

Martin Go-Flex® couplings are one of the easiest to install, maintain, and replace!

A complete coupling consists of 2 hubs, available in carbon or stainless steel, a urethane split insert (choose from 5 types), and a cover – either a slide over cover retained by a snap ring, a vertically split for high-speed applications, or a horizontally split cover for extreme torque applications.

## Advantages

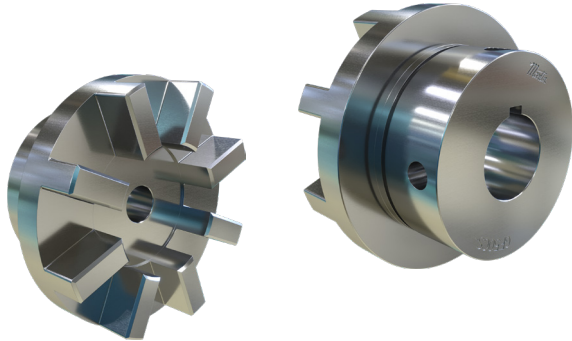
- Fast and easy insert replacement
- Low maintenance
- Minimal downtime
- No lubrication
- Urethane inserts available from standard to extreme duty, high temperature, and metal detectable

Once you have correctly selected and properly installed a Martin Go-Flex® coupling, the split insert is all you should have to replace. Replacement of the insert is easy and your equipment can be back up and running in minutes! Once the hubs are installed, they never need to be moved again.

Remove only the cover, replace the insert, re-install the cover, and you are ready to go!

- Can be installed vertically or horizontally
- The teeth on the hubs do not touch or overlap thus if the insert fails, you do not have metal to metal contact that could potentially destroy the hubs
- Reversing applications
- No realignment required after insert replacement

## HUBS (2 required)



### Go-Flex® **GF20CS1**

**Coupling Size**  
10 to 120

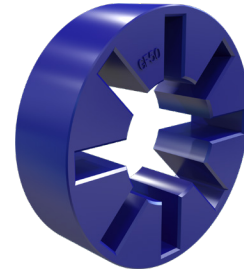
**Material**

- CS** Carbon Steel
- SS** Stainless Steel

**Bore Size** (Add **-PHB** for Plain Bore Hub)

- GF10 to GF50** Clearance fit bore  
standard keyway and 2 set screws
- GF60 to GF120** Interference fit bore  
standard keyway and 1 setscrew

## INSERT



### Go-Flex® **GF20SD-INS**

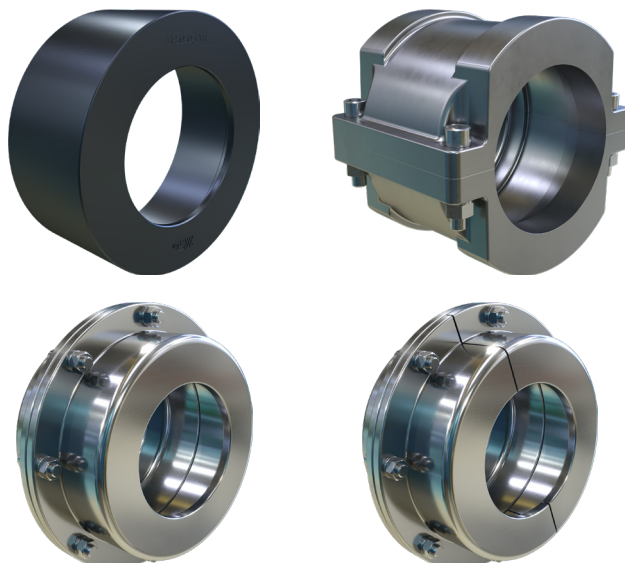
**Coupling Size**  
10 to 120

**Insert Type**

- SD** Standard Duty (Red)
- MD** Medium Duty (Dark Blue)
- XD** Extreme Duty (Black)
- HT** Hi-Temp (White)
- FG** Food Grade Metal Detectable (Light Blue)

**INSERT**

## COVER



### Go-Flex® **GF20XP-CVR**

**Coupling Size**  
10 to 120

**Cover Type**

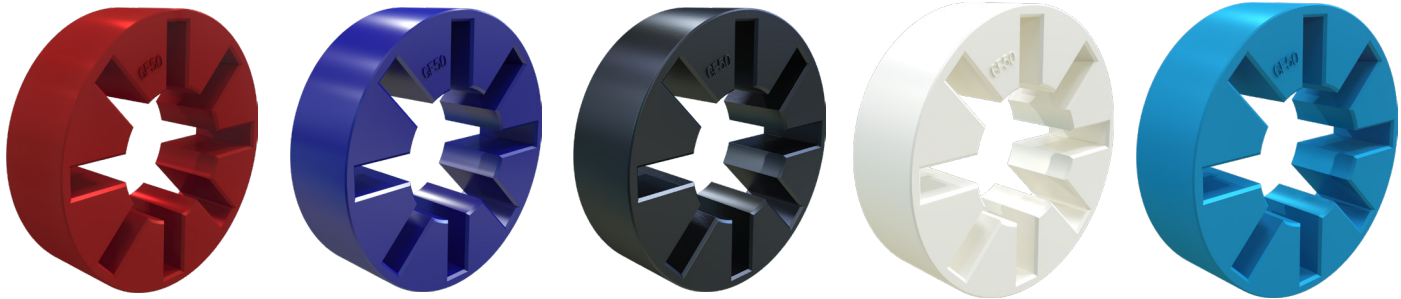
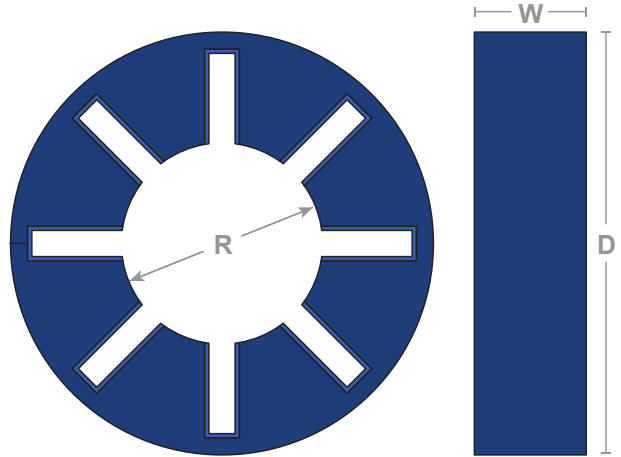
- SD** Standard Duty (Carbon Steel)
- SS** Standard Duty (Stainless Steel)
- XP** Horizontal Split (Aluminum)
- VS** Vertical Split
- HS** Horizontal/Vertical Split

**Cover**

# Go-Flex® Inserts

## Martin Go-Flex® Insert Dimensions (in)

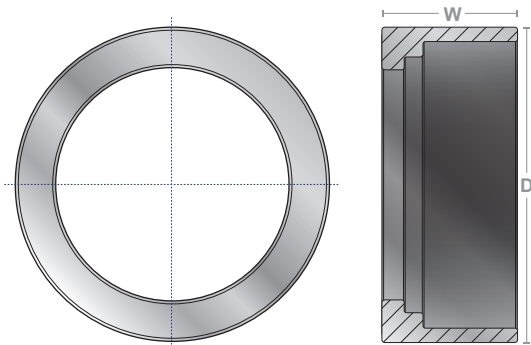
Coupling Series	R	D	W	Wt. (lb)
GF10	1.23	2.23	0.63	0.05
GF20	1.66	2.86	0.85	0.1
GF30	2.16	3.80	1.23	0.3
GF40	2.41	5.05	1.64	0.8
GF50	3.05	6.44	2.02	1.45
GF60	3.90	7.37	2.35	2.0
GF70	4.13	8.20	2.32	3.0
GF80	4.34	9.98	2.63	5.0
GF90	6.19	11.30	2.96	6.0
GF100	7.60	13.61	3.24	9.0
GF110	9.15	15.93	3.67	13.0
GF120	11.25	19.04	5.43	31.0



Standard	Medium Torque	Extreme High Torque	Hi-Temp	Metal Detectable
<b>Operational temperature range of -60°F to 212°F</b> (-50°C to 100°C)	<b>Operational temperature range of -60°F to 212°F</b> (-50°C to 100°C)	<b>Operational temperature range of -60°F to 212°F</b> (-50°C to 100°C)	<b>Operational temperature range up to 300°F (148°C)</b>	<b>Operational temperature range of -60°F to 212°F</b> (-50°C to 100°C)
<b>Moderately soft urethane compound</b>	<b>Higher durometer urethane</b> resulting in a more rigid insert designed for higher torque applications than the regular insert	<b>Insert provides our highest torque ratings</b>	<b>Urethane compound made for Hi-temp applications</b>	<b>Metal Detectable Inserts are made with a FDA compliant additive that provides metal detectability</b>
<b>Applications</b> Vibration dampening, cushioning of shock loads, reversing, or quick starting and stopping of high inertial loads	<b>Applications</b> Moderate to high torque	<b>Applications</b> High torque	<b>Applications</b> Moderate to high torque	<b>Applications</b> Food and chemical Industries where plastic contamination compromises production

## Martin Go-Flex® – Standard Cover

Designed for applications where low torque and/or high speed is present.

