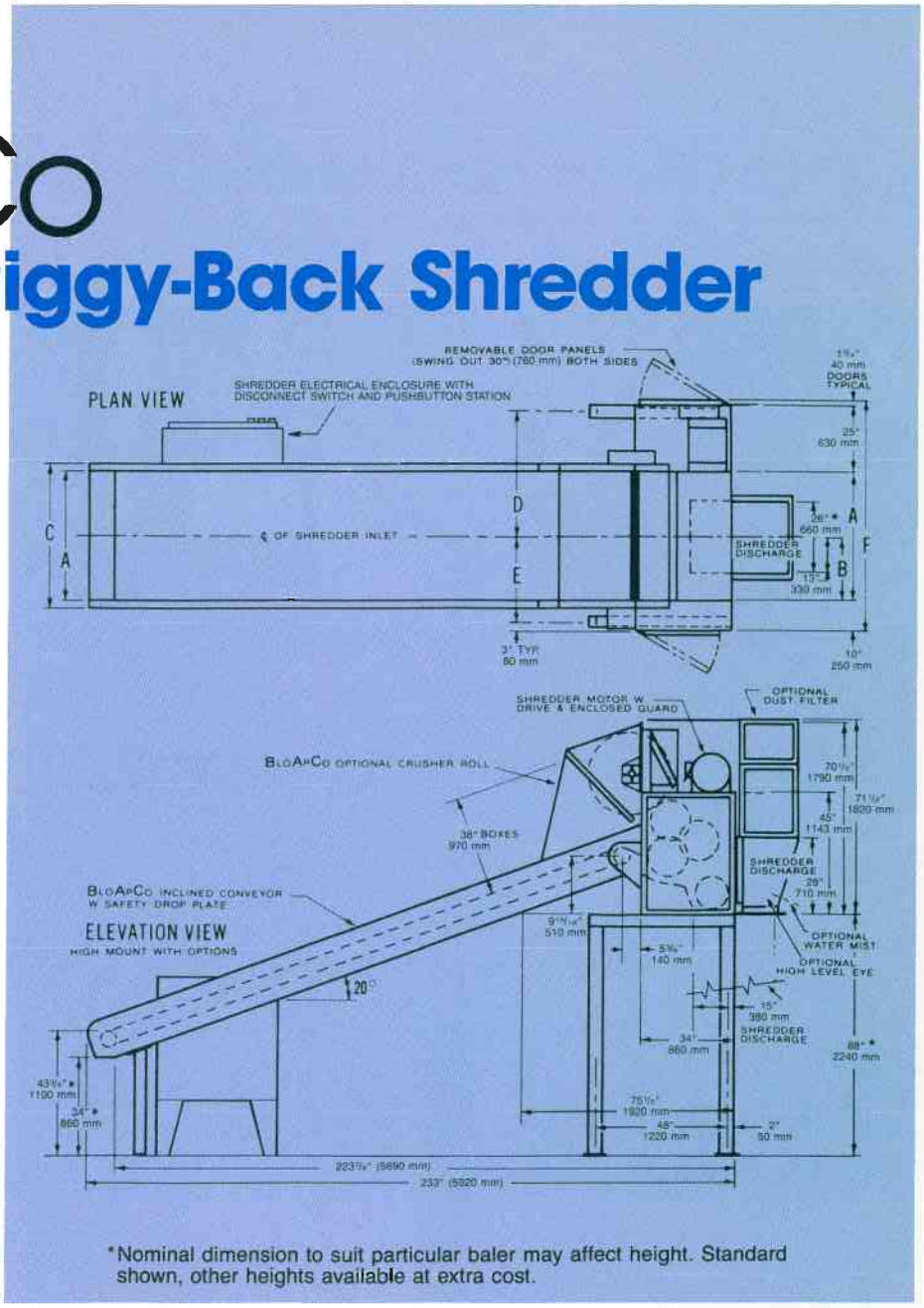

*Nominal dimension to suit particular baler may affect height. Standard shown, other heights available at extra cost.

# BloApCo
# Front Feed Piggy-Back Shredder

BloApCo front feed systems are designed to handle flat sheet material and corrugated boxes, either set-up or flat. If set-up boxes are fed into the shredder, the shredder must be equipped with a box crusher.



Front feed unit being fed flat stock. Note box crusher at top of conveyor.




