

Williams Material Suffix	Common Designation	ASTM Casting Specification	Service Recommendations
<b>WCB</b>	Carbon Steel	ASTM A216 Grade WCB	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +800°F (+425°C)
<b>LCB</b>	Low Temp Carbon Steel	ASTM A352 Grade LCB	Low temperature applications to -50°F (-46°C). Not for use above +650°F (+340°C).
<b>LCC</b>	Low Temp Carbon Steel	ASTM A352 Grade LCB	Low temperature applications to -50°F (-46°C). Not for use above +650°F (+340°C).
<b>LC1</b>	Low Temp Carbon Steel	ASTM A352 Grade LC1	Low temperature applications to -75°F (-59°C). Not for use above +650°F (+340°C).
<b>LC2</b>	Low Temp Carbon Steel	ASTM A352 Grade LC2	Low temperature applications to -100°F (-73°C). Not for use above +650°F (+340°C).
<b>LC3</b>	3½% Nickel Steel	ASTM A352 Grade LC3	Low temperature applications to -150°F (-101°C). Not for use above +650°F (+340°C).
<b>WC6</b>	1½%Chrome ½% Moly Steel	ASTM A217 Grade WC6	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +1100°F (+593°C).
<b>WC9</b>	2½%Chrome	ASTM A217 Grade C9	Non-corrosive applications including water, oil and gases at temperatures between -20°F (-30°C) and +1100°F (+593°C).
<b>C5</b>	5%Chrome ½% Moly	ASTM A217 Grade C5	Mild corrosive or erosive applications as well as non-corrosive applications at temperatures between -20°F (-30°C) and +1200°F (+649°).
<b>C12</b>	9%Chrome 1% Moly	ASTM A217 Grade C12	Mild corrosive or erosive applications as well as non-corrosive applications at temperatures between -20°F (-30°C) and +1200°F (+649°C).
<b>CA6NM</b>	12% Chrome Steel	ASTM A487 Grade CA6NM	Corrosive application at temperatures between -20°F (-30°C) and +900°F (+482°C).
<b>CA15</b>	12% Chrome	ASTM A217 Grade CA15	Corrosive application at temperatures up to +1300°F (+704°C)
<b>CF8M</b>	316SS	ASTM A351 Grade CF8M	Corrosive or either extremely low or high temperature non-corrosive services between -450°F (-268°C) and +1200°F (+649°C). Above +800°F (+425°C) specify carbon content of 0.04% or greater.
<b>CF8C</b>	347SS	ASTM 351 Grade CF8C	Primarily for high temperature, corrosive applications between -450°F (-268°C) and +1200°F (+649°C). Above +1000°F (+540°C) specify carbon content of 0.04% or greater.
<b>CF8</b>	304SS	ASTM A351 Grade CF8	Corrosive or extremely high temperatures non-corrosive services between -450° (-268°C) and +1200°F (+649°C). Above +800°F (+425°C) specify carbon content of 0.04% or greater.
<b>CF3</b>	304L SS	ASTM A351 Grade CF3	Corrosive or non-corrosive services to +800F (+425°C).
<b>CF3M</b>	316L SS	ASTM A351 Grade CF3M	Corrosive or non-corrosive services to +800F (+425°C).
<b>CN7M</b>	Alloy-20	ASTM A351 Grade CN7M	Good resistance to hot sulfuric acid to +800F (+425°C).
<b>M-35</b>	Monel	ASTM 743 Grade M3-35-1	Weldable grade. Good resistance to corrosion by all common organic acids and salt water. Also highly resistant to most alkaline solutions to +750°F (+400°C).
<b>N-12M</b>	Hastelloy B	ASTM A743 Grade N-12M	Is well suited for handling hydrofluoric acid at all concentrations and temperatures. Good resistance to sulphuric and phosphoric acids to +1200°F (+649°C).
<b>CW12M</b>	Hastelloy C	ASTM A743 Grade CW-12M	Good resistance to strong oxidation conditions. Good properties at high temperatures. Good resistance to sulphuric and phosphoric acids to +1200°F (+649°C).
<b>CY-40</b>	Inconel	ASTM A743 Grade CY-40	Very good for high temperature service. Good resistance to strongly corrosive media and atmosphere to +800°F (+425°C).
<b>B62</b>	Bronze	ASTM B62	Water, oil or gas: up to 400°F. Excellent for brine and seawater service.