

# MODEL DBB

## Double Block & Bleed Expanding Plug Valve



### INTRO

GPI expanding plug valves are designed for applications where positive shut-off, verifiable zero leakage and double block and bleed (DB&B) and or double isolation and bleed (DIB) capabilities are required.

These are ideal for a variety of applications including leased automated custody transfer (LACT), product metering, aviation fueling, product isolation, blending, lockout/tagout (LOTO), multi-product manifolds, tank storage and other DB&B applications.



### AVIATION FUELING SYSTEMS :

Airport fueling systems require valves that close quickly and have verifiable seal integrity. This allows for quick maintenance, repair, leak location and testing. The GPI DB&B valve's verifiable zero leak rate ensures that maintenance, repair, leak location and hydrant testing can be done safely and quickly.

## Applications

### BLENDING UNITS :

Accurate blending of ethanol or other regional fuel grades requires valves with exceptionally high seal integrity to ensure accurate measurement of additives and blending stocks. The GPI DB&B is specifically designed for these type of applications.

### PRODUCT ISOLATION :

Secure isolation of biofuels or other process-sensitive fluids is critical for environmental and process safety. The GPI DB&B's verifiable zero leakage and positive shutoff capabilities make it an ideal solution for isolation and process-sensitive applications.

### MULTI-PRODUCT MANIFOLDS :

Pipeline, refinery and transfer manifolds need to flow multiple products (e.g. diesel, jet fuel, gasoline, blending stocks, etc.) reliably and without contamination. The GPI DB&B is an effective tool for preventing product cross-contamination.

### PROVER LOOPS :

Proper calibration of flow meters requires that every valve in the prover loop system must have a zero leak rate. Any leak could mean an error in calibration. GPI DB&B valves are used to ensure leak tight closure and accurate calibration..

### CUSTODY TRANSFER UNITS:

Transfer of valuable media relies on accurate measurement of product transfer quantity. The GPI DB&B provides positive shutoff and zero leak rate, thereby ensuring the accuracy of transfer quantity calculations.

### OFFSHORE PLATFORMS :

Valve leakage on an offshore platform can result in damage to equipment and the environment. The GPI DB&B has excellent low pressure positive shutoff characteristics and is a great choice for use on offshore platforms.

### TERMINALS :

Terminals used for loading and unloading tankers require valves with positive sealing in order to prevent environmental damage due to spillage. The GPI DB&B provides positive sealing and zero leak rate in a reliable single valve solution.

### TANK FARMS (OIL DEPOTS) :

Tank isolation valves, which are operated frequently, require zero leak rate and a high degree of reliability. The GPI DB&B valve provides a reliable, high integrity seal designed for frequent and long-term use.



## AVAILABLE SIZES AND PRESSURES

sizes (inches)

ANSI CLASS	2	3	4	6	8	10	12	14	16	18	20	24	26	28	30	36
150	HW/GO	HW/GO	HW/GO	HW/GO	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*
300	HW/GO	HW/GO	HW/GO	HW/GO	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	N/A
600	HW/GO	HW/GO	HW/GO	GO	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	GO*	N/A

HW = Available Only as Handwheel Operated

\* These sizes have lifting lugs

GO = Available Only as Gear Operated

HW/GO = Available as Handwheel or Gear Operated

## STANDARD MATERIALS OF CONSTRUCTION (Alternative materials available upon customer request)

All GPI plug valves are constructed to meet requirements of NACE MR0175 / ISO 15156

Component	standard temp. (-20° to 400°f) (-29° to 204° C)	Lowtemp. (-40° to 400°f) (-40° to 204° C)
Body	Cast ASTM A216 WCC *	Cast ASTM A352 LCC *
Bonnet/ Lower Plate	Cast ASTM A216 WCC	Cast ASTM A352 LCC
Plug and Stem	Cast ASTM A216 WCC **	Cast ASTM A352 LCC **
Slips	Cast Ductile Iron / Cast A395 GR 60-40-18	Cast ASTM A352 LCC
Packing Gland	Forged 410 SS	Forged ASTM A350 Gr. LF2
Stem Packing	Pre-Formed Flexible Graphite	Pre-Formed Flexible Graphite
Gasket	Pre-Formed Flexible Graphite	Pre-Formed Flexible Graphite
O-Rings & Slip Seals	Viton B ***	Viton GFLT ***
Bonnet to Body Studs	ASTM A193 Gr. B7M	ASTM A320 Gr. L7M
Bonnet Nuts	A 194 Gr. 2HM	A 194 Gr. 2HM
Relief System Tubing	AISI 316 SS / AISI 304 SS	AISI 316 SS / AISI 304 SS
Relief System Needle Valve	AISI 316 SS	AISI 316 SS
Relief System Check Valve	AISI 316 SS	AISI 316 SS

