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Globe Valves:
UNV Series Direct Coupled Actuator
 2-way Valves
 3-way Valves
UGLK Series Linkage Solution
 2-way Valves
 3-way Valves

Retrofit Solutions for Virtually any Valve
Manufacturers:
Globe: Siemens, Johnson
 Honeywell, Invensys
 and more
Control: On/Off, Floating, 2-10 VDC
 Multi-Function Technology®
 Spring Return or
 Non-Spring Return

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SELF ADAPTING STROKE

The NV Series actuators, which are used with the UNV retrofit kits (Figure 1), are stroke adapting actuators. In modulating applications, the actuator will recognize the stroke length requirement and automatically adjust the control signal for maximum resolution.

RATINGS FOR STEAM APPLICATION

The UNV-035 is rated for 50 psi inlet steam. All other UNV solutions are rated for 15 psi inlet steam.

All UGLK linkages can be used with Belimo actuators up to a maximum of 50 psi steam

For other applications between 50 psi and 100 psi inlet steam, please call Belimo Customer Service for assistance



Figure 1

SPRING RETURN FUNCTION

When ordering a UNV kit with an NV Series spring return actuator, you must know the required spring return direction. The NVF24-MFT US springs to the UP position and the NVF24-MFT-E US springs to the DOWN position.

If the required spring return direction is not known, a UGLK linkage (Figure 2) and spring return actuator may be selected. The rotary actuators can be turned over on the linkage and produce a spring return function in either direction.

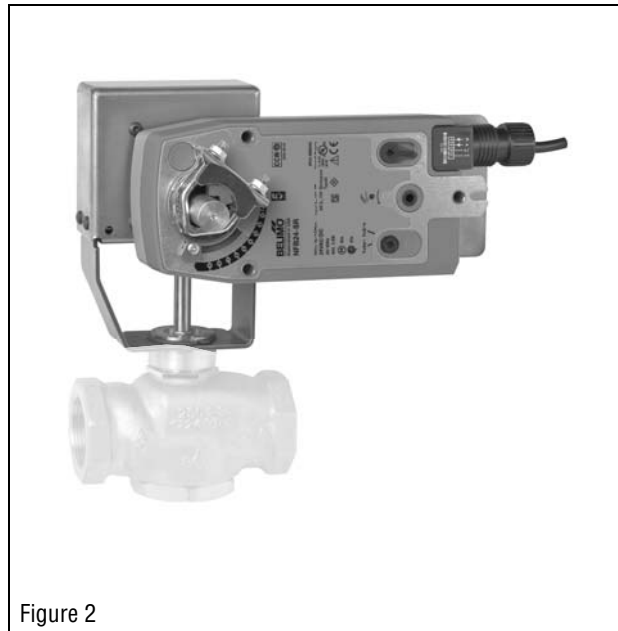
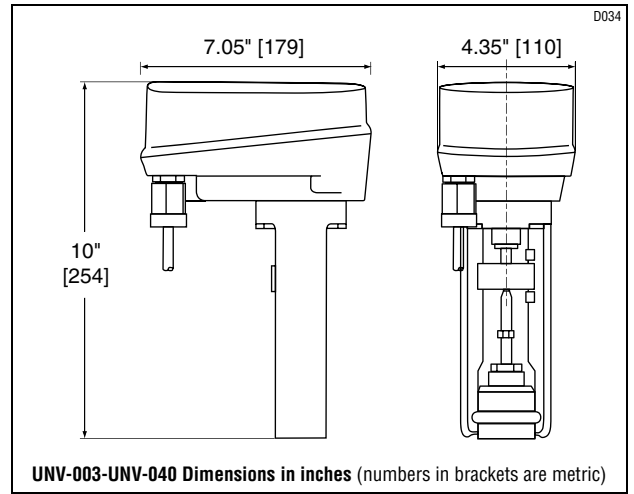
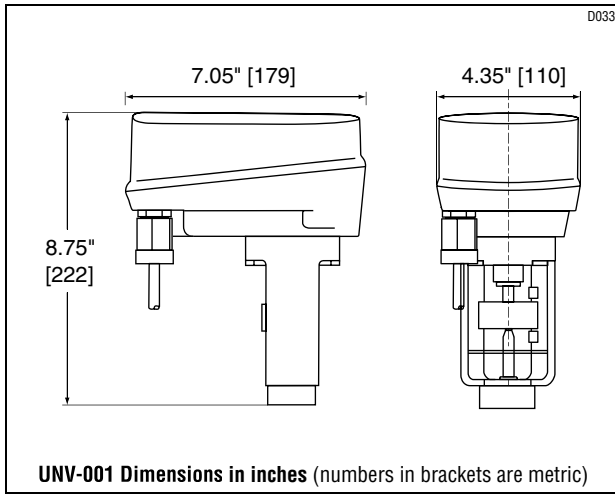
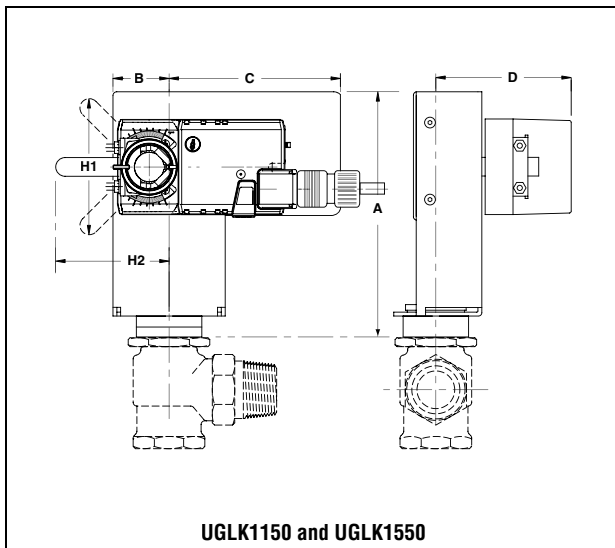
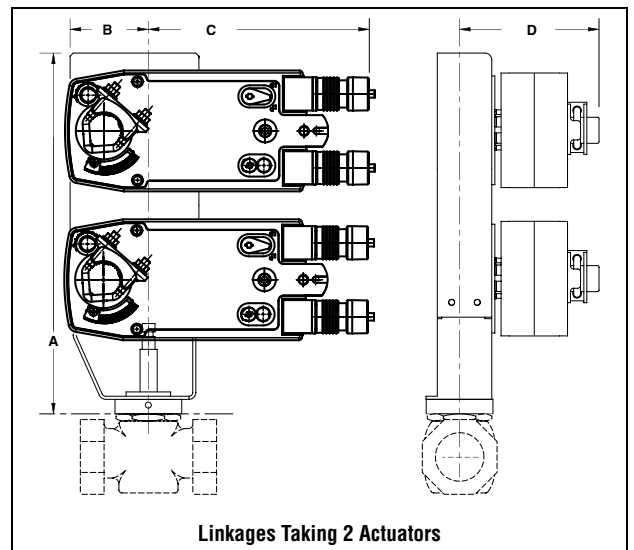
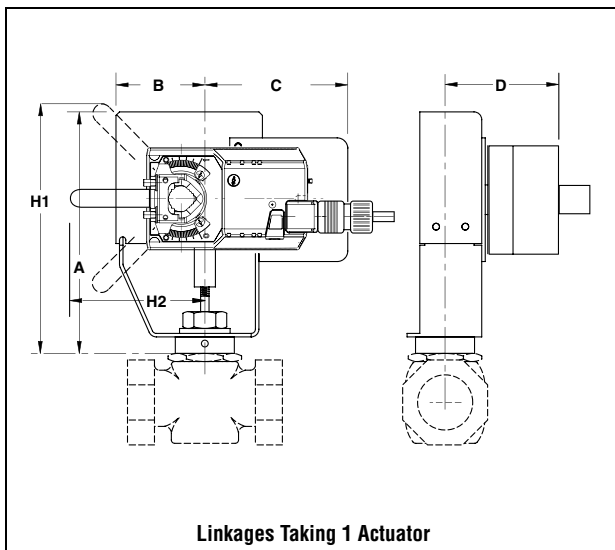


