

## Self-Contained Freewheels

# GFR GFRN



### TYPE



Types GFR, GFRN are roller type freewheels. These units are part of the Stieber modular system. They are bearing supported, using two 160.. series bearings, and require oil lubrication. These units may be used in designs providing oil lubrication and sealing as on the example overleaf. The bearings must not be axially stressed.

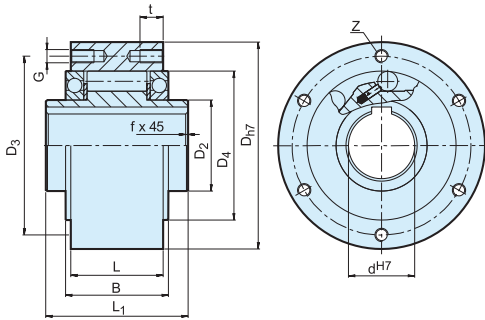
Typically, types GFR, GFRN are used with the F series covers that are designed to transmit torque, and

provide oil lubrication and sealing. Usually these covers are used in pairs according to combinations shown on the following pages. The outer race of the GFR model is plain to receive and center any component bored to H7 tolerance.

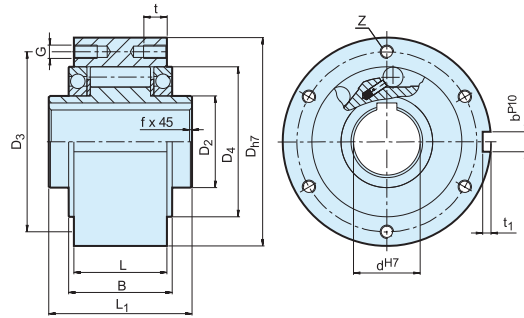
Torque is transmitted by bolts through the cover plate in this case. Types GFR, GFRN are identical except that type GFRN has a keyway on the outside diameter to transmit the torque. Two paper seals are delivered with each unit to be placed between the outer race and cover plates.