\* Electroless Nickel Plated - Entire Internal Surface

\*\* Electroless Nickel Plated - Entire Component

\*\*\* All GPI valves in class 300 & 600 are supplied with double reinforced Viton seals.

## OPTIONAL MATERIALS OF CONSTRUCTION & OTHER CUSTOMIZED FEATURES

GPI DB&B Expanding Plug Valves are available in a variety of configurations and material of construction depending on customer preferences, specifications, severe temp ranges and / or service conditions.

Common valve options include:

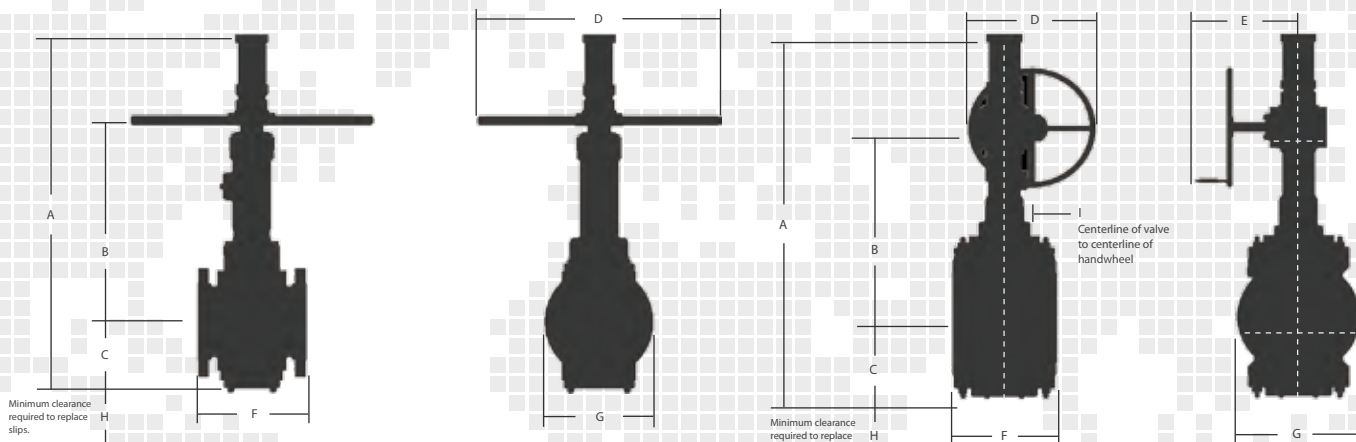
- Flanges drilled to DIN or other regional standards, or constructed with face to face dimensions specific to particular projects
- Subjected to more rigorous customer-specified extended testing regimes
- Special coating applications based on customer specifications, service conditions or cosmetic preferences
- Constructed to withstand extreme high or low temperatures - Please consult factory
- Customer specified limit switches or other accessories
- Special Automatic Body Bleed Valve (ABBV) or customer specific relief systems

# DIMENSIONAL DATA

## Specifications



### Dimension Tables



Class	size	Oper.	A		B		C		D		f		G		H		Weight		(Number) & size tapped Holes Each flange	CV (Gpm)
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs	kgs		
150	2	37H	18.0	457	10.6	269	4.0	102	10	254	7	178	6	152	3	76	46	21	none	202
	3	37H	18.0	457	10.6	269	4.0	102	10	254	8	203	7.5	191	3	76	59	27	none	208
	4	50H	27.5	699	16.0	406	6.0	152	20	508	9	229	9	229	4.5	114	132	60	none	594
	6	50H	32.6	828	18.0	457	7.5	191	20	508	10.5	267	1	279	8	203	196	89	(4) 3/4"-10 UNC	1438
300	2	37H	18.0	457	10.6	269	4.0	102	10	254	8.5	216	6.	165	3	76	52	24	none	212
	3	37H	18.0	457	10.6	269	4.0	102	10	254	11.1	282	8.25	210	3	76	73	33	none	223
	4	50H	28.3	719	16.0	406	5.5	140	20	508	12	305	10	254	5	127	158	72	none	624
600	2	50H	26.0	660	15.5	394	4.0	102	20	508	11.5	292	6.5	165	2.5	64	100	45	none	288
	3	50H	26.0	660	16.0	406	5.0	127	20	508	14	356	8.3	211	3.5	89	142	64	none	300

