



## Pneumatic Actuated Mars Series 90D ANSI 150 St St Ball Valve, Firesafe Design

- Double Acting or Spring Closed/Open
- Stainless Steel Body – Full Bore
- Flanged ANSI 150
- ATEX Approval on both valve and actuator
- Certified Firesafe Design API 607 4<sup>th</sup> Ed.
- Antistatic device for ball and stem
- RPTFE Seats (FDA Cert.), Graphite Seals

### Description

A combination of a powerful pneumatic Type HP ATEX approved actuator, fitted to the Mars series 90D-10, heavy duty high performance, flanged ANSI 150 ball valve. The valve comprises of a ASTM A351 CF8M 316 stainless steel, split 2- piece body with seals that are Fire Safe Certified to API 607 4<sup>th</sup> Edition and fitted with an antistatic spring loaded device. The Pneumatic actuator offers single acting (fail closed or open) or double acting options. Sized on 5.5 bar pilot air supply with 30% added safety factor. This unit gives you an exceptional combination, that's trouble free and offers long life. We offer various accessories that can be fitted onto the modular actuator such as I.S or EX switch boxes, solenoids and positioners, all suitable for hazardous areas.

Options Include:

Seat Materials: TFM 1600, Peek, UHMWPE, Delrin, 50/50 S/S filled PTFE. All Mars Ball Valves are Silicone Free.  
30, 60 and 90 Deg-V Ball for control  
Cavity Relief hole drilled into ball  
100mm extension spindles for steam and insulation  
Fabricated heating jackets  
Double block and bleed assembly.



### Description

Fire-Safe and Anti-Static, full bore flanged ATEX approved ball valve. Fitted onto our pneumatic ATEX approved actuator, offered in both single and double acting options. Sizes range from 1/2" - 6" DN15-DN150. RPTFE Fire-safe seats with Graphite seals. Actuators are designed to the latest ISO/Namur standards.



### Beschreibung

Feuersicherer und antistatischer, geflanschter ATEX-zugelassener Kugelhahn mit vollem Durchgang. Angebaut an unseren pneumatischen ATEX-zugelassenen Antrieb, der sowohl in einfach- als auch in doppelwirkender Ausführung angeboten wird. Die Größen reichen von 1/2" - 6" DN15-DN150. RPTFE Feuersichere Sitze mit Graphitdichtungen. Antriebe sind nach den neuesten ISO/Namur-Standards konstruiert.



### Descripción

Válvula de bola de paso total con brida aprobada por ATEX, a prueba de fuego y antiestática. Montado en nuestro actuador neumático aprobado por ATEX, que se ofrece en opciones de acción simple y doble. Los tamaños van desde 1/2" - 6" DN15-DN150. Asientos ignífugos de RPTFE con juntas de grafito. Los actuadores están diseñados según los últimos estándares ISO / Namur.



### Description

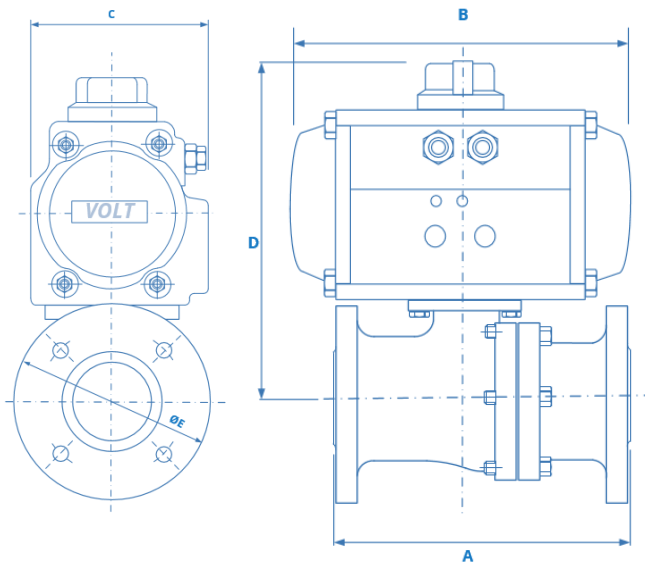
Robinet à tournant sphérique à bride à passage intégral approuvé ATEX, ignifuge et antistatique. Monté sur notre actionneur pneumatique approuvé ATEX, proposé en options simple et double effet. Les tailles vont de 1/2" à 6" DN15-DN150. Sièges coupe-feu RPTFE avec joints en graphite. Les actionneurs sont conçus selon les dernières normes ISO/Namur.

