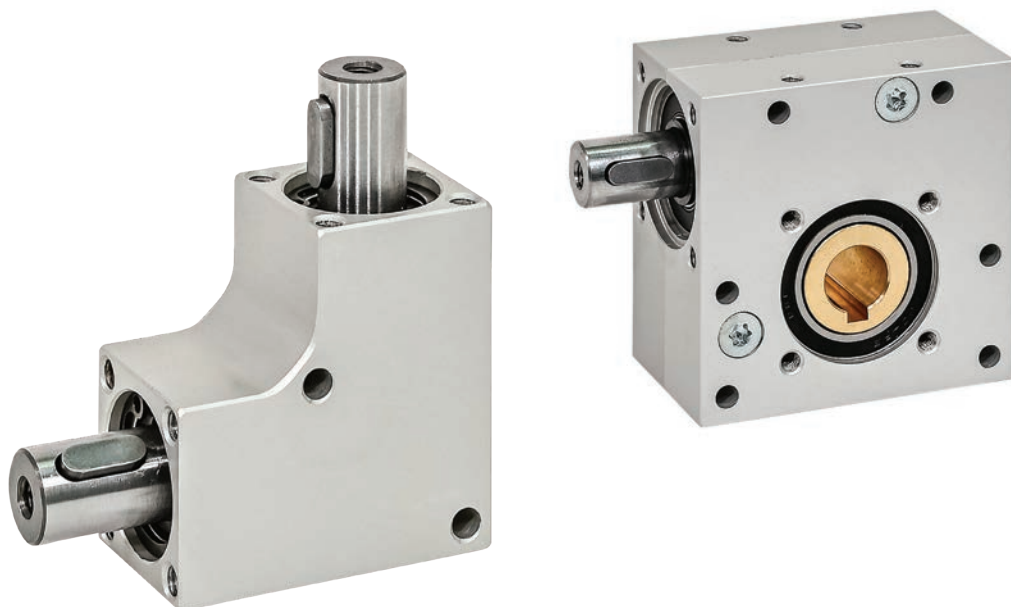


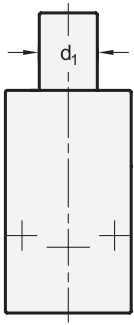
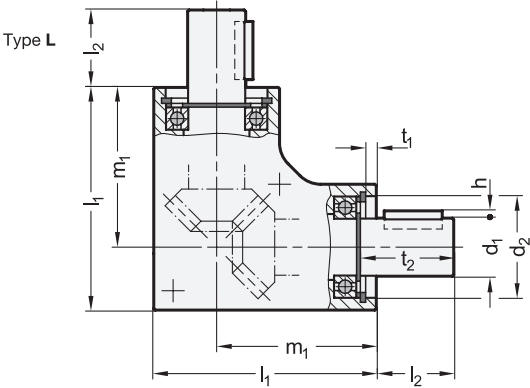


Highlights

Gears



Standard Parts. **Winco.**

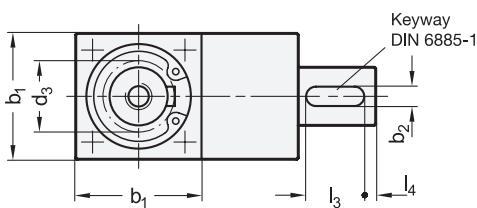
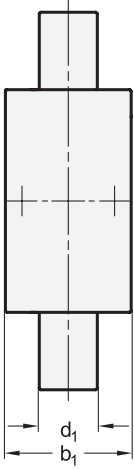
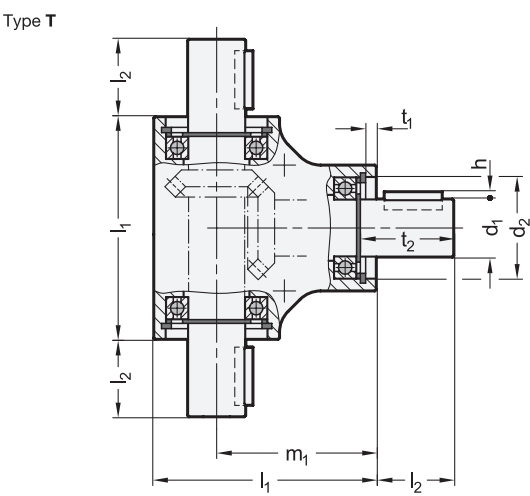