Figure 2

MAXIMUM DIMENSIONS – UNV with NV Series Actuators



MAXIMUM DIMENSIONS – UGLK Linkages with Rotary Actuators



MAXIMUM DIMENSIONS

Linkages Taking 1 Actuator			
A	7"-14" [356]	D	5" [127]
B	3" [76]	H1	9.5" [241]
C	9" [229]	H2	9.5"

Linkages Taking 2 Actuators			
A	19" [483]	D	5" [127]
B	3" [76]		
C	9" [229]		

UGLK1150 and UGLK1550			
A	6.5" [165]	D	4.0" [102]
B	1.5" [33]	H1	4.0" [102]
C	5.0" [127]	H2	3.5" [89]

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How to select a Globe Valve Retrofit Solution

Follow the four steps listed below when ordering a globe valve retrofit kit.

Example: Siemens 658 series, 1¼" valve, needing **90 psi** close-off pressure and **Spring Return** actuation.

- Based on the **Valve Number, Configuration** and **Size**, select the proper linkage or linkages for your valve.
Some valves will have more than one linkage, use the actuator selection guide to determine the appropriate linkage for a given application. The 658 Series valve uses linkage **UGLK1350** or **UGLK1214**.
- Use the actuator selection guide and your close-off pressure requirement to select the correct actuator series for your application. Looking at the **UGLK1350** there are no spring return actuators that will achieve 90 psi close-off for 1¼" valve. Looking at the **UGLK1214**, the **NF Series** actuator will provide **156 psi close-off** for the 1¼" valve.
- Use the actuator listings to make your final actuator selection. Decide between **NFB24** and **NFB24-MFT**.
- HOW TO ORDER: **Item 1 1pc UGLK1214**
Item 2 1pc NFB24-MFT



1 Select linkage solution based on the **Valve Number, Configuration, and Size**; select the proper **Linkage Solution** for your valve.

EXAMPLE PAGE
Siemens\Landis\Powers
591, 599 and 658 Series Valves - NPT Bodies
Actuator Selection Guide

Valve Body Model	Valve Configuration	Size	Body Type	Flow	Failsafe	Close-Off psi	Close-Off psi (AFX Series)	Belimo Actuator Series (Sold Separately)	Belimo Linkage
658 Series	2-way	1"	NPT	N/a	No	120	(blank)	LM	UGLK1350
						229	(blank)	NV	UNV-004
						244	(blank)	NM	UGLK1350
					Yes	250	(blank)	AM	UGLK1214
						95	(blank)	NVG	UNV-004
						183	(blank)	LF	UGLK1350
	1¼"	NPT	N/a	No	244	(blank)	NF	UGLK1214	
					250	(blank)	AF	UGLK1214	
					78	(blank)	LM	UGLK1350	
				Yes	147	(blank)	NV	UNV-004	
					156	(blank)	NM	UGLK1350	
					235	(blank)	NVG	UNV-004	
3-way	½"	NPT	N/a	No	250	(blank)	AM	UGLK1214	
					61	(blank)	LF	UGLK1350	
					117	(blank)	NVF	UNV-004	
				Yes	156	(blank)	NF	UGLK1214	
					231	250	AF	UGLK1214	
					250	(blank)	LM	UGLK1350	
								AM	UGLK1214
								NV	UNV-004
								LF	UGLK1350
								NF	UGLK1214
								NVF	UNV-004

UGLK1214
Example: **Siemens Series #658, 2-Way, 1¼"** valve to be retrofitted.
Choose correct kit **UGLK1214**.

