

RSCI 20-130



TYPE



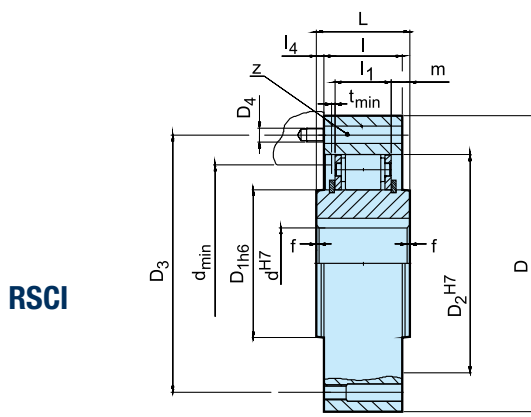
Type RSCI is a centrifugal lift off sprag type freewheel with the inner race rotating. Only the inner race is designed for freewheeling. It is a non self-supported type.

Bearings must be provided to ensure concentricity of the inner and outer races and support axial and radial loads, as shown overleaf. Concentricity and run-out limits must be observed. The RSCI type accepts all types of lubricant currently used in power transmission equipment.

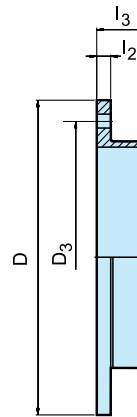
It is possible to mount these freewheels directly in gear-boxes without separate lubrication. An oil mist is generally sufficient. Grease lubrication may be acceptable if the unit works mostly in overrunning condition, as on E-motors.

When used as a backstop, it must be checked that the overrunning speed will not go below the minimum speed given in the characteristics table. Please refer to page 74 (RSCI 180–300) for further information.

Centrifugally Lift Off Sprags Freewheels



RSCI



F8

RSCI 20-130

Type	Size		Speeds										Number											Weight	
RSCI	d ^{H7}	T _{KN} ¹⁾	n _{max} ²⁾	n _{min} ³⁾	n _{imax} ⁴⁾	D ⁵⁾	D _{1h6}	D ₂ ^{H7}	D ₃	D ₄	z	L	l	l ₁	l ₄	α×45°	d _{min}	m	t _{min}	l ₂	l ₃	RSCI	F8		
	[mm]	[Nm]	[min ⁻¹]	[min ⁻¹]	[min ⁻¹]	[mm]	[mm]	[mm]	[mm]			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]	[kg]		
	20	212	315	750	15000	90	36	66	78	M6	6	35	35	25	0	0,8	52	5	1	8	16	1,5	0,3		
	25	319	300	725	14000	95	40	70	82	M6	6	35	35	25	0	1,0	56	5	1	8	16	1,6	0,4		
	30	375	290	700	11000	100	45	75	87	M6	6	35	35	25	0	1,5	62	5	1	8	16	1,8	0,4		
	35	550	280	670	11000	110	50	80	96	M6	8	35	35	25	0	1,5	66	5	1	8	16	2,1	0,5		
	40	800	260	630	8000	125	60	90	108	M8	8	35	35	25	0	1,5	76	5	1	10	21	2,7	0,7		
	45	912	255	610	7000	130	65	95	112	M8	8	35	35	25	0	1,5	82	5	1	10	21	2,9	0,9		
	50	1400	235	560	6000	150	80	110	132	M8	8	40	40	25	0	1,5	100	7,5	1	10	21	4,3	1		
	60	2350	210	510	6000	175	85	125	155	M10	8	60	50	36	5	2,0	110	12	2	12	35	6,5	1,8		
	70	3050	195	470	4000	190	100	140	165	M10	12	60	50	36	5	2,0	120	12	2	12	35	8,6	1,9		
	80	4500	180	440	4000	210	120	160	185	M10	12	70	60	36	5	2,0	140	17	3	12	35	12,5	2,6		
	80M	5800	155	375	4000	210	120	160	185	M10	12	70	60	46	5	2,0	140	12	2	12	35	13,1	2,6		
	90	5600	170	410	3000	230	140	180	206	M12	12	80	70	36	5	2,5	165	22	3	12	35	17,4	3,0		
	90M	8700	145	350	3000	245	140	180	206	M12	12	80	70	46	5	2,5	160	17	2	12	35	18,3	3,0		
	100	10500	145	355	3000	290	140	210	258	M16	12	90	80	52,6	5	2,5	180	18,6	3	15	37	28	5,0		
	100M	16000	140	340	2400	290	170	210	258	M16	12	90	80	63	5	2,5	200	13,5	2	12	35	30	5,0		
130	15750	135	330	2400	322	170	240	278	M16	12	90	80	52,6	5	3,0	210	18,6	3	15	37	35	6,0			
130M	21000	130	320	2400	322	200	240	278	M16	12	90	80	63	5	3,0	230	14	2	15	37	37	6,0			

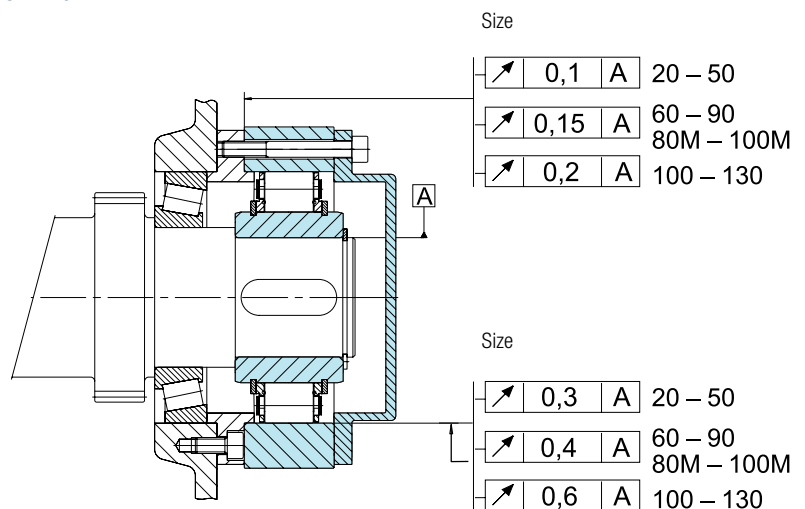
NOTES

- $T_{max} = 2 \times T_{KN}$
» Refer to Selection page 7 to 11
- This maximum allowable torque transmission speed n_{max} must not be exceeded when transmitting torque
- This minimum allowable overrun speed n_{min} should not be reduced under continuous operation. Possible reduction of this minimum speed on request
- Inner race overruns
Keyway to DIN 6885.1
- Tolerance +1

Cover F8 must be ordered separately
» Refer to mounting and maintenance instructions page 12 to 13

Other bore diameters on request

MOUNTING EXAMPLE



RSCI 180-300



TYPE



Type RSCI is a centrifugal lift off sprag type freewheel with the inner race rotating. Only the inner race is designed for freewheeling.

