انواع شیر آلات و صافی های صنعتی (Valves & Strainers) از جنس فولاد، استنلس استیل و آلیاژی و نیز شیرهای آتش نشانی مطابق استانداردهای بین المللی همراه با گواهی های مربوطه

## **VALVES**

Kind of Material: Carbon Steel (C.S), Stainless Steel (S.S), Low/ High Alloy Steel (A.S), Bronze,

Brass, Duplex, etc...

Type: Gate Valve, Globe Valve, Ball Valve, Check Valve, Plug Valve, Butterfly Valve,

Safety Valve, Control Valve, Relief Valve, Diaphragm Valve, etc...

Size Ranges: 1/2" - 72"

Pressure Ratting: Class 150 Lbs. - 5000 Lbs.

Standard: ASTM (A 105, A 182, A 216, A217, A351, 304, 316, ...), ANSI/ASME 16.34,

API (6D, 6FA, 605, 607, ...), BS, DIN, etc...

Operation: Hand wheel, Pneumatic, Electric, Hydraulic

End Connection: Flanged (FLGD), Threaded (THD), Socket weld (SW), Butt weld (BW)

## ارائه خدمات مشاوره ای در زمینه انتخاب تجهیزات مورد نیاز پروژه های صنعتی



## Introduction to Valves - Only the Basics - Materials

**ASTM** - Casting Materials

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Common Designation	ASTM Casting Specification	Service Recommendations
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)
Low Temp Carbon Steel	ASTM A352 Grade LCB	Low temperature applications to -50°F (-46°C). Not for use above +650°F (+340°C).
Low Temp Carbon Steel	ASTM A352 Grade LC1	Low temperature applications to -75°F (-59°C). Not for use above +650°F (+340°C).
Low Temp Carbon Steel	ASTM A352 Grade LC2	Low temperature applications to -100°F (-73°C). Not for use above +650°F (+340°C).
31/2% Nickel Steel	ASTM A352 Grade LC3	Low temperature applications to -150°F (-101°C). Not for use above +650°F (+340°C).
11/4%Chrome 1/2% 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).
21/4%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).
5%Chrome 1/2% 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°C).
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).
12% Chrome Steel	ASTM A487 Grade <b>CA6NM</b>	Corrosive application at temperatures between -20°F (-30°C) and +900°F (+482°C).
12% Chrome	ASTM A217 Grade CA15	Corrosive application at temperatures up to +1300°F (+704°C)
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.
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.
304SS	ASTM A351 Grade CF8	Corrosive or extremely high temperatures 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.
304L SS	ASTM A351 Grade CF3	Corrosive or non-corrosive services to +800F (+425°C).
316L SS	ASTM A351 Grade <b>CF3M</b>	Corrosive or non-corrosive services to +800F (+425°C).
Alloy-20	ASTM A351 Grade CN7M	Good resistance to hot sulfuric acid to +800F (+425°C).
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).
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).
Hastelloy C	ASTM A743 GradeCW-12M	Good resistance to strong oxidation conditions. Good properties at high temperatures. Good resistance to sulphuric and phosphoric acids to +1200°F (+649°C).
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).
Bronze	ASTM B62	Water, oil or gas: up to 400°F. Excellent for brine and seawater service.
Common Designation	ASTM Casting Specification	Service Recommendations