2 Verify close-off is suitable for application. Looking at the **UGLK1214**, the **NF Series** actuator will provide **156 psi close-off** for the **1¼"** valve.

3 Select actuator based on needed control type. Decide between **NFB24** and **NFB24-MFT**.

Model	Control Input	Feedback	Power Supply	Running Time(s)		VA Rating	Auxiliary Switch	Cable Length
				M	◆◆			
BASIC PRODUCTS								
NFB24	On/Off	-	24 VAC/DC	<75	20	8.5	-	3 ft.
NFB24-S	On/Off	-	24 VAC/DC	<75	20	8.5	Built-In	3 ft.
NFBUP	On/Off	-	24-240 VACi	<75	20	9.5	-	3 ft.
NFBUP-S	On/Off	-	24-240 VACi	<75	20	9.5	Built-In	3 ft.
NFB24-SR	2-10 VDC	2-10 VDC	24 VAC/DC	95	<20	6	-	3 ft.
NFB24-SR-S	2-10 VDC	2-10 VDC	24 VAC/DC	95	<20	6	Built-In	3 ft.
NFB24-MFT	2-10 VDC	2-10 VDC	24 VAC/DC	150	<20	9	-	3 ft.
NFB24-MFT-S	2-10 VDC	2-10 VDC	24 VAC/DC	150	<20	9	Built-In	3 ft.
CUSTOMIZE PRODUCTS								
NFX24	NF200 1A1 003**	On/Off	-	24 VAC/DC	<75	20	8.5	3 ft.
NFX24	NF200 1A3 003**	On/Off	-	24 VAC/DC	<75	20	8.5	10 ft.
NFX24-S	NF220 1A1 003**	On/Off	-	24 VAC/DC	<75	20	8.5	3 ft.
NFX24-S	NF220 1A3 003**	On/Off	-	24 VAC/DC	<75	20	8.5	10 ft.
NFXUP	NF000 1A1 003**	On/Off	-	24-240 VACu	<75	20	9.5	3 ft.
NFXUP	NF000 1A3 003**	On/Off	-	24-240 VACu	<75	20	9.5	10 ft.
NFXUP-S	NF000 1A1 003**	On/Off	-	24-240 VACu	<75	20	9.5	3 ft.
NFXUP-S	NF000 1A3 003**	On/Off	-	24-240 VACu	<75	20	9.5	10 ft.
NFX24-SR	NF400 1A1 H01**	2-10 VDC (4-20mA*)	2-10 VDC	24 VAC/DC	95	<20	6	3 ft.
NFX24-SR	NF400 1A3 H01**	2-10 VDC (4-20mA*)	2-10 VDC	24 VAC/DC	95	<20	6	10 ft.
NFX24-SR-S	NF420 1A1 H01**	2-10 VDC (4-20mA*)	2-10 VDC	24 VAC/DC	110	<20	6	3 ft.

4 Complete Ordering Example:
Item 1: **UGLK1214**
Item 2: **NFB24-MFT**

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LINEAR ACTUATORS						
SERIES	MODEL	Spring Return	Control Input	Feedback Position	Power Supply	Standard Running Time
NVF Series	NVF24-MFT US	spring UP	Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	150 seconds
	NVF24-MFT-E US	spring DOWN	Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	150 seconds
NV Series	NV24-3 US		Floating Pt., On/Off		24 VAC/DC	150 seconds
	NV24-MFT US		Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	150 seconds
NVG Series	NVG24-MFT US		Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	150 seconds

ROTARY ACTUATORS SUGGESTION							
SERIES	MODEL	Spring Return	Electronic Fail Safe	Control Input	Feedback Position	Power Supply	Standard Running Time
LF Series*	LF24 US	•		24 VAC/DC		24 VAC/DC	Consult Specifications
	LF24-MFT US	•		Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	
NF Series*	NFBUP-X1	•		24 VAC/DC		24 VAC/DC	
	NFX24-MFT-X1	•		Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	
AF Series*	AF24 US, AFB24	•		24 VAC/DC		24 VAC/DC	
	AFX24-MFT-X1	•		Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	
LM Series*	LMB24-3-X1			Floating Pt., On/Off		24 VAC/DC	
	LMX24-MFT-X1			Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	
NM Series*	NMB24-3-X1			24 VAC/DC		24 VAC/DC	
	NMX24-MFT-X1			Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	
AM Series*	AMB24-3-X1			24 VAC/DC		24 VAC/DC	
	AMX24-MFT-X1			Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	
GM Series*	GMB24-3-X1			24 VAC/DC		24 VAC/DC	
	GMX24-MFT-X1			Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	
GK Series*	GKB24-3-X1		•	24 VAC/DC		24 VAC/DC	
	GKX24-MFT-X1		•	Variable with MFT (VDC, PWM, Floating Pt., On/Off)	variable VDC	24 VAC/DC	

*Please consult the Damper sections for a full list of product offerings. Standard run times should be considered in the selection. All air side products are applicable for retrofit kits. Select "X1" actuators come with a handle.

MULTI-FUNCTION TECHNOLOGY								
NV CODES	P-CODE			Control Input		Running Time	Built-in Feedback	
			ROTARY ACTUATOR CODES					
	V-10001	N01		P-10001	A01	2-10 VDC	150 seconds	2-10 VDC
	V-10002	N02		P-10002	A02	0-10 VDC	150 seconds	0-10 VDC
	V-10028	N1E		P-10028	A28	0-10 VDC	150 seconds	0-10 VDC
	V-10063	N1K		P-10063	A63	0.5-4.5 VDC	150 seconds	0.5-4.5 VDC
	V-10064	N1L		P-10064	A64	5.5-10 VDC	150 seconds	5.5-10 VDC
	V-20002	N1U		P-20002	W02	0.02-5.00 seconds PWM	150 seconds	2-10 VDC
	V-20003	N1V		P-20003	W03	0.10-25.5 seconds PWM	150 seconds	2-10 VDC
	V-30001	N24		P-30001	F01	Floating Pt.	150 seconds	2-10 VDC
	V-40002	N29		P-40002	J02	On/Off	150 seconds	2-10 VDC

Note: V-codes used for NV...Series actuator. All other MFT actuators use P-codes.

