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**ChemValve<sup>®</sup>**

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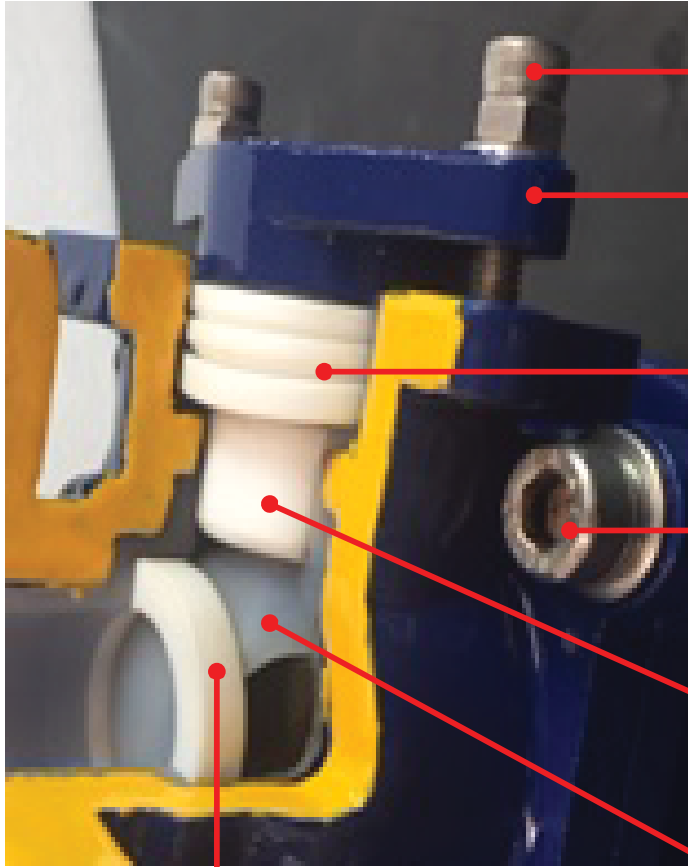
**MODEL 990-150  
HIGH PERFORMANCE  
LINED BALL VALVE**



(281) 357-0101  
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www.chemvalve.com

**ChemValve<sup>®</sup>**

# CUT SECTION & FEATURES



Gland Bolts For Gland Loading adjustment.

Gland Cover in CF8 or CF8M

Special Chevron Packings. No Cup Seals as they may crack during operation. Sintered packing material : PTFE/TFM

Allen Bolts in options of B7/ SS Alloy 20/ Hastelloy C

PTFE/TFM Bushing to ensure 100% alignment of Integral Stem of the Ball.

PFA/Antistatic PFA encapsulated Ball available in options of Vented Ball for Chlorine Service and V Port or Characterized port for Control applications.

PTFE/TFM with special thickness Seats for better performance and life.

# PRODUCT FEATURES AND STANDARDS

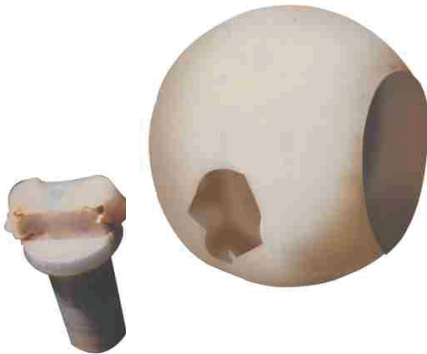
## PRODUCT FEATURES

- Offers both Reduced Port and Full Port Ball Valves
- Floating Ball Design for Reduced Port and Ball & Stem Integral design for Full port Ball Valves
- Chevron packings (Sintered Packings for both reduced Port and Full Port Valves and Valves are subjected to Helium Leak test in case if the same is required.
- Lining is anchored with dove tail groove and makes valve suitable for both pressure and vacuum applications.
- All metal components in investment castings, ensuring intact and homogeneous lining and having an overall even thickness of lining at intricate contours.
- Virgin raw materials such as PFA from Dupont or Dyneon and specific grades are used which are high purity grade, enables use of it's valves even in Pharma and food industries
- Flange dimensions available in DIN, ANSI, and JIS standards.
- ISO mounting pad design, enables mounting of actuators easy
- Lining of all Valves by latest injection molding process and not by transfer molding process makes lining more compact and reliable.
- 100% of valve quantity produced are both hydro and Pneumatic Tested, ensuring 100% reliability under pressure.
- ISO 9001:2008 and CE certificate for all its Lined Ball Valves both reduced port and full port design under PED 1128.
- All lining materials for corrosive applications such as PFA, FEP, PVDF, ETFE, ECTFE, and PPH.
- Standard body casting material is ASTM A 216 Gr. WCB and upon requirement can also provide ASTM A 351 Gr. CF 8 M / ASTM A 894 Gr. 4A (CD3MN) Super Duplex.
- Antistatic PFA lined Valves in grade 8502 ESDZ Dyneon because just the grounding spring device can not conduct static charge from inside of the valve

