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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.

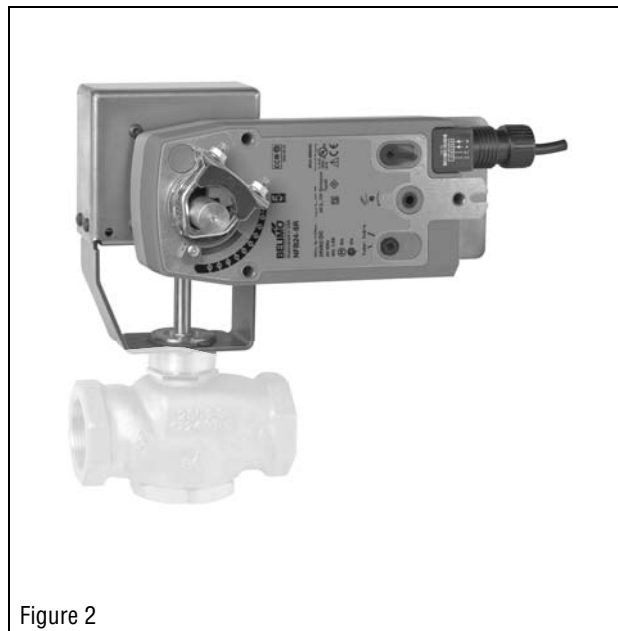
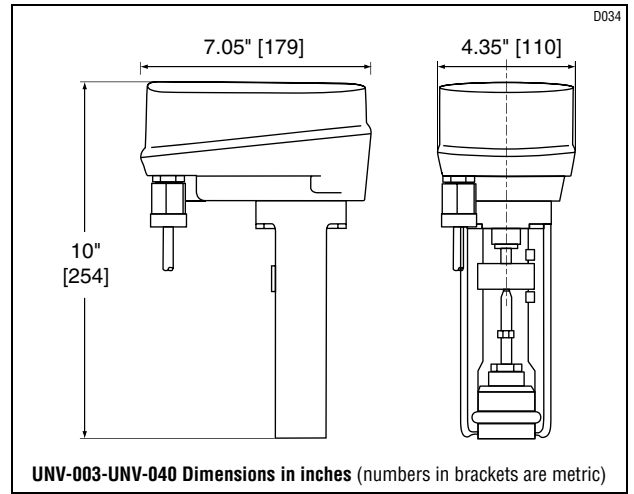
