

# **Technical Brief**

# **Dura-Bar for Frac Pump Plungers**

#### **How Can Dura-Bar Save You Time and Money?**



Dura-Bar continuous cast iron is an ideal material for many oil industry applications, including those used in drilling and hydraulic fracturing.

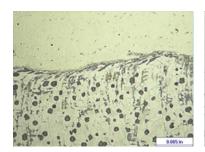
Due to its lower critical coating temperature and superior machinability over carbon steel, thousands of frac pump plungers made from Dura-Bar ductile iron are currently in service.

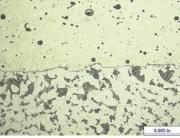
## **Mechanical Properties and Machining Advantages**

- Mechanical properties meet or exceed those of carbon steels grades typically used
- Superior machinability over steel
- 30% reduction in manufacturing time

### **Coating Process Advantages**

- Stronger mechanical bond of high and low heat hard face alloy coatings
- Improved coating results due to:
  - Lower coating temperature required by iron (versus steel)
  - Good thermal properties result in uniform heating





Dura-Bar Ductile Iron	1018 Steel
Lower coating temperature	Longer preheat time
Stronger mechanical bond	Outgassing causes porosity