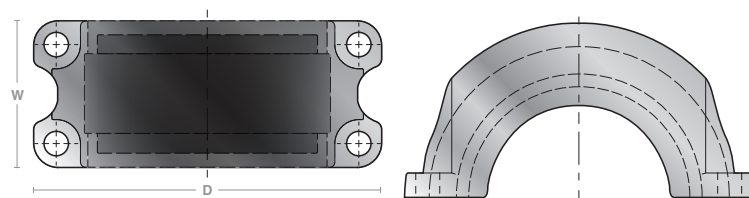


Part Number		Max. RPM $\diamond$	W	D	Bolt Size
Carbon Steel	Stainless Steel				
GF10SD-CVR	GF10SS-CVR	12,000	0.95	2.49	Retaining Ring
GF20SD-CVR	GF20SS-CVR	9,000	1.35	3.16	Retaining Ring
GF30SD-CVR	GF30SS-CVR	7,000	1.95	4.21	Retaining Ring
GF40SD-CVR	GF40SS-CVR	6,000	2.38	5.48	Retaining Ring
GF50SD-CVR	GF50SS-CVR	4,800	2.96	7.00	Retaining Ring
GF60SD-CVR	GF60SS-CVR	4,200	3.27	8.00	Retaining Ring
GF70SD-CVR	GF70SS-CVR	3,800	3.50	8.88	(8) M10-1.5 x 35MM
GF80SD-CVR	GF80SS-CVR	3,400	4.05	10.77	(8) M10-1.5 x 35MM
GF90SD-CVR	GF90SS-CVR	3,000	4.88	12.13	(8) M10-1.5 x 35MM
GF100SD-CVR	GF100SS-CVR	2,400	5.00	14.38	(8) M12-1.75 x 45MM
GF110SD-CVR	GF110SS-CVR	2,000	5.50	16.75	(8) M20-2.5 x 45MM
GF120SD-CVR	GF120SS-CVR	1,800	7.94	20.10	(8) M20-2.5 x 45MM

G10 to GF 60 Cover are held into position with a retaining ring. GF70 covers are held into position with (8) bolts.

## Martin Go-Flex® – Horizontal Split Cover

Designed for all applications including high and/or low torque and high or low speeds while reducing axial loading.



Part Number	Max. RPM $\diamond$ *	W	D	Bolt Size
GF20XP-CVR	9,000	1.93	3.99	(4) M6-1.00 x 25MM
GF30XP-CVR	7,000	2.61	5.34	(4) M10-1.5 x 35MM
GF40XP-CVR	6,000	3.02	7.28	(4) M12-1.75 x 45MM
GF50XP-CVR	4,800	5.96	7.76	(4) M12-1.75 x 60MM
GF60XP-CVR	4,200	6.17	8.52	(4) M16-2.0 x 65MM
GF70XP-CVR	3,800	6.54	10.29	(4) M20-2.5 x 60MM
GF80XP-CVR	3,400	7.93	12.05	(4) M20-2.5 x 60MM

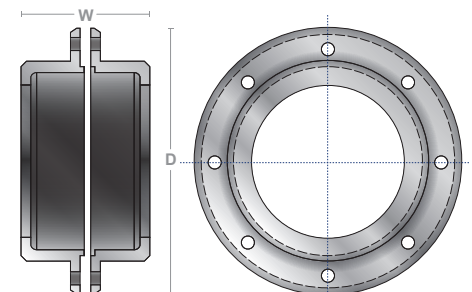
\* With Extreme-Duty Insert.

Stainless Steel hardware provided with all High Performance Covers.

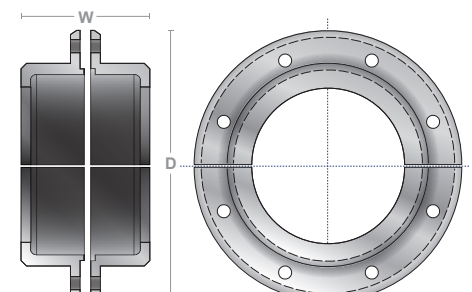
## Martin Go-Flex® – Vertical Split and Horizontal/Vertical Split Covers

Designed for high-Speed applications.

Part Number		Max. RPM $\diamond$	W	D	Flange Bolt Size	Hub Bolt Size
Vertical Split	Horizontal/Vertical Split					
GF20VS-CVR	GF20HS-CVR	9,000	4.7	1.78	(8) M6-1.00 x 20MM	Retaining Ring
GF30VS-CVR	GF30HS-CVR	7,000	5.62	2.5	(8) M6-1.00 x 20MM	Retaining Ring
GF40VS-CVR	GF40HS-CVR	6,000	7.62	3.46	(8) M10-1.5 x 20MM	Retaining Ring
GF50VS-CVR	GF50HS-CVR	4,800	8.95	4.35	(8) M10-1.5 x 35MM	Retaining Ring
GF60VS-CVR	GF60HS-CVR	4,200	9.85	4.5	(8) M10-1.5 x 35MM	Retaining Ring
GF70VS-CVR	GF70HS-CVR	3,800	10.5	4.68	(8) M10-1.5 x 35MM	(8) M10-1.5 x 35MM
GF80VS-CVR	GF80HS-CVR	3,400	13.5	5.88	(12) M12-1.75 x 45MM	(8) M10-1.5 x 35MM
GF90VS-CVR	GF90HS-CVR	3,000	15.25	6.21	(16) M12-1.75 x 45MM	(8) M10-1.5 x 35MM
GF100VS-CVR	GF100HS-CVR	2,800	17.75	7.32	(16) M12-1.75 x 50MM	(8) M12-1.75 x 45MM
GF110VS-CVR	GF110HS-CVR	2,000	19.59	7.42	(20) M12-1.75 x 45MM	(8) M20-2.5 x 45MM
GF120VS-CVR	GF120HS-CVR	1,200	24.38	10.85	(20) M12-1.75 x 45MM	(8) M20-2.5 x 45MM



Vertical Split Cover



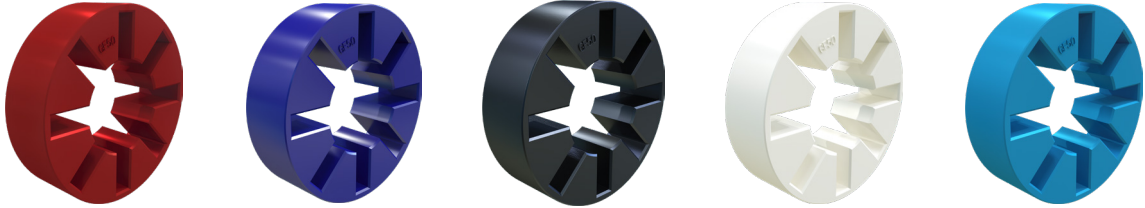
Horizontal/Vertical Split Cover

$\diamond$  For applications above listed RPM, consult Martin.

# Go-Flex® Quick Selection Guide



## Insert Features



Standard-Duty (Red)	Medium-Duty (Dark Blue)	Extreme-Duty (Black)	High Temp (White)	Metal Detectable (Light Blue)
Max Temp: 212°F	Max Temp: 212°F	Max Temp: 212°F	Max Temp: 300°F	Max Temp: 212°F
Greatest Dampening	Lower Dampening	Lowest Dampening	Lower Dampening	Greatest Dampening
Lowest Torque	Higher Torque	Highest Torque	Higher Torque	Lowest Torque

## High-Speed Standard Cover

Max Bore	Coupling Series	Max Torque Rating (in. lb.)				
1-1/4	GF10	377	792	792	792	365

## Horizontal Split, Vertical Split and Horizontal/Vertical Split Covers

Max Bore	Coupling Series	Max Torque Rating (in. lb.)				
1-5/8	GF20	1,254	2,457	3,789	2,457	1,254
2-1/4	GF30	4,099	7,730	11,914	7,730	4,099
2-3/8	GF40	8,630	17,099	25,870	17,099	8,630
3	GF50	17,315	34,336	52,408	34,336	17,315
3-7/8	GF60	30,353	58,137	87,110	58,137	30,353
4-1/8	GF70	38,048	75,538	116,432	75,538	38,048
4-1/2	GF80	75,000	145,000	220,000	145,000	75,000
5-1/2	GF90	105,000	204,000	310,000	204,000	105,000
7	GF100	175,000	345,000	550,000	345,000	175,000
8	GF110	300,000	565,000	870,000	565,000	300,000
11	GF120	599,700	1,120,000	1,680,000	1,120,000	599,700

## Formula Selection Method

Information required before a coupling can be selected:

- HP and RPM or torque of driver
- Shaft sizes of driver and driven equipment
- Corresponding keyways
- Application description to determine service factor
- Environmental conditions

**Step 1.** Determine the Nominal Torque (T) of your application

$$\text{in/lb} = T = \frac{(63025 \times \text{HP})}{\text{RPM}}$$

**Step 2.** Refer to pages C-68 and 71 to determine Application Service Factor

**Step 3.** Calculate the Design Torque of your application.

Design Torque = Nominal Torque (T) x Application Service Factor

**Example:**

Driver: 5HP, 1800RPM electric motor

Driven: belt conveyor (refer to pages C-68 and 71)

$$\text{in/lbs} = T = \frac{(63025 \times 5\text{HP})}{1800}$$

Nominal Torque (T) = 175 in/lbs

Design Torque = 175 (Nominal Torque) x 1.75 (Application Service Factor from pages C-68 and 71)