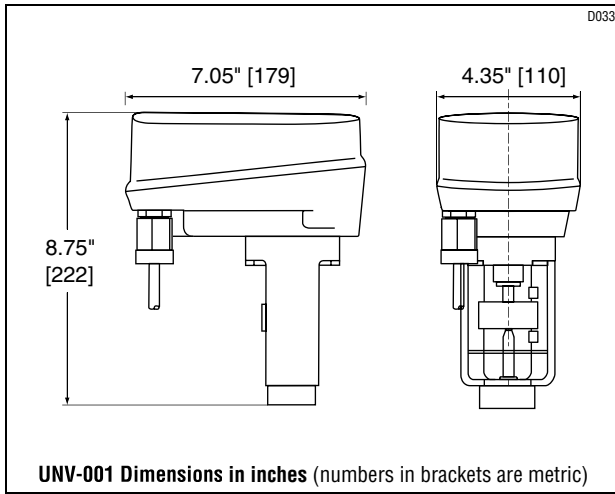
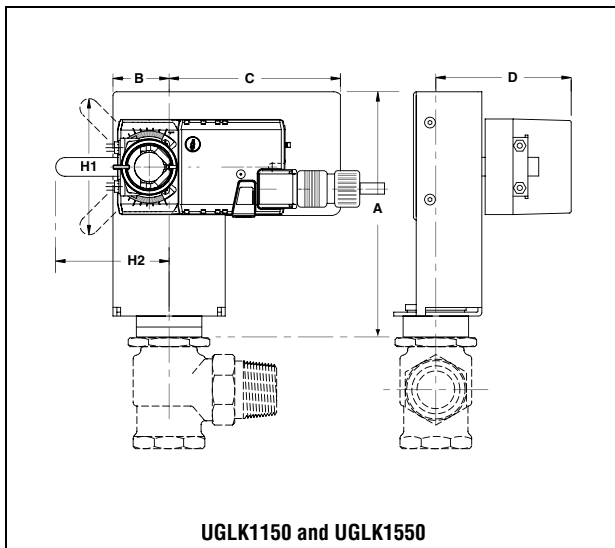
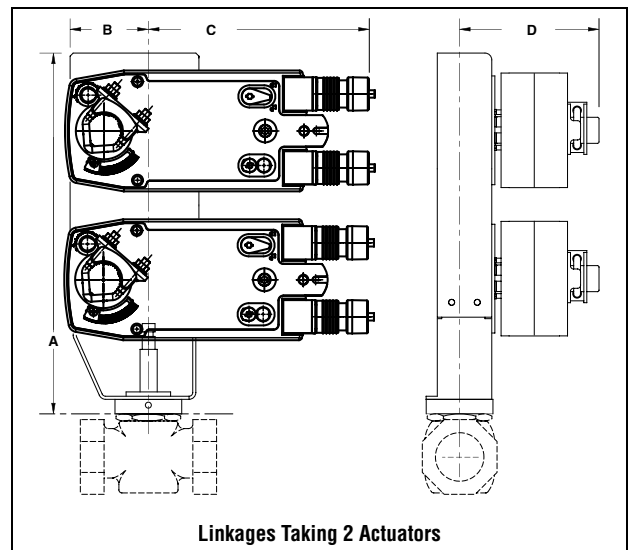
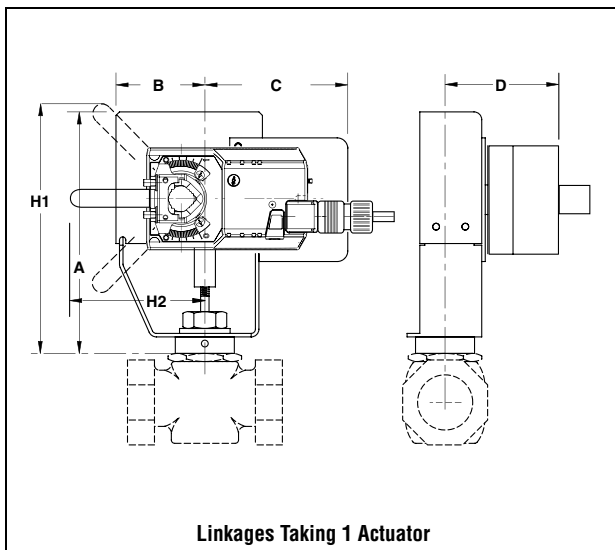