Metric



2 Type

- L Bevel gear 90°
- T Bevel gear with two output shafts



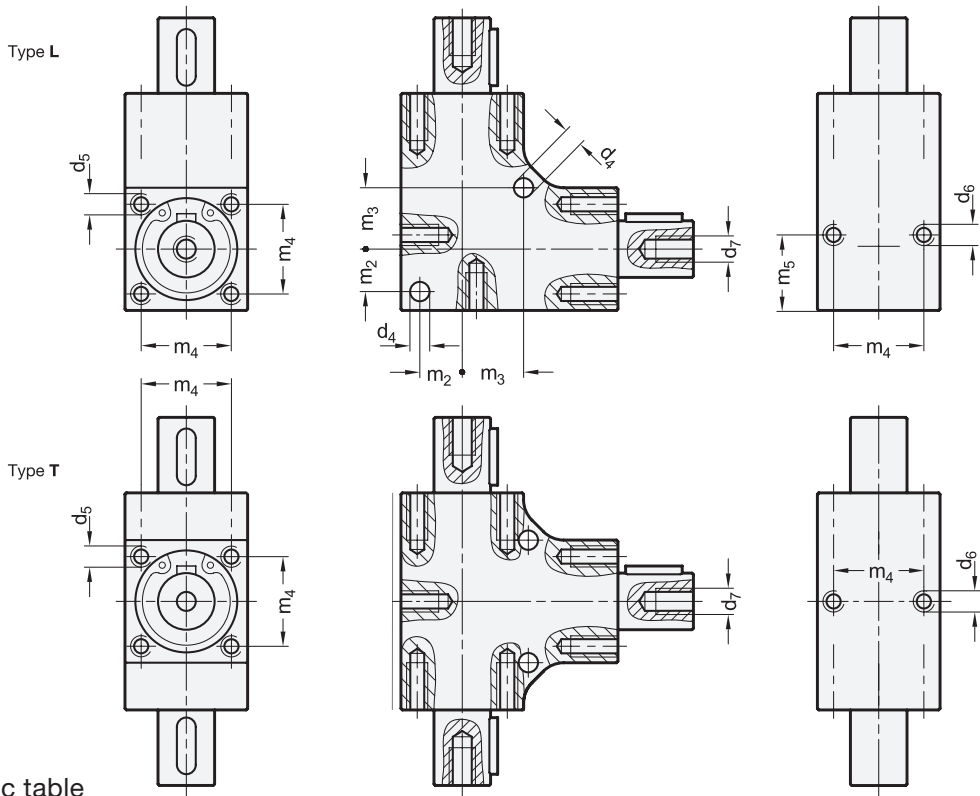
Specification

Housing Aluminum • Sealed to prevent dust entry • Anodized finish, natural color	AN
Bevel gear wheels Steel, case-hardened	
Ball bearing Steel Sealed (sealing disks 2RS)	
Operating temperature: -4 °F to +140 °F (-20 °C to +60 °C)	
RoHS	

Bevel gear boxes GN 3971 can transmit high torque despite their very compact dimensions. They can readily be used for multitude of applications, such as height adjustments or to change the direction of shaft rotation. The numerous fastening holes allow for simple mounting in any orientation or position. The parallel keys can take any angular positions.