Design Torque = 306.25 in/lbs Torque

**Step 4.** Refer to page C-64 to select correct coupling size - ie. GF10

**Step 5.** Confirm that the shaft size of the driver and driven shafts are equal to or less than the maximum bore size (refer to coupling dimensional pages)

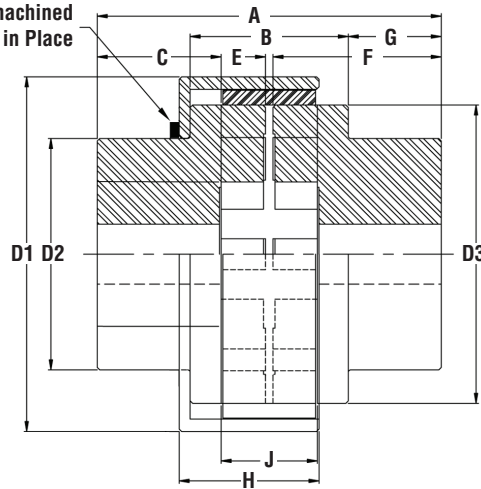
**Step 6.** Confirm environmental conditions to determine correct cover, hubs, and insert material (stainless steel or carbon steel hubs and cover, food grade, high temp or standard insert)

For reversing applications with high inertia loads, please consult Martin.

# Go-Flex<sup>®</sup> with Standard Cover Dimensions/Ratings



Go-Flex<sup>®</sup> Couplings up to GF60 have machined Snap Ring Grooves to hold the Covers in Place



## Martin Go-Flex<sup>®</sup> Coupling with Standard Cover Dimensions/Ratings (Carbon Steel and Stainless Steel)

Coupling Series	Pilot Bore Diameter	Maximum Bore Size $\circ$ Square Key	Max RPM*	Maximum Torque (in-lbs)■	A	B	D1	D2	D3	C	E MIN	E MAX	F	G	H	J	Wt. $\diamond$ (lb)
GF10	1/2	1-1/4	12,000	792	2.8	1.03	2.49	2	2.07	1.08	0.062	0.092	1.37	0.88	0.95	0.66	4
GF20	1/2	1-5/8	9,000	2,457	3.54	1.28	3.16	2.31	2.55	1.34	0.089	0.104	1.75	1.14	1.35	0.88	5
GF30	3/4	2-1/4	7,000	7,730	4.86	2	4.21	3.19	3.37	1.81	0.1	0.13	2.39	1.42	1.95	1.25	11
GF40	7/8	2-3/8	6,000	17,099	5.96	2.42	5.48	3.52	4.49	2.16	0.105	0.181	2.96	1.78	2.38	1.66	15
GF50	1	3	4,800	34,336	7.07	3.48	7	4.25	5.92	2.46	0.18	0.211	3.4	1.76	2.96	2.19	37
GF60	1	3-7/8	4,200	58,137	7.69	3.67	8	5.5	6.75	2.67	0.253	0.293	3.75	2	3.27	2.45	57
GF70	1-1/2	4-1/8	3,800	75,538	8.51	3.96	8.88	5.79	7.48	3.1	0.17	0.209	4.21	2.33	3.5	2.49	71
GF80	1-7/8	4-1/2	3,400	145,000	10.13	4.67	10.77	7	9.25	3.75	0.196	0.25	5	2.75	4.05	2.75	126
GF90	1-7/8	5-1/2	3,000	204,000	12.29	5.09	12.13	7.81	10.5	4.6	0.237	0.349	6	3.6	4.88	3.04	216
GF100	2-1/8	7	2,400	345,000	14.28	5.92	14.38	9.5	12.8	5.74	0.25	0.347	7.26	4.45	5	3.35	400
GF110	2-1/8	8	2,000	565,000	16.2	6.2	16.75	11	15.09	6.18	0.167	0.309	7.98	5	5.5	3.99	532
GF120	2-1/8	11	1,800	1,120,000	20.08	9.18	20.1	15	17.75	7.22	0.236	0.424	9.88	5.45	7.94	5.68	1116

\* For applications above listed RPM, consult Martin.

$\diamond$  All weights shown are approximate for a complete standard coupling assembly.

■ Maximum torque values (in-lbs) are based on use with black insert. Refer to page C-64 for complete torque ratings.

$\circ$  Maximum bore size has reduced keyway on sizes GF20, GF30, and GF40.

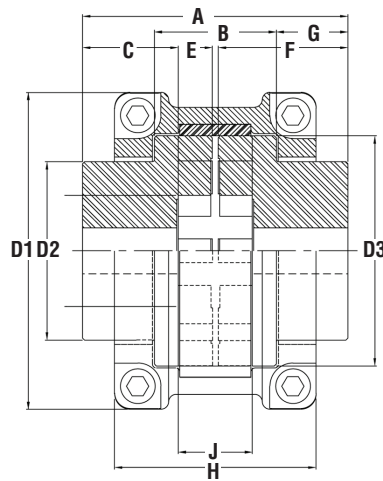
## Martin Go-Flex<sup>®</sup> Insert Maximum Torque Ratings (in-lb)

Coupling Series	Standard-Duty Red	Medium-Duty Dark Blue	Extreme-Duty Black	High Temp White	Metal Detectable Light Blue
GF10	377	792	-	792	377
GF20	1,254	2,457	-	2,457	1,254
GF30	4,099	7,730	-	7,730	4,099
GF40	8,630	17,099	-	17,099	8,630
GF50	17,315	34,336	-	34,336	17,315
GF60	30,353	58,137	-	58,137	30,353
GF70	38,048	75,538	-	75,538	38,048
GF80	75,000	145,000	-	145,000	75,000
GF90	105,000	204,000	-	204,000	105,000
GF100	175,000	345,000	-	345,000	175,000
GF110	300,000	565,000	-	565,000	300,000
GF120	599,700	1,120,000	-	1,120,000	599,700

**Note:**  
It is not recommended to use the Black insert with the Standard Cover. In high torque applications we recommend the use of the Horizontal Split Cover.



# Go-Flex<sup>®</sup> with Horizontal Split Cover Dimensions/Ratings



## Martin Go-Flex<sup>®</sup> Coupling with Horizontal Split Cover Dimensions/Ratings (Carbon Steel Only)

Coupling Series	Pilot Bore Diameter	Maximum Bore Size $\circ$ Square Key	Max RPM*	Maximum Torque (in-lbs)■	A	B	D1	D2	D3	C	E MIN	E MAX	F	G	H	J	Wt. $\diamond$ (lb)
GF20	1/2	1-5/8	9,000	2,457	3.54	1.28	3.99	2.31	2.55	1.34	0.089	0.104	1.75	1.14	1.93	0.88	5
GF30	3/4	2-1/4	7,000	7,730	4.86	2	5.34	3.19	3.37	1.81	0.1	0.13	2.39	1.42	2.61	1.25	12
GF40	7/8	2-3/8	6,000	17,099	5.96	2.42	7.28	3.52	4.49	2.16	0.105	0.14	2.96	1.78	3.02	1.66	17
GF50	1	3	4,800	34,336	7.07	3.48	7.76	4.25	5.92	2.46	0.221	0.32	3.4	1.76	5.96	2.19	40
GF60	1	3-7/8	4,200	58,137	7.69	3.67	8.52	5.5	6.75	2.67	0.253	0.314	3.75	2	6.17	2.45	59
GF70	1-1/2	4-1/8	3,800	75,538	8.51	3.96	10.29	5.79	7.48	3.1	0.17	0.209	4.21	2.33	6.54	2.49	81
GF80	1-7/8	4-1/2	3,400	145,000	10.13	4.67	12.02	7	9.25	3.75	0.196	0.335	5	2.75	7.92	2.75	138

\* For applications above listed RPM, consult Martin.

$\diamond$  All weights shown are approximate for a complete standard coupling assembly.

■ Maximum torque values (in-lbs) are based on use with black insert. Refer to page C-64 for complete torque ratings.

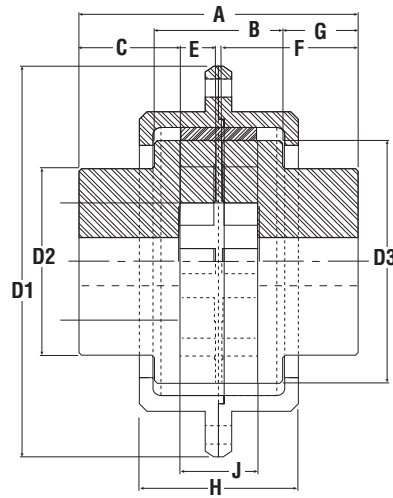
$\circ$  Maximum bore size has reduced keyway on sizes GF20, GF30, and GF40.