Figure 2

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	Built-In	3 ft.
NFX24-S	NF220 1A3 003**	On/Off	24 VAC/DC	<75	20	8.5	Built-In	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	Built-In	3 ft.
NFXUP-S	NF000 1A3 003**	On/Off	24-240 VACu	<75	20	9.5	Built-In	10 ft.
NFX24-SR	NF400 1A1 H01**	2-10 VDC (4-20mA*)	2-10 VDC	95	<20	6	-	3 ft.
NFX24-SR	NF400 1A3 H01**	2-10 VDC (4-20mA*)	2-10 VDC	95	<20	6	-	10 ft.
NFX24-SR-S	NF420 1A1 H01**	2-10 VDC (4-20mA*)	2-10 VDC	110	<20	8	Built-In	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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Warren Controls

Type 100 Sgl Seat

Linkage/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				
100 SGL SEAT	2-way	2½"	Flanged	-	No	28	-	AM	UGLK2202				
						57	-	GM	UGLK2202				
						101	-	2*GM	UGLK2272				
					Yes	14	-	NF	UGLK2202				
						21	28	AF	UGLK2202				
						42	57	2*AF	UGLK2272				
						57	-	GK	UGLK2202				
						101	-	2*GK	UGLK2272				
						20	-	AM	UGLK2202				
					3"	Flanged	-	No	40	-	GM	UGLK2202	
									70	-	2*GM	UGLK2272	
									10	-	NF	UGLK2202	
		Yes	15	20				AF	UGLK2202				
			29	40				2*AF	UGLK2272				
			40	-				GK	UGLK2202				
			70	-				2*GK	UGLK2272				
			11	-				AM	UGLK2202				
			22	-				GM	UGLK2202				
		4"	Flanged	-				No	40	-	2*GM	UGLK2272	
									8	11	AF	UGLK2202	
									16	22	2*AF	UGLK2272	
					Yes	22	-	GK	UGLK2202				
						40	-	2*GK	UGLK2272				
						14	-	GM	UGLK2202				
						25	-	2*GM	UGLK2272				
						5"	Flanged	-	No	5	7	AF	UGLK2202
										11	14	2*AF	UGLK2272
					14					-	GK	UGLK2202	
					Yes				25	-	2*GK	UGLK2272	
									10	-	GM	UGLK2202	
		18	-	2*GM					UGLK2272				
		6"	Flanged	-	No	4	5	AF	UGLK2202				
						7	10	2*AF	UGLK2272				
						10	-	GK	UGLK2202				
					Yes	18	-	2*GK	UGLK2272				

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			
1800 3W DIV	3-way	2½"	Flanged	Diverting	No	28	-	AM	UGLK2202			
						57	-	GM	UGLK2202			
						101	-	2*GM	UGLK2272			
					Yes	14	-	NF	UGLK2202			
						21	28	AF	UGLK2202			
						42	57	2*AF	UGLK2272			
					3"	Flanged	Diverting	No	57	-	GK	UGLK2202
									101	-	2*GK	UGLK2272
									20	-	AM	UGLK2202
								Yes	40	-	GM	UGLK2202
									70	-	2*GM	UGLK2272
									10	-	NF	UGLK2202
		4"	Flanged	Diverting	No	15	20	AF	UGLK2202			
						29	40	2*AF	UGLK2272			
						40	-	GK	UGLK2202			
					Yes	70	-	2*GK	UGLK2272			
						11	-	AM	UGLK2202			
						22	-	GM	UGLK2202			
		5"	Flanged	Diverting	No	40	-	2*GM	UGLK2272			
						8	11	AF	UGLK2202			
						16	22	2*AF	UGLK2272			
					Yes	22	-	GK	UGLK2202			
						40	-	2*GK	UGLK2272			
						14	-	GM	UGLK2202			
		6"	Flanged	Diverting	No	25	-	2*GM	UGLK2272			
						5	7	AF	UGLK2202			
						11	14	2*AF	UGLK2272			
					Yes	14	-	GK	UGLK2202			
						25	-	2*GK	UGLK2272			
						10	-	GM	UGLK2202			
		6"	Flanged	Diverting	No	18	-	2*GM	UGLK2272			
						4	5	AF	UGLK2202			
						7	10	2*AF	UGLK2272			
					Yes	10	-	GK	UGLK2202			
						18	-	2*GK	UGLK2272			

