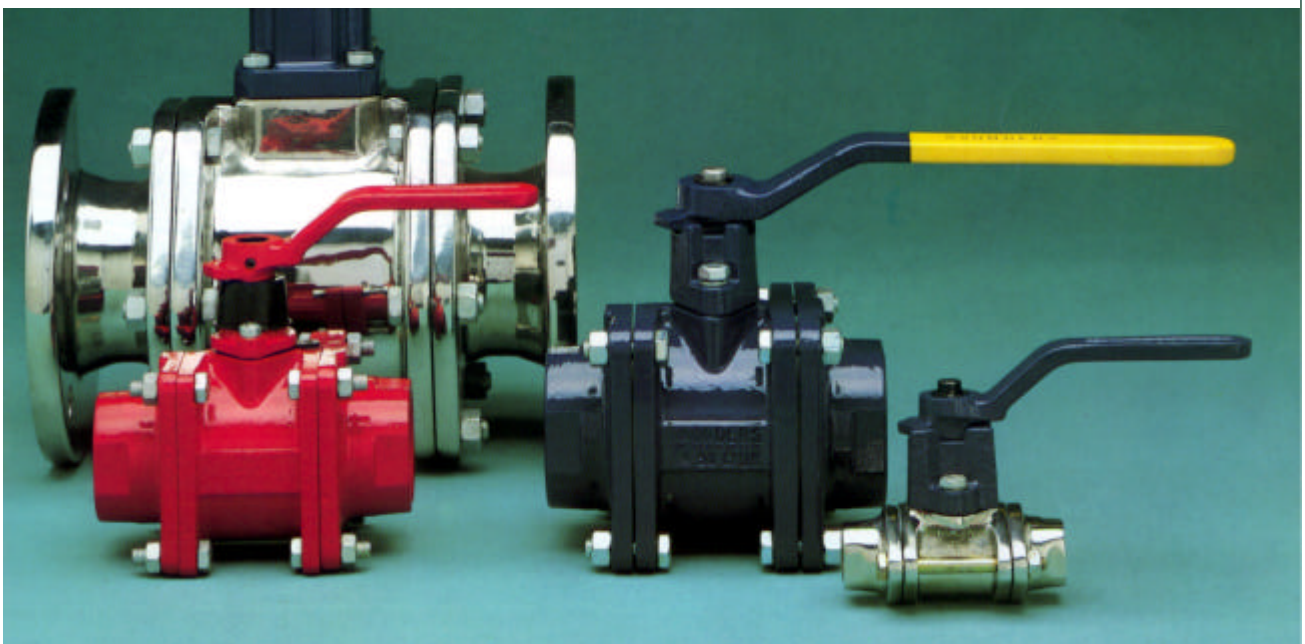


SAUNDERS

TYPE 'M' BALL VALVES

Saunders type 'M' full bore valves provide a choice of body, ball, seat materials, end connections and methods of operation to satisfy the needs of the majority of industrial ball valve applications where high flow and complete leaktight closure are important. Saunders full bore design is truly full bore, minimising pressure loss.



Method of Operation-

Standard handle designed for operator comfort, 90o action indicates valve position.

Other Methods of Operation

Diaphragm, piston or electric actuators, fitted without removing the valve from pipeline, cut operation time and labour.

Safety-

Stem shoulder/integral washer restrains stem for increased safety.

Stem Seal-

Nitrile rubber or reinforced PTFE is pressure assisted

and self compensating for 100% leaktight performance.

Stem-

Mild steel stems are treated to resist corrosion for long working life. Stainless steel option gives strength on high pressure applications.

Ball-

Standard, cast iron, nylon coated for less frictional resistance, reduces operating power. Stainless steel option increases corrosion resistance and meets the need of 'clean' applications with stainless steel body.

Bonnet cover-

Prevents ingress of dust and dirt, protects stem from environmental attack.

