





ALUMINUM BRONZE DISC ORANGE BODY - BUNA-N SEAT B5-LGLAB - Lever Handle B5-LGGAB - Gear Handle

> STAINLESS STEEL DISC GRAY BODY - EPDM SEAT B5-LGLSE - Lever Handle B5-LGGSE - Gear Handle

**B5-LGLSE** 

**B5-LGLAB** 

B5-LGLS

B5-LGGS

STAUMESS STEEL DISC

STAINLESS STEEL DISC RED BODY - BUNA-N SEAT B5-LGLS - Lever Handle B5-LGGS - Gear Handle

**DUCTILE IRON DISC**BLACK BODY - BUNA-N SEAT
B5-LGL - Lever Handle
B5-LGG - Gear Handle





## Description

The Matco-Norca B5 Series Butterfly Valve is the newest addition to our family of high quality Iron Valves.

Offered in Wafer style and Lug style, these valves are available with Ductile Iron, Aluminum-Bronze or 316 Grade Stainless Steel discs. These valves are in stock with both BUNA-N and EPDM liners. Viton liners are available upon request.

The new B5 design incorporates a one-piece stem with an important new feature. The disc is broached to accept the milled square stem which allows the disc to float, providing substantially improved torque values.

The B5 is available with lever operators and worm gear operators and features a bubble tight shut-off. The lug configuration is suitable for dead-end service. All Matco-Norca Butterfly Valves can be modified with extensions and various actuators.

## **Features**

- 200WOG for 2" 12", 150WOG for 14" 24"
- \* Teflon Graphite Stem Bushing for positive stem alignment.
- Stem includes a snap ring to prevent inadvertent stem removal.
- Unique Stem to Disc design.
- All valves are epoxy coated.
- Torque Values up to 33% less than other valve designs.
- Precision disc machining provides bubble-tight shutoff.
- Top and bottom alignment holes.
- Ten Position lock lever handles are ideal for on-off and throttling applications.



# **Applications**

The Matco-Norca B5 Series Butterfly Valves are suitable for many applications. The B5 is well suited for:

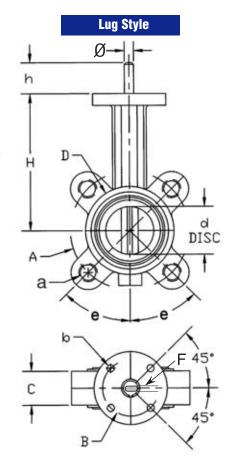
- Agricultural and Turf Irrigation
- Water Distribution
- Waste Water Treatment
- Industrial Applications Including Chemical, Pulp & Paper and a Wide Array of General Industrial Mediums.
- Valves with BUNA-N Liners are suitable for oil and gas applications.
- Valves with EPDM Liners are suitable for high temperature water and air applications: 250°F.

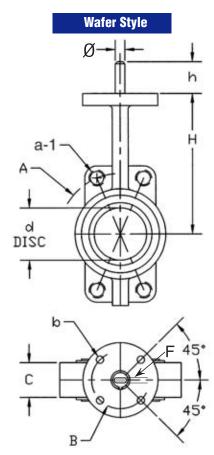




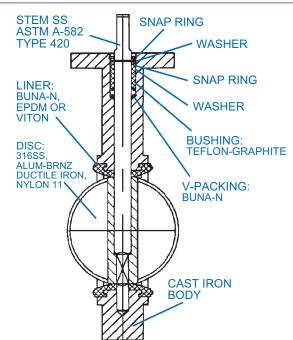
# Design, Dimensions & Material Specifications Torque Chart

	: Inch Pounds PSI Line Pressure	14" - 24"": Inch Pounds @ 150 PSI Line Pressure					
Size	Torque	Size	Torque				
2"	50	14"	2500				
2.5"	50	16"	3000				
3"	250	18"	3000				
4"	250	24"	4250				
5"	500						
6"	600						
8"	1000						
10"	1800						
12"	2000						