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How to order	
1 Width b_1	
2 Type	
3 Diameter d_1	
4 Finish	
GN3971-26-L-12-AN	



Metric table

1

3

b ₁	d ₁ j6		b ₂		d ₂	d ₃ **	h		l ₁	l ₂	l ₃		l ₄	m ₁	t ₁		t ₂	
	Type L	Type T	Type L	Type T			Type L	Type T			Type L	Type T			Type L	Type T	Type L	Type T
18 0.71	6 0.2362	6 0.2362	2 0.08	2 0.08	13 0.51	-	0.8 0.03	0.8 0.03	32 1.26	12 0.47	8 0.31	8 0.31	2 0.08	23 0.91	2.1 0.08	3.1 0.12	15.4 0.61	15.1 0.59
20 0.79	8 0.3150	6 0.2362	2 0.08	2 0.08	16 0.63	9.2 0.36	0.8 0.03	0.8 0.03	35 1.38	12 0.47	8 0.31	8 0.31	2 0.08	25 0.98	2 0.08	2.3 0.09	15.3 0.60	14.3 0.56
24 0.94	10 0.3937	8 0.3150	4* 0.16	3 0.12	19 0.75	11.8 0.46	1.5 0.06	1.2 0.05	42 1.65	16 0.63	12 0.47	10 0.39	3 0.12	30 1.18	2 0.08	2 0.08	18 0.71	18 0.71
26 1.02	12 0.4724	8 0.3150	4 0.16	3 0.12	21 0.83	13.6 0.54	1.5 0.06	1.2 0.05	46 1.81	16 0.63	12 0.47	10 0.39	3 0.12	33 1.30	2 0.08	2 0.08	19.5 0.77	18 0.71
30 1.18	12 0.4724	8 0.3150	4 0.16	3 0.12	24 0.94	16.4 0.65	1.5 0.06	1.2 0.05	53 2.09	16 0.63	12 0.47	10 0.39	3 0.12	38 1.50	2.1 0.08	2.3 0.09	18.3 0.72	18.3 0.72
32 1.26	12 0.4724	10 0.3937	4 0.16	3 0.12	28 1.10	19.8 0.78	1.5 0.06	1.2 0.05	56 2.20	16 0.63	12 0.47	10 0.39	3 0.12	40 1.57	2.1 0.08	2.8 0.11	18.3 0.72	18.8 0.74
35 1.38	12 0.4724	12 0.4724	4 0.16	4 0.16	30 1.18	20.4 0.80	1.5 0.06	1.5 0.06	60 2.36	16 0.63	12 0.47	12 0.47	3 0.12	42.5 1.67	2.1 0.08	3.2 0.13	18.3 0.72	19.2 0.76

Dimensions in: millimeters / inches

* Deviating from DIN 6885-1 ** Theoretically usable hub diameter

b ₁	d ₄	d ₅ ***	d ₆ ***	d ₇ ****		m ₂	m ₃	m ₄	m ₅
				Type L	Type T				
18 0.71	3.1 0.12	M 3	M 3	M 3	M 3	6 0.24	8.5 0.33	13 0.51	11 0.43
20 0.79	3.1 0.12	M 3	M 3	M 3	M 3	7 0.28	10 0.39	15 0.59	10 0.39
24 0.94	4.1 0.16	M 4	M 4	M 4	M 4	8 0.31	12 0.47	18 0.71	16 0.63
26 1.02	4.1 0.16	M 4	M 4	M 5	M 4	9 0.35	13 0.51	20 0.79	16 0.63
30 1.18	4.1 0.16	M 4	M 4	M 5	M 4	11 0.43	15 0.59	22 0.87	16 0.63
32 1.26	4.1 0.16	M 4	M 4	M 5	M 4	12 0.47	17 0.67	24 0.94	16 0.63
35 1.38	4.1 0.16	M 4	M 4	M 5	M 5	13.5 0.53	17.5 0.69	26 1.02	16 0.63