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				
1800 3W MIX	3-way	2½"	Flanged	Mixing	No	28	-	AM	UGLK2202				
						57	-	GM	UGLK2202				
						101	-	2*GM	UGLK2272				
					Yes	14	-	NF	UGLK2202				
						21	28	AF	UGLK2202				
						42	57	2*AF	UGLK2272				
						57	-	GK	UGLK2202				
						101	-	2*GK	UGLK2272				
						20	-	AM	UGLK2202				
					3"	Flanged	Mixing	No	40	-	GM	UGLK2202	
									70	-	2*GM	UGLK2272	
									10	-	NF	UGLK2202	
		Yes	15	20				AF	UGLK2202				
			29	40				2*AF	UGLK2272				
			40	-				GK	UGLK2202				
			70	-				2*GK	UGLK2272				
			11	-				AM	UGLK2202				
			22	-				GM	UGLK2202				
		4"	Flanged	Mixing				No	40	-	2*GM	UGLK2272	
									8	11	AF	UGLK2202	
									16	22	2*AF	UGLK2272	
					Yes	22	-	GK	UGLK2202				
						40	-	2*GK	UGLK2272				
						14	-	GM	UGLK2202				
						25	-	2*GM	UGLK2272				
						5"	Flanged	Mixing	No	5	7	AF	UGLK2202
										11	14	2*AF	UGLK2272
					14					-	GK	UGLK2202	
					Yes				25	-	2*GK	UGLK2272	
									10	-	GM	UGLK2202	
		18	-	2*GM					UGLK2272				
		6"	Flanged	Mixing	No	4	5	AF	UGLK2202				
						7	10	2*AF	UGLK2272				
						10	-	GK	UGLK2202				
					Yes	18	-	2*GK	UGLK2272				

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			
1800 BAL	2-way	2½"	Flanged	-	No	28	-	AM	UGLK2202			
						57	-	GM	UGLK2202			
						101	-	2*GM	UGLK2272			
					Yes	14	-	NF	UGLK2202			
						21	28	AF	UGLK2202			
						42	57	2*AF	UGLK2272			
					No	57	-	GK	UGLK2202			
						101	-	2*GK	UGLK2272			
						3"	Flanged	-	No	20	-	AM
					40					-	GM	UGLK2202
					70					-	2*GM	UGLK2272
					Yes				10	-	NF	UGLK2202
		15	20	AF					UGLK2202			
		29	40	2*AF					UGLK2272			
		No	40	-	GK	UGLK2202						
			70	-	2*GK	UGLK2272						
			4"	Flanged	-	No	11	-	AM	UGLK2202		
		22					-	GM	UGLK2202			
		40					-	2*GM	UGLK2272			
		Yes				8	11	AF	UGLK2202			
						16	22	2*AF	UGLK2272			
						22	-	GK	UGLK2202			
		No	40	-	2*GK	UGLK2272						
			5"	Flanged	-	No	14	-	GM	UGLK2202		
							25	-	2*GM	UGLK2272		
		Yes					5	7	AF	UGLK2202		
						11	14	2*AF	UGLK2272			
						14	-	GK	UGLK2202			
		No				25	-	2*GK	UGLK2272			
			6"	Flanged	-	No	10	-	GM	UGLK2202		
							18	-	2*GM	UGLK2272		
		Yes					4	5	AF	UGLK2202		
						7	10	2*AF	UGLK2272			
						10	-	GK	UGLK2202			
		18				-	2*GK	UGLK2272				