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Valve Body Model	Valve Configuration	Size	Body Type	Flow	Failsafe	Close-Off psi	Close-Off psi (AFX Series)	Belimo Actuator Series (Sold Separately)	Belimo Linkage
591 Series	2-way	2½"	Flanged	-	No	55	-	AM	UGLK1204
						110	-	GM	UGLK1204
						196	-	2*GM	UGLK1270
						196	-	2*GM	UGLK1270
						41	55	AF	UGLK1204
						82	110	2*AF	UGLK1270
					110	-	GK	UGLK1204	
					82	110	2*AF	UGLK1270	
					196	-	2*GK	UGLK1270	
					196	-	2*GK	UGLK1270	
					38	-	AM	UGLK1204	
					77	-	GM	UGLK1204	
		136	-	2*GM	UGLK1270				
		136	-	2*GM	UGLK1270				
		28	38	AF	UGLK1204				
		57	77	2*AF	UGLK1270				
		77	-	GK	UGLK1204				
		57	77	2*AF	UGLK1270				
		136	-	2*GK	UGLK1270				
		136	-	2*GK	UGLK1270				
		11	-	AM	UGLK1206				
		22	-	GM	UGLK1206				
		40	-	2*GM	UGLK1274				
		8	11	AF	UGLK1206				
	16	22	2*AF	UGLK1274					
	22	-	GK	UGLK1206					
	40	-	2*GK	UGLK1274					
	14	-	GM	UGLK1206					
	25	-	2*GM	UGLK1274					
	11	14	2*AF	UGLK1274					
	14	-	GK	UGLK1206					
	25	-	2*GK	UGLK1274					
	18	-	2*GM	UGLK1274					
	7	10	2*AF	UGLK1274					
	18	-	2*GK	UGLK1274					
	55	-	AM	UGLK1204					
	110	-	GM	UGLK1204					
	196	-	2*GM	UGLK1270					
	196	-	2*GM	UGLK1270					
	41	55	AF	UGLK1204					
	82	110	2*AF	UGLK1270					
	110	-	GK	UGLK1204					
	82	110	2*AF	UGLK1270					
	196	-	2*GK	UGLK1270					
	196	-	2*GK	UGLK1270					
	38	-	AM	UGLK1204					
	77	-	GM	UGLK1204					
	136	-	2*GM	UGLK1270					
	136	-	2*GM	UGLK1270					
	28	38	AF	UGLK1204					
57	77	2*AF	UGLK1270						
77	-	GK	UGLK1204						
57	77	2*AF	UGLK1270						
136	-	2*GK	UGLK1270						
136	-	2*GK	UGLK1270						
11	-	AM	UGLK1206						
22	-	GM	UGLK1206						
40	-	2*GM	UGLK1274						
8	11	AF	UGLK1206						
16	22	2*AF	UGLK1274						
22	-	GK	UGLK1206						
40	-	2*GK	UGLK1274						

All close-off pressures listed are approximate and based on valve condition and application.

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Valve Body Model	Valve Configuration	Size	Body Type	Flow	Failsafe	Close-Off psi	Close-Off psi (AFX Series)	Belimo Actuator Series (Sold Separately)	Belimo Linkage				
591 Series	3-way	5"	Flanged	-	No	14	-	GM	UGLK1206				
						25	-	2*GM	UGLK1274				
						11	14	2*AF	UGLK1274				
					Yes	14	-	GK	UGLK1206				
						25	-	2*GK	UGLK1274				
		6"	Flanged	-	No	18	-	2*GM	UGLK1274				
						7	10	2*AF	UGLK1274				
						18	-	2*GK	UGLK1274				
					Yes	7	10	2*AF	UGLK1274				
						18	-	2*GK	UGLK1274				
599 Flowrite	2-way	2½"	Flanged	-	No	55	-	AM	UGLK1210				
						110	-	GM	UGLK1210				
						196	-	2*GM	UGLK1272				
						Yes	41	55	AF	UGLK1210			
							82	110	2*AF	UGLK1272			
					110		-	GK	UGLK1210				
					3"	Flanged	-	No	38	-	AM	UGLK1210	
									77	-	GM	UGLK1210	
									136	-	2*GM	UGLK1272	
								Yes	28	38	AF	UGLK1210	
									57	77	2*AF	UGLK1272	
					77	-	GK		UGLK1210				
					136	-	2*GK		UGLK1272				
					4"	Flanged	-	No	11	-	AM	UGLK1212	
									22	-	GM	UGLK1212	
		40	-	2*GM					UGLK1276				
		Yes	8	11				AF	UGLK1212				
			16	22				2*AF	UGLK1276				
			22	-				GK	UGLK1212				
			40	-				2*GK	UGLK1276				
		5"	Flanged	-	No	14	-	GM	UGLK1212				
						25	-	2*GM	UGLK1276				
						11	14	2*AF	UGLK1276				
					Yes	14	-	GK	UGLK1212				
						25	-	2*GK	UGLK1276				
						14	-	GM	UGLK1212				
						25	-	2*GM	UGLK1276				
		3-way	2½"	Flanged	-	No	55	-	AM	UGLK1210			
							110	-	GM	UGLK1210			
							196	-	2*GM	UGLK1272			
							Yes	41	55	AF	UGLK1210		
								82	110	2*AF	UGLK1272		
						110		-	GK	UGLK1210			
						3"	Flanged	-	No	38	-	AM	UGLK1210
										77	-	GM	UGLK1210
										136	-	2*GM	UGLK1272
									Yes	28	38	AF	UGLK1210
										57	77	2*AF	UGLK1272
						77	-	GK		UGLK1210			
						136	-	2*GK		UGLK1272			
						4"	Flanged	-	No	11	-	AM	UGLK1212
										22	-	GM	UGLK1212
			40	-	2*GM					UGLK1276			
			Yes	8	11				AF	UGLK1212			
				16	22				2*AF	UGLK1276			
				22	-				GK	UGLK1212			
				40	-				2*GK	UGLK1276			
			5"	Flanged	-	No	14	-	GM	UGLK1212			
							25	-	2*GM	UGLK1276			
							11	14	2*AF	UGLK1276			
Yes	14					-	GK	UGLK1212					
	25					-	2*GK	UGLK1276					
	14					-	GM	UGLK1212					
	25					-	2*GM	UGLK1276					
	11					14	2*AF	UGLK1276					