Coating-

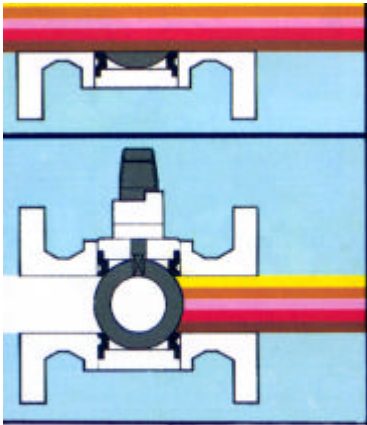
Special process for phosphate and resin paint coating ensures all-over coverage to give all-round protection on cast-iron bodies and easy to clean finish.

End Connections-

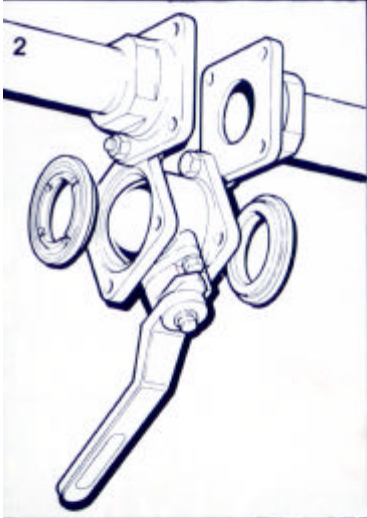
Screwed and flanged connections suit UK, European and US specifications to avoid pipeline planning problems.

Seats-

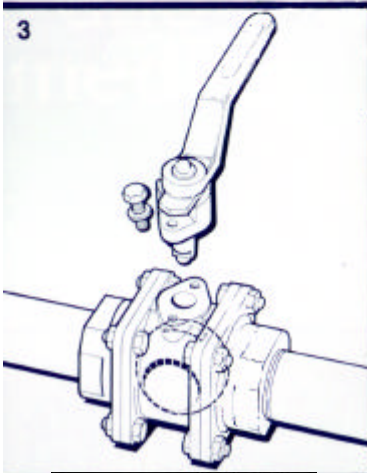
Pressure assisted, self compensating, give complete closure throughout the pressure range, to stop product waste. Material



These additional features put type 'M' valves in the forefront of ball valve design.

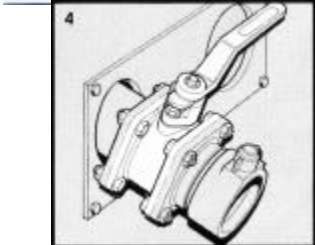


1 Flow-
True full bore design - minimum resistance to reduce pump power consumption.

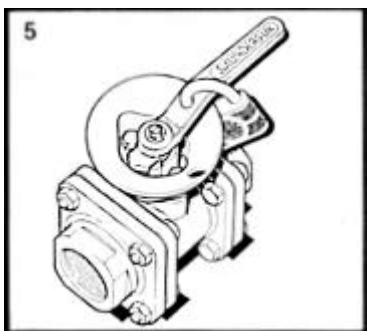


2 Maintenance-
Three piece design allows seat change without removing body from pipeline or breaking valve/pipeline joints.

3 Stem/Seal change-
Top access design keeps the valve working during stem/ seal maintenance.



4 Installation-
Type 'M' valves are available for installation without end connections - to save space and weight.



5 Bonnet Options-
A choice of padlocking assemblies to prevent expensive (or illegal) interference.

The full type 'M' material range is:-



Grey cast iron body (flanged or screwed), nylon coated ball, nitrile seats and seal for general applications.



Grey cast iron body (flanged or screwed) stainless steel ball, PTFE seats and seal for higher temperature use.



