

HSS: DESIGNS FOR THE 21st CENTURY



D-shaped HSS sign support columns provide improved durability and cost savings.

UNIQUE D-SHAPED HSS COLUMNS PROVIDE IMPROVED DURABILITY AND COST SAVINGS FOR TEXACO



HSS Helps Provide A More Appealing Design

Several years ago, Texaco Refining and Marketing, Inc. initiated a marketing study aimed at redefining its image around the world.

As a result of that study, it embarked on an ambitious program to redesign the company's service stations from a boxy look to a softer, more colorful image. Part of the change was achieved through the use of more curved surfaces in canopies, sign poles and other station elements. It represented a significant departure from the hard-edged structures seen at service stations in the 1980s and early '90s.

Texaco officials noted that much of the new look for its stations was in response to the preferences of female drivers, as shown in the market research study. It also mirrored a change to softer, more curved lines that auto makers have adopted in recent years.

The oil company turned to its sign pole supplier, Funk Forging Company of Chicago Heights, Illinois, to produce the new sign support columns. In business since 1906, Funk Forging specializes in the development, design, engineering and production of sign poles and light poles, supplying them to a variety of industries. Customers include oil companies (Amoco, Atlantic, BP, Citgo, Clark, Coastal, Conoco, Exxon, Getty, Marathon, Martin, Mobil, Phillips, Southland, Speedway and Sunoco in addition to Texaco), restaurant chains (Burger King, McDonald's, Dunkin' Donuts, Jack in the Box, Pizza Hut and Taco Bell) and hotel chains (Holiday Inn, Motel 6 and Motel 8).

Retrofit Was Not a Lasting Answer

Texaco's existing service stations use square HSS columns to support their sign systems. To achieve the new, rounded look in these facilities, Texaco's plan is to bolt

plastic or aluminum cladding to the outer side of the HSS for the entire length of the sign columns.

Funk Forging discussed Texaco's plan with its HSS supplier, Welded Tube Co. of America. Working together, they developed a unique D-shaped HSS column. The oil company agreed with their suggestion that the D-shaped columns would be a better solution for new locations and sites converting to Texaco in the future. The advantages would include improved durability over shrouded square columns and, most important, a cost savings to Texaco.

The Texaco signs made by Funk Forging are known as "twin-pole" systems and consist of two poles

with Texaco's well-known "Star" logo mounted between them.

Signs advertising fuel prices and other features such as food mart, car wash and diesel fuel connect to the poles below the logo.

Poles Made in Two Standard Heights

Funk Forging makes the sign columns for Texaco in two standard heights, 40' and 30'. The D-shaped HSS sections used for the poles are 10" or 8" wide on their flat side, with walls 5/16" or 1/4" thick.

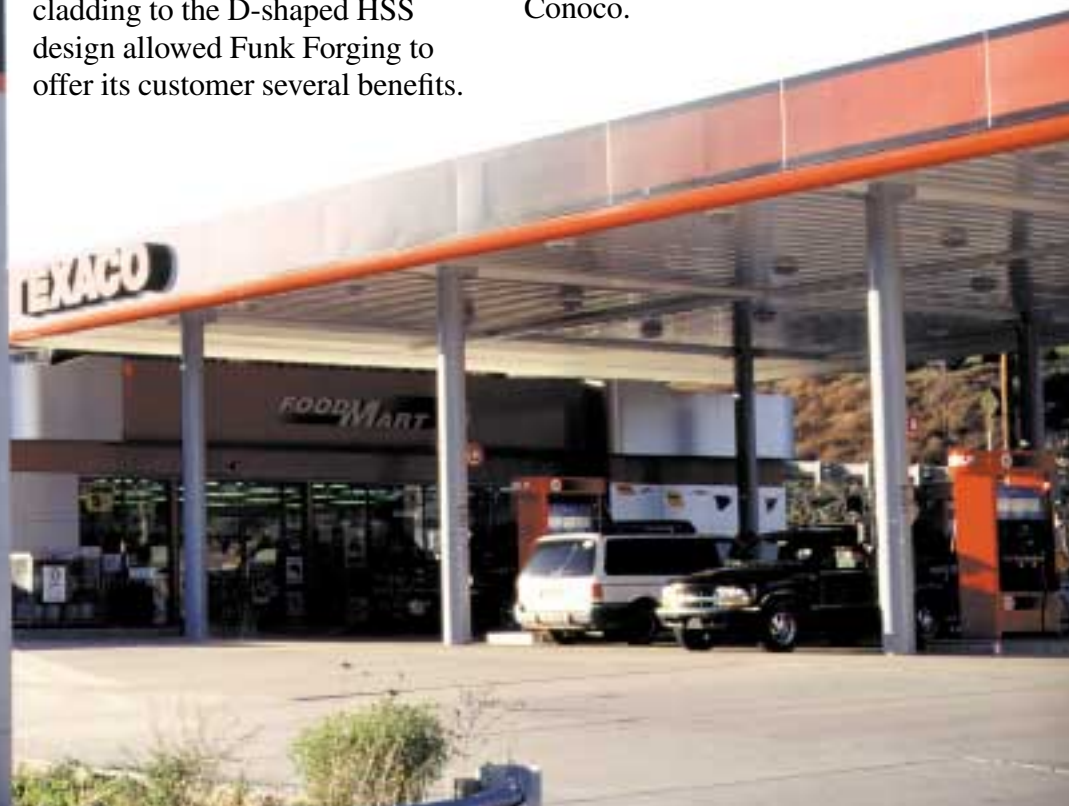
Funk Forging cuts the HSS to the required length, welds a base plate to the bottom and a hook mechanism to the top so the sign can be lifted into place, then drills and taps the holes needed for the Texaco logo and other panels specified. Finally, the poles are wire-brushed, solvent-washed and primer-painted before being shipped by truck to their destination.

The switch from square HSS with cladding to the D-shaped HSS design allowed Funk Forging to offer its customer several benefits.



The rounded steel outside edge of the pole is stronger and more durable than a plastic or aluminum shroud, which eliminates future maintenance requirements. Also eliminated are the costs of purchasing, shipping and installing the cladding.

Further demonstrating the versatility of HSS, Funk Forging and its HSS supplier have also developed a unique "horseshoe" shape HSS design that the fabricator uses to produce station sign poles for another major oil company, Conoco.



The Steel Tube Institute

The Steel Tube Institute was founded in 1930 and sponsors cooperative member efforts to improve manufacturing techniques in the welded steel tubing industry and informs customers and fabricators about the product's utility and versatility. It is headquartered in Coral Gables, Florida.

What Is HSS?

Hollow Structural Sections (HSS) is high-strength welded steel tubing used as structural elements in buildings and other structures and a variety of manufactured products. It is produced in round, square and rectangular shapes and a broad range

of sizes. Benefits include aesthetic appeal, high strength-to-weight ratios, uniform strength, cost effectiveness and recyclability.

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