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## Resultant Breakage of Two-Piece Ball Design

Broken ball and stem



**Model 990 Ball and Stem design being an integrated one-piece unit (pictured on the right) offers longer life to our valves. In addition, the unique design of the flexible Super Seat® gives our valves added life.** Use of a two-piece ball and stem design often results in breakdown (pictured on the left), which shortens the life of the valve. **Model 990** integral ball and stem design assures longer life and trouble free operation, when compared to other lined ball valve manufacturers' two-piece design.

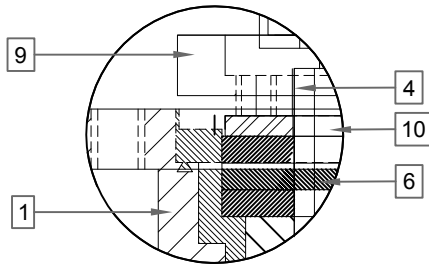
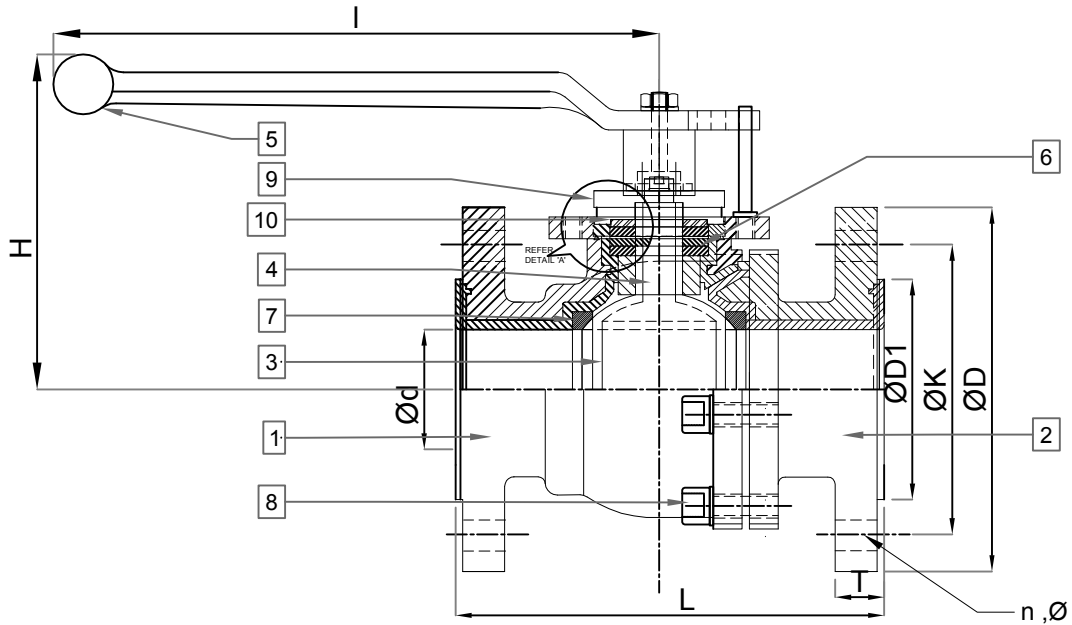


**Model 990** integrated ball and stem design

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# GA DRAWING & DIMENSIONS FULL PORT SIDE SPLIT



DETAIL 'A'

SIZE IN INCH	L ±0.12	D1	OD ±0.04	T ±0.12	PCD ±0.06	n No.of Holes	Øe Hole Dia
1"	5.0	0.9	4.3	0.7	3.1	04	0.61
1-1/2"	6.5	1.6	5.0	0.7	3.9	04	0.63
2"	7.0	2.0	6.0	0.8	4.8	04	0.70
3"	8.0	3.1	7.5	1.0	6.0	04	0.70
4"	9.0	3.9	9.0	1.0	7.5	08	0.70
6"	10.5	5.9	11.0	1.1	9.5	08	0.90

All Dimensions are in inches unless otherwise specified.