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			
Type 20	2-way	2½"	Flanged	-	No	55	-	AM	UGLK2200			
						69	-	NVG	UNV-051			
						110	-	GM	UGLK2200			
						196	-	2*GM	UGLK2270			
						196	-	2*GM	UGLK2270			
						28	-	NF	UGLK2200			
					Yes	41	55	AF	UGLK2200			
						82	110	2*AF	UGLK2270			
						110	-	GK	UGLK2200			
						82	110	2*AF	UGLK2270			
						196	-	2*GK	UGLK2270			
						196	-	2*GK	UGLK2270			
					3"	Flanged	-	No	38	-	AM	UGLK2200
									48	-	NVG	UNV-051
									77	-	GM	UGLK2200
									136	-	2*GM	UGLK2270
									136	-	2*GM	UGLK2270
									19	-	NF	UGLK2200
		Yes	28	38				AF	UGLK2200			
			57	77				2*AF	UGLK2270			
			77	-				GK	UGLK2200			
			57	77				2*AF	UGLK2270			
			136	-				2*GK	UGLK2270			
			136	-				2*GK	UGLK2270			
		4"	Flanged	-				No	11	-	AM	UGLK2202
									22	-	GM	UGLK2202
									40	-	2*GM	UGLK2272
									8	11	AF	UGLK2202
								Yes	16	22	2*AF	UGLK2272
									22	-	GK	UGLK2202
					40	-	2*GK		UGLK2272			
					14	-	GM		UGLK2202			
					25	-	2*GM		UGLK2272			
					5	7	AF		UGLK2202			
		5"	Flanged	-	No	11	14	2*AF	UGLK2272			
						14	-	GK	UGLK2202			
						25	-	2*GK	UGLK2272			
						10	-	GM	UGLK2202			
					Yes	18	-	2*GM	UGLK2272			
						4	5	AF	UGLK2202			
						7	10	2*AF	UGLK2272			
						10	-	GK	UGLK2202			
		6"	Flanged	-	No	18	-	2*GK	UGLK2272			
						4	5	AF	UGLK2202			
						7	10	2*AF	UGLK2272			
					Yes	10	-	GK	UGLK2202			
						18	-	2*GK	UGLK2272			
						18	-	2*GK	UGLK2272			

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			
Type 22	2-way	2½"	Flanged	-	No	55	-	AM	UGLK2200			
						69	-	NVG	UNV-051			
						110	-	GM	UGLK2200			
						196	-	2*GM	UGLK2270			
					196	-	2*GM	UGLK2270				
					Yes	28	-	NF	UGLK2200			
						41	55	AF	UGLK2200			
						82	110	2*AF	UGLK2270			
						110	-	GK	UGLK2200			
						82	110	2*AF	UGLK2270			
						196	-	2*GK	UGLK2270			
						196	-	2*GK	UGLK2270			
						196	-	2*GK	UGLK2270			
					3"	Flanged	-	No	38	-	AM	UGLK2200
									48	-	NVG	UNV-051
									77	-	GM	UGLK2200
		136	-	2*GM					UGLK2270			
		136	-	2*GM				UGLK2270				
		Yes	19	-				NF	UGLK2200			
			28	38				AF	UGLK2200			
			57	77				2*AF	UGLK2270			
			77	-				GK	UGLK2200			
			57	77				2*AF	UGLK2270			
			136	-				2*GK	UGLK2270			
			136	-				2*GK	UGLK2270			
			136	-				2*GK	UGLK2270			
		4"	Flanged	-				No	22	-	AM	UGLK2200
									77	-	2*GM	UGLK2270
									43	-	GM	UGLK2200
					77	-	2*GM		UGLK2270			
					Yes	11	-	NF	UGLK2200			
						16	22	AF	UGLK2200			
						32	43	2*AF	UGLK2270			
						77	-	2*GK	UGLK2270			
						43	-	GK	UGLK2200			
						77	-	2*GK	UGLK2270			
						32	43	2*AF	UGLK2270			
						32	43	2*AF	UGLK2270			
					5"	Flanged	-	No	14	-	GM	UGLK2202
									25	-	2*GM	UGLK2272
								Yes	5	7	AF	UGLK2202
									11	14	2*AF	UGLK2272
		14	-	GK					UGLK2202			
		25	-	2*GK					UGLK2272			
		25	-	2*GK					UGLK2272			
		25	-	2*GK					UGLK2272			
		6"	Flanged	-	No	10	-	GM	UGLK2202			
						18	-	2*GM	UGLK2272			
Yes	4				5	AF	UGLK2202					
	7				10	2*AF	UGLK2272					
	10				-	GK	UGLK2202					
	10				-	GK	UGLK2202					
	18				-	2*GK	UGLK2272					
	18				-	2*GK	UGLK2272					