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All close-off pressures listed are approximate and based on valve condition and application.

Valve Body Model	Valve Configuration	Size	Body Type	Flow	Failsafe	Close-Off psi	Close-Off psi (AFX Series)	Belimo Actuator Series (Sold Separately)	Belimo Linkage				
591 Series	2-way	½"	NPT	-	No	250	-	AM	UGLK1200				
						250	-	NV	UNV-005				
					Yes	250	-	NF	UGLK1200				
						250	-	NVF	UNV-005				
		¾"	NPT	-	No	250	-	NV	UNV-005				
						250	-	NF	UGLK1200				
					Yes	250	-	NVF	UNV-005				
						250	-	AF	UGLK1200				
		1"	NPT	-	No	229	-	NV	UNV-005				
						250	-	AM	UGLK1200				
						250	-	NVG	UNV-005				
						183	-	NVF	UNV-005				
					Yes	244	-	NF	UGLK1200				
						250	250	AF	UGLK1200				
						1¼"	NPT	-	No	147	-	NV	UNV-005
										250	-	AM	UGLK1200
		Yes	235	-	NVG				UNV-005				
			117	-	NVF				UNV-005				
		1½"	NPT	-	No	104	-	AM	UGLK1202				
						209	-	GM	UGLK1202				
	Yes				52	-	NF	UGLK1202					
					77	104	AF	UGLK1202					
	2"	NPT	-	No	59	-	AM	UGLK1202					
					117	-	GM	UGLK1202					
				Yes	29	-	NF	UGLK1202					
					43	59	AF	UGLK1202					
	3-way	½"	NPT	-	No	250	-	AM	UGLK1200				
						250	-	NV	UNV-005				
					Yes	250	-	NF	UGLK1200				
						250	-	NVF	UNV-005				
		¾"	NPT	-	No	250	-	NV	UNV-005				
						250	-	NF	UGLK1200				
					Yes	250	-	NVF	UNV-005				
						250	-	AF	UGLK1200				
		1"	NPT	-	No	229	-	NV	UNV-005				
						250	-	AM	UGLK1200				
						250	-	NVG	UNV-005				
						183	-	NVF	UNV-005				
					Yes	244	-	NF	UGLK1200				
						250	250	AF	UGLK1200				
						1¼"	NPT	-	No	147	-	NV	UNV-005
										250	-	AM	UGLK1200
		Yes	235	-	NVG				UNV-005				
			117	-	NVF				UNV-005				
		1½"	NPT	-	No	217	-	AM	UGLK1200				
						250	-	GM	UGLK1200				
	Yes				109	-	NF	UGLK1200					
					161	217	AF	UGLK1200					
	2"	NPT	-	No	57	-	NV	UNV-005					
					90	-	NVG	UNV-005					
122					-	AM	UGLK1200						
244					-	GM	UGLK1200						
Yes				61	-	NF	UGLK1200						
				46	-	NVF	UNV-005						
				90	122	AF	UGLK1200						
				244	-	GK	UGLK1200						

All close-off pressures listed are approximate and based on valve condition and application.