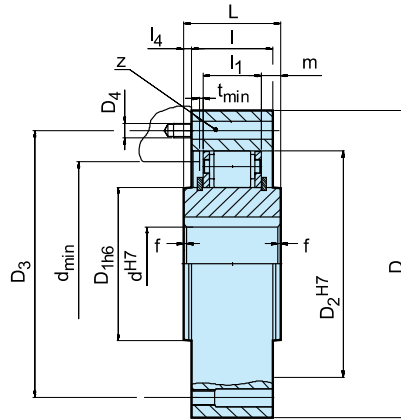
Primarily designed as a backstop, this type can be also used as an overrunning clutch in crawl drives, where the overrunning speed is high but the driving speed is low and does not exceed the maximum driving speed shown in the table.

Centering of the outer race must use the inner bore. The centering spigot must not contact the sprag cage. Please refer to page 72 (RSCI 20-130) for further information.

Centrifugally Lift Off Sprags Freewheels

RSCI 180-300

RSCI



Type	Size	Torque	Speeds								Number											Weight
RSCI	d ^{H7}	T ¹⁾ _{KN}	n ²⁾ _{max}	n ³⁾ _{min}	n ⁴⁾ _{imax}	D ⁵⁾	D _{1h6}	D ₂ ^{H7}	D ₃	D ₄	z	L	l	l ₁	l ₄	f × 45°	d _{min}	m	t _{min}			
	[mm]	[Nm]	[min ⁻¹]	[min ⁻¹]	[min ⁻¹]	[mm]	[mm]	[mm]	[mm]			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]		
	180	31500	115	285	1300	412	240	310	360	M20	12	90	80	53	5	3,5	280	18,6	3	59		
	180 M	50000	90	220	1300	422	240	310	370	M20	18	120	120	83	0	4	280	18,5	2	92		
	180 II	63000	115	285	1300	412	240	310	360	M20	24	160	160	118	0	3,5	280	22	3	116		
	180 II-M	100000	90	220	1300	425	240	310	370	M24	24	240	240	176	0	4	280	31	3	190		
	220	42500	110	265	1100	470	290	360	410	M20	16	105	80	60	12,5	4	330	23,5	3	90		
	220 M	68000	85	205	1100	480	290	360	410	M24	16	120	120	83	0	4	330	18,5	2	109		
	220 II	85000	110	265	1100	480	290	360	430	M24	18	160	160	130	0	4	330	15	3	159		
	220 II-M	136000	85	205	1100	490	290	360	425	M30	20	240	240	176	0	4	330	32	2	249		
	240	52000	105	250	1100	500	320	390	440	M20	16	105	90	60	7,5	4	360	15	2	95		
	240 M	83000	80	195	1100	520	320	390	440	M24	16	120	120	83	0	4	360	18,5	2	137		
	240 II	104000	105	250	1100	520	320	390	440	M24	24	180	180	132	0	4	360	24	2	191		
	240 II-M	166000	80	195	1100	530	320	390	455	M30	24	240	240	181	0	4	360	32	2	250		
	260	65000	100	240	1000	550	360	430	500	M24	16	105	105	60	0	4	400	22,5	2	130		
	260 M	100000	75	185	1000	580	360	430	500	M24	24	125	125	83	0	4	400	21	2	183		
	260 II	130000	100	240	1000	580	360	430	500	M24	24	210	210	132	0	4	400	39	2	262		
	260 II-M	200000	75	185	1000	580	360	430	500	M30	24	250	250	176	0	4	400	37	2	369		
	300	78000	90	225	1000	630	410	480	560	M24	24	105	105	60	0	4	460	22,5	3	174		
	300 M	125000	70	175	1000	630	410	480	560	M24	24	125	125	83	0	4	460	21	3	210		
300 II	156000	90	225	1000	630	410	480	560	M24	24	210	210	134	0	4	460	38	3	351			
300 II-M	250000	70	175	1000	630	410	480	560	M30	24	250	250	182,6	0	4	460	33,7	3	457			

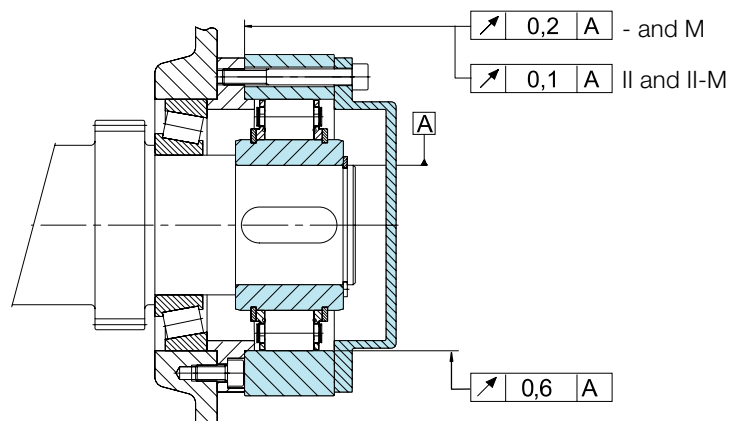
NOTES

- 1) $T_{max} = 2 \times T_{KN}$
» Refer to Selection page 7 to 11
- 2) This maximum allowable torque transmission speed n_{max} must not be exceeded when transmitting torque
- 3) This minimum allowable overrunning speed n_{imin} should not be reduced under continuous operation.
Possible reduction of this minimum speed on request
- 4) Inner race overruns
Keyway to DIN 6885.1
- 5) Tolerance +1

Cover F8 must be ordered separately
» Refer to mounting and maintenance instructions
page 12 to 13

Other bore diameters on request

MOUNTING EXAMPLE



RSXM



TYPE



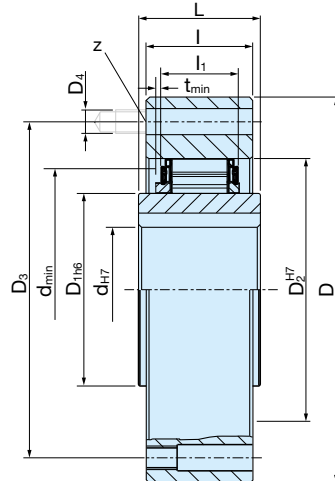
The series RSXM completes the small to medium backstop range, which commenced with the highly successful RSCI programme. Type RSXM is a centrifugal lift off sprag type freewheel with the inner race rotating. Only the inner race is designed for freewheeling. It is a non self-supported type. Bearings must be provided to ensure concentricity of the inner and outer races and support axial and radial loads, as shown overleaf. Concentricity and run-out limits must be observed.