SR. NO.	DESCRIPTION	QTY.	MATERIAL
1+2	BODY	2	* ASTM A-216 WBC + PFA LINING (MIN 3MM THK.) ON ALL WETTED PARTS & RAISED FACES
3	BALL	1	CF8M (INVESTMENTCASTING) INSERTED PFA (MIN. 3MM THK.) LINED
4	STEM	1	CF8M + PFA INTEGRAL TO BALL (MIN. 3MM THK) LINED
5	HANDLE	1	CS EPOXY PAINTED
6	CHEVRON	1	PTFE CHEVRON
7	SEAT	2	PTFE
8	FASTENERS	*	B7
9	GLAND CAP	1	CS EPOXY PAINTED
10	LOCKING CLAMP	1	304 SS

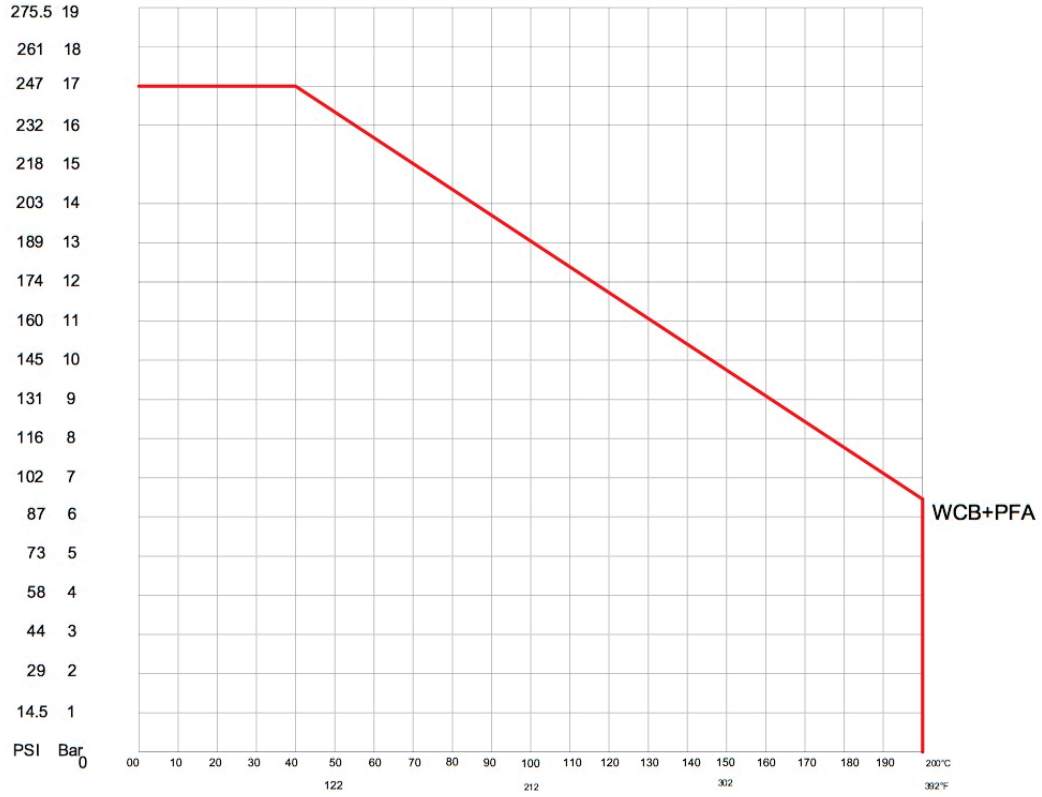
## PRODUCT DESIGN AND TESTS PERFORMED

DESIGN PARAMETERS	STANDARD
VALVE DESIGN	ANSI B 16.34
FACE TO FACE DIM.	ANSI B 16.1
FLANGE CONNECTION RATING	ANSI B 16.5, 150# / DIN PN 10 / JIS
TESTING STANDARD	API 598
CONNECTION	FALNGED, RF

TEST PERFORMED	API 598
SIZES	1/2" TO 6"
HIGH PR. SHELL TEST HYDRO	420 PSI
HISH PR. SEAT TEST HYDRO	270 PSI
LOW PR. SEAT TEST PNEUMATIC	105 PSI

SPARK TEST	KVDC
SPARK TEST / MM	5

## PRESSURE TEMPERATURE GRAPH FOR WCB+ PFA FOR LINED REDUCED PORT SIDE SPLIT BALL VALVES



### VALVE WEIGHT

SIZE	CODE	WT. IN KGS	WT. IN LBS	SIZE	CV Full Port	TORQUE NM	TORQUE INCH-LBS
1/2"	0H	3	7	1/2"*	15	10	86
3/4"	75	4	9	3/4"*	25	15	133
1"	01	4.5	10	1"	50	15	133
1-1/2"	1H	7.5	16.5	1-1/2"	185	20	177
2"	02	12.5	27.5	2"	320	25	221
2-1/2"	2H	18	40	3"	805	35	310
3"	03	21	46	4"	1600	65	575
4"	04	33	73	6"	4500	175	1549
6"	06	65	143				

1/2" & 3/4" is Centre Split Design



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