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Valve Body Model	Valve Configuration	Size	Body Type	Flow	Failsafe	Close-Off psi	Close-Off psi (AFX Series)	Belimo Actuator Series (Sold Separately)	Belimo Linkage
599 Flowrite	2-way	½"	NPT	-	No	250	-	AM	UGLK1208
					Yes	250	-	NF	UGLK1208
		¾"	NPT	-	No	250	-	AM	UGLK1208
					Yes	250	-	NF	UGLK1208
		1"	NPT	-	No	250	-	AM	UGLK1208
					Yes	173	-	NF	UGLK1208
						250	250	AF	UGLK1208
						250	250	AF	UGLK1208
		1¼"	NPT	-	No	221	-	AM	UGLK1208
					Yes	110	-	NF	UGLK1208
						163	221	AF	UGLK1208
		1½"	NPT	-	No	153	-	AM	UGLK1208
						250	-	GM	UGLK1208
					Yes	77	-	NF	UGLK1208
						113	153	AF	UGLK1208
						250	-	GK	UGLK1208
		2"	NPT	-	No	86	-	AM	UGLK1208
						173	-	GM	UGLK1208
					Yes	43	-	NF	UGLK1208
						64	86	AF	UGLK1208
						173	-	GK	UGLK1208
	3-way	½"	NPT	-	No	250	-	AM	UGLK1208
					Yes	250	-	NF	UGLK1208
		¾"	NPT	-	No	250	-	AM	UGLK1208
					Yes	250	-	NF	UGLK1208
		1"	NPT	-	No	250	-	AM	UGLK1208
					Yes	173	-	NF	UGLK1208
						250	250	AF	UGLK1208
						250	250	AF	UGLK1208
		1¼"	NPT	-	No	221	-	AM	UGLK1208
					Yes	110	-	NF	UGLK1208
						163	221	AF	UGLK1208
		1½"	NPT	-	No	153	-	AM	UGLK1208
						250	-	GM	UGLK1208
					Yes	77	-	NF	UGLK1208
						113	153	AF	UGLK1208
						250	-	GK	UGLK1208
		2"	NPT	-	No	86	-	AM	UGLK1208
						173	-	GM	UGLK1208
					Yes	43	-	NF	UGLK1208
						64	86	AF	UGLK1208
						173	-	GK	UGLK1208
599 Series	2-way	½"	NPT	-	No	250	-	NV	UNV-003
					Yes	250	-	NVF	UNV-003
		¾"	NPT	-	No	250	-	NV	UNV-003
					Yes	250	-	NVF	UNV-003
		1"	NPT	-	No	229	-	NV	UNV-003
					Yes	250	-	NVG	UNV-003
						183	-	NVF	UNV-003
						183	-	NVF	UNV-003
		1¼"	NPT	-	No	147	-	NV	UNV-003
					Yes	235	-	NVG	UNV-003
						117	-	NVF	UNV-003
						117	-	NVF	UNV-003
	2"	NPT	-	No	57	-	NV	UNV-003	
					90	-	NVG	UNV-003	
				Yes	46	-	NVF	UNV-003	
					46	-	NVF	UNV-003	
					46	-	NVF	UNV-003	
					46	-	NVF	UNV-003	
	3-way	½"	NPT	-	No	250	-	NV	UNV-003
					Yes	250	-	NVF	UNV-003
		¾"	NPT	-	No	250	-	NV	UNV-003
					Yes	250	-	NVF	UNV-003
		1"	NPT	-	No	229	-	NV	UNV-003
					Yes	250	-	NVG	UNV-003
183						-	NVF	UNV-003	
183						-	NVF	UNV-003	
1¼"		NPT	-	No	147	-	NV	UNV-003	
				Yes	235	-	NVG	UNV-003	
					117	-	NVF	UNV-003	
2"		NPT	-	No	57	-	NV	UNV-003	
	90				-	NVG	UNV-003		
	Yes			46	-	NVF	UNV-003		
				46	-	NVF	UNV-003		

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All close-off pressures listed are approximate and based on valve condition and application.

Valve Body Model	Valve Configuration	Size	Body Type	Flow	Failsafe	Close-Off psi	Close-Off psi (AFX Series)	Belimo Actuator Series (Sold Separately)	Belimo Linkage		
656* (verify 1/4-28 Stem Thread)	2-way	1/2"	NPT	-	No	250	-	AM	UGLK1214		
						250	-	LM	UGLK1350		
						250	-	LF	UGLK1350		
		Yes			250	-	NF	UGLK1214			
					215	-	LM	UGLK1350			
					250	-	NM	UGLK1350			
	3-way	1/2"	NPT	-	No	250	-	AM	UGLK1214		
						250	-	LM	UGLK1350		
						250	-	LF	UGLK1350		
		Yes			250	-	NF	UGLK1214			
					215	-	LM	UGLK1350			
					250	-	NM	UGLK1350			
	658 Series	2-way	1/2"	NPT	-	No	250	-	AM	UGLK1214	
							250	-	LM	UGLK1350	
							250	-	NV	UNV-004	
							Yes	250	-	LF	UGLK1350
								250	-	NF	UGLK1214
								250	-	NVF	UNV-004
3/4"			NPT			-	No	215	-	LM	UGLK1350
								250	-	NM	UGLK1350
								250	-	NV	UNV-004
							Yes	215	-	LF	UGLK1350
								250	-	NF	UGLK1214
								250	-	NVF	UNV-004
1"			NPT	-	-	No	120	-	LM	UGLK1350	
							229	-	NV	UNV-004	
							244	-	NM	UGLK1350	
							250	-	AM	UGLK1214	
							250	-	NVG	UNV-004	
							Yes	95	-	LF	UGLK1350
183	-	NVF	UNV-004								
244	-	NF	UGLK1214								
250	250	AF	UGLK1214								
1 1/4"	NPT	-	-	No	78	-		LM	UGLK1350		
					156	-		NM	UGLK1350		
					147	-	NV	UNV-004			
					250	-	AM	UGLK1214			
					235	-	NVG	UNV-004			
					Yes	61	-	LF	UGLK1350		
117	-	NVF	UNV-004								
156	-	NF	UGLK1214								
231	250	AF	UGLK1214								

All close-off pressures listed are approximate and based on valve condition and application.
 * Notch type available upon request. Please contact Belimo technical support for details.



Valve Body Model	Valve Configuration	Size	Body Type	Flow	Failsafe	Close-Off psi	Close-Off psi (AFX Series)	Belimo Actuator Series (Sold Separately)	Belimo Linkage			
658 Series	3-way	½"	NPT	-	No	250	-	AM	UGLK1214			
						250	-	LM	UGLK1350			
						250	-	NV	UNV-004			
					Yes	250	-	LF	UGLK1350			
						250	-	NF	UGLK1214			
						250	-	NVF	UNV-004			
					¾"	NPT	-	No	215	-	LM	UGLK1350
									250	-	NM	UGLK1350
									250	-	NV	UNV-004
		Yes	215	-				LF	UGLK1350			
			250	-				NF	UGLK1214			
			250	-				NVF	UNV-004			
		1"	NPT	-				No	120	-	LM	UGLK1350
									229	-	NV	UNV-004
									244	-	NM	UGLK1350
					Yes	250	-	AM	UGLK1214			
						250	-	NVG	UNV-004			
						95	-	LF	UGLK1350			
					1¼"	NPT	-	No	183	-	NVF	UNV-004
									244	-	NF	UGLK1214
									250	250	AF	UGLK1214
		Yes	78	-				LM	UGLK1350			
			156	-				NM	UGLK1350			
			147	-				NV	UNV-004			
		Yes	250	-				AM	UGLK1214			
			235	-				NVG	UNV-004			
			61	-				LF	UGLK1350			
117	-		NVF	UNV-004								
156	-		NF	UGLK1214								
231	250		AF	UGLK1214								

