Manufacturing for **The Environment**

CHANCE products and processes for sustaining the planet



Overview

At A.B. CHANCE (Hubbell Power Systems), "environmental sustainability" is more than a catch phrase — it represents an ongoing, long-term commitment to minimize, and even eliminate, the negative impact our products and manufacturing processes have on the planet.

Throughout the course of conducting our day-to-day business we are keenly aware of how the construction industry affects human life. Shelter is provided for those who desperately need it. Roadways and bridges allow us to move freely from one point to the next. Historical structures at risk of collapse are restored to their original splendor. Renewable energy facilities offer new options for power providers.

Unfortunately, we also bear witness to the environmental consequences inherent to the construction industry. Ecosystems are often destroyed or displaced. Air quality is compromised by emissions from trucks and earth-moving equipment. Contaminated soils are frequently disturbed, releasing toxins into the biosphere.



Sustainable Product Design and Production

The following speak to the environmental considerations of the design and manufacturing of the CHANCE-branded helical products:

- CHANCE converts many continuously operating gas-fired furnaces to an on-demand induction heating process, thus reducing its carbon footprint.
- CHANCE manufactures using low-impact recycled materials, avoiding those which damage human health, ecological health, and those which deplete resources.
- CHANCE uses minimal materials by looking at redesigns that can result in taking material out of the product (Material Cost Take-Out, or MCTO).
- CHANCE practices optimized manufacturing, designing for ease of production and quality control, while also minimizing the number of production methods, operations, and the number of components in a product.

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At CHANCE[®], we continually seek new opportunities for improving our environmental and social responsibility. We have prepared this publication in an effort to educate our customers, our business partners, and the various publics we serve about the environmental considerations associated with CHANCE products and processes. If you need additional information, we encourage you to contact us to learn more.





Sustainable Product Design and Production, continued

- CHANCE efficiently utilizes a distribution center just one block away from its manufacturing facility. Also, because the company doesn't outsource a huge volume of its Civil Construction product components from overseas, its carbon footprint is further reduced.
- CHANCE optimizes freight shipments for full truckload product movement by consolidating multiple orders, thus burning less fuel.
- CHANCE has optimized product life-times (our products have a long product life) and optimized end-of-life (our products are steel and the components can be re-used or easily recycled).
- CHANCE square-shaft products tend to be more "green" than pipe-shaft; the reason is the way the shaft is made. All square-shaft steel is sourced from mini-mills which use scrap to charge their melt shops. The recycled content of square-shaft is nearly 100%.
- CHANCE sources all of its square-shaft steel from mills in the Midwest, which means less CO_2 emissions getting the raw material to its manufacturing facility in Centralia, Missouri.
- CHANCE helices are made from slit coil steel which can be scrap based.
 The zinc used in galvanizing CHANCE products for corrosion protection is a natural mineral.
- CHANCE streetlight foundation/FLS products can be re-used.

CHANCE Helicals Compared to Other Methodologies

• Installing CHANCE products mean there's no concrete to recycle.

- CHANCE products can be removed from soil and re-used, unlike treated timber piles and other piling systems which are generally abandoned.
- By installing CHANCE products, contaminated soils do not need to be removed to create a high capacity, deep foundation system. Furthermore, installation eliminates the emission-producing removal of spoils from the site via the machinery required for loading and transportating.
- Installing CHANCE products eliminates the CO_2 emissions associated with the production of concrete. Concrete production is responsible for as much as 10% of CO_2 emissions, worldwide.
- For large installations, using a CHANCE piling system eliminates the need to build a concrete batch facility. Unlike concrete, helicals do not require the use of water, a critical and threatened resource in both plant and animal food production.



Photo courtesy of Sunstone Construction, Inc., Campbell, California



Photo courtesy of Team Foundation Systems, Kelowna, British Columbia

Why CHANCE?

As a business unit of Hubbell Power Systems, CHANCE is recognized around the globe. The company processes more than 100 million pounds of steel annually at its Centralia, Missouri-based facility. CHANCE is listed with major building codes, including the UBC, BOCA, SBCCI and CCMC (Canadian). CHANCE is also ISO9001 Certified, which ensures that each and every anchor and foundation shipped meets the highest quality standards.



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