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				
Type 30	3-way	2½"	Flanged	-	No	55	-	AM	UGLK2200				
						100	-	NVG	UNV-051				
						110	-	GM	UGLK2200				
						196	-	2*GM	UGLK2270				
						196	-	2*GM	UGLK2270				
						28	-	NF	UGLK2200				
					Yes	41	55	AF	UGLK2200				
						82	110	2*AF	UGLK2270				
						110	-	GK	UGLK2200				
						82	110	2*AF	UGLK2270				
						196	-	2*GK	UGLK2270				
						196	-	2*GK	UGLK2270				
					3"	Flanged	-	No	38	-	AM	UGLK2200	
									77	-	GM	UGLK2200	
									100	-	NVG	UNV-051	
									136	-	2*GM	UGLK2270	
									136	-	2*GM	UGLK2270	
									19	-	NF	UGLK2200	
		Yes	28	38				AF	UGLK2200				
			57	77				2*AF	UGLK2270				
			77	-				GK	UGLK2200				
			57	77				2*AF	UGLK2270				
			136	-				2*GK	UGLK2270				
			136	-				2*GK	UGLK2270				
		4"	Flanged	-				No	11	-	AM	UGLK2202	
									22	-	GM	UGLK2202	
									40	-	2*GM	UGLK2272	
									8	11	AF	UGLK2202	
								Yes	16	22	2*AF	UGLK2272	
									22	-	GK	UGLK2202	
					40	-	2*GK		UGLK2272				
					5"	Flanged	-		No	14	-	GM	UGLK2202
										25	-	2*GM	UGLK2272
									Yes	5	7	AF	UGLK2202
		11	14	2*AF				UGLK2272					
		14	-	GK				UGLK2202					
		25	-	2*GK				UGLK2272					
		6"	Flanged	-	No	10	-	GM	UGLK2202				
						18	-	2*GM	UGLK2272				
					Yes	4	5	AF	UGLK2202				
						7	10	2*AF	UGLK2272				
						10	-	GK	UGLK2202				
						18	-	2*GK	UGLK2272				

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				
Type 32	3-way	2½"	Flanged	-	No	55	-	AM	UGLK2200				
						100	-	NVG	UNV-051				
						110	-	GM	UGLK2200				
						196	-	2*GM	UGLK2270				
					Yes	28	-	NF	UGLK2200				
						41	55	AF	UGLK2200				
						110	-	GK	UGLK2200				
						82	110	2*AF	UGLK2270				
					No	196	-	2*GK	UGLK2270				
						196	-	2*GK	UGLK2270				
						3"	Flanged	-	No	38	-	AM	UGLK2200
										77	-	GM	UGLK2200
		100	-	NVG	UNV-051								
		136	-	2*GM	UGLK2270								
		Yes	19	-	NF	UGLK2200							
			28	38	AF	UGLK2200							
			77	-	GK	UGLK2200							
			57	77	2*AF	UGLK2270							
		No	136	-	2*GK	UGLK2270							
			136	-	2*GK	UGLK2270							
			4"	Flanged	-	No			11	-	AM	UGLK2202	
									22	-	GM	UGLK2202	
		40					-	2*GM	UGLK2272				
		Yes					8	11	AF	UGLK2202			
			16			22	2*AF	UGLK2272					
			22			-	GK	UGLK2202					
			40			-	2*GK	UGLK2272					
		No	14			-	GM	UGLK2202					
			25			-	2*GM	UGLK2272					
			5"			Flanged	-	No	14	-	GM	UGLK2202	
									25	-	2*GM	UGLK2272	
		Yes							5	7	AF	UGLK2202	
				11	14				2*AF	UGLK2272			
			14	-	GK			UGLK2202					
			25	-	2*GK			UGLK2272					
		No	10	-	GM			UGLK2202					
			18	-	2*GM			UGLK2272					
			6"	Flanged	-			No	10	-	GM	UGLK2202	
									18	-	2*GM	UGLK2272	
		Yes							4	5	AF	UGLK2202	
									7	10	2*AF	UGLK2272	
			10			-	GK	UGLK2202					
			18			-	2*GK	UGLK2272					