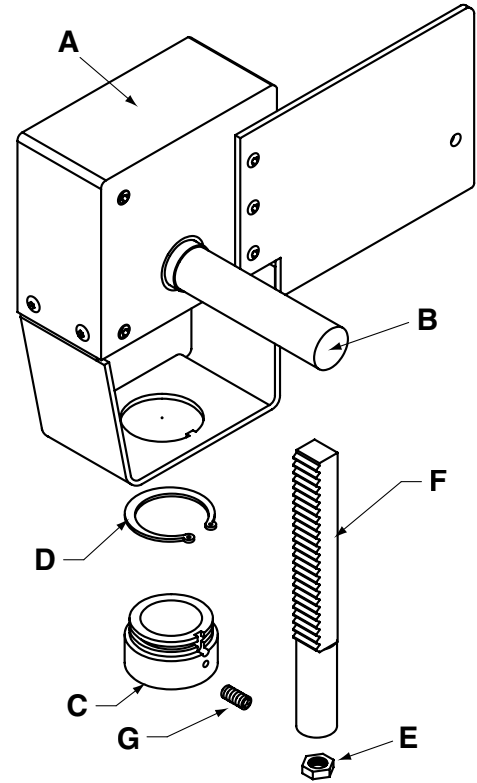
All close-off pressures listed are approximate and based on valve condition and application.

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Assembly Sequence for Existing Valves



The valve should be stripped down to its basic form, as shown. The linkage components have been designed to attach to the valve in this state, rather than to any existing hardware. Note that there are no threads on the bonnet. The packing nut is smaller than the diameter of the bonnet. There is a groove in the bonnet used to secure the retrofit collar to the valve.



Follow these steps to properly assemble STYLE 3 type globe valves to the retrofit linkage. Reference the step-by-step photos to help guide you through the assembly process.

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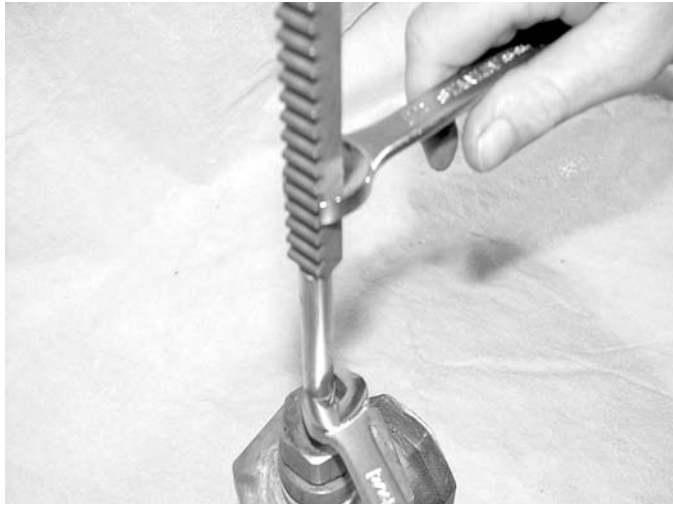
STEP 1) Assemble the supplied stem nut (E) to the valve stem, and thread at least 10 - 12 turns down onto the stem.



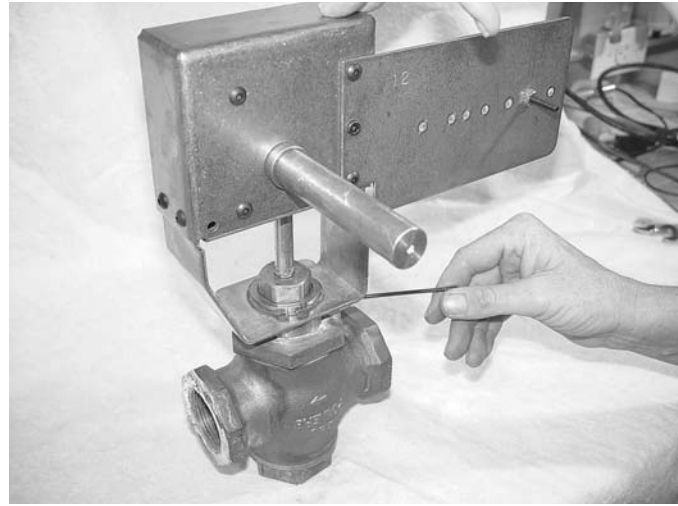
STEP 2) Attach the rack assembly (F), which may or may not include an extension or adapter, onto the valve stem. Thread the assembly as far down onto the valve stem as possible, until you contact the previously attached valve stem nut.

UGLK/UGSP Series Globe Valve Retrofit Solution

Retrofitting STYLE 3 Globe Valves Typical for Powers 599 Series and Other Non-Threaded, Non-Tapered Bonnet Valves



STEP 3) Use a 1/2" open end wrench, and an additional open end wrench sized to match the valve stem nut (E), to tighten the rack assembly (F) to the valve stem. Use the 1/2" open end wrench to attach to the smooth back side of the rack, opposite the teeth. This will prevent damage to the rack teeth during the tightening sequence.



STEP 5) Once the linkage is fully seated on the valve bonnet, tighten setscrew (G) in the collar to affix the linkage onto the valve.