atex

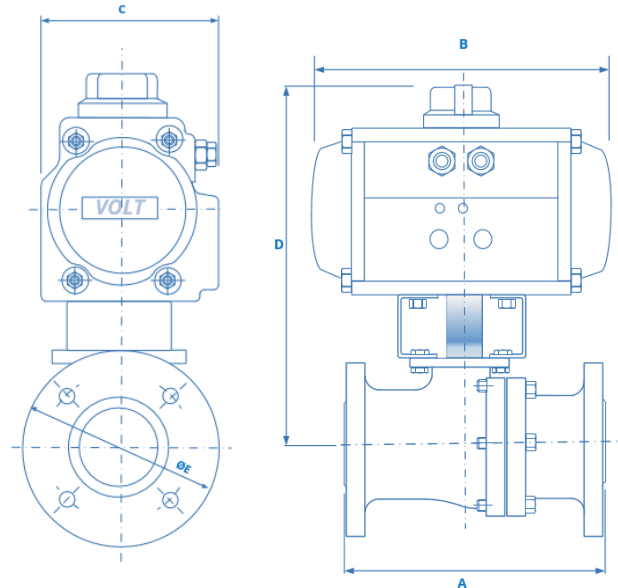


**Anti-Static Device**

**Stem to Ball and Stem to Body as standard**



**Direct Mount**



**With Mounting Kit**

## Double Acting

90D-10 ANSI 150 Double Acting Dimensions							Weight Kg
Size	DA Act.	A	B	C	D	E	
1/2"	HP50D	108.3	144	72	141.7	88.9	3
3/4"	HP50D	117.3	144	72	146.7	98.6	3.4
1"	HP63D	127.3	163	85	165.8	108	4.6
1 1/4"	HP63D	139.1	163	85	179.6	117.3	6.3
1 1/2"	HP75D	165.1	210	96	213.1	127	9.4
2"	HP75D	178.3	210	96	220.6	152.4	12.2
2 1/2"	HP88D	190	247	108	252	177.8	18.6
3"	HP115D	203.5	316	141	298.5	190.5	28.6
4"	HP115D	228.6	316	141	323	228.6	40
5"	HP145D	355.6	414	172	401.7	254	69.7
6"	HP145D	393.7	414	172	419.2	279.4	89

### Valve / Actuator Sizing

THE VALVE AND ACTUATOR COMBINATION HAS BEEN SIZED WITH A MAXIMUM OF 10 BAR (150 PSI) MEDIUM LINE PRESSURE AND BASED ON A MINIMUM OF 5.5 BAR (80 PSI) PILOT AIR PRESSURE. SEE GRAPH. FOR HIGHER PRESSURES PLEASE CONTACT SALES WHO WILL ACCOMMODATE YOUR REQUIREMENTS, QUICKLY AND EASILY.

## Spring Return

90D-10 ANSI 150 Spring Return Dimensions							Weight Kg
Size	SR Act.	A	B	C	D	E	
1/2"	HP63S	108.3	163	85	153.7	88.9	3.2
3/4"	HP66S	117.3	202	85	158.2	98.6	3.8
1"	HP75S	127.3	210	96	182.8	108	5.2
1 1/4"	HP75S	139.1	210	96	208.6	117.3	6.6
1 1/2"	HP88S	165.1	247	108	237.1	127	14
2"	HP100S	178.3	268	123	244.4	152.4	21.6
2 1/2"	HP115S	190	316	141	332	177.8	24
3"	HP115S	203.5	316	141	248.5	190.5	31
4"	HP125S	228.6	347	151	336	228.6	38
5"	HP160S	355.6	467	190	418.7	254	78
6"	HP180S	393.7	497	206	461.2	279.4	108