*** Usable thread depth: min. 2 x d₅ / d₆ **** Usable thread depth: min. 1.6 x d₇

Mechanical Features

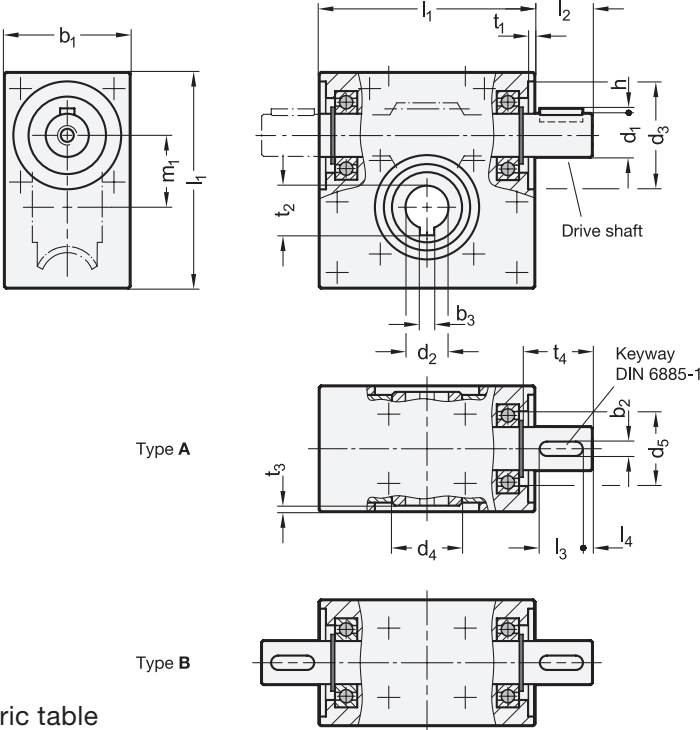
Gear ratio i	1 : 1
Circumferential backlash at the drive shaft	3° ± 0.5°
Shaft direction of rotation	Any
Life expectancy (guideline)	1,000 hours under full load at a rotational speed of 500 rpm, assuming the gear box is operating for 20% of every 5 minutes (1 minute of operation + 4 minutes break) at an ambient temperature of 68 °F (20 °C)
Maintenance	Permanent lubrication with grease, maintenance-free

b ₁	Max. torque in Nm			Max. radial force*	Max. axial force**
	at 100 min ⁻¹	at 500 min ⁻¹	at 1000 min ⁻¹		
18 0.71	0.35	0.1	0.05	60 N 13.49 lbf	60 N 13.49 lbf
20 0.79	0.75	0.3	0.15	100 N 22.48 lbf	100 N 22.48 lbf
24 0.94	2.5	1	0.5	120 N 26.98 lbf	120 N 26.98 lbf
26 1.02	4	1.5	0.75	140 N 31.47 lbf	140 N 31.47 lbf
30 1.18	5	2	1	240 N 53.95 lbf	240 N 53.95 lbf
32 1.26	8	3	1.5	550 N 124 lbf	550 N 124 lbf
35 1.38	10	4	2	550 N 124 lbf	550 N 124 lbf

* At axial force = 0. ** At radial force = 0

Assembly Instructions

Do not exert any forces onto the housing or into the bearings during assembly. Use of the threaded holes d₇ in the shaft is recommended. The use of a corresponding coupling is recommended to compensate for manufacturing-related shaft offsets and runout tolerances as well as for damping vibrations and shocks.



