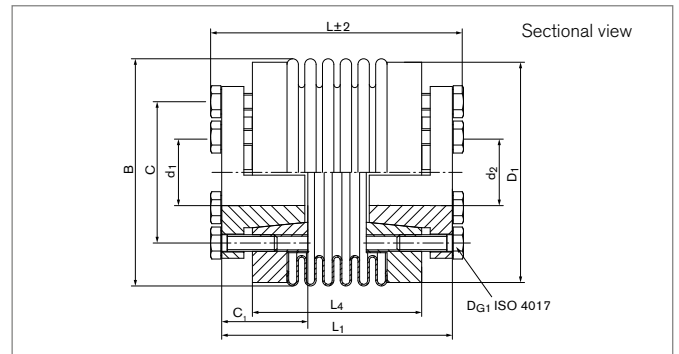


# Metal Bellows Couplings

## RINGFEDER® GWB AK

### Metal bellows coupling with inner conical hub



Size	L	C	d <sub>1</sub> ;d <sub>2</sub> min-max	B	D <sub>1</sub>	C <sub>1</sub>	L <sub>1</sub>	L <sub>4</sub>
	mm	mm	mm	mm	mm	mm	mm	mm
30	52/60	31	9 - 20	56	55	20	45/53	30/38
60	63/73	37	12 - 25	66	64	25	55/65	35/46
80	79/91	51	15 - 35	82	80	30	72/83	49/61
150	79/91	51	15 - 35	82	80	30	72/84	49/61
200	80/93	51/56	15 - 42	90	90	30	72/85	50/63
300	93/104	62/75	15 - 50	110	110	33	80/93	56/67
500	102/113	75/80	24 - 55	122	119	38	94/105	61/72
800	170	92/100	30 - 70	157	140	60	150	110
1400	170	92/100	35 - 70	157	140	60	150	110
3000	191	100/125	50 - 80	199	180	60	171	131
5000	199	100/125	60 - 90	250	230	65	179	139

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	η <sub>max</sub>	C <sub>Tdyn</sub>	C <sub>r</sub>	C <sub>a</sub>	ΔK <sub>a</sub>	ΔK <sub>w</sub>	ΔK <sub>r</sub>	J	D <sub>G1</sub>	T <sub>A1</sub>	Gw
	Nm	1/min	10 <sup>3</sup> Nm/rad	N/mm	N/mm	mm	degree	mm	10 <sup>-3</sup> kgm <sup>2</sup>	mm	Nm	kg
30	36	11000	35/25	720/220	50/30	0,4/0,5	1,0/1,5	0,1/0,2	0,15	6 x M4	3	0,281
60	72	9100	75/50	1100/330	90/55	0,4/0,5	1,0/1,5	0,1/0,2	0,24	6 x M6	8,5	0,482
80	96	7000	130/75	1200/400	80/55	0,4/0,5	1,0/1,5	0,2	0,65	6 x M6	10	0,846
150	180	7000	150/100	2000/600	150/85	0,4/0,5	1,0/1,5	0,2	0,65	6 x M6	14	0,846
200	240	6700	170/120	2500/450	150/85	0,4/0,5	1,0/1,5	0,2	0,87	6 x M6	14	1,005
300	360	5200	318/500/280	6300/1500	235/280/150	0,4/0,5	1,0/1,5	0,2	2,33	6 x M8	18	1,915
500	600	4600	680/310	8800/1000	100/85	0,5/1,0	1,0/1,5	0,2	5,73	6 x M8	26	2,448
800	800	3700	760	510	190	1,0	1,5	0,2	26,10	6 x M16	50	9,978
1400	1400	3700	1300	710	280	1,0	1,5	0,2	26,10	6 x M16	80	9,202
3000	3000	2800	2800	8060	880	1,0	1,5	0,2	86,83	6 x M16	130	14,57
5000	5000	2800	4800	9190	737	1,0	1,5	0,2	170,30	6 x M16	210	24,3

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### Transmissible torque T [Nm]

Size	Ø9	Ø10	Ø12	Ø14	Ø15	Ø18	Ø20	Ø24	Ø28	Ø32	Ø38	Ø44	Ø48	Ø50	Ø58	Ø60	Ø65	Ø70	Ø75	Ø80	Ø85	Ø90	
30	36	36	36	36	36	36	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
60	---	---	72	72	72	72	72	72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
80	---	---	---	---	96	96	96	96	96	96	---	---	---	---	---	---	---	---	---	---	---	---	---
150	---	---	---	---	180	180	180	180	180	180	---	---	---	---	---	---	---	---	---	---	---	---	---
200	---	---	---	---	240	240	240	240	240	240	240	---	---	---	---	---	---	---	---	---	---	---	---
300	---	---	---	---	290	350	360	360	360	360	360	360	360	---	---	---	---	---	---	---	---	---	---
500	---	---	---	---	---	---	---	600	600	600	600	600	600	600	---	---	---	---	---	---	---	---	---
800	---	---	---	---	---	---	---	---	800	800	800	800	800	800	800	800	800	800	800	---	---	---	---
1400	---	---	---	---	---	---	---	---	---	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	---	---	---	---
3000	---	---	---	---	---	---	---	---	---	---	---	---	3000	3000	3000	3000	3000	3000	3000	3000	3000	---	---
5000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000	5000	5000	5000	5000	5000	5000	5000

### Explanation

<b>L</b> = Total length	<b>L<sub>4</sub></b> = Length of coupling piece (without conical bushing)	<b>ΔK<sub>w</sub></b> = Max. permissible angular misalignment
<b>C</b> = Pitch circle diameter	<b>T</b> = Transmissible torque at given T <sub>A</sub>	<b>ΔK<sub>r</sub></b> = Max. permissible radial misalignment
<b>d<sub>1</sub>; d<sub>2min</sub></b> = Min. bore diameter d <sub>1</sub> /d <sub>2</sub>	<b>n<sub>max</sub></b> = Max. rotation speed	<b>J</b> = Total moment of inertia
<b>d<sub>1</sub>; d<sub>2max</sub></b> = Max. bore diameter d <sub>1</sub> /d <sub>2</sub>	<b>C<sub>Tdyn</sub></b> = Dynamic torsional stiffness	<b>n<sub>Sc1</sub></b> = Quantity of screws D <sub>G1</sub>
<b>B</b> = Bellow outer diameter	<b>C<sub>r</sub></b> = Radial spring stiffness	<b>D<sub>G1</sub></b> = Thread
<b>D<sub>1</sub></b> = Outer diameter	<b>C<sub>a</sub></b> = Axial spring stiffness	<b>T<sub>A1</sub></b> = Tightened torque of clamping screw D <sub>G1</sub>
<b>C<sub>1</sub></b> = Guided length in hub bore	<b>ΔK<sub>a</sub></b> = Max. permissible axial misalignment	<b>Gw</b> = Weight
<b>L<sub>1</sub></b> = Length of coupling		

### Ordering example

Series/Size	Length	Bore diameter d <sub>1</sub>	Bore diameter d <sub>2</sub>	Further details
AK 150	79	30	35	*

\* Stainless steel