**Exd Switchbox**



**Exd Pilot Solenoid**

## Technical - Actuator

Body material	Hard anodised extruded aluminium alloy
End Caps	Die cast aluminium epoxy coated
Spring	High tensile steel
Indicator	Open/Closed
Pinion shaft	Alloy steel nickle plated
Pinion Guides	Self Lubricating Polypropylene + GF
Piston seals	NBR steel

## Specification

Pressure range	10 Bar, pilot pressure 5.5 - 8 Bar
Double acting	2.5 Bar - 8 Bar
Single acting - Open or Close	2.5 Bar - 8 Bar
Temperature range	minus 20°C - 80°C
Movement	90 Degree adjustable -5-+5 Degree
Lubrication	All moving parts are lubricated
Cycle Life	1,000,000 operations
Approvals	ATEX, CE, PED

## Valve Specification

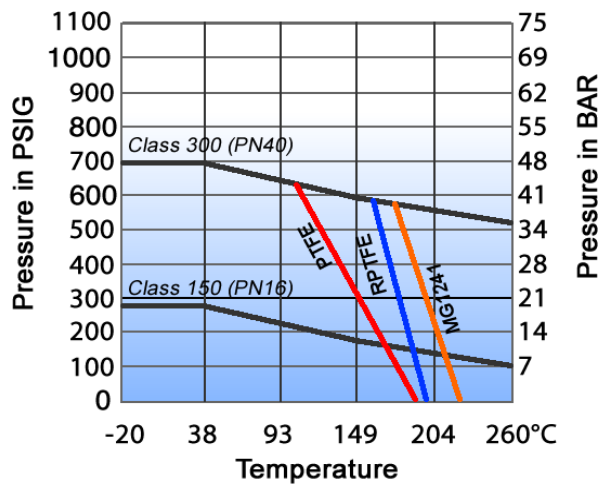
Pressure Rating	Fig 90D-10 ANSI 150#
Size	1/2" to 6" Full Bore
Temperature range	minus 20° to + 200° (see graph)
Movement	90 deg turn
Cycle life	1,000,000 operations

## Approvals

CE Marked 0035 PED/97/23/EC,  
TA-Luft  
ATEX 94/9/EC II 2 GD  
Fire-Safe Certified to API 607 4th Edition  
API 6D