The RSXM type accepts all types of lubricant currently used in power transmission equipment. It is possible to mount these freewheels directly in gearboxes without separate lubrication. An oil mist is generally sufficient. Grease lubrication may be acceptable if the unit works mostly in overrunning condition, as on E-motors. When used as a backstop, it must be checked that the overrunning speed will not go below the minimum speed given in the characteristic table.

Centrifugally Lift Off Sprags Freewheels

RSXM

RSXM



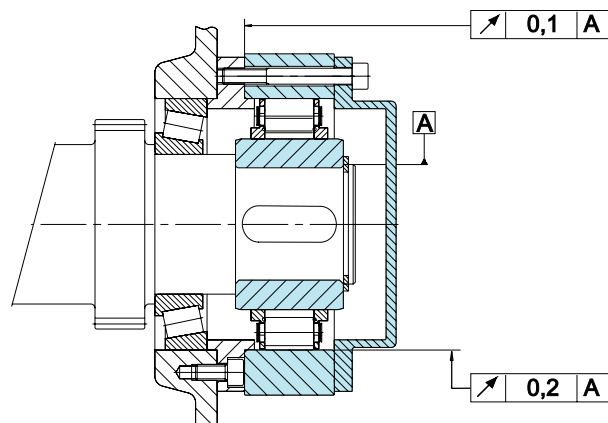
Type	Size	Bore dia.	Torque	Overrunning speeds						Number								Weight
		d^{H7} [mm]	$T_{KN}^{1)}$ [Nm]	$n_{max}^{2)}$ [min ⁻¹]	$n_{min}^{3)}$ [min ⁻¹]	$n_{imax}^{4)}$ [min ⁻¹]	$D^{5)}$ [mm]	D_{1h6} [mm]	D_2^{H7} [mm]	D_3 [mm]	D_4 [mm]	z [nb]	L [mm]	I [mm]	I_1 [mm]	t_{min} [mm]	d_{min} [mm]	[kg]
RSXM	31	20*	100	340	820	20000	85	31	55	70	M6	6	24	25	17	1	41	0,75
	38	25*	135	320	770	18500	90	38	62	75	M6	6	24	25	17	1	50	0,95
	46	25,30	425	300	530	13500	95	46	70	82	M6	6	35	35	25	1	53	1,4
	51	30,35	525	220	525	12500	105	51	75	90	M6	6	35	35	25	1	62	1,8
	56	35,40	625	210	500	11500	110	56	80	96	M6	8	35	35	25	1	70	1,8
	61	35,40	420	265	640	14000	120	61	85	105	M8	6	25	27	17	2	73	1,8
	66	35,40,45	850	200	480	10000	132	66	90	115	M8	8	35	35	25	1	78	2,7
	76	40,45,50	1100	190	460	9000	140	76	100	125	M8	8	35	35	25	1	90	3,1
	86	45,50	1450	180	440	8000	150	86	110	132	M8	8	40	40	25	1	100	4,2
	101	45,55,60,70	1950	175	420	6500	175	101	125	155	M10	8	50	50	25	1	117	7,3

NOTES

- $T_{max} = 2 \times T_{KN}$
» Refer to Selection page 7 to 11
 - This maximum allowable torque transmission speed n_{max} must not be exceeded when transmitting torque.
 - This minimum allowable overrunning speed n_{min} should not be reduced under continuous operation.
Possible reduction of this minimum speed in request.
 - Inner race overruns.
Keyway to DIN 6885.1
*Keyway to DIN 6885.3
 - Tolerance +1
- » Refer to mounting and maintenance instructions page 12 to 13.

Other bore diameters on request.

MOUNTING EXAMPLE



Centrifugally Lift Off Sprags Freewheels

RSRV RSRT



TYPE



The types RSRV and RSRT are centrifugally lift-off sprag type high speed backstops with integral torque limiter. Please refer to the RSCI design on catalogue pages 72 to 75 for complementary information on Stieber centrifugally lift-off sprag type backstops.

The high quality oil through-impregnated friction linings ensure a consistent and reliable slip torque even when not in operation for a long length of time. The slip torque is factory pre-set to the application requirements.

These assemblies are primarily intended for installation on multiple drives where two or more backstops share the reverse load, such as on large inclined conveyors.

The RSRV is the pure load-sharing version. No maintenance and adjustments are necessary.

In addition, the RSRT can be progressively released under load by a mechanical device. Alternatively we can offer a hydraulic release solution for a fully controlled safe release procedure.

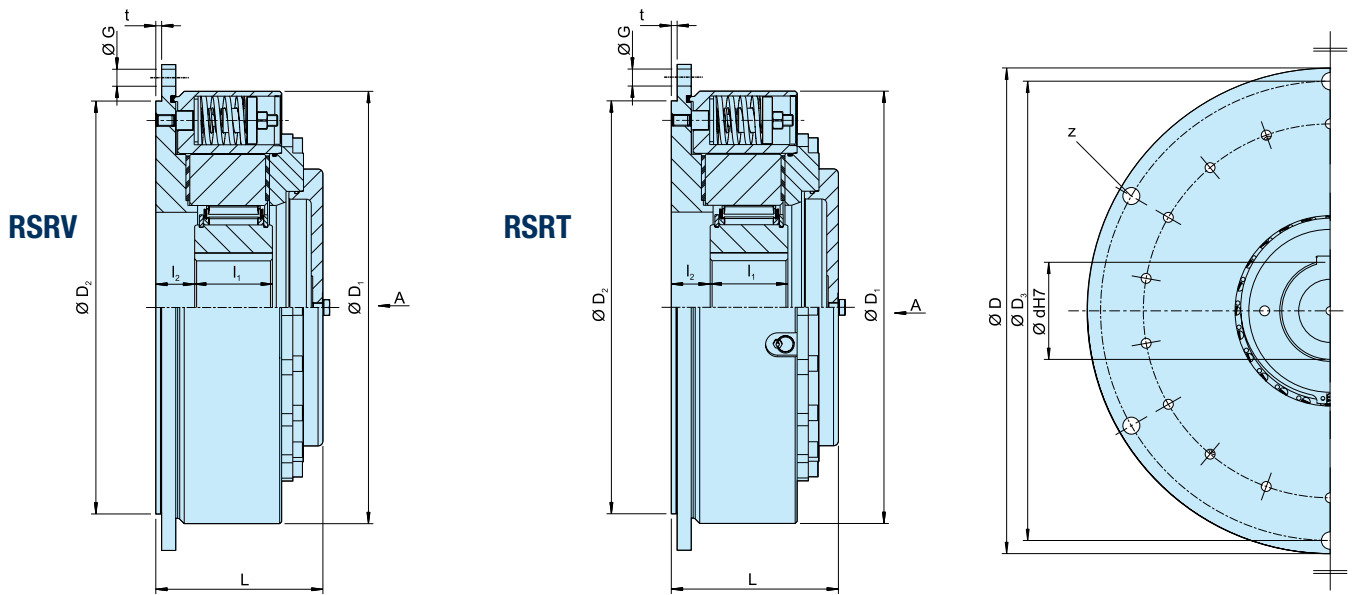
The slip torque should be set 20% higher than the maximum static return torque including overload conditions.