Metric



2 Type

- A Output on one side
- B Continuous drive

Metric table

1 3 4										Dimensions in: millimeters / inches			
m ₁	d ₁ j6	Gear ratio i								b ₁	b ₂	b ₃ JS9	d ₂ H7
20 0.79	12 0.4724	5	13	15	18	23	30	40	65	35 1.38	4 0.16	4 0.1575	12 0.472
30 1.18	12 0.4724	5	10	17	20	25	34	45	64	40 1.57	4 0.16	5 0.1969	14 0.551

m ₁	d ₃	d ₄	d ₅	h	l ₁	l ₂	l ₃	l ₄	t ₁	t ₂	t ₃	t ₄	m ₁₀
20 0.79	30 1.18	20 0.79	27.4 1.08	1.5 0.06	60 2.36	16 0.63	12 0.47	3 0.12	2 0.08	13.8 0.54	1.6 0.06	18.3 0.72	26 1.02
30 1.18	30 1.18	25 0.98	27.4 1.08	1.5 0.06	80 3.15	16 0.63	12 0.47	3 0.12	4 0.16	16.3 0.64	2 0.08	20.5 0.81	30 1.18

Specification

Housing

- Aluminum
- Sealed to prevent dust entry
- Anodized finish, natural color

AN

Worm screw

Steel

Worm wheel

Brass

Ball bearing

- Steel
- Sealed (sealing disks 2RS)

Operating temperature

-4 °F to +140 °F (-20 °C to +60 °C)

RoHS

Worm gear reducer GN 3975 can transmit high torque despite their very compact dimensions. They can readily be used for a multitude of applications, such as incline adjustments or to change the direction of shaft rotation.

The numerous fastening holes allow for simple mounting in any orientation or position. The parallel keys can take any angular positions. Depending on the gear ratio, there may be no static self-braking between the worm screw and worm wheel, meaning that the worm wheel can be turned out of a resting state by a torque coming from the output end.

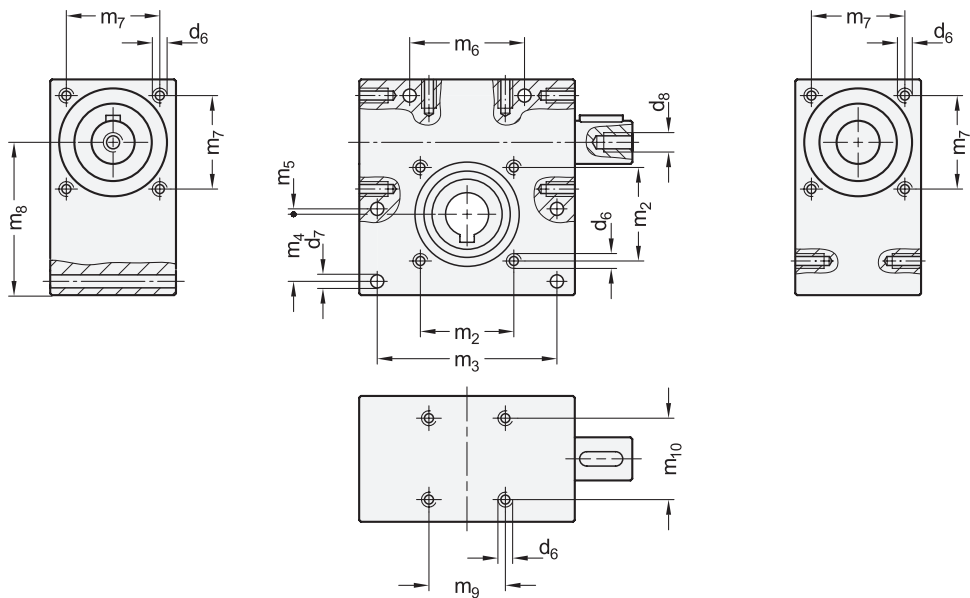
Technical Information

Page

Application Example	8
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How to order		1	Center distance m ₁
		2	Type
		3	Diameter d ₁
		4	Gear ratio i
		5	Finish

GN3975-20-A-12-23-AN



m ₁	d ₆ [*]	d ₇	d ₈ [*]	m ₂	m ₃	m ₄	m ₅	m ₆	m ₇	m ₈	m ₉	m ₁₀
20 0.79	M 4	4.2 0.17	M 5	26 1.02	50 1.97	17.5 0.69	1.5 0.06	31 1.22	26 1.02	42.5 1.67	22.5 0.89	26 1.02
30 1.18	M 5	5.5 0.22	M 5	40 1.57	60 2.36	20 0.79	10 0.39	15 0.59	26 1.02	57.5 2.26	30 1.18	30 1.18