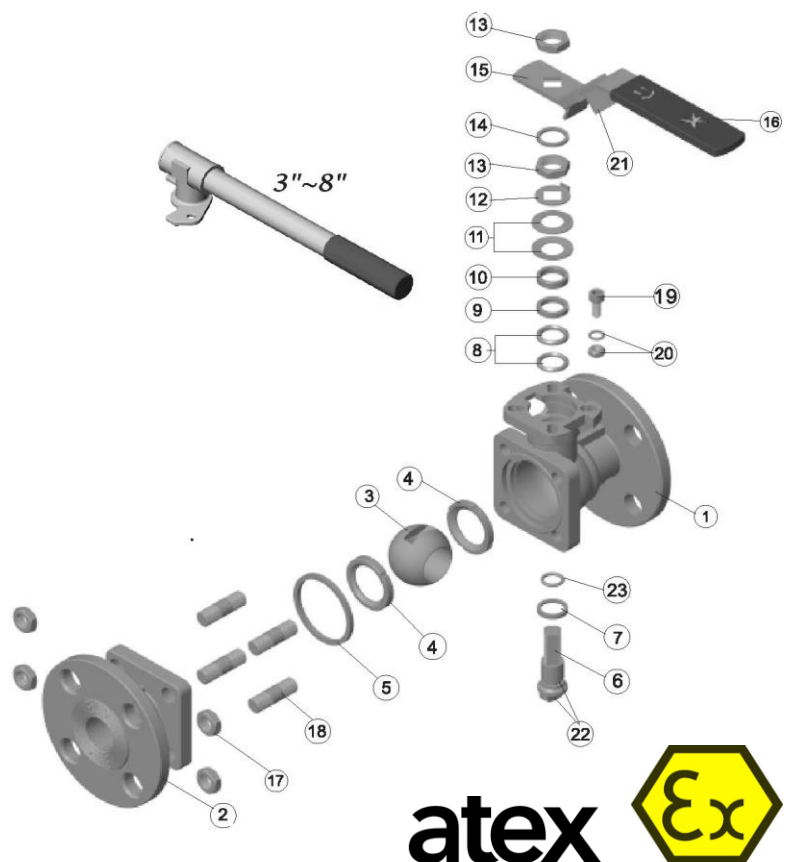
## Valve Materials

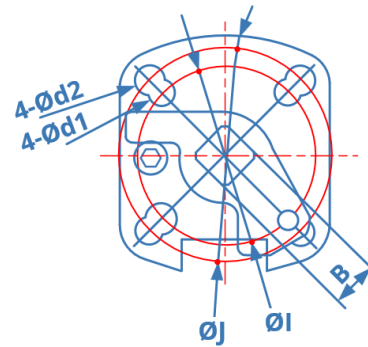
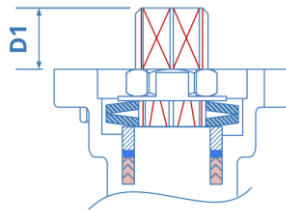
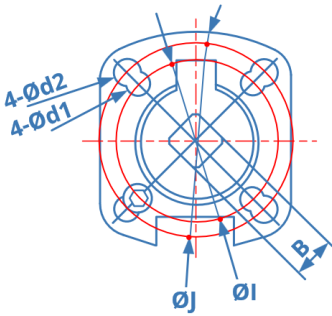
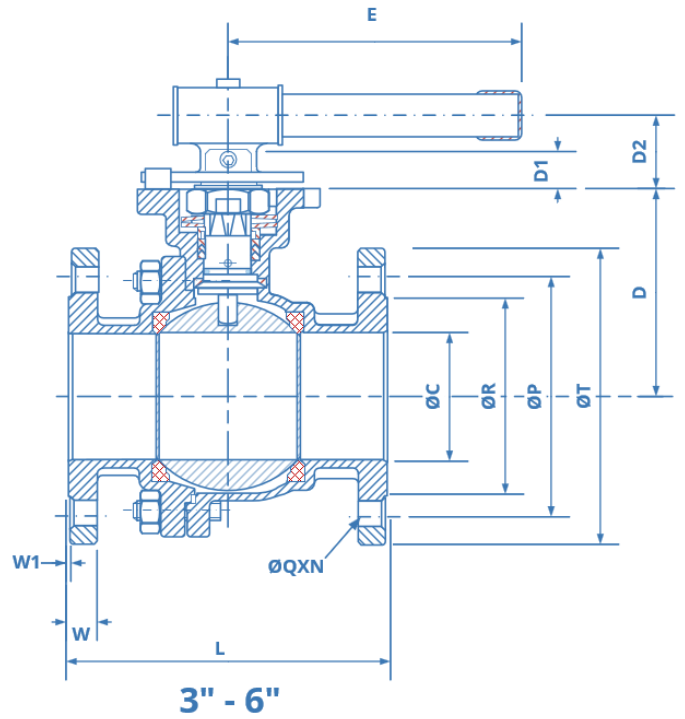
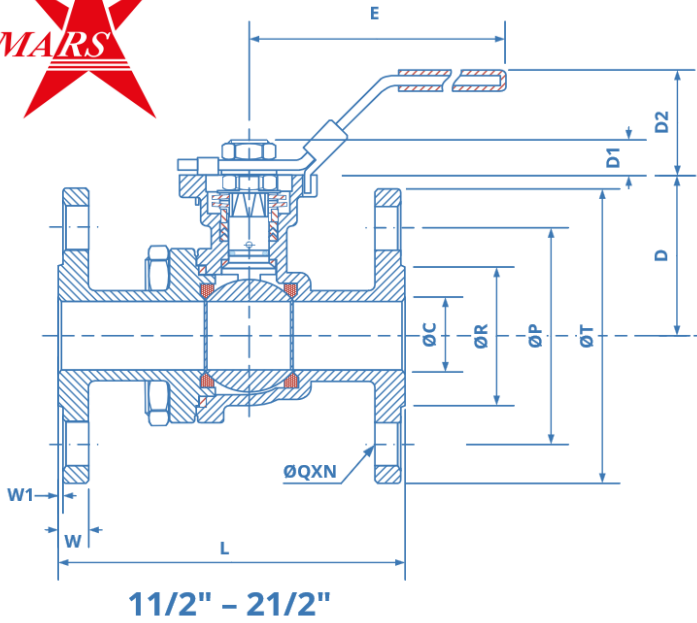
No	Part Name	Material	Qty
1	Body	CF8M / WCB	1
2	Cap	CF8M / WCB	1
3	Ball	SUS316	1
4	Seat	RPTFE	1
5	Joint Gasket	PTFE	2
6	O-Ring	Viton	2
7	Stem	SUS304	1
8	Stem Seal	RPTFE	2
9	O-Ring	SUS304	1
10	Stem Packing	GRAPHITE	2
11	Gland Packing	RPTFE	1
12	Gland Bush	SUS304	1
13	Belleville washer	PTFE	1
14	Stop Washer	SUS304	*
15	Stem Nut	SUS304	1
16	Stem Washer	Vinyl	1
17	Handle	25% RTFE	1
18	Stop Pin	SUS304	1
19	Locking Device	SUS304	1
20	Handle Sleeve	SUS304	1
21	Pin Nut	SS304	1
22	Anti-static Device	SS 316	1



