

# APPLICATION OF VALVES

In any Piping Systems, industrial valves play a very crucial role in handling fluids. Different types of Valves are used to meet various applications like on-off, throttling, quick open / close, flow diversions etc...these valves find their applications in industries like refineries, Petrochemicals, Fertilizers, Sugar, Cement, Power Plants, Chemical Process Industries Water Treatment, Effluent Treatment, Food & Beverages, Pulp & Paper Oil & Gas etc.

Selection of right type of valves for a particular application is vital for trouble free service Details of various types of industrial valves for a particular standards & application areas are enclosed for your reference.

Type of Valve	Pressure Class	Design Standard	Area of Application	User Industries
Diaphragm Valves	PN 6 to PN 16	BS 5156	Control & Isolation (on-off) of Air, Gas, Toxic Chemicals, Contaminated Fluids, Acids & Alkalies. Glandless Valve Hence Most Suitable for Vacuum	Minin & Beneficiation & Power Plants, Process Industries, Etp, Wtp, DM Plants, Chemical Industries, Fertilizers, Caustic Chlorine & Phosphoric Acid Plants.
Butterfly Valves	PN 2.5 To PN 16	BS 5155 / AWWA –C 504	Control & Isolation (on-off) of Air, Gas, Toxic Chemicals, Acids & Alkalies Etc.	Etp, Wtp & DM, Caustic, Chlorine & Phosphoric Acid, Steel, Ash Handling, Food & Beverage, Power, Sewage & Chemical Plants.
High Performance Butterfly Valves	#150 & #300	API 609	Control & Isolation of High Temperature, High Pressure Fluids, Fire Safe Feature for Hydrocarbon Application.	Power Plants, Petrochemical Complex, Off Shore & On Shore Platforms, Oxygen Plants, Chemical Plants.
Hygienic Diaphragm & Butterfly Valves	PN 6 & PN10	BS 5155 / BS 5156	Control & Isolation of Zero "B" Application Industries.	Food & Beverage, Biotech & Pharmaceutical
Forged Steel Gate, Globe & Lift Check Valves	#800, #1500 & #2500	API 602 / BS 5352	Control & Isolation of High Temperature, High Pressure, Thermo Fluids, Steam, Chemicals etc.	Boiler Plants, Petro Chemical Complex, Mining & Beneficiation, Power Plants, Fertilizers, off shore & on Shore Platforms & Refineries.

Type of Valve	Pressure Class	Design Standard	Area of Application	User Industries
Wafer Check Valves	PN 10 To Pn40	API 6 D	To prevent Back Flow of Fluids, Compact in construction, Ease to Handle	Power Plants, Fertilizers, Process Industries, Chemical Industries, Fertilizers
Non Slam Check Valves	PN 2.5 To PN 16	MFRS STD	To Prevent Back Flow of Fluids, Spring loaded Hence No Slamming Action.	Power Plants, Fertilizers, Process Industries, Chemical Industries, Fertilizers
Dual Plate Check Valves	# 150, & # 300	2500 API 594	To Prevent Back Flow of Fluids, Compact in Construction, Ease to Handle Minimum Pressure Drop.	Petro Chemical Complex, Mining & Beneficiation, Industries, Fertilizers, Power Plants, Offshore & On shore Platforms & Refineries
Rubber Lined Check Valves	PN 6 # 300	MFRS STD	To Prevent Back Flow of Chemically Active & Corrosive Fluids Specially in ETP, Wtp & DM Plants.	Mining & Beneficiation, Power Plants, Process Industries, ETP, Wtp & DM Plants, Chemical Industries, Fertilizers.
Needle Valves	# 800	MFRS STD BS 1868	For Fine Control Applications.	All Type of Industries
Ball Valves	#150 To 2500 #150, #300	BS 5351 / API 6 D BSI 1873	Isolation (on-off) of Fluids at Moderate pressure & Temp. Easy Maintenance, Low Diff Pressure & Quick Opening Fire Safe Feature for Hydrocarbon Service.	Boiler Plants, Oil & Gas Pipe Lines, Petrochemical Complex, Mining & Beneficiation Plants, Power Plants, Fertilizer, Chemical Industries, Off Shore & onshore Platforms & Refineries

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Below Sealed Globe Valves	#150 To # 800	BS 1873	Control & Isolation (on-off) of Highly Toxic Fluids & Zero Leakage to Atmosphere.	Nuclear & Atomic Power Plants, Hazardous & Toxic Chemical Industries, Caustic & Chlorine Plants.
PTFE Sleeved PLUG Valves	# 150 & #300	API 1599	Control & Isolation (on-off) of Toxic Chemicals, Caustic & Chlorine Acids, Slurry Etc.. Glandless Valve Hence Most Suitable for Vacuum Application & Zero Emission Fire Safe Feature for Hydro Carbon Services.	Mining & Beneficiation & Power Plants, Proces Industries, Chemical Industries, Fertilizers Caustic Chlorine & Phosphoric Acid Plants, Pesticide Plants, Dyes & Pigment Industries.
Lubricated Plug Valves	#125	BS 5158	Isolation (on-off) of Low Pressure Water, Oil & Utility Applications.	Edible Oil, Aluminium & Hydrocarbon Plants.
Gate Valves	# 150,#300, #600,#900, #1500 & 2500	API 600 / ASME 16.34 API 16 D	Isolation of High Temperature, High Pressure Thermo Fluids, Steam, Chemicals etc.	Boiler Plants, Petro Chemical Complex, Mining & Beneficiation, Power Plants, Fertilizers, off Shore & Onshore Platforms & Refineries.
Global Valve	# 150,#300, # 600,#900, #1500 & 2500	BS 1873 / ASME 16.34	Control & Isolation (on-off) of High Temperature High Pressure Thermo Fluids, Steam, Chemicals etc.	Boiler Plants, Petro Chemical Complex, Mining & Beneficiation, Power Plants, Fertilizers, off Shore & Onshore Platforms & Refineries.
Lift Check Valves	#150 & # 300 x	BS 1868	To prevent Reserve Flow of High Temperature, High pressure Thermo Fluids, Steam, Chemicals etc.	Boiler Plants, Petro Chemical Complex, Mining & Beneficiation, Power Plants, Fertilizers, Off Shore & Onshore Platforms & Refineries.
Swing Check Valves	# 150, #300, #600, #900, #1500 & 2500	BS 1873 / ASME 16.34	To Prevent Reserve Flow of High Temperature, High Pressure Thermo Fluids, Steam, Chemicals etc.	Boiler Plants, Petro Chemical Complex, Mining & Beneficiation, Power Plants, Fertilizers, Off Shore & Onshore Platforms & Refineries.

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Chlorine Globe Valves	# 300	BS 1873	Specially fir Chlorine Services	Caustic & Chlorine Plants
Knife Edge Gate Valves	PN 6 & PN 10 PN 40	MFRS STD	Isolation Of Slurry & Pulp Applications.	Pump & Paper, ASH Handling, Steel Industries, Mining & Beneficiation Plans.
Cast Iron sluice, Gate & Globe Valves	PN 10 & 16	BS 5150 ISI 4846 & BS 5163	Low Pressure Water, Air & Utility Applications	Action Power Plants, Sugar Industries, Steel Industries.