*Nominal dimension to suit particular baler may affect height. Standard shown, other heights available at extra cost.

**FRONT FEED PIGGY-BACK SHREDDERS**

| INLET WIDTH | A | | B | | C | | D | | E | | F | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm | In. | mm |
| 36 | 36 | 910 | 18 | 460 | 40 | 1020 | 40 | 1020 | 25 | 640 | 68½ | 1740 |
| 48 | 48 | 1220 | 24 | 610 | 52 | 1320 | 46 | 1170 | 31 | 790 | 86½ | 2200 |
| 58 | 58 | 1470 | 29 | 740 | 62 | 1580 | 51 | 1300 | 36 | 910 | 96½ | 2450 |
| 72 | 72 | 1830 | 36 | 910 | 76 | 1930 | 58 | 1470 | 43 | 1090 | 110½ | 2810 |

**Sold and Serviced By:**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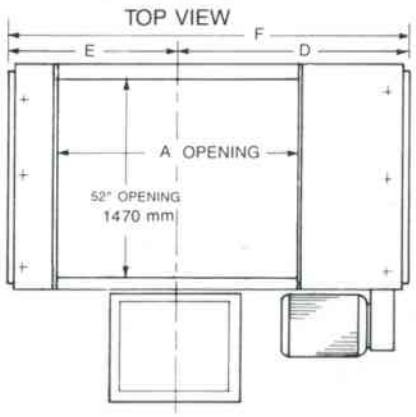
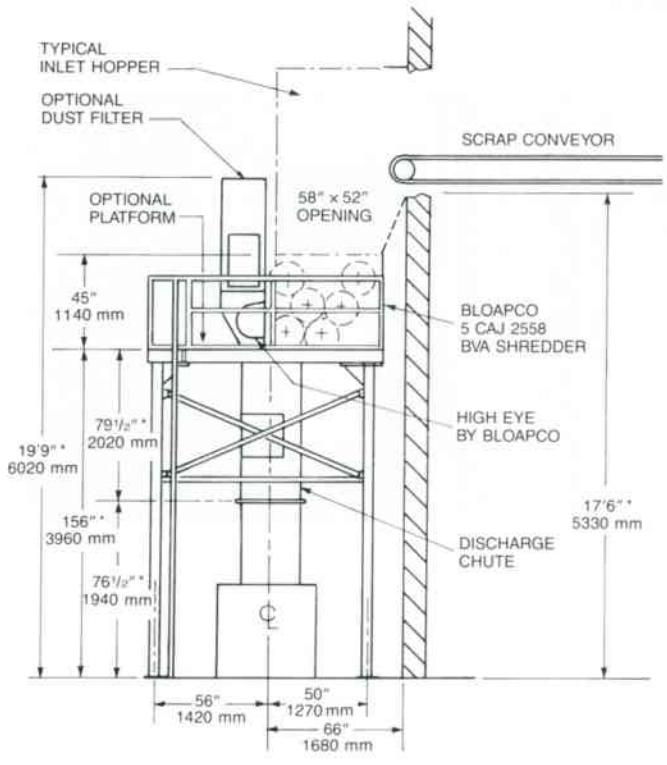
# BloApCo

# "HC" Piggy-Back Shredders

The typical high-capacity ("HC") shredder system contains an extra-wide 58" x 52" hopper feeding into a 5-shaft BloApCo Shredder. This unit is designed for distribution warehouse applications using a single, central scrap conveyor to automatically shred, bale or compact large, set-up corrugated boxes. Savings from sale of bales or denser compacted loads mean less pulls and less waste removal costs.

Central conveyor dumps boxes and scrap into large hopper for automatic shredding, baling or compacting.




58" wide shredder shown

**HC PIGGY-BACK SHREDDERS**

| INLET WIDTH | A | | D | | E | | F | |
|---|---|---|---|---|---|---|---|---|
| | In. | mm | In. | mm | In. | mm | In. | mm |
| **36** | 36 | 910 | 40 | 1020 | 25 | 640 | 68½ | 1740 |
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*Nominal dimension to suit particular baler may affect height. Standard shown, other heights available at extra cost.

High-capacity ("HC") BloApCo systems are weathertight and security enclosed to prevent unauthorized entry. This enables them to be installed either inside or outside. Outside installations offer many advantages including space saving, noise reduction and easy storage of finished bales. As pictured, the installation can be easily, inexpensively and attractively enclosed.