Fire Safe Tested  
API 607 Rev. 4

Anti-Static Device  
Stem to Ball and  
Stem to Body as  
standard





## 90D -10 Dimensions ANSI Class 150

Size	C	B	E	D	D1	D2	I	J	L	N	P	Q	R	T	W	W1	d1	d2	Wt (kg)	ISO5211
1/2"	15	11	165	46.7	9.9	36	42	50	108.3	4	60.5	16	35.1	88.9	11.2	1.6	6.5	7	1.81	F04/F05
3/4"	20	11	165	51.2	9.9	36	42	50	117.3	4	69.9	16	42.9	98.6	11.2	1.6	6.5	7	2.19	F04/F05
1"	25	11	165	58.8	10.3	36	42	50	127.1	4	79.2	16	50.8	108	11.2	1.6	6.5	7	2.91	F04/F05
1 1/4"	32	14	215	72.6	12.9	49	50	70	139.7	4	88.9	16	63.5	117.3	12.7	1.6	7.5	9	3.96	F05/F07
1 1/2"	38	17/19	262	89.1	19	58	70	102	165.1	4	98.6	16	73.2	127	14.3	1.6	10	12	6.4	F07/F10
2"	50	17/19	262	96.6	19	58	70	102	178.3	4	120.7	19	91.9	152.4	15.9	1.6	10	12	9.19	F07/F10
2 1/2"	65	17/19	262	116	19	58	70	102	190	4	139.7	19	104.6	177.8	17.6	1.6	10	12	14.3	F07/F10
3"	80	22	365	132.5	23	46.2	102	125	203.5	4	152.4	19	127	190.5	19	1.6	12	14	19.5	F10/F12
4"	100	22	365	157	23	46.2	102	125	228.6	8	190.5	19	157.2	228.6	23.9	1.6	12	14	31	F10/F12
5"	125	27	750	192.7	28.5	66.5	125	140	355.6	8	215.9	22.2	185.7	254	23.9	1.6	14	18	55.7	F12/F14
6"	150	27	750	210.2	28.5	66.5	125	140	393.7	8	241.3	22.2	215.9	279.4	25.4	1.6	14	18	75	F12/F14
8"	201	36	955	265	40	61	140	165	457.2	8	298.5	22.2	269.7	343	28.5	1.6	18	22		F14/F16
10"	252	36	955	300	40	61	140	165	533.4	12	362	25.4	324	406.4	30.3	1.6	18	22		F14/F16

All Mars ball valves are Silicone Free and suitable for use on oil based paints