These units are not bearing supported internally. The outer member must be centred on the machine housing.

Concentricity and run-out limits must be observed.

Centrifugally Lift Off Sprags Freewheels

RSRV, RSRT



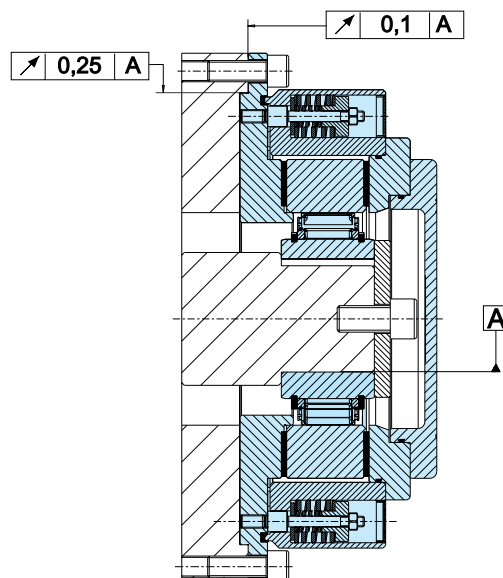
Type	Size	d^{H7} [mm]	$T^{1)}$ [Nm]	$n_{min}^{2)}$ [min ⁻¹]	$n_{max}^{3)}$ [min ⁻¹]	D [mm]	D ₁ [mm]	D _{2 h7} [mm]	D ₃ [mm]	t [mm]	z	L [mm]	I ₁ [mm]	I ₂ ⁴⁾ [mm]	G	Weight [kg]
RSRV RSRT	85	50, 60	1400	490	5300	330	286	280	308	6	6	135	60	29	M12	50
	100	60, 70	2300	480	4100	350	308	300	328	6	6	140	60	31	M12	60
	120	70, 80	3400	370	3600	400	345	340	373	6	6	150	70	31	M16	80
	140	65, 90	4500	420	2700	430	375	375	403	6	6	150	70	31	M16	95
	170	90, 100	8000	400	2400	500	445	425	473	6	6	170	80	40	M16	150
	200	130, 150	12500	370	2400	555	500	495	528	6	6	170	80	40	M16	180
	240	150, 180	21 500	310	1300	710	630	630	670	8	12	185	90	50	M20	350
	260	150, 190	30 000	275	1000	750	670	670	710	8	12	205	105	50	M20	420

NOTES

- 1) Maximal slipping torque.
A lower slipping torque can be set.
 - 2) This minimum allowable overrunning speed n_{min} should not be reduced under continuous operation.
Possible reduction of this minimum speed on request.
 - 3) Maximal speed, inner race overruns
Keyway to DIN 6885.1
 - 4) Tolerance +2
- When ordering, please specify direction of rotating seen from arrow »A«.
- »R« Inner race overruns in clockwise direction.
»L« Inner race overruns in counterclockwise direction.

» Refer to mounting and maintenance instructions pages 12 to 13

MOUNTING EXAMPLE



Centrifugally Lift Off Sprags Freewheels

RDBK RDBK-H



TYPE



The type RDBK is a centrifugally lift-off sprag RSCI high speed backstop (Please refer to pages 72 to 75) equipped with integral torque limiter. The latter limits the backstop transmissible torque to a value that is factory set-up according to customer request.

This design will be used mostly as backstop in multi-drive systems, such as on large inclined conveyors, where two or more backstops share the reverse load.

The torque limiting function is performed through a multi-disc brake working in oil. This solution provides not only for a high torque density of the complete unit, but also insures that the set slip torque remains constant over the working life time regardless of the environmental conditions.

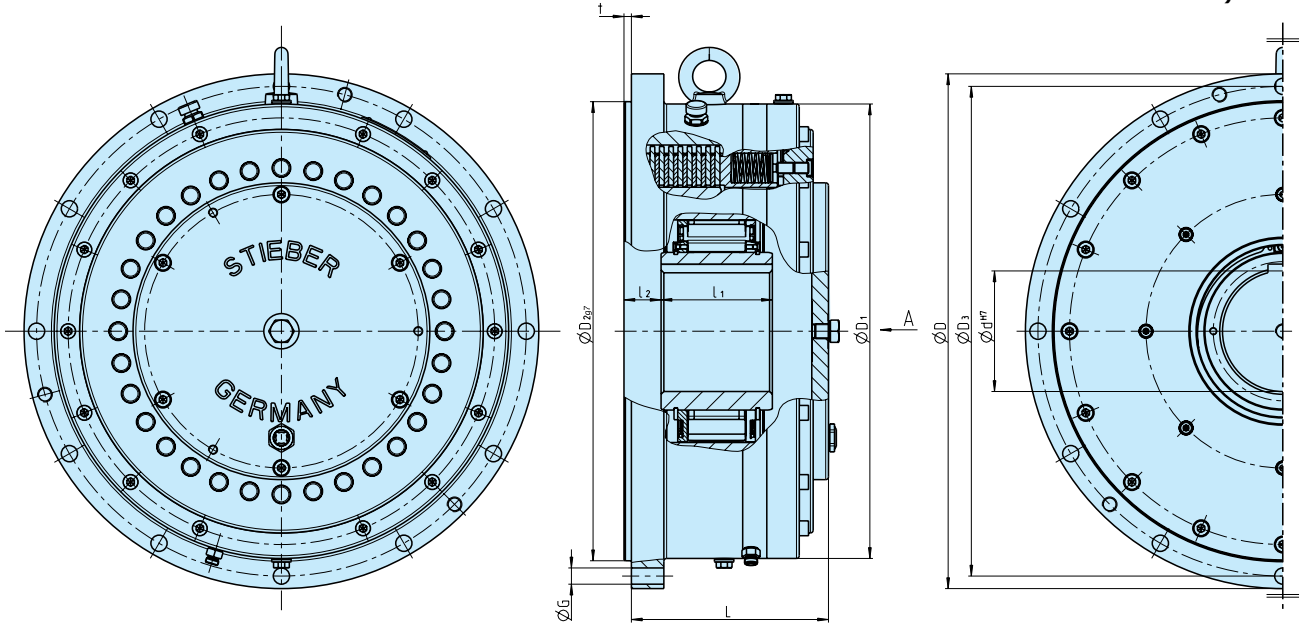
The RDBK sub-assembly which rotate backwards under overload is fully bearing supported. The unit is capable of performing as many reverse rotations as may be required (within the limits of energy dissipation) to completely unload the conveyor prior to maintenance work being carried out. Within some time intervals this type can rotate regularly backwards damage free.