Class	size	Oper.	A		B		C		D		E		f		G		H		I		Weight		(Number) & size tapped Holes Each flange	CV (Gpm)
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs	kgs		
150	2	37G	22.8	579	11.9	302	4.0	102	10	254	12.4	315	7	178	6	152	3	76	1.8	44	69	31	none	202
	3	37G	22.8	579	11.9	302	4.0	102	10	254	12.4	315	8	203	7.5	191	3	76	1.8	44	78	35	none	208
	4	55G	30.0	762	16.1	409	6.0	152	10	254	14.7	373	9	229	9	229	4.5	114	2.4	61	118	54	none	594
	6	55G	34.6	879	18.3	465	7.5	191	10	254	14.4	366	10.5	267	11	279	10	254	2.4	61	180	82	(4) 3/4"-10 UNC	1438
	8	62G	42.5	1080	22.0	559	9.2	234	14	356	14.7	373	11.5	292	13.5	343	14	356	3	76	314	143	(4) 3/4"-10 UNC	2428
	10	62G	46.0	1168	24.0	610	11.0	279	14	356	14.7	373	13	330	16	406	16	406	3	76	483	220	(4) 7/8"-9 UNC	3588
	12	75G	55.0	1397	31.0	787	12.5	318	20	508	14.7	373	14	356	19	483	26	660	3.5	89	719	327	(4) 7/8"-9 UNC	4012
	14	75G	58.0	1473	32.5	826	14.3	363	20	508	14.7	373	15	381	21	533	28	711	3.5	89	938	426	(4) 1.0"-8 UNC	5500
	16	12G	65.0	1651	39.0	991	16.0	406	20	508	17.5	445	16	406	23.5	597	30	762	5	127	1225	557	(8) 1.0"-8 UNC	7016
	16V	75G	58.0	1473	32.5	826	14.3	363	20	508	14.7	373	16	406	23.5	597	28	711	3.5	89	1110	503	(8) 1.0"-8 UNC	5500
	18	12G	60.0	1524	36.0	914	14.0	356	20	508	17.5	445	34	864	25	635	30	762	5	127	2658	1206	none	10900
	18V	12G	64.9	1648	38.7	983	16.0	406	20	508	17.5	445	17	432	25	635	30	762	5	127	1319	600	(8) 1 1/8"-8 UNC	7000
	20	12G	63.0	1600	37.0	940	15.3	389	20	508	17.5	445	40	1016	27.5	699	27	686	5	127	3306	1500	none	15730
	20V	12G	69.5	1765	40.3	1024	18.6	472	20	508	17.5	445	32	813	27.5	699	32	813	5	127	2780	1264	(4) 1 1/8"-8 UNC	8500
	24	12G	75.0	1905	44.0	1118	21.0	533	20	508	17.5	445	48	1219	32	813	32	813	5	127	6264	2841	none	24000
	24V	12G	77.9	1979	45.6	1158	21.8	554	20	508	17.5	445	36	914	32	813	37	940	5	127	4682	2128	(8) 1 1/4"-8 UNC	11250
	26	14G	99.0	2515	56.7	1441	29.5	748	32	813	26	660	42	1067	34.3	870	38	965	9	229	8736	3971	(16) 1 1/4"-8 UNC	27778
	28	14G	99.0	2515	56.7	1441	29.5	748	32	813	26	660	42	1067	36.4	925	38	965	9	229	9049	4113	(12) 1 1/4"-8 UNC	31675
30	15G	97.3	2471	75.2	1910	27.4	696	32	813	26	660	60	1524	38.8	986	41	1041	9	229	15568	7076	(12) 1 1/4"-8 UNC	33000	
36	15G	119.2	3028	76.0	1930	30.0	762	32	813	26	660	78	1981	46	1168	41	1041	9	229	22008	10004	none	48000	

