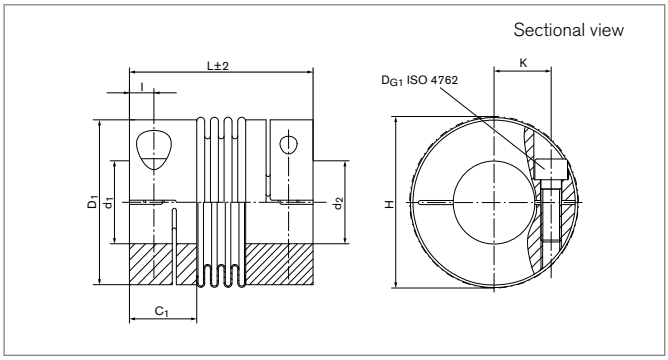
Metal Bellows Couplings

RINGFEDER® GWB AKN

Metal bellows coupling with clamping hubs, short length and higher torsional stiffness



Size	L	$d_1;d_2$ min-max	$d_{1k};d_{2k}$ min-max	C_1	D_1	H	l	K
	mm	mm	mm	mm	mm	mm	mm	mm
18	63	8 - 26	8 - 26	19,2	45	48	6	18
30	65	10 - 30	10 - 30	24,1	55	56	8	20
60	78	12 - 35	12 - 35	28,6	64	67	10	24
80	90	14 - 42	14 - 42	32,4	80	84	12	28
150	90	14 - 42	14 - 42	32,4	80	84	12	28
200	99	22 - 46	22 - 46	36,9	90	93	13	31
300	104	24 - 60	24 - 60	36,9	110	110	13	39
500	111	35 - 64	35 - 64	40,4	119	122	15	43

Transmission of the couplings transmissible torque T can not longer be guaranteed for certain with borings < dmin. Types with borings < dmin, however, can be supplied.

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

Size	T	n_{max}	C_r	C_a	C_{Tdyn}	ΔK_a	ΔK_w	ΔK_r	J	D_{G1}	T_{A1}	Gw
	Nm	1/min	N/mm	N/mm	10^3 Nm/rad	mm	degree	mm	10^{-3}kgm^2	mm	Nm	kg
18	22	12700	200	50	8	0,5	1,5	0,2	0,05	1 x M5	6	0,133
30	36	10200	720	50	35	0,4	1,0	0,1	0,11	1 x M6	12	0,245
60	75	8600	1100	90	75	0,4	1,0	0,1	0,29	1 x M8	30	0,406
80	95	6800	1200	80	130	0,4	1,0	0,2	0,87	1 x M10	60	0,742
150	180	6800	2000	150	150	0,4	1,0	0,2	0,87	1 x M10	85	0,742
200	240	6300	2500	150	170	0,4	1,0	0,2	1,44	1 x M12	100	1,054
300	360	5900	6300	280	500	0,4	1,0	0,2	3,00	1 x M12	120	1,434
500	600	4900	8800	100	680	0,5	1,0	0,2	4,70	1 x M14	190	1,949

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Transmissible torque T [Nm]

Size	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø15	Ø16	Ø18	Ø20	Ø22	Ø25	Ø28	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø64
18	18	20	22	22	22	22	22	22	22	22	22	22	---	---	---	---	---	---	---	---	---
30	---	---	36	36	36	36	36	36	36	36	36	36	36	36	---	---	---	---	---	---	---
60	---	---	---	---	75	75	75	75	75	75	75	75	75	75	75	---	---	---	---	---	---
80	---	---	---	---	---	---	,95	95	95	95	95	95	95	95	95	95	---	---	---	---	---
150	---	---	---	---	---	---	180	180	180	180	180	180	180	180	180	180	---	---	---	---	---
200	---	---	---	---	---	---	---	---	---	---	240	240	240	240	240	240	240	---	---	---	---
300	---	---	---	---	---	---	---	---	---	---	---	360	360	360	360	360	360	360	360	360	---
500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	600	600	600	600	600	600	600

Explanation

L = Total length

d_1;d_{2min} = Min. bore diameter d_1/d_2

d_1;d_{2max} = Max. bore diameter d_1/d_2

d_{1k};d_{2kmin} = Min. bore diameter d_1/d_2 with keyway acc. to DIN 6885-1

d_{1k};d_{2kmax} = Max. bore diameter d_1/d_2 with keyway acc. to DIN 6885-1

C_1 = Guided length in hub bore

D_1 = Outer diameter

H = Clearance diameter

I = Distance between center screw hole and hub end

K = Distance shaft axis - clamping screw axis

T = Transmissible torque at given T_A

n_{max} = Max. rotation speed

C_r = Radial spring stiffness

C_a = Axial spring stiffness

C_{Tdyn} = Dynamic torsional stiffness

ΔK_a = Max. permissible axial misalignment

ΔK_w = Max. permissible angular misalignment

ΔK_r = Max. permissible radial misalignment

J = Total moment of inertia

n_{Sc1} = Quantity of screws D_{G1}

D_{G1} = Thread

T_{A1} = Tightened torque of clamping screw D_{G1}

Gw = Weight

Ordering example

Series/Size	Bore diameter d_1	Bore diameter d_2	Further details
AKN 150	30	35	*

* Keyway or stainless steel

More information about
RINGFEDER® GWB AKN
on **www.ringfeder.com**

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