The option of a release function manually actuated is also available. A hydraulic solution is the preferred one, nevertheless a full mechanical one can be supplied. The release is performed using a simple hand pump to actuate the internal hydraulic cylinder; progressively releasing the backstop.

The backstop function is of the built-in design. The outer part must be centered and fixed on the machine housing. The run-out and squareness tolerances must be respected.

Centrifugally Lift Off Sprags Freewheels

RDBK, RDBK-H

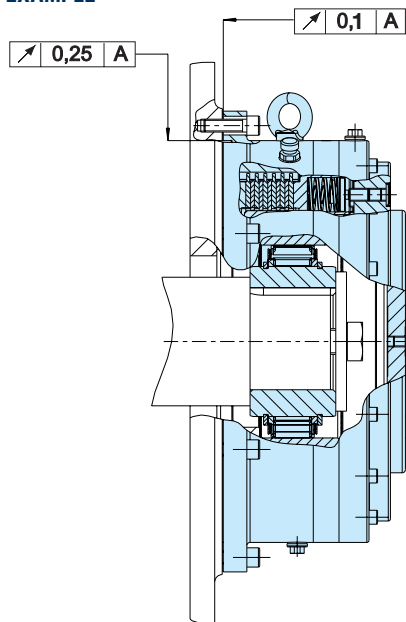


Type	Size														Number		Weight
		d_{H7}^{max}	$T^{1)}$	$n_{min}^{2)}$	$n_{max}^{3)}$	$n_{rmax}^{4)}$	D	D_1	D_{2g7}	D_3	t	L	l_1	$l_2^{5)}$	Z	G	
		[mm]	[Nm]	[min ⁻¹]	[min ⁻¹]	[min ⁻¹]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[kg]
RDBK RDBK..H	110-28	60	2300	385	6500	290	300	225	260	278	6	136	40	40	6	M10	43
	125-63	60	5500	360	6000	270	330	285	280	308	6	158	90	29	6	M12	65
	160-58	90	9600	320	4000	240	400	345	340	373	6	165	80	31	6	M16	93
	180-58	100	12500	290	3000	220	430	375	375	403	6	170	80	31	6	M16	115
	210-63	130	19000	270	2400	205	500	438	425	473	6	190	90	40	6	M16	170
	240-83	130	30000	260	2400	195	555	490	495	528	8	215	120	40	12	M16	250
	280-83	150	40000	235	2000	175	660	580	580	620	8	230	120	40	12	M20	380
	280-96	150	50000	220	2000	165	660	580	580	620	8	230	120	40	12	M20	380
	310-83	180	60000	220	1300	165	710	630	630	670	8	235	120	40	12	M20	450
	310-96	180	70000	210	1300	160	710	630	630	670	8	235	120	40	12	M20	450
	360-83	230	82000	200	1100	150	780	700	700	740	8	245	120	40	16	M20	570
	360-96	230	102000	190	1100	145	780	700	700	740	8	245	120	40	16	M20	570
	460-96	300	180000	170	1000	130	975	870	850	925	10	275	120	63	16	M30	950

NOTES

- 1) Maximal slipping torque.
A lower slipping torque can be set.
 - 2) This minimum allowable overrunning speed n_{min} should not be reduced under continuous operation.
Possible reduction of this minimum speed on request.
 - 3) Maximal speed, inner race overruns
Keyway to DIN 6885.1
 - 4) Maximum speed rolling backwards,
internal brake open
 - 5) Tolerance +2
- When ordering, please specify direction of rotating seen from arrow »A«.
- »R« Inner race overruns in clockwise direction.
»L« Inner race overruns in counterclockwise direction.
- » Refer to mounting and maintenance instructions pages 12 to 13

MOUNTING EXAMPLE



Centrifugally Lift Off Sprags Freewheels

RIZ RINZ



TYPE



RIZ

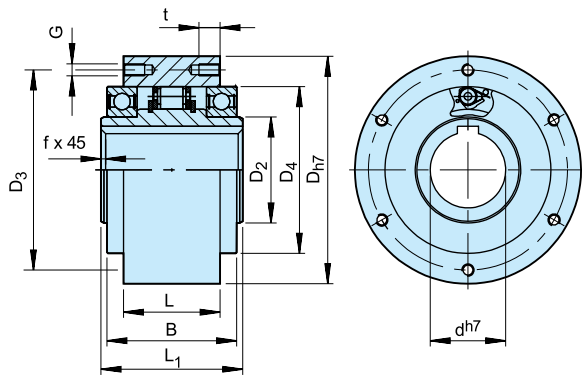
RINZ

Types RIZ, RINZ are centrifugal lift off sprag type freewheels with the inner race rotating. Suitable for backstop, or overrunning clutch applications. Only the inner race is designed for freewheeling.