## Martin Go-Flex<sup>®</sup> Insert Maximum Torque Ratings (in-lb)

Coupling Series	Standard-Duty Red	Medium-Duty Dark Blue	Extreme-Duty Black	High Temp White	Metal Detectable Light Blue
GF20	1,254	2,457	3,789	2,457	1,254
GF30	4,099	7,730	11,914	7,730	4,099
GF40	8,630	17,099	25,870	17,099	8,630
GF50	17,315	34,336	52,408	34,336	17,315
GF60	30,353	58,137	87,110	58,137	30,353
GF70	38,048	75,538	116,432	75,538	38,048
GF80	75,000	145,000	220,000	145,000	75,000



# Go-Flex<sup>®</sup> with Vertical Split Dimensions/Ratings



## Martin Go-Flex<sup>®</sup> Coupling with Vertical Split Cover Dimensions/Ratings

Coupling Series	Pilot Bore Diameter	Maximum Bore Size $\circ$ Square Key	Max RPM*	Maximum Torque (in-lbs)■	A	B	D1	D2	D3	C	E MIN	E MAX	F	G	H	J	Wt. $\diamond$ (lb)
GF20	1/2	1-5/8	9,000	2,457	3.54	1.28	4.7	2.31	2.55	1.34	0.089	0.104	1.75	1.14	1.78	0.88	7
GF30	3/4	2-1/4	7,000	7,730	4.86	2	5.62	3.19	3.37	1.81	0.1	0.13	2.39	1.42	2.5	1.25	13
GF40	7/8	2-3/8	6,000	17,099	5.96	2.42	7.62	3.52	4.49	2.16	0.105	0.181	2.96	1.78	3.08	1.66	20
GF50	1	3	4,800	34,336	7.07	3.48	8.95	4.25	5.92	2.46	0.221	0.32	3.4	1.76	4.36	2.19	47
GF60	1	3-7/8	4,200	58,137	7.69	3.67	9.85	5.5	6.75	2.67	0.253	0.314	3.75	2	4.5	2.45	65
GF70	1-1/2	4-1/8	3,800	75,538	8.51	3.96	10.5	5.79	7.48	3.1	0.17	0.209	4.21	2.33	4.67	2.49	80
GF80	1-7/8	4-1/2	3,400	145,000	10.13	4.67	13.5	7	9.25	3.75	0.196	0.335	5	2.75	5.88	2.75	136
GF90	1-7/8	5-1/2	3,000	204,000	12.29	5.09	15.25	7.81	10.5	4.6	0.237	0.349	6	3.6	6.21	3.04	226
GF100	2-1/8	7	2,400	345,000	14.28	5.92	17.75	9.5	12.8	5.74	0.288	0.397	7.26	4.45	7.32	3.35	410
GF110	2-1/8	8	2,000	565,000	16.2	6.2	19.56	11	15.09	6.18	0.167	0.309	7.98	5	7.42	3.99	542
GF120	2-1/8	11	1,800	1,120,000	20.08	9.18	24.38	15	17.75	7.22	0.236	0.424	9.88	5.45	10.85	5.68	1136

\* For applications above listed RPM, consult Martin.

$\diamond$  All weights shown are approximate for a complete standard coupling assembly.

■ Maximum torque values (in-lbs) are based on use with black insert. Refer to page C-64 for complete torque ratings.

$\circ$  Maximum bore size has reduced keyway on sizes GF20, GF30, and GF40.

## Martin Go-Flex<sup>®</sup> Insert Maximum Torque Ratings (in-lb)

Coupling Series	Standard-Duty Red	Medium-Duty Dark Blue	Extreme-Duty Black	High Temp White	Metal Detectable Light Blue
GF20	1,254	2,457	3,789	2,457	1,254
GF30	4,099	7,730	11,914	7,730	4,099
GF40	8,630	17,099	25,870	17,099	8,630
GF50	17,315	34,336	52,408	34,336	17,315
GF60	30,353	58,137	87,110	58,137	30,353
GF70	38,048	75,538	116,432	75,538	38,048
GF80	75,000	145,000	220,000	145,000	75,000
GF90	105,000	204,000	310,000	204,000	105,000
GF100	175,000	345,000	550,000	345,000	175,000
GF110	300,000	565,000	870,000	565,000	300,000
GF120	599,700	1,120,000	1,680,000	1,120,000	599,700



# Go-Flex® Keyway Sizes and Tolerances

## Martin Go-Flex® Standard Bore Sizes

Coupling Size	PB	1/2	5/8	3/4	7/8	1	1-1/8	1-3/16	1-1/4	1-3/8	1-7/16	1-1/2	1-5/8	1-3/4	1-7/8	1-15/16
GF10	X	X	X	X	X	X	X	X	X							
GF20	X		X	X	X	X	X	X	X	X	X	X	X			
GF30	X				X	X	X	X	X	X	X	X	X	X	X	X
GF40	X				X	X	X		X	X	X	X	X	X	X	X
GF50	X											X	X	X	X	X
GF60	X															
GF70	X															
GF80	X															

## Martin Go-Flex® Standard Bore Sizes (cont'd)

Coupling Size	2	2-1/8	2-3/16	2-1/4	2-3/8	2-7/16	2-1/2	2-5/8	2-3/4	2-7/8	2-15/16	3
GF10												
GF20												
GF30	X	X										
GF40	X	X	X	X	X							
GF50	X	X		X	X	X	X	X	X	X	X	X
GF60												
GF70												
GF80												

## Martin Go-Flex® Bore Tolerances and Keyway Sizes

Shaft Diameter (Nom)	Keyway Size (Nom)		Bore Tolerances				Set Screw Size
	Width	Depth	Clearance Fit**		Interference fit**		
1/2 - 9/16	1/8	1/16	+0.0015	-0.0000	-0.0005	-0.0010	5/16
5/8 - 7/8	3/16	3/32	+0.0015	-0.0000	-0.0005	-0.0010	5/16
15/16 - 1-1/4	1/4	1/8	+0.0015	-0.0000	-0.0005	-0.0010	5/16
1-15/16 - 1-3/8	5/16	5/32	+0.0015	-0.0000	-0.0005	-0.0010	5/16
1-7/16 - 1-3/4	3/8	3/16	+0.0015	-0.0000	-0.0005	-0.0015	5/16
1-13/16 - 2-1/4	1/2	1/4	+0.0025	-0.0000	-0.0005	-0.0015	3/8
2-5/16 - 2-3/4	5/8	5/16	+0.0025	-0.0000	-0.0010	-0.0020	1/2
2-13/16 - 3-1/4	3/4	3/8	+0.0025	-0.0000	-0.0010	-0.0020	5/8
3-5/16 - 3-3/4	7/8	7/16	+0.0025	-0.0000	-0.0015	-0.0025	5/8
3-13/16 - 4-1/2	1	1/2	+0.0025	-0.0000	-0.0025	-0.0035	5/8

\*\* For Class 1 Fit

Reduced keyways in max bore hubs measure as follows: GF20X1-5/8 - 3/8 x 3/32 keyway; GF30X2-1/8 - 1/2 x 1/8 keyway; GF40X2-3/8 - 5/8 x 5/32 keyway.