STEP 6) Check for full stem travel by turning the linkage drive shaft (B) fully clockwise (CW) and counter clockwise (CCW) until you feel the valve seat or hit travel limit stops in both directions. The shaft should turn freely without binding.



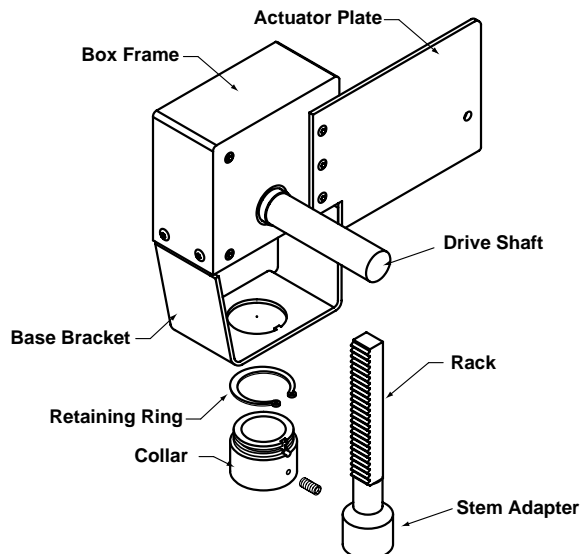
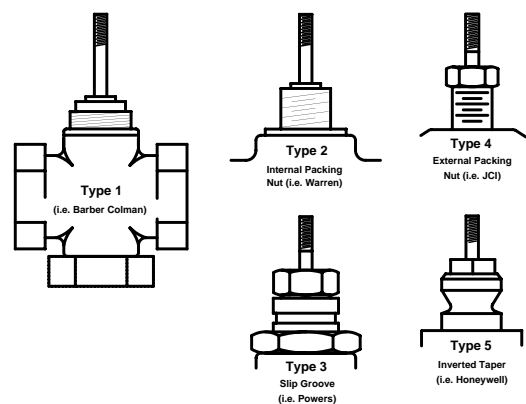
STEP 4) Slide the gearbox (A) assembly over the rack and down onto the valve bonnet nut. Note that the rack teeth must point TOWARDS the linkage drive shaft (B), and that the rack enters a small square hole in the bottom of the gearbox when aligned properly. It may be necessary to loosen the setscrew (G) in the linkage collar (C) before it will seat fully onto the valve bonnet.

STEP 7) Turn the linkage drive shaft fully CW, and attach the actuator. This will position the linkage in the stem down position. Lightly snug up on the actuator's shaft clamp nuts. Turn the actuator CCW until you feel resistance due to the valve reaching end of travel. Notice the distance between the actuator's current position and the actuator's end of travel @ fully CCW. Loosen the actuator shaft clamp nuts, and rotate the actuator ONE-HALF the distance to its full CCW travel. Tighten the actuator's shaft clamp nuts securely. This procedure balances the valve travel limits within the range of motion of the actuator, thereby assuring unimpeded valve stem travel. When using an AF or NF actuator, a 5° offset may be necessary to ensure proper close off.

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UGLK Collars			Most Commonly Used Valve Type				
Part Number	Inside Diameter	Description	Type 1	Type 2	Type 3	Type 4	Type 5
UGLK-COL-1005	1.000"	3 setscrews, for frame type		•			
UGLK-COL-1063	1.063"	3 setscrews, for frame type		•			
UGLK-COL-1100	1.100"	3 setscrews, for frame type, counterbored top				•	
UGLK-COL-1255	1.250"	3 setscrews, for frame type		•			
UGLK-COL-1315	1.315"	3 setscrews, for frame type, can be used with VB7 with shim			•		
UGLK-COL-1375	1.375"	3 setscrews, for frame type		•			
UGLK-COL-BC10	1.250" - 16 Thd.	Fits Siebe VB7/VB9. Use on frame type only	•				
UGLK-COL-HY02	1.375"	1 setscrew, for frame type					•
UGLK-COL-LG02	1.740"	1 setscrew, for frame type			•		
UGLK-COL-LG04	1.740"	1 setscrew, for frame type			•		
UGLK-COL-JC05	1.070"	3 setscrews, for frame type		•			
UGLK-COL-JC06	1.562" - 14 Thd.	Threaded, brass		•			
UGLK-COL-JC08	0.760"	3 setscrews, for frame type, counterbored top				•	
UGLK-COL-JC15	1.070"	Ring, no setscrews		•			
UGLK-COL-0880	0.880"	3 setscrews, for frame type, counterbored top				•	
UGLK-COL-WNUT	1.375" - 20 Thd.	Replacement Warren nut. Will not go over damaged threads		•			
UGLK-COL-AD01	1.250" - 16 Thd.	Fits Siebe VB7/VB9. For VB7 frame only	•				
UGLK-COL-UNIV	Custom	3 setscrews, for frame type. Must be machined		•	•	•	•

UGLK Stem Adapters			Most Commonly Used Valve Type				
Part Number	Inside Diameter	Description	Type 1	Type 2	Type 3	Type 4	Type 5
UGLK-STM-1800	1/4" - 28 Stem Thd.		•	•	•	•	•
UGLK-STM-1801	3/8" - 24 Stem Thd.		•	•	•	•	•
UGLK-STM-1802	1/2" - 20 Stem Thd.		•			•	•
UGLK-STM-1803	7/16" - 20 Stem Thd.						•
UGLK-STM-1501	3/8" - 24 Stem Thd.	For Warren FLG valves with UGLK		•			
UGLK-STM-1805	3/8" OD Grooved	Landis 2.5-3" -599 Series			•		
UGLK-STM-2305	1/2" OD Grooved	Landis 4-6" -599 Series			•		
UGLK-STM-UNIV	Custom	Must be machined	•	•	•	•	•

UGLK Stem Adapters

UGLK Collars


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