* Usable thread depth: min. 1.6 x d₆ / d₈

Mechanical Features

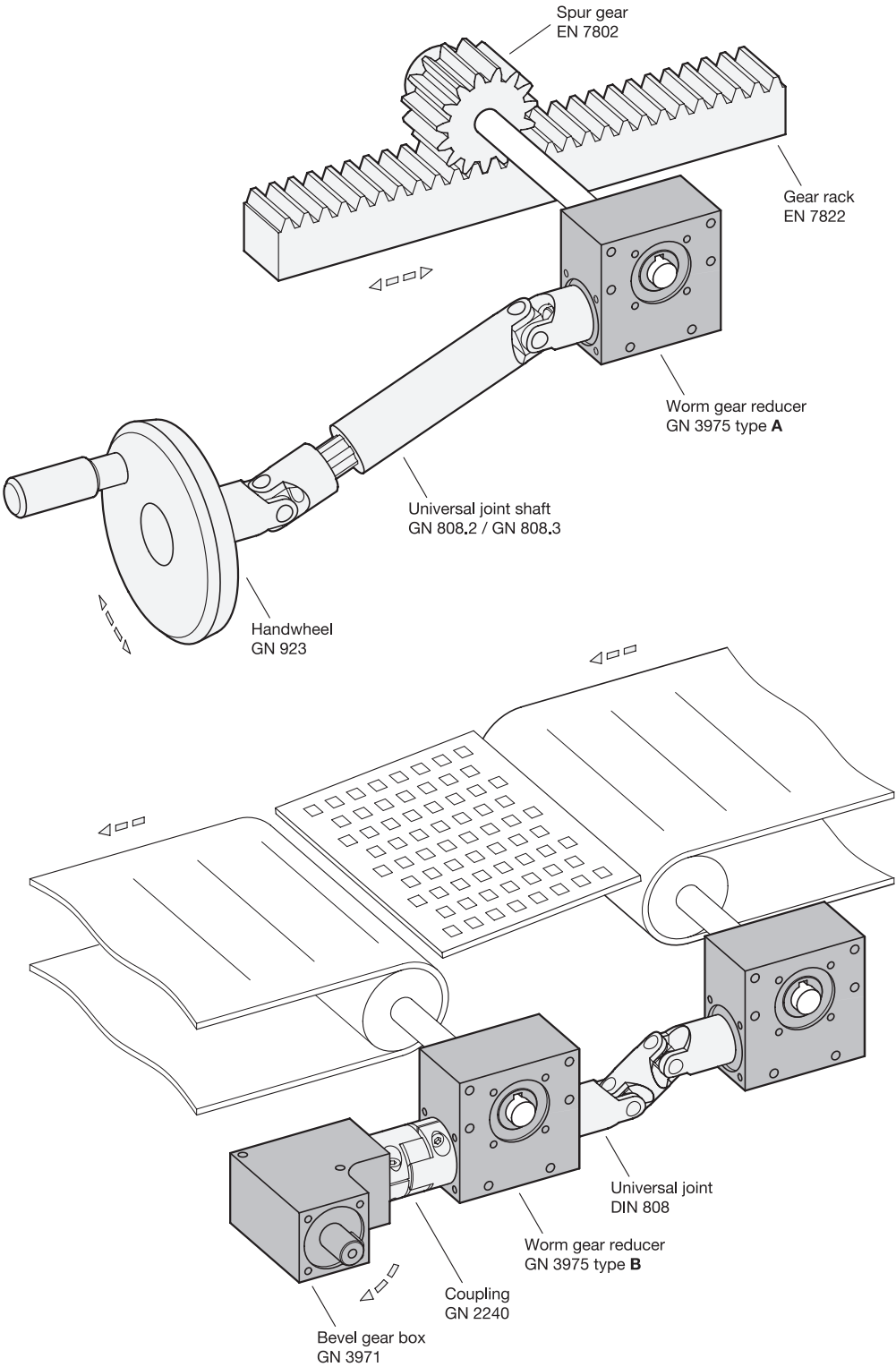
Circumferential backlash at the drive shaft	1° ± 0.5°
Shaft direction of rotation	Any
Worm screw direction	Left
Life expectancy	1,000 hours under full load at a rotational speed of 500 rpm, assuming the gear box is operating for 20% of every 5 minutes (guide value) (1 minute of operation + 4 minutes break) at an ambient temperature of 20 °C
Maintenance	Permanent lubrication with grease, maintenance-free