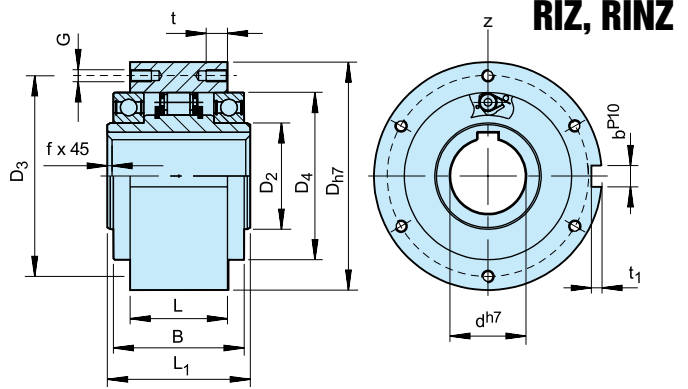
These units are part of the Stieber modular system. They are bearing supported using series 60.. bearings, grease lubricated and fitted with ZZ seals. Units are delivered as standard lubricated with grease and ready to install in either a horizontal or vertical position. Types RIZ, RINZ are designed to be used with G series covers. The following pages give further important information for use of this type unit.

If the unit is to be installed inside a housing where oil lubrication is available, please specify type RIW, RIWN. The F series covers from type GFR, GFRN are then used without shaft seals.

Centrifugally Lift Off Sprags Freewheels



RIZ



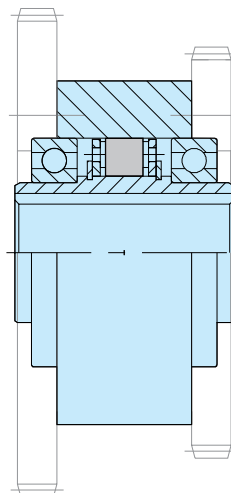
RINZ

Type	Size	Speeds					Number										Weight		
	d_{h7} [mm]	$T_{KN}^{1)}$ [Nm]	$n_{max}^{2)}$ [min ⁻¹]	$n_{min}^{3)}$ [min ⁻¹]	$n_{imax}^{4)}$ [min ⁻¹]	D_{h7} [mm]	D_2 [mm]	D_4 [mm]	D_3 [mm]	G	z	L_1 [mm]	L [mm]	B [mm]	t [mm]	f [mm]	t_1 [mm]	b^{P10} [mm]	[kg]
RIZ RINZ	30	375	290	700	9000	100	45	75	87	M6	6	68	43	60	10	1,0	4	8	2,3
	35	550	280	670	8500	110	50	80	96	M6	6	74	45	63	12	1,0	5	10	3,2
	40	800	260	630	7500	125	55	90	108	M8	6	86	53	73	14	1,5	5	12	4,8
	45	912	255	610	6700	130	60	95	112	M8	8	86	53	73	14	1,5	5,5	14	5,0
	50	1400	235	560	6000	150	70	110	132	M8	8	94	64	86	14	1,5	5,5	14	7,5
	60	2350	210	510	5300	170	80	125	150	M10	10	114	78	105	16	2,0	7	18	12,7
	70	3050	195	470	4000	190	90	140	165	M10	10	134	95	124	16	2,5	7,5	20	14,5
	80	5800	155	375	4000	210	105	160	185	M10	10	144	100	124	16	2,5	9	22	19,0
	90	8700	145	350	3000	230	120	180	206	M12	10	158	115	143	20	3,0	9	25	29,5
	100	16000	140	340	2400	270	140	210	240	M16	10	182	120	153	24	3,0	10	28	42,5
	130	23000	130	320	2400	310	160	240	278	M16	12	212	152	194	24	3,0	11	32	70

NOTES

- 1) $T_{max} = 2 \times T_{KN}$
» Refer to Selection page 7 to 11
 - 2) This maximum allowable torque transmission speed n_{max} must not be exceeded when transmitting torque
 - 3) This minimum allowable overrunning speed n_{min} should not be reduced under continuous operation.
Possible reduction of this minimum speed on request
 - 4) Inner race overruns
Keyway to DIN 6885.1
- » Refer to mounting and maintenance instructions page 12 to 13

MOUNTING EXAMPLE



Centrifugally Lift Off Sprags Freewheels

RIZ..G1G2, RIZ..G2G7 RINZ..G5G5



Back of
RIZ..G1G2

TYPE

RIZ..G1G2

RINZ.. G5G5



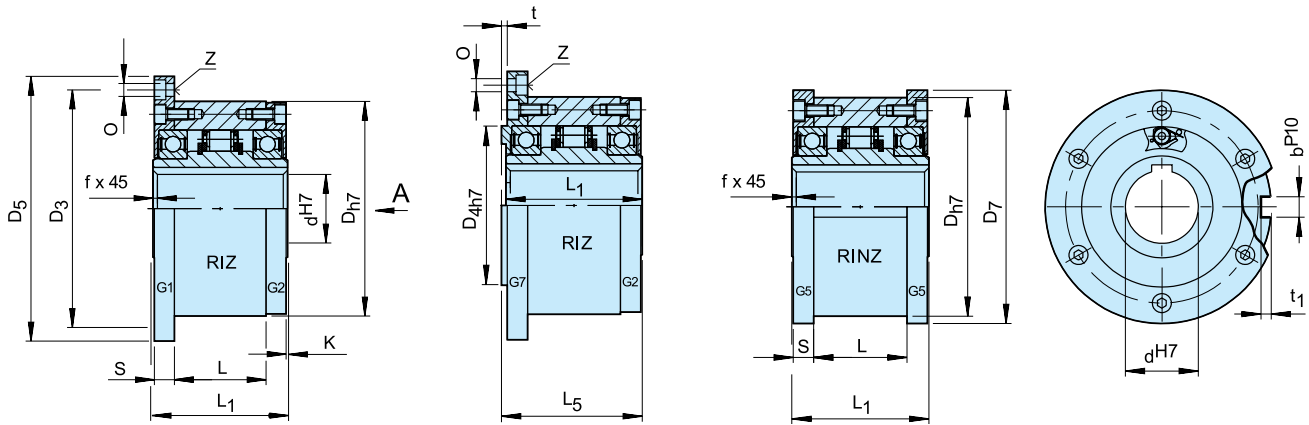
Types RIZ..G1G2/G7G2, RINZ..G5G5 are centrifugal lift off sprag type freewheels with the inner race rotating. Only the inner race is designed for freewheeling.

These are self-contained units designed for overrunning clutch applications. Typically used in crawl drives, where the overrunning speed is high but the drive speed is low and does not exceed the maximum driving speed specified in the table. They are type RIZ, RINZ

(see page 82 for more information) equipped with G type covers featuring a grease pocket and contact free seal. When ordered complete, the unit is delivered grease lubricated, ready for either horizontal or vertical installation.

