

# MARSHALLCRAT LC



## Low Carbon Steel (C1018)

Precision Marshall's Low Carbon is a general-purpose low carbon steel with good case hardening qualities.

## Typical Analysis

Carbon	0.17
Manganese	0.75
Phosphorus	0.04
Sulfur	0.05

## Applications

Low Carbon applications include gears, pinions, pins, ratchets, and worms.

## Annealing

Heat slowly and uniformly to 1550-1650°F and cool slowly in furnace.

## Hardening

Low Carbon can be hardened to any of the standard carburizing methods and subsequent heat treatments. For a hard case and tough core, the following heat treatment is suggested. Carburize at 1650°-1700° for approximately 8 hours, cool in oven, and reheat to 1400°-1450°, quench in water and draw at 300°-350°.

*Note: Variations in section size, heating rate, soak time, quench rate and tempering will cause deviations from the above values. Precision Marshall should be consulted for specific applications.*

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The following additional products are available through our authorized distributors.

## DELUXE PLATES

MARSHALLOY MQ®/FM  
 MARSHALLOY™ STD 4142  
 MARSHALLOY™ 4140  
 (Annealed)  
 PRESCO O-1  
 AIRTRUE A-2  
 SUPER 7 MQ® S-7  
 ARISTOCRAT D-2  
 FIRECHROME H-13  
 SUPER 7 S-7

## GROUND FLAT STOCK

PRESCO O-1  
 AIRTRUE A-2  
 ARISTOCRAT D-2  
 SUPER 7 S-7  
 NUTEC 42® 4142  
 FIRECHROME H-13  
 PREMAR 410  
 RUETOM SPECIAL 420  
 PREMAR 440C  
 MARSHALLCRAT LC

## DRILL ROD

WATERCRAT W-1  
 OILCRAT O-1  
 AIRTRUE A-2  
 SUPER 7 S-7  
 ARISTOCRAT D-2  
 FIRECHROME H-13PH  
 TRM-2 M-2  
 WATERCRAT W-1 (Cold-drawn)



### ***The Deluxe Company's Guarantee of Quality***

*Precision Marshall's conformance to specifications is the highest in the industry. Precision Marshall assumes complete liability for any costs directly relating to a deviation from our published specifications. Any such costs, properly documented, will be reimbursed. For more information, visit us at [www.pmsteel.com](http://www.pmsteel.com).*

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