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

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Warren Controls

Type 20, Type 30

Linkage/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
Type 20	2-way	½"	NPT	-	No	250	-	AM	UGLK2200
					Yes	250	-	NF	UGLK2200
		¾"	NPT	-	No	250	-	AM	UGLK2200
					Yes	250	-	NF	UGLK2200
		1"	NPT	-	No	250	-	AM	UGLK2200
					Yes	173	-	NF	UGLK2200
						250	250	AF	UGLK2200
						250	250	AF	UGLK2200
		1¼"	NPT	-	No	221	-	AM	UGLK2200
					Yes	110	-	NF	UGLK2200
						163	221	AF	UGLK2200
		1½"	NPT	-	No	153	-	AM	UGLK2200
						250	-	GM	UGLK2200
					Yes	77	-	NF	UGLK2200
						113	153	AF	UGLK2200
		2"	NPT	-	No	250	-	GM	UGLK2200
						250	-	GK	UGLK2200
					Yes	86	-	AM	UGLK2200
						173	-	GM	UGLK2200
						43	-	NF	UGLK2200
						64	86	AF	UGLK2200
						173	-	GK	UGLK2200
						173	-	GK	UGLK2200
		Type 30	3-way	½"	NPT	-	No	250	-
Yes	250						-	NF	UGLK2200
¾"	NPT			-	No	250	-	AM	UGLK2200
					Yes	250	-	NF	UGLK2200
1"	NPT			-	No	250	-	AM	UGLK2200
					Yes	173	-	NF	UGLK2200
						250	250	AF	UGLK2200
						250	250	AF	UGLK2200
1¼"	NPT			-	No	221	-	AM	UGLK2200
					Yes	110	-	NF	UGLK2200
						163	221	AF	UGLK2200
1½"	NPT			-	No	153	-	AM	UGLK2200
						250	-	GM	UGLK2200
					Yes	77	-	NF	UGLK2200
						113	153	AF	UGLK2200
2"	NPT			-	No	250	-	GK	UGLK2200
						250	-	GK	UGLK2200
					Yes	86	-	AM	UGLK2200
						173	-	GM	UGLK2200
						43	-	NF	UGLK2200
						64	86	AF	UGLK2200
						173	-	GK	UGLK2200
						173	-	GK	UGLK2200

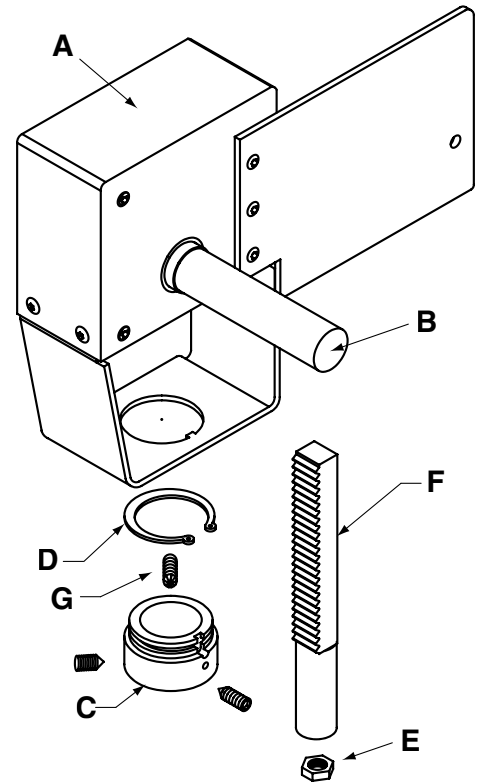
All close-off pressures listed are approximate and based on valve condition and application.

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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 this style valve has an internal packing nut, which does NOT interfere with the bonnet threads.



Follow these steps to properly assemble STYLE 2 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.