# Self-Contained Freewheels

GFR, GFRN



GFR



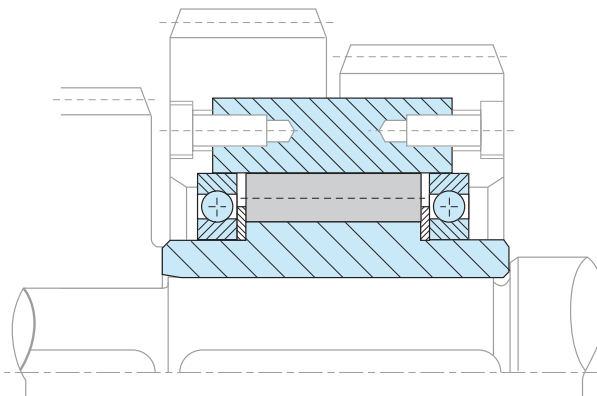
GFRN

Type	Size	Overrunning speeds				Number												Weight
GFR GFRN	$d_{H7}$	$T_{KN}^{1)}$	$n_{imax}^{2)}$	$n_{amax}^{3)}$	$D_{H7}$	$D_2$	$D_4$	$D_3$	G	t	z	$L_1$	L	B	$t_1$	$b^{P10}$	f	[kg]
	[mm]	[Nm]	[min <sup>-1</sup> ]	[min <sup>-1</sup> ]	[mm]	[mm]	[mm]	[mm]		[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
	12*	55	4000	7200	62	20	42	51	ø5,5	–	3	42	20	27	2,5	4	0,5	0,5
	15	125	3600	6500	68	25	47	56	M5	8	3	52	28	32	3	5	0,8	0,8
	20	181	2700	5600	75	30	55	64	M5	8	4	57	34	39	3,5	6	0,8	1,0
	25	288	2100	4500	90	40	68	78	M6	10	4	60	35	40	4	8	1,0	1,5
	30	500	1700	4100	100	45	75	87	M6	10	6	68	43	48	4	8	1,0	2,2
	35	725	1550	3800	110	50	80	96	M6	12	6	74	45	51	5	10	1,0	3,0
	40	1025	1150	3400	125	55	90	108	M8	14	6	86	53	59	5	12	1,5	4,6
	45	1125	1000	3200	130	60	95	112	M8	14	8	86	53	59	5,5	14	1,5	4,7
	50	2125	800	2800	150	70	110	132	M8	14	8	94	64	72	5,5	14	1,5	7,2
	55	2625	750	2650	160	75	115	138	M10	16	8	104	66	72	6	16	2,0	8,6
	60	3500	650	2450	170	80	125	150	M10	16	10	114	78	89	7	18	2,0	10,5
	70	5750	550	2150	190	90	140	165	M10	16	10	134	95	108	7,5	20	2,5	13,5
	80	8500	500	1900	210	105	160	185	M10	16	10	144	100	108	9	22	2,5	18,2
	90	14500	450	1700	230	120	180	206	M12	20	10	158	115	125	9	25	3,0	28,5
	100	20000	350	1450	270	140	210	240	M16	24	10	182	120	131	10	28	3,0	42,5
	130	31250	250	1250	310	160	240	278	M16	24	12	212	152	168	11	32	3,0	65,0
	150	70000	200	980	400	200	310	360	M20	32	12	246	180	194	12	36	4,0	138,0

## NOTES

- 1)  $T_{max} = 2 \times T_{KN}$   
» Refer to Selection page 7 to 11
  - 2) Inner race overruns. Values without radial lip seals
  - 3) Outer race overruns. Values without radial lip seals  
Keyway to DIN 6885.1
- \*) GFR12 has through holes in outer race
- » Refer to mounting and maintenance instructions  
page 12 to 13

## MOUNTING EXAMPLE



## Self-Contained Freewheels

# GFR..F1F2, GFR..F2F7 GFRN..F5F6



Back of  
GFR..F1F2

### TYPE



GFRN..F5F6

GFR..F2F7

GFR..F1F2

Types GFR..F1F2/F2F7 and GFRN..F5F6 are roller type freewheels, self-contained, sealed and bearing supported, using two 160.. series bearings.

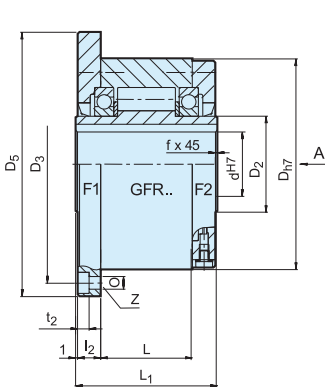
They use the GFR, GFRN base modules described on previous pages. Units must be oil lubricated before use if they are delivered disassembled. Primarily used as overrunning or indexing clutches. The cover combination is chosen according to the type of drive, as shown overleaf. F2 and F6 covers are used to close the unit.

They are equipped with 3 screws for oil filling, drain and level.

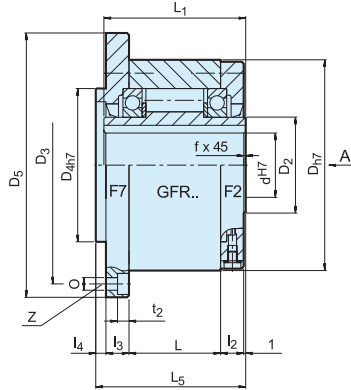
The shaft seal is a standard lip seal. Covers may be easily assembled by a qualified user, allowing direction of rotation to be selected on site. Alternatively, units can be delivered assembled and lubricated (except GFRN..F5F6).

