

PIPE HANGERS & DEVICES

Cast Iron:

-Grey Cast Iron, ANSI/ASTM A48, Class #20

Malleable Iron:

-ANSI/ASTM A47, Grade Number 32510

Ductile Iron:

-ASTM A536 Grade 65-45-12

Forged Steel:

-ASTM A668 or A1030

Spring Steel:

-SAE 1066-65Mn

Carbon Steel: (3 Gauge Thickness and Below)

-ASTM A1011 CS Type A, B, or C

Carbon Steel: ($\frac{1}{4}$ " Thickness and Above)

-ASTM A36, Structural Quality

Pre-Galvanized Steel:

-ASTM A653, Grade 33 Steel Sheet Coated by Hot Dip Process

Stainless Steel:

-ASTM A240, Type 304

-ASTM A240, Type 316

ALUMINUM

The high strength to weight ratio of PHD Manufacturing, Inc. products made of aluminum greatly reduces the overall cost of installation through ease of handling and field cutting.

Aluminum owes its excellent corrosion resistance to its ability to form an aluminum oxide film that immediately reforms when scratched or cut. In most outdoor applications, aluminum has excellent resistance to "weathering". The resistance to chemicals, indoor or outdoor, can best be determined by tests conducted by the user with exposure to the specific conditions for which it is intended.

To determine the approximate load data for strut, multiply the load data found in this catalog by a factor of 0.38.

CARBON STEEL

PHD Manufacturing, Inc. products made from high-quality carbon steel are cold formed to precise dimensions. By cold working the steel mechanical properties are increased, allowing lightweight structures to carry the required load. Corrosion resistance of carbon steel varies widely with coating and alloy. See "Finishes" for more detailed information.

STAINLESS STEEL

Because of its corrosion resistance, stainless steel is recommended for applications where corrosion is a problem. Load data for PHD Manufacturing, Inc. products is the same as the load data in this catalog.

Stainless steel products are available in ASTM A-240, Type 304 or 316 material. Both are low-magnetic and belong to the austenitic stainless steels group, based on alloy content and crystallographic structure. Like carbon steel, stainless steel exhibits increased strength when cold worked.

Several conditions make the use of stainless steel ideal. These include reducing long term maintenance costs, high ambient temperatures, appearance, and stable structural properties such as yield strength, and high creep strength.

Type 304 resists most organic chemicals, dyestuffs and a wide variety of inorganic chemicals at elevated or cryogenic temperatures. Type 316 contains slightly more nickel and adds molybdenum to give it better corrosion resistance in chloride and sulfuric acid environments.