HORNER INDUSTRIAL GROUP

FAN & FABRICATION

We custom-fabricate fans, blowers, ventilators, dust collectors and shafting. We also inventory sheaves, belts and much more.

A DIVISION OF HORNER INDUSTRIAL — IN BUSINESS SINCE 1895 — FAMILY OWNED

INDUSTRIAL FAN RESTORATION, REBUILDING, AND RETROFITTING

- Custom HVAC Fan Enclosures and Drive Systems
- Industrial Blower Rebuilds
- Commercial Air Handlers
- Prop Fans
- Centrifugal Fans
- Impellers
- High and Low Velocity Fans
- Hazardous Duty/ Explosion Proof Fans
- Dynamic Balancing
- Bearing Maintenance & Replacement
- Quick Turn Replacement Shafts
- Reverse Engineering of Obsolete Equipment

DON'T SCRAP IT! WE CAN FIX IT AND MAKE A SPARE!

HORNERINDUSTRIAL.COM | 317.634.7165

HORNER FAN & FABRICATION

CUSTOM FABRICATION

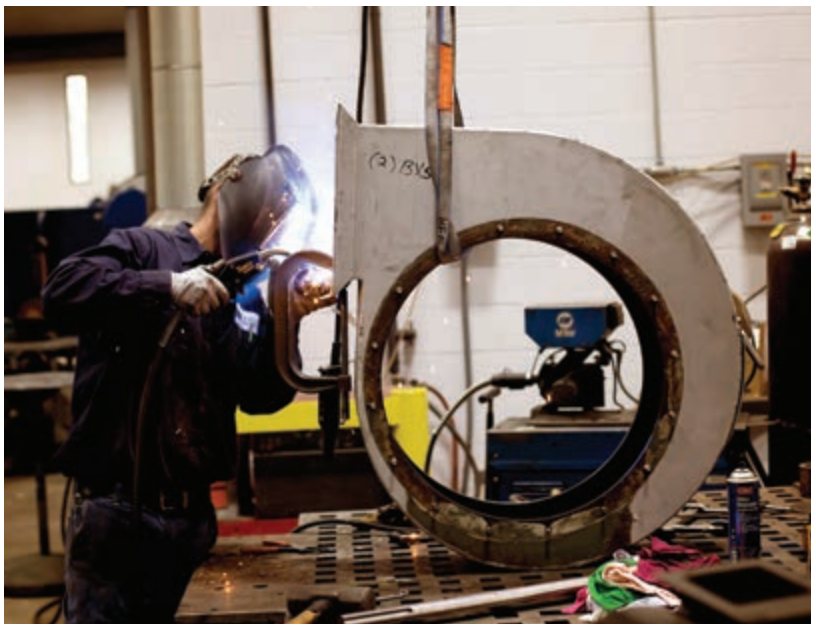
- Hand Rails and Stairs
- Decking and Structural
- Equipment Guarding
- HVAC Fans and Propellers
- Dust and Material Collection Systems
- Ventilation and Exhaust Systems
- Press Brake Work
- Roll Forming
- Custom CNC Laser Cutting

ENGINEERING

- ***Consultation:*** On-site discussion and concept development
- ***Design:*** Hand sketch to full print sets, Finite Element Analysis and strength calculations
- ***Re-Design:*** Redraw old prints to new standards/Electronic copies check for problems with updated conditions
- ***Approval:*** Customer interaction to refine designs to meet customer specifications
- ***Fabrication:*** Full engineering fabrication support and inspection

FIELD SERVICE AND VIBRATION ANALYSIS

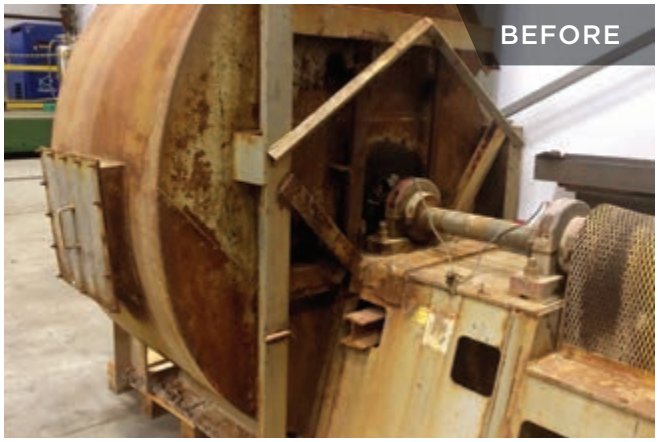
- Fan and Blower Balancing
- HVAC Fan and Blower Repair/Replacement
- Commercial Air Handlers and Cooling Towers
- Dust and Material Collection Systems
- Ventilation Systems
- Structural Steel Assemblies
- On-Site Welding Services
- Fabricated Parts Installation
- Bearing Maintenance and Replacement