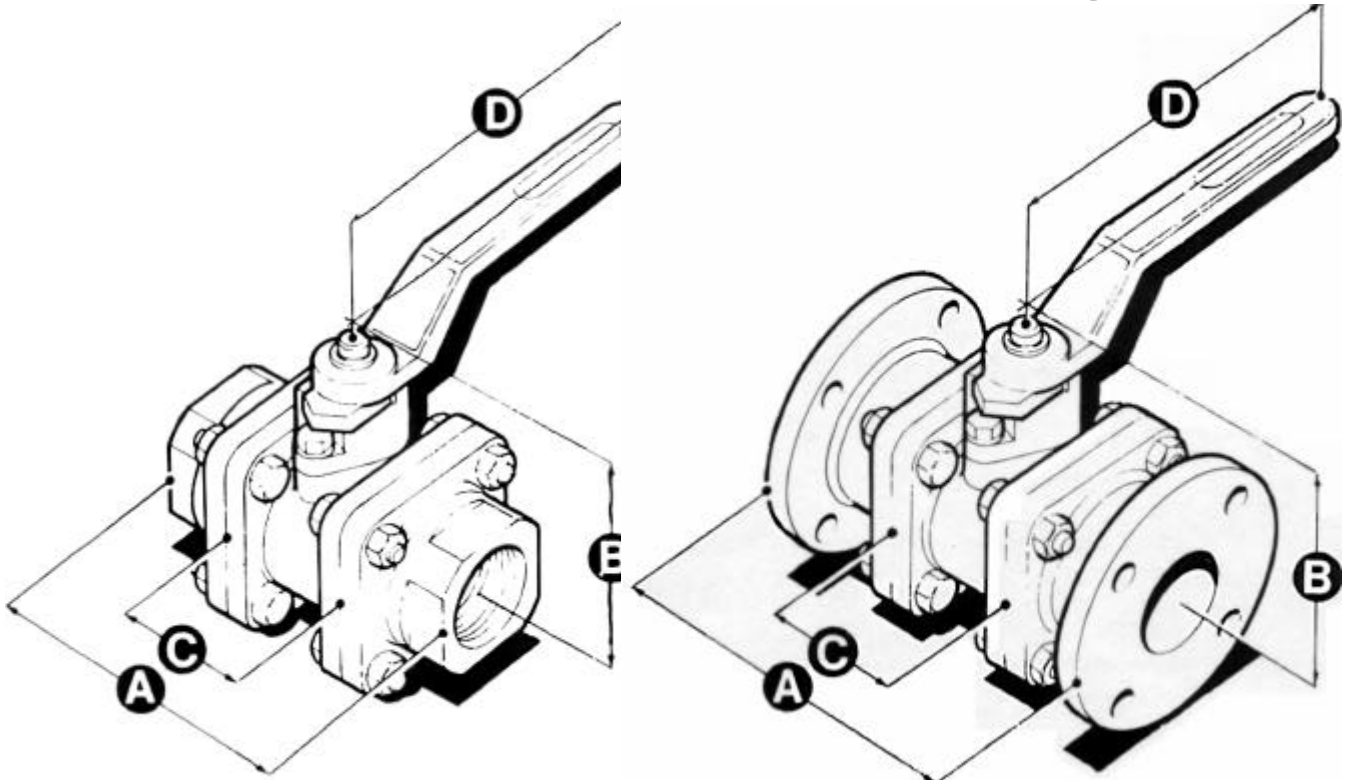
Stainless steel body (flanged or screwed), stainless steel ball, PTFE seats and seal for 'clean', corrosive and higher temperature services.



Grey cast iron body (BS1452) (flanged or screwed), cast iron ball, nitrile seats and seal to suit specific applications, especially sludges.

SAUNDERS

TYPE 'M' BALL VALVES



Valve Size (DN)	Screwed Female Pipe Connections	Flanged Pipe Connections	Height		Body Length (without end)	Handle length (radius)
	A (overall)	A (overall)	B1	B2	C	D
15	92	118	93	87	44	76
20	96	118	97	91	44	76
25	106	128	102	95	44	76
32	120	146	102	102	54	127
40	138	158	113	111	61	127
50	146	190	130	127	70	229
65	216	216	160	180	108	432
80	254	254	160	180	121	432
100	-	304	179	199	146	432

B1 = height with nitrile seal

B2 = height with PTFE seal

Dimensions shown are for planning purposes and should not be used for manufacturing.

STANDARDS

As well as being in overall lengths of BS5156 and DIN 3202 Part 1 (277) Series F1, Saunders valves are manufactured to the following standards:

Flange Drillings

British BS10 tables D and E (flat face) BS4504 tables PN10/16 (flat face) BS1560 class 150

American ANSI B 16.1 class 125 (flat face) ANSI B 16.5 class 150

German DIN 2532/3 (flat face) DIN 2632/3 (flat face)

Female screwed pipe connections:

British BS21 parallel
 German DIN 259
 Japanese JIS B0202
 International ISO 228