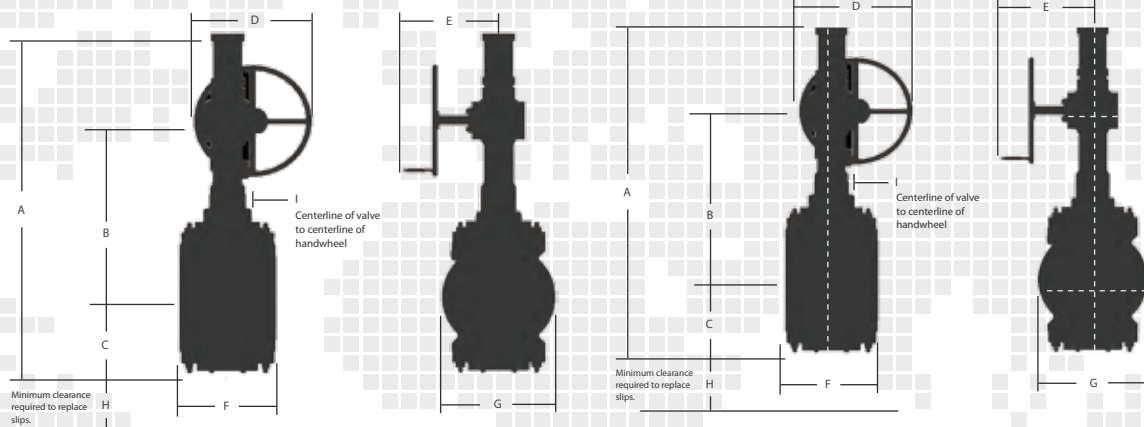
(V) Designates a valve with a reduced face-to-face dimension versus the GPI standard pattern, except for the 16V

# DIMENSIONAL DATA

## Specifications



## Dimension Tables



Class	size	Oper.	A		B		C		D		E		f		G		H		I		Weight		(Number) & size tapped Holes Each flange	CV (Gpm)
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs	kgs		
300	2	37G	22.8	579	11.9	302	4.0	102	10	254	12.4	315	8.5	216	6.5	165	3	76	1.8	46	74	34	none	212
	3	37G	22.8	579	11.9	302	4.0	102	10	254	12.4	315	11.1	282	8.3	211	3	76	1.8	46	90	41	none	223
	4	55G	30.0	762	16.2	411	5.5	140	10	254	14.7	373	12	305	10	254	5	127	2.4	61	142	65	none	624
	6	62G	39.0	991	20.5	521	7.7	196	14	356	14.7	373	15.9	404	12.5	318	10	254	3	76	209	95	none	1776
	8	75G	49.0	1245	28.0	711	9.5	241	20	508	14.7	373	16.5	419	15	381	14	356	3.5	89	571	260	(4) 7/8" -9 UNC	3008
	10	75G	51.8	1316	29.0	737	11.0	279	20	508	14.7	373	18	457	17.5	445	16	406	3.5	89	700	318	(4) 1.0" -8 UNC	3550
	12	12G	61.0	1549	36.5	927	14.0	356	20	508	17.5	445	19.8	503	20.5	521	26	660	5	127	1383	629	(8) 1-1/8" -8 UNC	4712
	14	12G	60.9	1547	36.8	935	13.7	348	20	508	17.5	445	30	762	23	584	26	660	5	127	1470	668	none	6000
	16	12G	60.3	1532	36.5	927	13.5	343	20	508	17.5	445	33	838	25.5	648	23	584	5	127	2651	1205	none	9400
	16F	14G	81.4	2066	49.6	1260	18.9	481	32	813	26	660	35	889	25.5	648	27	686	9	229	5521	2504	(8) 1-1/4" -8 UNC	13400
	18	12G	71.0	1803	40.5	1029	17.0	432	20	508	17.5	445	36	914	28	711	26	660	5	127	3984	1811	(12) 1 1/4" -8 UNC	11500
	20	14G	81.4	2068	48.0	1219	20.0	508	32	813	26	660	39	991	30.5	775	29	737	9	229	5802	2637	(12) 1-1/4" -8 UNC	16300
	24	14G	91.3	2319	54.1	1373	24.5	621	32	813	26	660	45	1143	36	914	38	965	9	229	7883	3583	none	27000
30	15G	120.0	3048	71.0	1803	32.5	826	32	813	26	660	65	1651	43	1092	41	1041	9	229	21000	9545	none	33500	