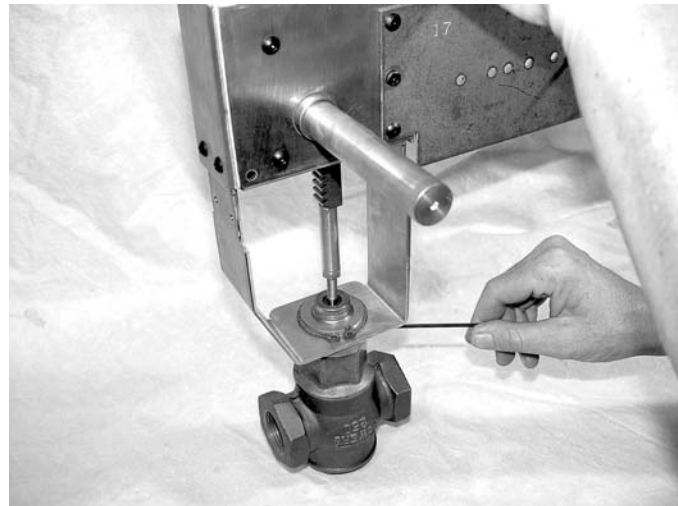
STEP 2) Attach the rack assembly (F), which may or may not include an extension or adapter, onto the valve stem. Thread the assembly as far down onto the valve stem as possible, until you contact the previously attached valve stem nut.

UGLK/UGSP Series Globe Valve Retrofit Solution

Retrofitting STYLE 2 Globe Valves Typical for Internal Packing Nut Type 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 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.

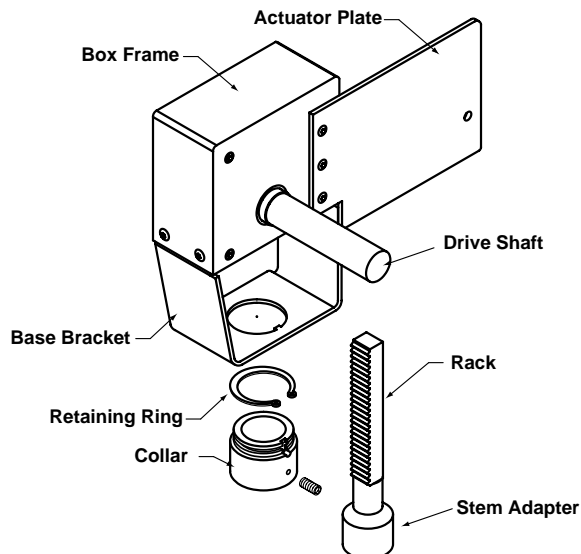
STEP 7) Turn the linkage drive shaft fully CW, and attach the actuator. This will position the linkage in the stem down position. Lightly snug up on the actuator's shaft clamp nuts. Turn the actuator CCW until you feel resistance due to the valve reaching end of travel. Notice the distance between the 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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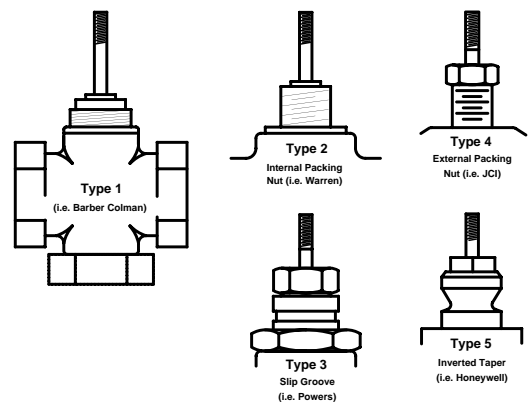
UGLK Collars			Most Commonly Used Valve Type				
Part Number	Inside Diameter	Description	Type 1	Type 2	Type 3	Type 4	Type 5
UGLK-COL-1005	1.000"	3 setscrews, for frame type		•			
UGLK-COL-1063	1.063"	3 setscrews, for frame type		•			
UGLK-COL-1100	1.100"	3 setscrews, for frame type, counterbored top				•	
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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