Centrifugally Lift Off Sprags Freewheels

RIZ..G1G2, RIZ..G2G7, RINZ..G5G5



RIZ...G1G2

RIZ...G2G7

RINZ...G5G5

Type	Size	Speeds					Number														Weight
	d^{H7} [mm]	$T_{KN}^{1)}$ [Nm]	$n_{max}^{2)}$ [min ⁻¹]	$n_{imin}^{3)}$ [min ⁻¹]	$n_{imax}^{4)}$ [min ⁻¹]	D_{h7} [mm]	D_3 [mm]	D_{4h7} [mm]	D_5 [mm]	D_7 [mm]	O	z	S [mm]	L_1 [mm]	L [mm]	L_5 [mm]	t [mm]	t_1 [mm]	b^{P10} [mm]	f [mm]	[kg]
RIZ RINZ	30	375	290	700	9000	100	114	75	128	109	6,6	6	11,5	68	43	70	3	4	8	1,0	3,9
	35	550	280	670	8500	110	124	80	140	119	6,6	6	13,5	74	45	76	3,5	5	10	1,0	4,9
	40	800	260	630	7500	125	142	90	160	135	9	6	15,5	86	53	88	3,5	5	12	1,5	7,5
	45	912	255	610	6700	130	146	95	165	140	9	8	15,5	86	53	88	3,5	5,5	14	1,5	7,8
	50	1400	235	560	6000	150	166	110	185	160	9	8	14	94	64	96	4	5,5	14	1,5	10,8
	60	2350	210	510	5300	170	192	125	214	182	11	10	17	114	78	116	4	7	18	2,0	16,8
	70	3050	195	470	4000	190	212	140	234	202	11	10	18,5	134	95	136	4	7,5	20	2,5	20,8
	80	5800	155	375	4000	210	232	160	254	222	11	10	21	144	100	146	4	9	22	2,5	27
	90	8700	145	350	3000	230	254	180	278	242	14	10	20,5	158	115	160	4,5	9	25	3,0	40
	100	16000	140	340	2400	270	305	210	335	282	18	10	30	182	120	184	5	10	28	3,0	67
	130	23000	130	320	2400	310	345	240	380	322	18	12	29	212	152	214	5	11	32	3,0	94

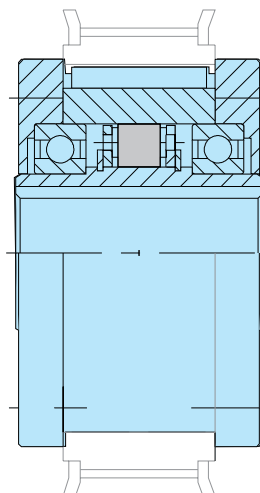
NOTES

- $T_{max} = 2 \times T_{KN}$
» Refer to Selection page 7 to 11
- This maximum allowable torque transmission speed n_{max} must not be exceeded when transmitting torque
- This minimum allowable overrunning speed n_{imin} should not be reduced under continuous operation.
Possible reduction of this minimum speed on request
- Inner race overruns
Keyway to DIN 6885.1

When ordering, please specify direction of rotation seen from arrow „A“: „R“ Inner race overruns in clockwise direction, „L“ Inner race overruns in counterclockwise direction

» Refer to mounting and maintenance instructions page 12 to 13

MOUNTING EXAMPLE



Centrifugally Lift Off Sprags Freewheels

RIZ..G2G3 RIZ..G3G4



TYPE



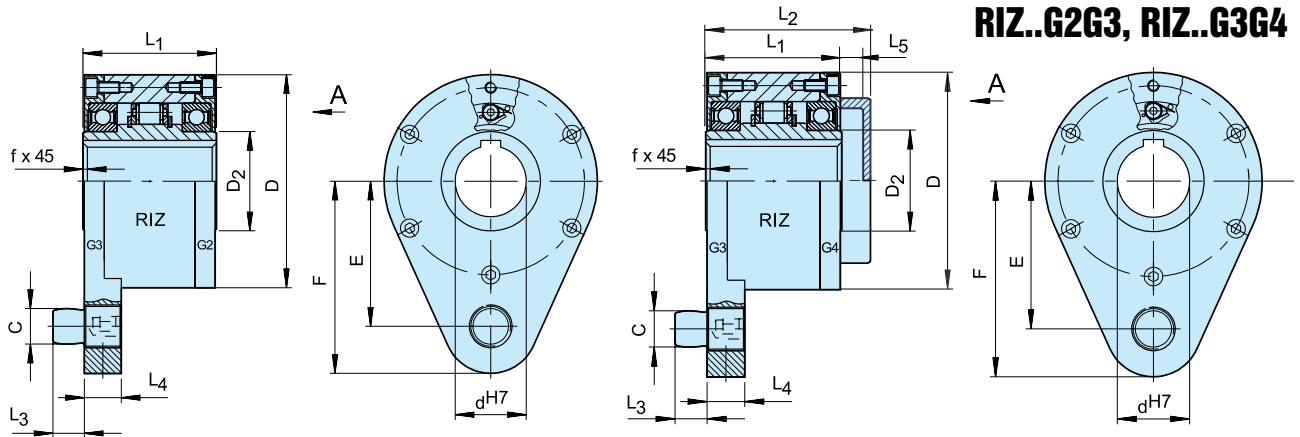
Types RIZ..G2G3/G3G4 are centrifugal lift off sprag type freewheels with the inner race rotating. Only the inner race is designed for freewheeling.

They are self-contained units designed for backstop applications. The overrunning speed must not be less than the minimum specified in the table. This must be considered if using a variable speed drive. The torque bolt must be fitted into a slot on a fixed part of the machine.

The radial clearance should be 1–3 % of the bolt diameter. The torque arm and bearings must not be axially loaded.

They are a type RIZ, (see page 82) equipped with G type covers featuring grease pockets and contact free seals. When ordered complete, the unit is delivered grease lubricated, ready for either horizontal or vertical installation.