# Self-Contained Freewheels

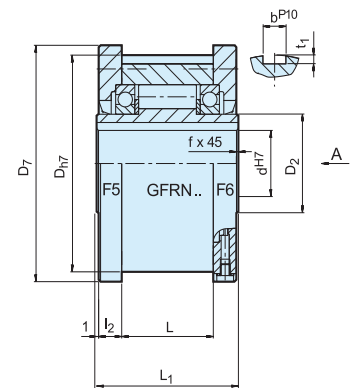
## GFR..F1F2, GFR..F2F7, GFRN..F5F6



**GFR..F1F2**



**GFR..F2F7**



**GFRN..F5F6**

Type	Size	Overrunning speeds				Number										Keyway outer race					Weight	
GFR..F1F2, GFR..F2F7, GFRN.. F5F6	d <sup>H7</sup> [mm]	T <sub>KN</sub> <sup>1)</sup> [Nm]	n <sub>imax</sub> <sup>2)</sup> [min <sup>-1</sup> ]	n <sub>amax</sub> <sup>3)</sup> [min <sup>-1</sup> ]	D <sub>h7</sub> [mm]	D <sub>5</sub> [mm]	D <sub>7</sub> [mm]	D <sub>3</sub> [mm]	D <sub>4h7</sub> [mm]	O [mm]	t <sub>2</sub> [mm]	z	L <sub>1</sub> [mm]	L <sub>5</sub> [mm]	L [mm]	I <sub>2</sub> [mm]	I <sub>3</sub> [mm]	I <sub>4</sub> [mm]	t <sub>1</sub> [mm]	b <sup>P10</sup> [mm]	f [mm]	[kg]
	12	55	3100	4700	62	85	70	72	42	5,5	5,7	3	42	44	20	10	10	3	2,5	4	0,5	1,2
	15	125	2800	4400	68	92	76	78	47	5,5	5,7	3	52	54	28	11	11	3	3	5	0,8	1,6
	20	181	2400	4100	75	98	84	85	55	5,5	5,7	4	57	59	34	10,5	10,5	3	3,5	6	0,8	1,9
	25	288	1600	3800	90	118	99	104	68	6,6	6,8	4	60	62	35	11,5	11,5	3	4	8	1,0	2,9
	30	500	1300	2800	100	128	109	114	75	6,6	6,8	6	68	70	43	11,5	11,5	3	4	8	1,0	3,9
	35	725	1200	2600	110	140	119	124	80	6,6	6,8	6	74	76	45	13,5	13	3,5	5	10	1,0	4,9
	40	1025	850	2300	125	160	135	142	90	9	9	6	86	88	53	15,5	15	3,5	5	12	1,5	7,5
	45	1125	740	2200	130	165	140	146	95	9	9	8	86	88	53	15,5	15	3,5	5,5	14	1,5	7,8
	50	2125	580	1950	150	185	160	166	110	9	9	8	94	96	64	14	13	4	5,5	14	1,5	10,8
	55	2625	550	1800	160	204	170	182	115	11	11	8	104	106	66	18	17	4	6	16	2,0	14,0
	60	3500	530	1700	170	214	182	192	125	11	11	10	114	116	78	17	16	4	7	18	2,0	16,8
	70	5750	500	1600	190	234	202	212	140	11	11	10	134	136	95	18,5	17,5	4	7,5	20	2,5	20,8
	80	8500	480	1500	210	254	222	232	160	11	11	10	144	146	100	21	20	4	9	22	2,5	27,0
	90	14500	420	1300	230	278	242	254	180	14	13	10	158	160	115	20,5	19	4,5	9	25	3,0	40,0
100	20000	310	1100	270	335	282	305	210	18	17,5	10	182	184	120	30	28	5	10	28	3,0	67,0	
130	31250	220	900	310	380	322	345	240	18	17,5	12	212	214	152	29	27	5	11	32	3,0	94,0	
150	70000	170	700	400	485	412	445	310	22	21,5	12	246	248	180	32	30	5	12	36	4,0	187,0	

### NOTES

1)  $T_{max} = 2 \times T_{KN}$   
 » Refer to Selection page 7 to 11

2) Inner race overruns

3) Outer race overruns  
 Keyway to DIN 6885.1

When ordered assembled, please specify direction of rotation seen from arrow „A“: „R“ Inner race overruns in clockwise direction „L“ Inner race overruns in counter-clockwise direction

» Refer to mounting and maintenance instructions page 12 to 13

### MOUNTING EXAMPLES

