



**Alloy**  
Steel Bars

**Norma Tuyper ASTM A29/29M**



Calidades  
Aceros Calibrados

# Alloy Steel Bars



| Grade Designation | Heat Chemical Ranges and Limits % |             |                    |             |             |        |             |             |          |
|-------------------|-----------------------------------|-------------|--------------------|-------------|-------------|--------|-------------|-------------|----------|
|                   | Carbon                            | Manganese   | Phosphorus,<br>Max | Sulfur, Max | Silicon     | Nickel | Chromium    | Molybdenum  | Vanadium |
| 4140              | 0,38 - 0,43                       | 0,75 - 1,00 | 0,035              | 0,040       | 0,15 - 0,35 | -      | 0,80 - 1,10 | 0,15 - 0,25 | -        |

| Grade Designation | Heat Chemical Ranges and Limits % |             |                    |             |             |             |             |             |          |
|-------------------|-----------------------------------|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|----------|
|                   | Carbon                            | Manganese   | Phosphorus,<br>Max | Sulfur, Max | Silicon     | Nickel      | Chromium    | Molybdenum  | Vanadium |
| 8620              | 0,18 - 0,23                       | 0,70 - 0,90 | 0,035              | 0,040       | 0,15 - 0,35 | 0,40 - 0,70 | 0,40 - 0,60 | 0,15 - 0,25 | -        |