# Torque Ratings



## Torque Ratings for Martin Go-Flex® Carbon Steel Couplings with Standard Cover

Coupling Series	Insert Part Number	Insert Color	Continuous Torque (in-lb)	HP Ratings @ Various RPM (Service Factor = 1)							
				100	300	600	900	1200	1800	2400	3600
GF10	GF10SD-INS	Red	365	1	2	3	5	7	10	14	21
	GF10MD-INS	Blue	792	1	4	8	11	15	23	30	45
	GF10HT-INS	White	792	1	4	8	11	15	23	30	45
	GF10FG-INS	Light Blue	365	1	2	3	5	7	10	14	21
GF20	GF20SD-INS	Red	1,254	2	6	12	18	24	36	48	72
	GF20MD-INS	Blue	2,457	4	12	23	35	47	70	94	140
	GF20HT-INS	White	2,457	4	12	23	35	47	70	94	140
	GF20FG-INS	Light Blue	1,254	2	6	12	18	24	36	48	72
GF30	GF30SD-INS	Red	4,099	7	20	39	59	78	117	156	234
	GF30MD-INS	Blue	7,730	12	37	74	110	147	221	294	442
	GF30HT-INS	White	7,730	12	37	74	110	147	221	294	442
	GF30FG-INS	Light Blue	4,099	7	20	39	59	78	117	156	234
GF40	GF40SD-INS	Red	8,630	14	41	82	123	164	246	329	493
	GF40MD-INS	Blue	17,099	27	81	163	244	326	488	651	977
	GF40HT-INS	White	17,099	27	81	163	244	326	488	651	977
	GF40FG-INS	Light Blue	8,630	14	41	82	123	164	246	329	493
GF50	GF50SD-INS	Red	17,315	27	82	165	247	330	495	659	989
	GF50MD-INS	Blue	34,336	54	163	327	490	654	981	1,308	1,961
	GF50HT-INS	White	34,336	54	163	327	490	654	981	1,308	1,961
	GF50FG-INS	Light Blue	17,315	27	82	165	247	330	495	659	989
GF60	GF60SD-INS	Red	30,353	48	144	289	433	578	867	1,156	1,734
	GF60MD-INS	Blue	58,137	92	277	553	830	1,107	1,660	2,214	3,321
	GF60HT-INS	White	58,137	92	277	553	830	1,107	1,660	2,214	3,321
	GF60FG-INS	Light Blue	30,353	48	144	289	433	578	867	1,156	1,734
GF70	GF70SD-INS	Red	38,048	60	181	362	543	724	1,087	1,449	2,173
	GF70MD-INS	Blue	75,538	120	360	719	1,079	1,438	2,157	2,877	4,315
	GF70HT-INS	White	75,538	120	360	719	1,079	1,438	2,157	2,877	4,315
	GF70FG-INS	Light Blue	38,048	60	181	362	543	724	1,087	1,449	2,173
GF80	GF80SD-INS	Red	75,000	119	357	714	1,071	1,428	2,142	2,856	-
	GF80MD-INS	Blue	145,000	230	690	1,380	2,071	2,761	4,141	5,522	-
	GF80HT-INS	White	145,000	230	690	1,380	2,071	2,761	4,141	5,522	-
	GF80FG-INS	Light Blue	75,000	119	357	714	1,071	1,428	2,142	2,856	-
GF90	GF90SD-INS	Red	105,000	167	500	1,000	1,499	1,999	2,999	3,998	-
	GF90MD-INS	Blue	204,000	324	971	1,942	2,913	3,884	5,826	7,768	-
	GF90HT-INS	White	204,000	324	971	1,942	2,913	3,884	5,826	7,768	-
	GF90FG-INS	Light Blue	105,000	167	500	1,000	1,499	1,999	2,999	3,998	-
GF100	GF100SD-INS	Red	175,000	278	833	1,666	2,499	3,332	4,998	6,664	-
	GF100MD-INS	Blue	345,000	547	1,642	3,284	4,927	6,569	9,853	13,138	-
	GF100HT-INS	White	345,000	547	1,642	3,284	4,927	6,569	9,853	13,138	-
	GF100FG-INS	Light Blue	175,000	278	833	1,666	2,499	3,332	4,998	6,664	-
GF110	GF110SD-INS	Red	300,000	476	1,428	2,856	4,284	5,712	8,568	-	-
	GF110MD-INS	Blue	565,000	896	2,689	5,379	8,068	10,758	16,136	-	-
	GF110HT-INS	White	565,000	896	2,689	5,379	8,068	10,758	16,136	-	-
	GF110FG-INS	Light Blue	300,000	476	1,428	2,856	4,284	5,712	8,568	-	-
GF120	GF120SD-INS	Red	599,700	952	2,855	5,709	8,564	11,418	17,127	-	-
	GF120MD-INS	Blue	1,120,000	1,777	5,331	10,662	15,994	21,325	31,987	-	-
	GF120HT-INS	White	1,120,000	1,777	5,331	10,662	15,994	21,325	31,987	-	-
	GF120FG-INS	Light Blue	599,700	952	2,855	5,709	8,564	11,418	17,127	-	-

Martin Go-Flex® flexible couplings can sustain momentary peak torque loads in excess of 200% of its maximum torque rating.



# Torque Ratings

## Torque Ratings for Martin Go-Flex® Carbon Steel Couplings with Horizontal Split, Vertical Split and Horizontal/ Vertical Split Cover

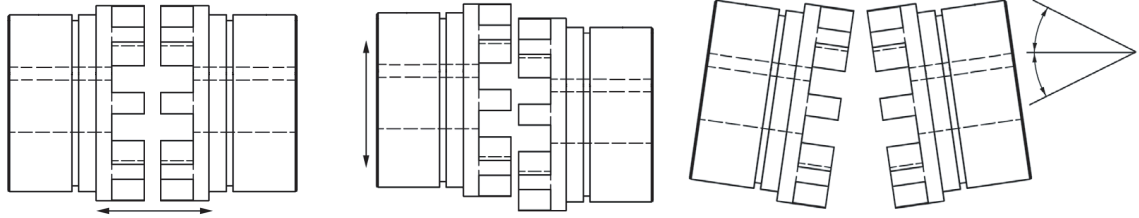
Coupling Series	Insert Part Number	Insert Color	Continuous Torque (in-lb)	HP Ratings @ Various RPM (Service Factor = 1)							
				100	300	600	900	1200	1800	2400	3600
GF20	GF20SD-INS	Red	1,254	2	6	12	18	24	36	48	72
	GF20MD-INS	Blue	2,457	4	12	23	35	47	70	94	140
	GF20XD-INS	Black	3,789	6	18	36	54	72	108	144	216
	GF20HT-INS	White	2,457	4	12	23	35	47	70	94	140
	GF20FG-INS	Light Blue	1,254	2	6	12	18	24	36	48	72
GF30	GF30SD-INS	Red	4,099	7	20	39	59	78	117	156	234
	GF30MD-INS	Blue	7,730	12	37	74	110	147	221	294	442
	GF30XD-INS	Black	11,914	19	57	113	170	227	340	454	681
	GF30HT-INS	White	7,730	12	37	74	110	147	221	294	442
	GF30FG-INS	Light Blue	4,099	7	20	39	59	78	117	156	234
GF40	GF40SD-INS	Red	8,630	14	41	82	123	164	246	329	493
	GF40MD-INS	Blue	17,099	27	81	163	244	326	488	651	977
	GF40XD-INS	Black	25,870	41	123	246	369	493	739	985	1,478
	GF40HT-INS	White	17,099	27	81	163	244	326	488	651	977
	GF40FG-INS	Light Blue	8,630	14	41	82	123	164	246	329	493
GF50	GF50SD-INS	Red	17,315	27	82	165	247	330	495	659	989
	GF50MD-INS	Blue	34,336	54	163	327	490	654	981	1,308	1,961
	GF50XD-INS	Black	52,408	83	249	499	748	998	1,497	1,996	2,994
	GF50HT-INS	White	34,336	54	163	327	490	654	981	1,308	1,961
	GF50FG-INS	Light Blue	17,315	27	82	165	247	330	495	659	989
GF60	GF60SD-INS	Red	30,353	48	144	289	433	578	867	1,156	1,734
	GF60MD-INS	Blue	58,137	92	277	553	830	1,107	1,660	2,214	3,321
	GF60XD-INS	Black	87,110	138	415	829	1,244	1,659	2,488	3,317	4,976
	GF60HT-INS	White	58,137	92	277	553	830	1,107	1,660	2,214	3,321
	GF60FG-INS	Light Blue	30,353	48	144	289	433	578	867	1,156	1,734
GF70	GF70SD-INS	Red	38,048	60	181	362	543	724	1,087	1,449	2,173
	GF70MD-INS	Blue	75,538	120	360	719	1,079	1,438	2,157	2,877	4,315
	GF70XD-INS	Black	116,432	185	554	1,108	1,663	2,217	3,325	4,434	6,651
	GF70HT-INS	White	75,538	120	360	719	1,079	1,438	2,157	2,877	4,315
	GF70FG-INS	Light Blue	38,048	60	181	362	543	724	1,087	1,449	2,173
GF80	GF80SD-INS	Red	75,000	119	357	714	1,071	1,428	2,142	2,856	-
	GF80MD-INS	Blue	145,000	230	690	1,380	2,071	2,761	4,141	5,522	-
	GF80XD-INS	Black	220,000	349	1,047	2,094	3,142	4,189	6,283	8,378	-
	GF80HT-INS	White	145,000	230	690	1,380	2,071	2,761	4,141	5,522	-
	GF80FG-INS	Light Blue	75,000	119	357	714	1,071	1,428	2,142	2,856	-
GF90	GF90SD-INS	Red	105,000	167	500	1,000	1,499	1,999	2,999	3,998	-
	GF90MD-INS	Blue	204,000	324	971	1,942	2,913	3,884	5,826	7,768	-
	GF90XD-INS	Black	310,000	492	1,476	2,951	4,427	5,902	8,854	11,805	-
	GF90HT-INS	White	204,000	324	971	1,942	2,913	3,884	5,826	7,768	-
	GF90FG-INS	Light Blue	105,000	167	500	1,000	1,499	1,999	2,999	3,998	-
GF100	GF100SD-INS	Red	175,000	278	833	1,666	2,499	3,332	4,998	6,664	-
	GF100MD-INS	Blue	345,000	547	1,642	3,284	4,927	6,569	9,853	13,138	-
	GF100XD-INS	Black	550,000	873	2,618	5,236	7,854	10,472	15,708	20,944	-
	GF100HT-INS	White	345,000	547	1,642	3,284	4,927	6,569	9,853	13,138	-
	GF100FG-INS	Light Blue	175,000	278	833	1,666	2,499	3,332	4,998	6,664	-
GF110	GF110SD-INS	Red	300,000	476	1,428	2,856	4,284	5,712	8,568	-	-
	GF110MD-INS	Blue	565,000	896	2,689	5,379	8,068	10,758	16,136	-	-
	GF110XD-INS	Black	870,000	1,380	4,141	8,282	12,424	16,565	24,847	-	-
	GF110HT-INS	White	565,000	896	2,689	5,379	8,068	10,758	16,136	-	-
	GF110FG-INS	Light Blue	300,000	476	1,428	2,856	4,284	5,712	8,568	-	-
GF120	GF120SD-INS	Red	599,700	952	2,855	5,709	8,564	11,418	-	-	-
	GF120MD-INS	Blue	1,120,000	1,777	5,331	10,662	15,994	21,325	-	-	-
	GF120XD-INS	Black	1,680,000	2,666	7,997	15,994	23,990	31,987	-	-	-
	GF120HT-INS	White	1,120,000	1,777	5,331	10,662	15,994	21,325	-	-	-
	GF120FG-INS	Light Blue	599,700	952	2,855	5,709	8,564	11,418	-	-	-

Martin Go-Flex® flexible couplings can sustain momentary peak torque loads in excess of 200% of its maximum torque rating.

