

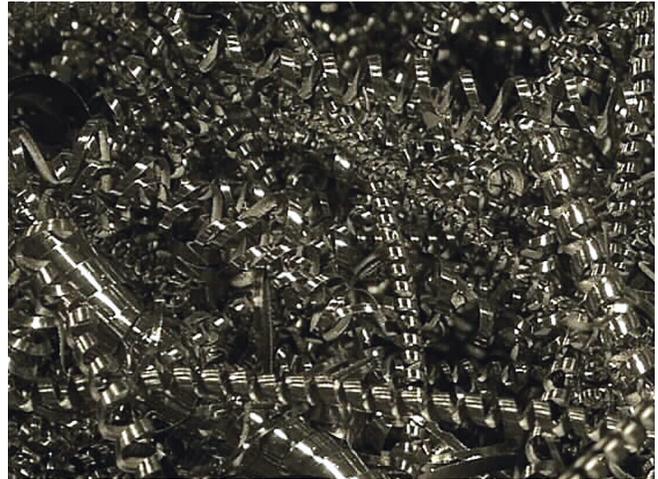
Applications Guide

- Dura-Bar vs. Steel
- Dura-Bar vs. Castings
- Dura-Bar vs. Aluminum

The Advantages of Dura-Bar

Dura-Bar vs. Steel

- Cost-saving alternative to many low-medium carbon steels
- Faster machining speeds, improved production
- Minimized deburring
- Longer tool life and better surface finishes
- Improved wear resistance
- Reduced noise, better vibration damping
- Compact, consistent, lead-free chips
- Lighter weight



Plain carbon steel chips, shown above, are "stringy" and difficult. By contrast, Dura-Bar yields fine and easy to control chips, which are easy to evacuate from the work zone and often eliminate the deburring process.

Dura-Bar vs. Castings

- No typical casting defects – porosity, slag, hard spots, etc.
- Dense, fine-grained microstructure means superior machinability
- No pattern or tooling costs
- Over 500 sizes available, for immediate delivery



The resulting bar stock is free of dross, slag, sand, virtually all porosity and other impurities that create machining problems, which increase the cost of finished goods.

Dura-Bar vs. Aluminum

- Superior to aluminum for parts demanding higher pressures, including hydraulic manifolds, seals & valves
- Dura-Bar 65-45-12 ductile pressure rated to 6,500 psi
- Improved machinability for drilling
- Minimized deburring
- Compact and consistent chips



Dura-Bar is superior to aluminum due to its inherent strength and ability to withstand the high pressure demands of many applications.

Applications



Piston Pump
Cylinder Block



Bushing



Bushing



Camshaft



Bearing Cap



Rotary Table Machine
Tool Chuck



Pump Housing



Hydraulic Hose Coupling



Shaft Coupling



Radial Pump
Cylinder



Accessory Drive
Gear



Chain Link
Roller



Balance Shaft
Gear



Cam Gear



Crankshaft Gear



Oil Pump
Gear



Engine Pump
Gear



Distributor Gear



Hydraulic Oil
Pump Gear



Diesel Pump
Gear



Synchronizing
Gears



Timing Gear



Waste Pump
Gear



Gear Blank



Mandrel Cup
Hold Down



Bearing Housing



Pump Housing



Cylinder
Liner



Hydraulic
Manifold



Hydraulic
Manifold



Bullet Mold



Rotary Vane
Pump Motor



Hydraulic Cylinder Piston



Hydrostatic Cylinder
Swash Plate



Glass Mold
Plunger



Poppet



Pulley



Sealing Rings



Hydraulic Cylinder
Rod Guide



Steel Mill
Roll



Chain Link
Roller



Coffee Grinding
Roller



Disk Brake
Rotor



Vane Pump
Rotor



Compressor
Rotor



Feeder Screw



Lock Sleeve



Spool



Hydraulic Swivel



Chain Drive
Sprocket



Cone Oil
Tool



Slip Ring
Oil Tool



Split Ring
Oil Tool



Forklift Power
Steering Valve

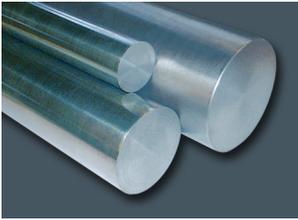


Pump Valve
Body



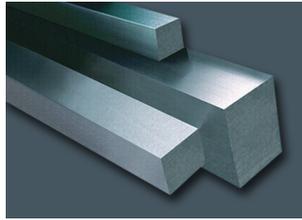
Valve Guide

Dura-Bar is available in many Grades, Shapes and Sizes.



Rounds:

As-Cast or Cold Finished



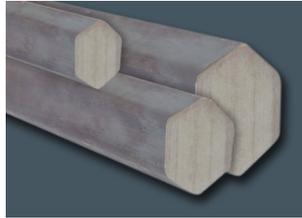
Squares / Rectangles:

As-Cast or Cold Finished



Tubes:

As-Cast or Cold Finished



Custom Shapes:

As-Cast

Standard bar length - 72" & 144"

Grades:

Ductile Iron

- Alternative to Low & Medium Carbon Steel
- Superb Free-Machining Properties
- Lower Heat Treat Costs
- Comparable Strength

Gray Iron

- Excellent Wear Resistance
- Improved Vibration Damping
- Superior Machining Finish
- Responds Well to Conventional Heat Treat Methods

Ni-Resist

- Ideal For Corrosive Environments

Dura-Bar Continuous Cast Iron Bar Stock Has Many Uses.



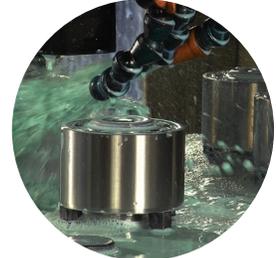
Oil & Gas



Fluid Power



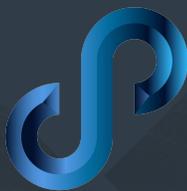
Transportation



Machinery/
Equipment

There are many ways to save with Dura-Bar:

- Significant total part cost reduction
- Extended tool life
- Machining at higher speeds and feeds
- Lower heat treat cost



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