Centrifugally Lift Off Sprags Freewheels



RIZ...G2G3

RIZ...G3G4

Type	Size	Speeds														Weight
	d_{H7} [mm]	$T_{KN}^{1)}$ [Nm]	$n_{imin}^{2)}$ [min ⁻¹]	$n_{imax}^{3)}$ [min ⁻¹]	D [mm]	D ₂ [mm]	C [mm]	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]	L ₄ [mm]	F [mm]	E [mm]	L ₅ [mm]	f [mm]	[kg]
RIZ..G2G3 RIZ..G3G4	30	375	700	9000	100	45	16	68	88	14	18	92	68	15	1,0	4,5
	35	550	670	8500	110	50	20	74	96	18	25	102	76	17	1,0	4,8
	40	800	630	7500	125	55	20	86	109	18	25	112	85	18	1,5	8,5
	45	912	610	6700	130	60	25	86	109	22	25	120	90	18	1,5	8,9
	50	1400	560	6000	150	70	25	94	116	22	25	135	102	18	1,5	12,8
	60	2350	510	5300	170	80	32	114	139	25	30	145	112	20	2,0	19,3
	70	3050	470	4000	190	90	38	134	168	30	35	175	135	26	2,5	23,5
	80	5800	375	4000	210	105	38	144	178	30	35	185	145	26	2,5	32
	90	8700	350	3000	230	120	50	158	192	40	45	205	155	26	3,0	47,2
	100	16000	340	2400	270	140	50	182	217	40	45	230	180	26	3,0	76
	130	23000	320	2400	310	160	68	212	250	55	60	268	205	28	3,0	110

NOTES

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

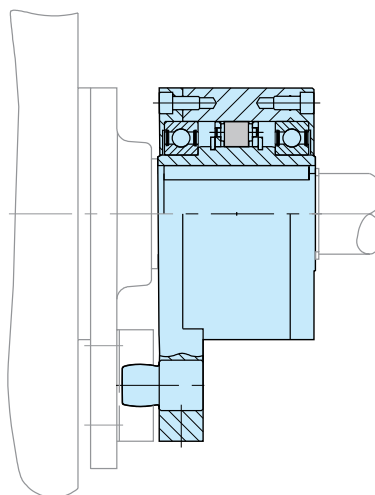
2) This minimum allowable overrunning speed n_{imi} should not be reduced under continuous operation. Possible reduction of this minimum speed on request.

3) Inner race overruns
Keyway to DIN 6885.1

When ordering, please specify direction of rotation seen from arrow „A“: „R“ Inner race overruns in clockwise direction, „L“ Inner race overruns in counterclockwise direction

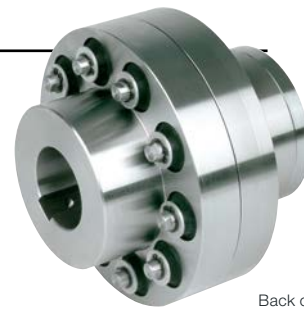
» Refer to mounting and maintenance instructions page 12 to 13

MOUNTING EXAMPLE



Centrifugally Lift Off Sprags Freewheels

RIZ..ELG2



Back of
RIZ..ELG2

TYPE



Type RIZ..ELG2 is a centrifugal lift off sprag type freewheel when the inner race is overrunning. Only this race is designed for freewheeling. It is a self-contained unit designed for overrunning clutch applications.

Typically used in crawl drives where the overrunning speed is high, but the drive speed is low and does not exceed the maximum driving speed specified in the table. It is a type RIZ (see page 82 for further information) equipped with an EL elastic coupling and a cover G2.

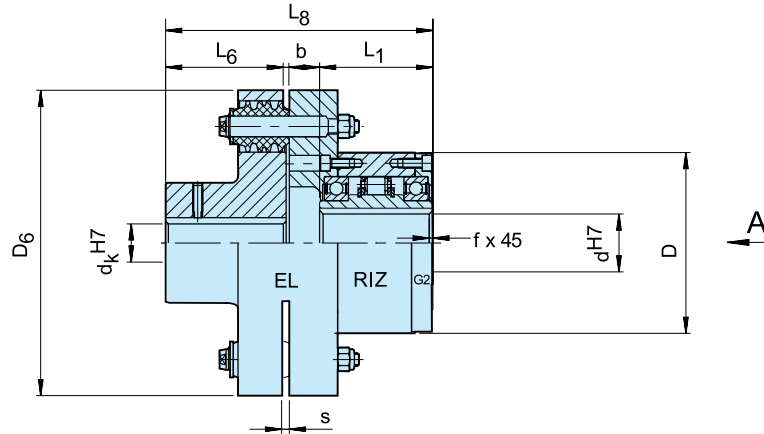
The EL type is a high performance coupling used to damp torsional vibrations and to accept misalignment without excess bearing load.

The inner race must overrun and will be connected to the driven machine shaft. When ordered complete, the unit is delivered grease lubricated, ready for either horizontal or vertical installation. The torques given in the table are determined by the freewheel capacity.

Centrifugally Lift Off Sprags Freewheels

RIZ..ELG2

RIZ..ELG2



Type	Size			Speeds													Weight
	d_k^{H7} [mm]	EL	T_{KN} [Nm]	$n_{max}^{1)}$ [min ⁻¹]	$n_{min}^{2)}$ [min ⁻¹]	$n_{max}^{3)}$ [min ⁻¹]	d_k^{H7} [mm]	D [mm]	L ₁ [mm]	D ₆ [mm]	L ₆ [mm]	L ₈ [mm]	b [mm]	s [mm]	f [mm]		[kg]
RIZ..ELG2	30	5	375	290	700	9000	20...55	100	68	160	60	147,5	19,5	2	1		11
	35	6	550	280	670	8500	25...75	110	74	190	75	166,5	17,5	2	1		17
	40	6	800	260	630	7500	25...75	125	86	190	75	176,5	15,5	2	1,5		19
	45	6	912	255	610	6700	25...75	130	86	190	75	176,5	15,5	2	1,5		19
	50	7	1400	235	560	6000	30...85	150	94	225	90	208,5	24,5	2,5	1,5		31
	60	8	2350	210	510	5300	35...100	170	114	270	100	244	30	3	2		49
	70	10	3050	195	470	4000	45...120	190	134	340	140	312,5	38,5	3	2,5		90
	80	11	5800	155	375	4000	55...145	210	144	380	160	340	36	3	2,5		107
	90	12	8700	145	350	3000	65...165	230	158	440	180	388	50	3,5	3		170
	100	14	16000	140	340	2400	75...170	270	182	500	200	422,5	40,5	3,5	3		230
	130	16	23000	130	320	2400	85...180	310	212	560	220	482	50	4	3		330

NOTES

- 1) This maximum allowable torque transmission speed n_{max} must not be exceeded when transmitting torque
- 2) This minimum allowable overrunning speed n_{min} should not be reduced under continuous operation.
Possible reduction of this minimum speed on request
- 3) Inner race overruns
Keyway to DIN 6885.1

When ordering, please specify d_k bore diameter and direction of rotation seen from arrow „A“. „R“ Inner race overruns in clockwise direction, „L“ Inner race overruns in counterclockwise direction

» Refer to mounting and maintenance instructions page 12 to 13

MOUNTING EXAMPLE