m ₁	Gear ratio	Max. input torque in Nm*			Max. output torque in Nm*			Input side		Output side		Efficiency in %	Self-braking
		at 100 min ⁻¹	at 500 min ⁻¹	at 1000 min ⁻¹	at 100 min ⁻¹	at 500 min ⁻¹	at 1000 min ⁻¹	max. radial force **	max. axial force***	max. radial force**	max. axial force***		
20 0.79	5	2.9	2.3	1.7	10	8	6	200 N 44.96 lbf	200 N 44.96 lbf	500 N 112 lbf	500 N 112 lbf	70	-
20 0.79	13	2.1	1.8	1.5	15	13	11	200 N 44.96 lbf	200 N 44.96 lbf	500 N 112 lbf	500 N 112 lbf	56	-
20 0.79	15	1.5	1.3	1	12	10	8	250 N 56.20 lbf	250 N 56.20 lbf	500 N 112 lbf	500 N 112 lbf	52	-
20 0.79	18	1.1	0.9	0.7	11	9	7	250 N 56.20 lbf	250 N 56.20 lbf	500 N 112 lbf	500 N 112 lbf	55	-
20 0.79	23	0.9	0.7	0.5	10	8	6	250 N 56.20 lbf	250 N 56.20 lbf	500 N 112 lbf	500 N 112 lbf	50	-
20 0.79	30	0.6	0.5	0.4	8.5	7	5.5	350 N 78.68 lbf	350 N 78.68 lbf	500 N 112 lbf	500 N 112 lbf	45	-
20 0.79	40	0.35	0.31	0.26	5.5	4.8	4	400 N 89.92 lbf	400 N 89.92 lbf	500 N 112 lbf	500 N 112 lbf	39	x
20 0.79	65	0.24	0.2	0.16	4.5	3.8	3	500 N 112 lbf	500 N 112 lbf	500 N 112 lbf	500 N 112 lbf	29	x
30 1.18	5	5.4	4.9	4.3	19	17	15	400 N 89.92 lbf	300 N 67.44 lbf	800 N 179.85 lbf	800 N 179.85 lbf	70	-
30 1.18	10	3.4	3.1	2.8	20	18	16	400 N 89.92 lbf	300 N 67.44 lbf	800 N 179.85 lbf	800 N 179.85 lbf	58	-
30 1.18	17	2.2	1.9	1.8	17	15	14	400 N 89.92 lbf	400 N 89.92 lbf	800 N 179.85 lbf	800 N 179.85 lbf	46	-
30 1.18	20	1.7	1.6	1.4	15	13.5	12	800 N 179.85 lbf	400 N 89.92 lbf	800 N 179.85 lbf	800 N 179.85 lbf	43	-
30 1.18	25	1.3	1.2	1.1	13.5	12	11	800 N 179.85 lbf	800 N 179.85 lbf	800 N 179.85 lbf	800 N 179.85 lbf	41	-
30 1.18	34	1.2	1.1	1	12	11	10	600 N 134.88 lbf	800 N 179.85 lbf	800 N 179.85 lbf	800 N 179.85 lbf	29	-
30 1.18	45	0.9	0.8	0.8	10.5	9.5	9	700 N 157.37 lbf	600 N 134.88 lbf	800 N 179.85 lbf	800 N 179.85 lbf	25	-
30 1.18	64	0.5	0.4	0.3	8.5	7.5	6	700 N 157.37 lbf	600 N 134.88 lbf	800 N 179.85 lbf	800 N 179.85 lbf	27	x