# Misalignment Tolerances



## Martin Go-Flex® Couplings Misalignment Tolerances



Coupling Series	Axial Misalignment Tolerance (in)	Radial Misalignment Tolerance (in)	Angular Misalignment Tolerance
GF10	0.078	0.020	2°
GF20	0.116	0.039	2°
GF30	0.116	0.039	2°
GF40	0.116	0.039	2°
GF50	0.156	0.058	2°
GF60	0.175	0.058	1.3°
GF70	0.234	0.058	1.3°
GF80	0.234	0.058	1°
GF90	0.234	0.058	1°
GF100	0.312	0.058	1°
GF110	0.312	0.078	1°
GF120	0.312	0.078	1°

Application	Factor
<b>AERATORS</b>	2.5
<b>AGGREGATE PROCESSING, CEMENT, MINING KILNS</b>	
Direct or on Line Shaft of Reducer	
With Final Drive Machined Spur Gears	2.25
With Single Helical or Herringbone Gears	2.0
Crushers, Ore or Stone	2.75
Dryer, Rotary	2.0
Grizzly	2.25
Hammermill or Hog	2.0
Tumbling Mill or Barrel	2.0
<b>AGITATORS</b>	
Vertical, Horizontal, Screw, Propeller, Paddle	1.25
<b>BARGE HAUL PULLER</b>	1.75
<b>BLOWERS</b>	
Centrifugal	1.5
Lobe or Vane	1.5
<b>BREWING AND DISTILLING</b>	
Bottle and Can Filling Machines	1.5
Brew Kettle	1.25
Cookers, Continuous Duty	1.5
Lauter Tub	1.75
Mash Tub	1.5
Scale Hopper, Frequent Peaks	2.0
<b>CLARIFIER OR CLASSIFIER</b>	1.25
<b>CLAY WORKING INDUSTRY</b>	
Brick Press, Briquette Machine, Clay Working Machine, Pug Mill	2.0
<b>COMPRESSORS</b>	
Centrifugal	1.25
Rotary, Lobe or Vane	1.5
Rotary, Screw	1.5
Reciprocating	
Direct Connected	Refer to Factory
Without Flywheels	Refer to Factory
With Flywheel and Gear between Compressor and Prime Monitor	
1 Cylinder, Single Acting	3.0
1 Cylinder, Double Acting	3.0
2 Cylinders, Single Acting	3.0
2 Cylinders Double Acting	3.0
3 Cylinders Single Acting	3.0
3 Cylinders, Double Acting	2.0
4 Or More Cyl Single Acting	2.5
4 Or More Cyl Double Acting	2.5

Application	Factor
<b>CONVEYORS</b>	
Apron, Assembly, Belt, Chain, Flight, Screw	1.75
Bucket	1.75
Live Roll, Shaker and Reciprocating	3.0
Bridge, Travel or Trolley	2.50
<b>DREDGERS</b>	
Cable Reel	2.0
Conveyors	1.50
Cutter Head, Jig Drive	2.5
Maneuvering Winch	1.75
Pumps (Uniform Load)	1.75
Screen Drive, Stacker	2.0
Utility Winch	2.0
<b>DYNAMOMETER</b>	1.5
<b>ELEVATORS - BUCKET, CENTRIFUGAL DISCHARGE</b>	1.75
<b>EXCITER, GENERATOR</b>	1.5
<b>EXTRUDER, PLASTIC</b>	1.5
<b>FANS</b>	
Centrifugal	1.25
Cooling Tower	2.0
Forced Draft-Across the Line Start	1.75
<b>FOOD INDUSTRY</b>	
Beet Slicer	2.0
Bottling, Can, Filling Machine	1.5
Cereal Cooker	1.5
Dough Mixer, Meat Grinder	2.0
Forced Draft Motor driven thru fluid or Electric Slip Clutch	1.25
Gas Recirculating	1.50
Induced Draft with damper control or blade cleaner	1.50
Induced Draft without controls	2.0
<b>FEEDERS</b>	
Apron, Belt, Disc, Screw	1.25
Reciprocating	2.5
<b>GENERATORS</b>	
Even Load	1.25
Hoist or Railway Service	1.75
Welder Load	2.0
<b>HAMMERMILL</b>	1.75
<b>LAUNDRY WASHER OR TUMBLER</b>	2.0
<b>LINE SHAFTS ANY PROCESSING MACHINERY</b>	1.5
<b>LUMBER</b>	
Band Resaw	2.0
Circular Resaw, Cutoff	2.0
Edger, Head Rig, Hog	2.5
Gang Saw (Reciprocating)	3.0

Application	Factor
Log Haul	2.5
Planer	2.0
Rolls, Non-Reversing	1.5
Rolls, Reversing	2.5
Sawdust Conveyor	1.5
Slab Conveyor	2.0
Sorting Table	1.75
Trimmer	2.0
<b>MACHINE TOOLS</b>	
Auxiliary and Traverse Drive	1.0
Bending Roll, Notching Press, Punch, Press, Planer, Plate Reversing	1.75
Main Drive	1.5
<b>METAL ROLLING MILLS</b>	
Coilers (Up or Down) Cold Mill Only	1.75
Coilers (Up or Down) Hot Mill Only	2.25
Coke Plants	
Pusher Ram Drive	2.75
Door Opener	2.25
Pusher or Larry Car Traction Drive	3.25
Continuous Caster	2.0
Cold Mills	
Strip Mills	Refer to Factory
Temper Mills	Refer to Factory
Cooling Beds	1.75
Drawbench	2.25
Feed Rolls - Blooming Mills	3.25
Furnace Pushers	2.25
Hot and Cold Saws	2.25
Hot Mills	
Strip or Sheet Mills	Refer to Factory
Reversing Blooming	Refer to Factory
Slabbing Mills	
Edger Drives	
Ingot Cars	2.25
Manipulators	3.25
Merchant Mills	Refer to Factory
Mill Tables	
Roughing Breakdown Mills	3.25
Hot Bed or Transfer (non-reversing)	1.75
Runout (reversing)	3.25
Runout (non-reversing, non-plugging)	2.25
Reel Drives	2.0
Rod Mills	Refer to Factory
Screwdown	2.25
Seamless Tube Mills	
Piercer	3.25

\* For reversing applications with high inertia loads, please consult Martin.

# Go-Flex® Service Factors (Cont'd)



Application	Factor
Thrust Block	2.25
Tube Conveyor Rolls	2.25
Reeler	2.25
Kick Out	2.25
Shear, Croppers	Refer to Factory
Sideguards	3.25
Skelp Mills	Refer to Factory
Slitters (Steel Mill only)	2.0
Soaking Pit Cover Drives	
Lift	1.25
Travel	2.25
Straighteners	2.25
Unscramblers (Billet Bundle Busters)	2.25
Wire Drawing Machinery	2.0
<b>MIXERS (ALSO SEE AGITATORS)</b>	
Concrete	1.75
Muller	1.5
<b>OIL INDUSTRY</b>	
Chiller	1.50
Oilwell Pumping (not over 150% peak torque)	2.5
Paraffin Filter Press	1.75
Rotary Kiln	2.5
<b>PAPER MILLS</b>	
Barker, Auxiliary, Hydraulic	2.5
Barker, Mechanical	2.5
Barker, Drum L.S. shaft of reducer with final drive-	
Helical or Herringbone Gear	2.5
Machined Spur Gear	3.0
Cast Tooth Spur Gear	3.0
Beater and Pulper	2.0
Bleachers, Coaters	1.5
Calendar and Super Calendar	2.0
Chipper	3.0
Converting Machine	1.5
Couch	2.0
Cutter, Felt Whipper	2.25
Cylinder, Dryer	2.0
Felt Stretcher	1.75
Fourdrinier	2.0
Jordan	2.5
Log Haul	2.5
Line Shaft	1.75
Press	2.0
Pulp Grinder	2.0
Reel, Rewinder, Winder	2.0
Stock Chest, Washer, Thickener	1.75