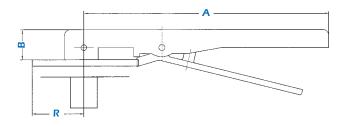




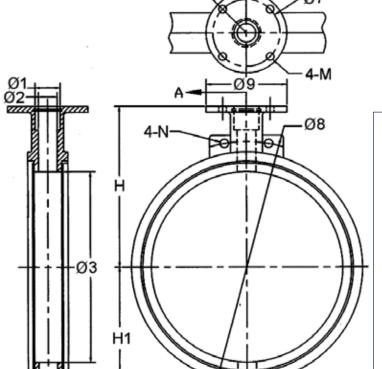
Size	Н	d+.05	D	A	а	a-1	В	b	C	h	$\mathbf{Stem} \varnothing$	F (flat)	е
2"	5.50	2.05	3.54	4.75	5/8"-4	11/16"	2.25	.284	1.625	1.25	.564	.375	45°
2.5"	6.00	2.52	4.02	5.50	5/8"-4	11/16"	2.25	.284	1.750	1.25	.564	.375	45°
3"	6.25	3.09	4.69	6.00	5/8"-4	11/16"	2.25	.284	1.750	1.25	.564	.375	45°
4"	7.00	4.09	5.91	7.50	5/8"- 4	11/16"	2.75	.406	2.000	1.25	.627	.438	22.5°
5"	7.50	4.85	6.81	8.50	3/4" - 8	13/16"	2.75	.406	2.125	1.25	.752	.500	22.5°
6"	8.02	5.98	7.99	9.50	3/4" - 8	13/16"	2.75	.406	2.125	1.25	.752	.500	22.5°
8"	9.50	7.97	10.23	11.75	3/4" - 8	13/16"	3.50	.472	2.500	1.25	.880	.625	22.5°
10"	10.75	9.86	12.64	14.25	7/8" - 12	15/16"	3.50	.472	2.500	2.00	1.130	.846	15°
12"	12.25	11.87	14.57	17.00	7/8" - 12	15/16"	4.25	.472	3.000	2.00	1.130	.846	15°



### Overall Dimensions of Handle Operators



Valve Size	A	В	R	Stem Size
2" - 3"	9.58	1.18	2.13	9/16"
4"	9.58	1.18	2.13	5/8"
5" - 6"	10.5	1.18	2.13	3/4"
8"	13.38	1.25	2.13	7/8"
10" - 12"	13.38	1.25	2.13	1-1/8"



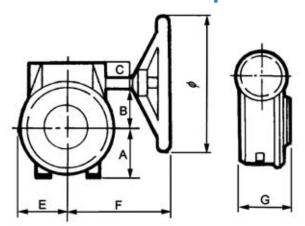


MODELS:	RLO/RWG	RLOAB/RWG-AB	RLOS/RWGS	RLOSE/RWGSE
	LGL/LGG	LGLAB/LGG-AB	LGLS/LGGS	LGLSE/LGGSE
Body	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Disc	Ductile Iron	Aluminum-Bronze	SS 316	SS 316
Seat	Buna-N *	Buna-N *	Buna-N *	EPDM
Stem	420 Stainless	420 Stainless	420 Stainless	420 Stainless
O-ring	Buna-N	Buna-N	Buna-N	EPDM
Bushing	Teflon-Graphite	Teflon-Graphite	Teflon-Graphite	Teflon-Graphite
Body Color	Black	Black	Red	Gray
Snap ring	Stainless	Stainless	Stainless	Stainless
Lever	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron
Gear	Cast Iron	Cast Iron	Cast Iron	Cast Iron

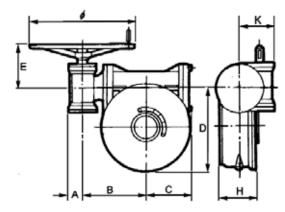
\*VITON & Nylon 11 Available on Special Order

