



HydraForce offers standard cartridge valve housings and custom integrated circuit manifolds in aluminum, ductile iron, and steel.

ALUMINUM HOUSINGS:

Standard high tensile 6061T6 alloy housings are rated for 210 bar (3000 psi). 2024 alloy can be substituted for slightly higher fatigue requirements. Standard aluminum housings have a thin, clear-coat anodized finish which enhances quality as follows:

Increased Surface Hardness: Added tensile strength of cavity threads and reduced galling which can occur when a hard steel cartridge or fitting is screwed into a relatively soft supporting aluminum thread. Also, the increased surface hardness can be effective against minor internal erosion due to high oil transit velocities. Extensive laboratory testing and FEA have found no material fatigue issues affecting the system pressure ratings of the material as a result of the anodizing process.

Improved Surface Finish: Cartridge O-rings slide more freely into harder, smooth-sealed cavity surfaces, reducing the potential for damage, rolling, etc., which sometimes occur on untreated, as-machined surfaces. Also, any subsequent paints and coatings adhere better to anodized vs. non-anodized aluminum.

More Effective Deburring and Cleaning: Where there are burrs, anodizing hardens them, making them more brittle and therefore easier to break off. This can help to speed up the deburring process. Also, the light acid dip involved in the anodizing process acts as an additional cleaning operation, removing additional cutting oils and loose contaminants.

Better Appearance: Clear-coat anodizing produces a clean, neutral color and surface appearance. Supplemental stamping or marking normally produce no degradation of appearance. Colored anodizing is available on request, although we do not recommend it because it increases inspection difficulty, and color uniformity is difficult to maintain from lot to lot.

DUCTILE IRON AND STEEL HOUSINGS:

HydraForce has converted from steel to ductile iron for most standard housings and for custom manifolds designed for pressures up to 345 bar (5000 psi). Both ductile iron and steel housings are zinc-plated for corrosion resistance and surface sealing.

HOUSINGS & ACCESSORY PRODUCTS

08-Size Housings	8.008.1
10-Size Housings	8.010.1
12-Size Housings	8.012.1
16-Size Housings	8.016.1
20-Size Housings	8.020.1
42-Size Housings	8.042.1
Spacer Plates for In-Line Housings ...	8.250.1
2-By-2 Blocks	8.300.1
CAD Library	8.400.1
Cavity Plugs	8.450.1
Orifice Discs, Installation & Sizing	8.460.1
Check Valve Discs	8.470.1
Port Plugs, Orifice Plugs, Orifice Plates, Adapter Lock Kits, Pilot Pistons, Screen Cartridges Pilot Piston Cavity Details	8.500.1
Hand Pumps	8.550.1
Cavity Form Tools	8.600.1
Seal Kits, Installation & Ordering	8.650.1