Class	size	Oper.	A		B		C		D		E		f		G		H		I		Weight		(Number) & size tapped Holes Each flange	CV (Gpm)
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	Lbs	kgs		
600	2	55G	28.0	711	15.5	394	4.0	102	10	254	14.5	368	11.5	292	6.5	165	2.5	64	2.4	61	116	23	none	288
	3	55G	29.0	737	16.0	406	5.0	127	10	254	14.5	368	14	356	8.3	211	3.5	89	2.4	61	129	59	none	300
	4	62G	36.0	914	19.0	483	6.2	157	14	356	14.7	373	17	432	10.8	274	3.5	89	3	76	195	89	none	850
	6	75G	45.6	1158	26.0	660	8.0	203	20	508	14.7	373	22	559	14	356	10	254	3.5	89	453	206	none	2265
	8	75G	48.2	1224	27.0	686	10.0	254	20	508	14.7	373	26	660	16.5	419	12	305	3.5	89	906	412	none	3600
	10	12G	58.4	1483	36.5	927	11.5	292	20	508	17.5	445	31	787	20	508	14	356	5	127	1647	749	none	5100
	12	12G	61.0	1549	37.5	953	13.1	333	20	508	17.5	445	33	838	22	559	22	559	5	127	1744	793	none	9300
	14	14G	75.9	1928	47.0	1194	16.0	406	32	813	26	660	35	889	23.8	605	25	635	9	229	4316	1962	(4) 1-3/8" -8 UNC	9500
	16	14G	75.7	1923	47.0	1194	15.8	401	32	813	26	660	39	991	27	686	25	635	9	229	4728	2149	(8) 1-1/2" -8 UNC	11000
	18	14G	79.5	2019	48.8	1240	18.1	461	32	813	26	660	43	1092	29.3	743	25	635	9	229	6429	2922	(8) 1-5/8" -8 UNC	13457
	20	15G	99.4	2525	69.5	1765	20.5	521	32	813	26	660	47	1194	32	813	25	635	9	229	10039	4563	none	16500
	24	15G	107.8	2738	71.5	1816	23.5	597	32	813	26	660	55	1397	37	940	25	635	9	229	15000	6804	(8) 1-7/8" -8 UNC	27500

# MODEL DBB

## Double Block & Bleed Expanding Plug Valve

Manufactured by  
**GPI** **GHATGE PATIL**  
**INDUSTRIES LTD.**



### Limited Product Warranty

All products manufactured or sold by GPI are warranted against defects of material and workmanship for a period of twelve (12) months from the date of installation or eighteen (18) months from date of shipment, whichever period first expires, when all such products are used in the service and within the pressure range for which they were manufactured.

In the case of products or parts not wholly of GPI manufacture, GPI liability shall be limited to the extent of GPI recovery from the original manufacturer of such products or parts under its warranty or liability to GPI.

Any repair work performed by GPI is warranted for one year from completion of such repairs and applies only to work performed. If, within these specified periods, GPI receives notice from Buyer of any alleged defect in or nonconformance of any product or repair and if in GPI sole judgment the product or repair does not conform or is found to be defective in material or workmanship, then, Buyer shall, at GPI request, return the part or product F.O.B. To GPI designated plant or service location.

GPI has no liability for removal or reinstallation of products or equipment. GPI, at its option and expense, shall repair or replace the defective part or product, or repay to Buyer the full price paid by Buyer for such defective part, repair or product. Any repayment of purchase price shall be without interest.

GPI warranty liability, including defects caused by GPI negligence, shall be limited to such repair, replacement or refund, and shall not include claims for labor costs, expenses of Buyer resulting from such defects, recovery under general tort law or strict liability or for damages resulting from delays, loss of use, or other direct, indirect, incidental or consequential damages of any kind.

GPI will not be responsible for failures of products which have been in any way tampered with or altered by anyone other than an authorized representative of GPI, failures due to lack of compliance with recommended maintenance procedures or products which have been repaired or altered in such a way (in GPI judgment) as to affect the products adversely.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE WHICH EXCEED THE FOREGOING WARRANTY.

If you have queries regarding this warranty or if you would like information about other GPI products and services please contact us at the address and phone numbers below.



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