Application	Factor
Stock Pumps, Centrifugal	
Constant Speed	1.25
Frequent Speed Changes Under Load	1.5
Suction Roll	2.0
<b>PRESS, PRINTING</b>	1.5
<b>PUG MILL</b>	1.75
<b>PULVERIZERS</b>	
Hammermill and Hog	1.75
Roller	1.5
<b>PUMPS CENTRIFUGAL</b>	
Constant Speed	1.0
Frequent Speed Changes Under Load	1.75
Descaling, with Accumulators	1.75
Gear, Rotary, or Vane	1.75
<b>PUMPS RECIPROCATING</b>	
1 Cyl., single or double acting	3.0
2 Cyl., single acting	2.5
2 Cyl., double acting	2.0
3 or more cylinders	2.0
<b>RUBBER INDUSTRY</b>	
Calendar	2.25
Cracker, Plasticolour	2.5
Extruder	2.0
Tire and Tube Press Opener (peak torque)	1.5
Warming Mill	
One or two mills in line	2.0
Three or more mills in line	2.5
Washer	2.75
<b>SCREENS</b>	
Air Washing	1.5
Grizzly	2.5
Rotary Coal or Sand	2.0
Vibrating	2.5
Water	1.5
<b>SEWAGE DISPOSAL EQUIPMENT</b>	
Bar Screen, Chemical Feeders, Collectors,	
Dewatering Screen, Grit Collector	1.5
Mill Stands, Turbine Driven with all Helical or Herringbone Gears	1.75
Electric Drive or Steam Engine Drive with Helical or Herringbone	2.0
<b>STOKER</b>	1.0
<b>SUGAR INDUSTRY</b>	
Cone Carrier and Leveler	2.25
Cane Knife and Crusher	2.5
Mill Stands, Turbine Driver with all helical or Herringbone Gears	1.75

Application	Factor
Electric Drive or Steam Engine Drive with helical, Herringbone, or Spur Gears with any Prime Mover	2.0
<b>TEXTILE INDUSTRY</b>	
Batcher	1.5
Calendar, Card Machine	1.75
Cloth Finishing Machine	1.75
Dry Can, Loom	1.75
Dyeing Machinery	1.5
Knitting Machine	Refer to Factory
Mangle, Napper, Soaper	1.5
Spinner, Tenter Frame, Winder	1.75
<b>TUMBLING BARREL</b>	2.0
<b>WINCH, MANEUVERING - DREDGE, MARINE</b>	1.5
<b>WINDLASS</b>	1.5

## Engine Service Factors

Service Factors for engine drives are those required for applications where good flywheel regulation prevents torque fluctuation greater than 20%. For drives where torque fluctuations are greater or where the operation is near a serious critical or torsional vibration, a mass elastic study is necessary.

To determine an engine drive service factor, first determine the application service factor for motors. Then, use that to find the correct engine service factor in the table below. When the application service factor for motors is greater than 2.0 or where 1, 2, or 3 cylinder engines are involved, please contact customer service with complete application details for engineering review.

Application Service Factor	Engine Factor	
	4 to 5 Cylinders	6+ Cylinders
1.0	2.0	1.5
1.25	2.25	1.75
1.5	2.5	2.0
1.75	2.75	2.25
2.0	3.0	2.5

\* For reversing applications with high inertia loads, please consult Martin.

**A = Little to No Effect**

Acetaldehyde	C
Acetamide	N
Acetic Acid	C
Acetic Anhydride	C
Acetone	C
Acetyl Bromide	C
Acetyl Chloride	C
Acetylene	C
Adipic Acid	A
Aero Shell Grease	B
Aero Lubriplate	A
Aero Safe 2300	N
Aerocene 50	N
Aluminum Acetate	N
Aluminum Bromide	N
Aluminum Chloride	B
Aluminum Sulfate	B
Ammonia	B
Ammonium Carbonate	B
Ammonium Chloride	N
Ammonium Hydroxide	B
Ammonium Nitrate	B
Ammonium Persulfate	B
Ammonium Sulfate	B
Ammonium Sulfide	B
Ammonium Thiocyanate	B
Ammonium Acetate	C
Amyl Acetate	C
Amyl Alcohol	C
Aniline	C
Aniline Hydrochloride	C
Animal Fats and Oils	B
Antimony Salts	B
Aqua Regia	C
Arsenic Salts	B
ASTM Oil #1	A
ASTM Oil #2	B
ASTM Oil #3	B
ASTM Reference Fuel	A
ASTM Reference Fuel	B
Atlantic Oil	A
Barium Carbonate	B
Barium Hydroxide	A
Beer	A
Benzaldehyde	B
Benzene	C
Benzoic Acid	B
Black Sulphate Liquors	N
Bleach Solutions	N
Boric Acid	A

**B = Minor to Moderate Effect**

Brake Fluid	N
Bromine	B
Bunker Oil	A
Butane	A
Butyl Acetate	C
Butyl Alcohol	B
Calcium Carbonate	B
Calcium Chloride	A
Calcium Hydroxide	A
Calcium Nitrate	B
Calcium Sulfate	B
Carbon Dioxide	A
Carbon Disulfide	B
Carbon Monoxide	A
Carbon Tetrachloride	C
Chlorine	N
Chloroacetic Acid	C
Chloroform	C
Chromic Acid	C
Chromium Potassium Sulfate	B
Citric Acid	B
Corn Oil	A
Cottonseed Oil	A
Cresol	C
Crude Oil	B
Cupric Chloride	A
Cupric Nitrate	B
Cupric Sulfate	B
Cutting Oil	B
Cyclohexane	B
Cyclohexanone	C
Dibutyl Phthalate	C
Dichlorobenzene	C
Diesel Fuel	B
Diester Oil	B
Dimethyl Acetamide	C
Dimethyl Formamide	C
Dodecyl Mercaptan	B
DTE Oil	B
Dibutyl Ether	B
EP Lubes	A
Esso #90 Lube Oil	A
Ether	B
Ethyl Acetate	C
Ethyl Alcohol (Ethanol)	C
Formic Acid	C
Freon, 12 or 113	A
Fuel Oil	B
Gasoline	B
Glucose	A

**C = Severe Effect to Destruction**

Glue	N
Glycerin	A
Heptane	A
Hexane	A
Hydrazine	C
Hydrobromic Acid	B
Hydrocarbon Oil	A
Hydrochloric Acid	B
Hydrofluoric Acid	B
Hydrogen	A
Hydrogen Peroxide	B
Hydrogen Sulfide	C
Hydrologic Acid	B
Iodine	A
Isobutyl Alcohol	N
Isopropyl Chloride	N
Isopropyl Ether	B
Isopropyl Alcohol (Propanol)	B
JP4 Oil	B
JP5 and 6 Oil	C
Kerosene	B
Lactic Acid	B
Lead Acetate	B
Linseed Oil	B
Liquefied Petroleum Gas	A
Lubrication Oil	B
Lye	N
Magnesium Chloride	N
Magnesium Hydroxide	A
Magnesium Salts	B
Malaic Acid	C
Mercury	B
Methyl Alcohol (methanol)	A
Methyl Ethyl Ketone	C
Methylene Chloride	C
MIL-D-5606 Oil	C
MIL-L-7808 Oil	B
Mineral Oil	A
Mineral Spirits	N
Naphthalene	B
Natural Gas	B
Nickel Salts	C
Oxygen	A
Ozone	A
Palmitic Acid	A
Paint Thinner	B
Peanut Oil	A
Perchloric Acid	C
Perchloroethylene	C
Petroleum	B

**N = No Data; Test Prior to Use**

Phenol (carbolic acid)	C
Phosphoric Acid	C
Potassium Cyanide	A
Potassium Salts	B
Propane	B
Propyl Alcohol	B
Propylene Glycol	B
Pydraul Oil	C
SAE #10 Oil	A
Seawater	A
Silicic Acid	B
Silver Nitrate	B
Skydrol Oil	C
Soap	B
Sodium Acetate	A
Sodium Bicarbonate	B
Sodium Borate	B
Sodium Carbonate	B
Sodium Chloride	B
Sodium Cyanide	B
Sodium Hydrosulfite	B
Sodium Hydroxide	B
Sodium Hypochlorite	C
Sodium Nitrate	B
Sodium Silicate	A
Sodium Sulfate	B
Sodium Sulfide	B
Steam	C
Styrene	B
Sulfur Dioxide	B
Sulfuric Acid	C
Tannic Acid	A
Tartaric Acid	A
Toluene	C
Transformer Oil	B
Turpentine	C
Urea	B
Varnish	B
Water	B



# Go-Flex® Coupling Installation Instructions



Please follow the step by step installation instructions to properly install Martin Go-Flex® Couplings:

## Required components:

2 Hubs

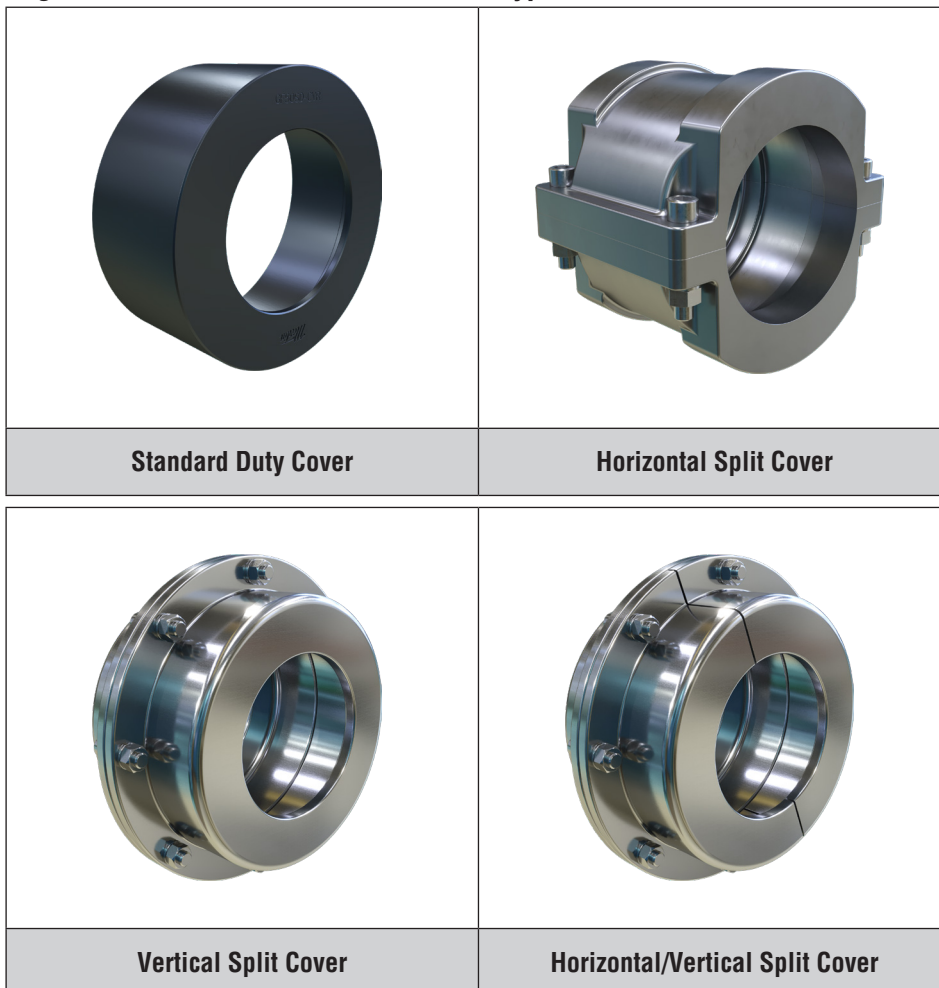
1 Insert

1 Cover with hardware: Identify what style cover you are using as this will determine the proper installation procedure.

## There are three types of covers (Figure 1):

- 1. Standard Cover (SD):** for coupling sizes GF10 through GF70 a standard snap ring secures cover in place.
- 2. Horizontal Split Cover (XP):** It is a free floating cover that encapsulates the insert and the shoulder of both hubs. Each cover assembly comes with four socket head cap screws to secure the two halves together.
- 3. Vertical Split Cover (VS):** GF20 through GF70 use eight bolts around the rim to secure the two halves together, GF80 through GF100 use 16 bolts with lock washers to secure the covers to one of the hubs.
- 4. Horizontal/Vertical Split Cover (HS):** GF20 through GF70 use eight bolts around the rim to secure the 4 parts. Together, GF80 through GF100 use 16 bolts with lock washers to secure the covers to one of the hubs.

**Figure 1. Martin Go-Flex® covers and types**



## Installation Instructions:

1. Confirm bore sizes of each coupling half and the corresponding shaft diameter to ensure that you have the proper bore size.
2. Ensure that the shafts are clean and free from burrs.
3. Verify cover style:
  - When using a **Standard Duty Cover (SD)**, it should be located on the driven shaft. If space is limited, then it can be mounted on the drive shaft. Slide snap ring first, then **Standard Duty Cover (SD)** with larger opening facing the shaft separation.
  - When using an **Horizontal Split Cover (XP)**, proceed to step 4.
  - When using a **Vertical Split Cover (VS)**, Install one cover half on each shaft with flange side facing the shaft separation prior to installing the hubs.
  - If using a **Vertical Split Cover (VS)**, **GF70 or larger**, use bolts and washers to secure in place. Slide one bolt into place until installation is complete.
4. Installing the first hub: It should be mounted so that the end of the shaft is flush with surface A as shown in Figure 2. It is acceptable for the shaft to extend past A as long as it is not past the teeth shown as B.

Please note: Standard hubs are supplied with a clearance fit and should slide onto the shaft without excessive force. If the hubs have been ordered with interference fit (shrink fit), then heat the coupling halves to approximately 572°F (300°C) before installing on shafts.
5. With the insert in place, install the second hub. This will help establish set the hubs at the minimum hub gap (E min) dimension to ensure proper clearance. Please see Table 1 on the next page for specific E min and E max dimensions.
6. Now ensure both hubs are securely tightened to the shafts.
7. Check coupling for misalignment and align as necessary. Please refer to page C-72 Martin Big Catalog for misalignment tolerances.
8. Installation of cover:
  - **Standard Duty Cover (SD)**: slide the cover over hub and insert until the step in the cover contacts the shoulder of the hub. Use snap ring pliers to slide snap ring over hub and into snap ring groove in hub to hold the cover in place for GF10 through GF60. GF70 and above use the bolts and washer to secure the cover to the hub. Reference Table 2 for recommended tightening torque..
  - **Horizontal Split Cover (HP)**: place each half over the insert and shoulder on hubs. Secure the two housing halves together by using the included hardware set supplied. Reference Table 2 for recommended tightening torque.
  - **Vertical Split Cover (VS)**: slide the two cover halves over the hub and insert until faces meet. Install the radial outer bolts used to secure the two halves together. If cover uses a snap ring, use snap ring pliers to slide snap ring over hub and into snap ring groove in hub to hold the cover in place. For GF70 or larger, use bolts and washers to secure the cover to one hub. Reference Table 2 for recommended tightening torque.
  - **Horizontal/Vertical Split Cover (HS)**: place each part around the hub and Install the radial outer bolts used to secure the parts together. If cover uses a snap ring, use snap ring pliers to slide snap ring over hub and into snap ring groove in hub to hold the cover in place. For GF70 or larger, use bolts and washers to secure the cover to one hub. Reference Table 2 for recommended tightening torque.

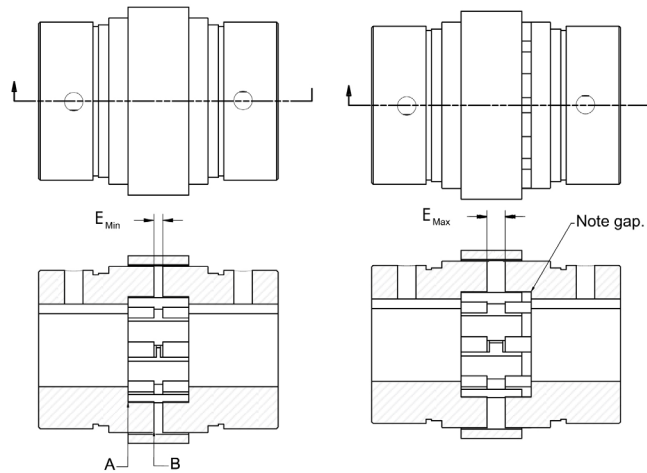
## Maximum RPM and Balance:

The Martin Go-Flex® Coupling inherently has good dynamic balance due to our manufacturing process. In high speed applications, it is important that the key used to attach hubs to shaft is the same length as the hub. The set screws should also be changed to full length to fill the hole. Please refer to Table 1 on the next page for maximum RPM ratings.

# Go-Flex® Coupling Installation Instructions



**Figure 2. Martin Go-Flex® shaft-to-hub alignment.**  
See page C-72 for Misalignment Tolerances.



**Table 1. E<sub>MIN</sub> and E<sub>MAX</sub> Dimensions**

Coupling Series	Maximum RPM*	Standard Split Cover		Horizontal Split Cover		Vertical and Horizontal/Vertical Split Covers	
		E <sub>MIN</sub>	E <sub>MAX</sub>	E <sub>MIN</sub>	E <sub>MAX</sub>	E <sub>MIN</sub>	E <sub>MAX</sub>
GF10	4000	0.062	0.092	—	—	—	—
GF20	4000	0.036	0.110	0.036	0.220	0.036	0.126
GF30	4000	0.080	0.205	0.080	0.160	0.080	0.140
GF40	4000	0.035	0.208	0.035	0.160	0.035	0.220
GF50	4000	0.140	0.290	0.140	0.370	0.140	0.380
GF60	4000	0.188	0.208	0.188	0.368	0.188	0.348
GF70	3800	0.100	0.230	0.100	0.318	0.100	0.258
GF80	3400	0.125	0.250	0.204	0.375	0.204	0.375
GF90	3000	0.194	0.388	—	—	0.189	0.410
GF100	2400	0.241	0.278	—	—	0.242	0.454
GF110	2000	0.121	0.305	—	—	0.121	0.380
GF120	1800	0.158	0.505	—	—	0.147	0.492

For applications over 4000 RPM, consult Martin.

**Table 2. Tightening Torque Chart**

Coupling Size	Standard Split Cover	Horizontal Split Cover	Vertical and Horizontal/Vertical Split Covers	
	Cover Bolt Torque (in-lbs)	Cover Bolt Torque (in-lbs)	Cover Bolt Torque (in-lbs)	Cover Side Bolt Torque (in-lbs)
GF10	Snap Ring	-	-	-
GF20	Snap Ring	300	150	Snap Ring
GF30	Snap Ring	600	150	Snap Ring
GF40	Snap Ring	1000	775	Snap Ring
GF50	Snap Ring	1000	775	Snap Ring
GF60	Snap Ring	2500	775	Snap Ring
GF70	775	2500	775	775
GF80	775	2500	1300	775
GF90	775	-	1300	775
GF100	1300	-	1300	1300
GF110	1300	-	1300	1300
GF120	1300	-	1300	1300