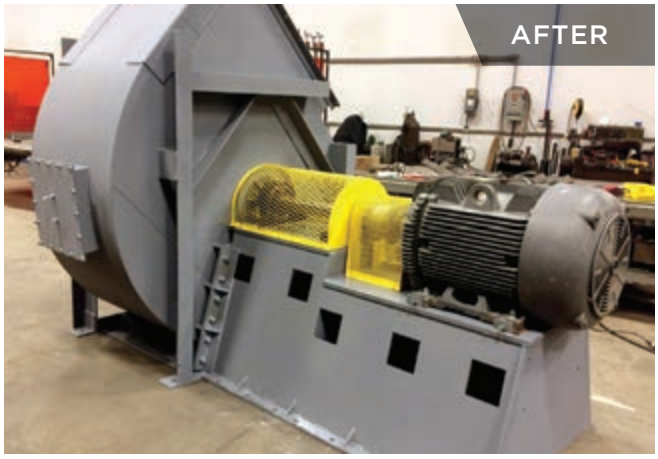


AGGREGATE FAN THAT WAS DESTINED FOR THE SCRAP DEALER:

Challenge: A brick manufacturer had a large blower that pulls air, brick, and cement through an overhead duct system and into a baghouse, then through the blower wheel and up the stack. As one would expect, the baghouse required frequent cleaning. During the cleaning process, the bakehouse is bypassed in the material goes directly through the blower wheel. This caused a buildup on the blower's blades, causing the blower to become unbalanced. The subsequent vibration caused cracks in the motor base, the bearing base, and the fan housing. The customer attempted to repair the unit, but their efforts were unsuccessful at best and subsequently the unit was placed in the scrapyard, ready to be recycled.

Solution: Horner's Fan & Fab Division redesigned the existing system to make future maintenance and repairs easier. Horner's Fan & Fab technicians fabricated a heavier base with internal baffles that provided the ability for the assembly to be unbolted from the fan housing if it ever needed to be replaced in the future. A new shaft was manufactured, new bearings were installed. The electric motor was reconditioned and outfitted with a new coupling to complete the assembly. The blower wheel and housing were cleaned, balanced and laser aligned to provide smooth operation whenever the unit is put back into service. **The customer now has a fully-functional spare that can be used for a backup at a fraction of the cost of a replacement unit.**





PALLET SHOP FABRICATION:

Challenge: A pallet manufacturer had an outdated dust collection system in their plant that would easily plug. When plugged, it would cause a reduction in production by as much as 50%, as they could only run half of their equipment at one time. They also experienced hours of lost production due to cleanup, as the sawdust would blow around the shop whenever the dust collection system got clogged. Another issue they were concerned with was the use of PVC pipe in their facility. The PVC pipe was being used to transfer the sawdust to the dust collector. Their concern was that it had the potential to build up a static discharge which could potentially ignite the dust.

Solution: Horner's Fan & Fab Division designed a new 10,000 CFM dust collection system that collects and dumps 4,032 ft^3 of sawdust per shift. Two 5000 CFM collectors were incorporated into the design instead of using one large unit, saving the customer over $10,000. The customer can now run all of their saws and equipment for an entire shift with no problems. The PVC pipe was replaced with metal ductwork to reduce the risk of fire. **The new system is already providing cost savings due to higher production rates and lower labor costs** because of the overall efficiency of the system. It has also provided a cleaner work environment as the workshop doesn't have to be cleaned as often due to the unit clogging.

HOW HORNER HELPED: BEFORE & AFTER

PRINTING COMPANY EXHAUST FAN NOISE:

Challenge: A printing company experienced numerous complaints from neighbors surrounding their plant about the noise coming from an exhaust fan on the side of their building that pulls shredded paper from the inside the building and deposits it into a hopper. As the air exited the building, it passed through a straight piece of ductwork and the subsequent noise that it generated sounded similar to that of a jet engine. Since this company runs on a 24/7 basis, the complaints were understandable.

Solution: Horner's Fan & Fab Division redesigned the overall size and profile of the exhaust ductwork so that when it exited the building, it made a 90° sweep pointing in an upward position. Expanding the ductwork caused the air to slow down, and forcing it through a 90° turn slowed the air down even more. There was an overall reduction of pressure, resulting in a significant noise reduction. Any noise was now being projected upwards instead of straight back toward the neighboring houses. The neighborhood complaints have stopped and all parties are happy.

SAFETY PLATFORM:

Challenge: A food ingredient manufacturer was having difficulty maintaining dust collection and fire suppression systems in their plant due to the fact that the equipment that needed to be serviced was located 30 feet in the air in a hard-to-reach location. The company's maintenance workers were required to use a lift to access the equipment. After arriving at a point near the equipment they had to leave the lift and harness themselves to a tie off point while straddling two I-beams to service the equipment. All this while being done 30 feet off the ground.

Solution: Horner's Fan & Fab Division designed a platform with a 90° turn that included OSHA 3 safety handrails and kick plates. Since no welding was allowed in the plant, all of the pieces were designed to bolt together. The finished platform fits snugly between the two I-beams which resulted in a much safer working environment and provided easier access to the equipment that was scheduled to be maintained.

- INNOVATIVE TECHNOLOGY
- SKILLED CRAFTSMANSHIP
- RAPID TURNAROUND
- EXCELLENT QUALITY
- COMPETITIVE PRICING

CALL 317.**634.7165**

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Learn more about Fan & Fabrication at HornerIndustrial.com

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