Size	Ø1	Ø2	Ø3	Ø7	Ø8	Ø9	h3	Н	H1	M	N
14"	1.88	1.37	14.25	5.0	18.75	6	1.45	12.00	10.38	.56	1.06
16"	2.25	1.62	16.38	5.0	21.25	6	1.45	13.00	11.62	.56	1.06
18"	2.62	1.87	18.38	6.5	22.75	8	1.53	14.50	12.75	.81	1.19
20"	2.75	2.12	20.50	6.5	25.00	8	1.24	15.88	14.00	.81	1.19
24"	2.75	2.12	24.96	6.5	29.50	8	1.24	22.25	16.14	.81	1.38

## Overall Dimensions of Worm Gear Operators



## Overall Dimensions of 2 Stage Worm Gear Operators



Valve Size	A	В	C	E	F	G	Ø
2" - 6"	1.97	1.65	1.22	2.07	5.81	2.95	5.91
8" - 10"	3.15	2.83	1.54	2.95	9.06	3.35	11.81
12" - 14"	3.19	2.83	1.57	3.19	9.02	3.39	11.81
16" - 20"	5.12	4.72	3.54	5.12	11.81	4.86	11.81



### **COEFFICIENT OF VOLUME CV.**



Valve Size	Stem Diameter	Free Area	Diameter in		Coefficient of Volume Cv (GPM AT 1P)  Disc Opening in Degrees							Nom. Pipe Area		
Inches	Inches	ft <sup>2</sup>	Inches	10	20	30	40	50	60	70	80	90	ft <sup>2</sup>	
2	.564	.0098	1.34	.119	7.17	13.46	22.44	34.00	49	57	62	62	.022	
2.5	.564	.0174	1.79	.815	11.21	28.68	44.68	65.28	87	106	118	123	.034	
3	.564	.0310	2.39	.267	16.14	41.30	64.35	94.20	135.3	172	208	239	.049	
4	.627	.0512	3.07	.476	28.70	73.42	114.4	167.5	240.6	314	384	438	.087	
5	.752	.0814	3.86	.744	44.84	114.7	178.7	261.7	375.9	503	654	817	.136	
6	.752	.123	4.75	1.07	64.57	165.2	257.4	376.8	541.3	744	995	1320	.196	
8	.880	.265	6.97	1.90	114.8	293.7	457.6	669.9	962.3	1367	1775	3019	.349	
10	1.130	.379	8.34	2.98	179.4	458.9	714.9	1047	1504	2124	2924	3978	.545	
12	1.130	.643	10.86	4.28	258.3	660.8	1030	1507	2165	3099	4458	6818	.785	
14	1.250	.689	11.25	5.54	333.7	853.8	1330	1947	2798	3668	5182	7256	.939	
16	1.312	.934	13.37	7.17	432.2	1106	1723	2522	3623	4857	6985	10683	1.23	
18	1.500	1.260	15.20	9.13	550.6	1409	2195	3213	4616	6216	9063	13867	1.55	
20	1.625	1.569	16.96	11.32	682.0	1745	2719	3980	5718	7740	11284	17193	1.93	
24	2.000	2.418	21.06	16.26	980.1	2508	3907	5720	8217	11454	16803	26449	2.92	

### **B5** EXTENSION KITS

### FOR USE IN UNDERGROUND INSTALLATIONS

B5 Extensions feature one piece inner stem construction, solid outside housing with full face flanges with BUNA gaskets for water tight seal. The extensions accommodate 10 position levers or gear operators. The extension kits include all necessary hardware for proper mounting to the valve.

### **AVAILABLE LENGTHS**

B5 extensions are available in the following lengths: 24", 36", 48", 60", 72".

### EXTENSION - VALVE DIAMETER DESIGNATION

Each letter below corresponds to the valve size for which you are ordering an extension.

E G В C D 2"-3" 4" 5"-6" 8" 10" 12" 14" 16" 18"

### **EXAMPLE:**

To order a 48" Extension for an 8" Butterfly valve, the correct product number would be:

- Nominal B5-X48-D Valve Part # — Valve Size Designates Extension Extension Length

**B5-RLO-X-48D** 



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