* Input side speed ** at axial force = 0 *** at radial force = 0

Assembly Instructions

Do not exert any forces onto the housing or into the bearings during assembly. Use of the threaded holes d₈ in the shaft is recommended. The use of a corresponding coupling is recommended to compensate for manufacturing-related shaft offsets and runout tolerances as well as for damping vibrations and shocks.



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Webshop



CAD



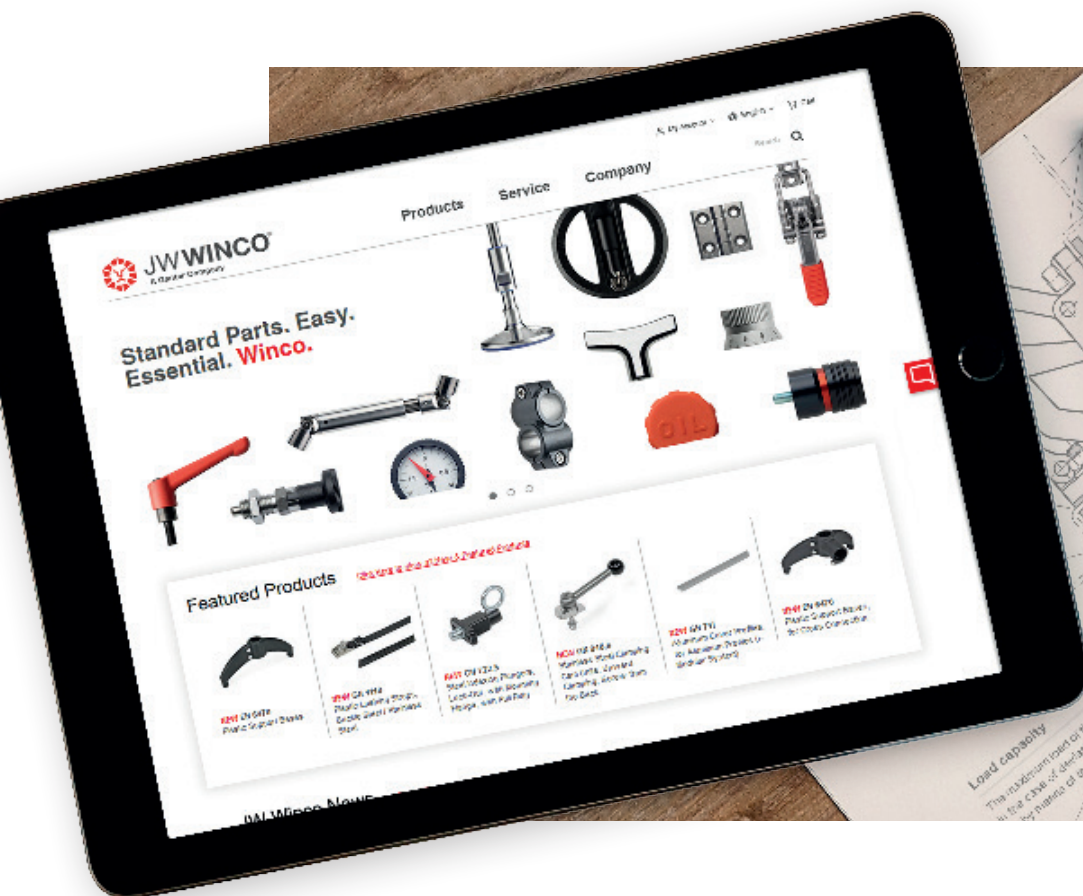
User Profile



Documentation



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