

Jaw Couplings

SPRFLEX



High flexibility



High damping

Max. nominal torque [N·m]	50
Pilot bore/added work ranges [mm]	φ 4 ~ 48
Operating temperature [°C]	- 20 ~ 80
Backlash	Yes
Drive	Induction motor
Applications	Pumps, fans, textile machinery

Jaw Couplings that Use Rubber as Buffer Material



These jaw couplings have simpler designs that sandwich a buffer material (spider) between two hubs. The hub is lightweight, being made of aluminum alloy. Input and output can be coupled or separated easily by simply moving the coupling in the axial.



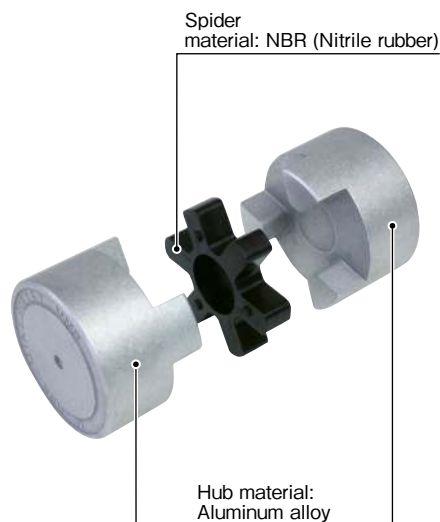
COUPLINGS
ELECTROMAGNETIC CLUTCHES & BRAKES
TORQUE LIMITERS

Metal Couplings	Metal Disc Couplings SERVOFLEX
	Metal Coil Spring Couplings BAUMANNFLEX
	Cardan Couplings PARAFLEX
	Sliced Couplings ASK
	Rigid Couplings STK
Rubber and Plastic Couplings	Jaw Couplings MIKI PULLEY STARFLEX
	Jaw Couplings SPRFLEX
	Dual Rubber Couplings STEPFLEX
	Oldham Couplings KSK

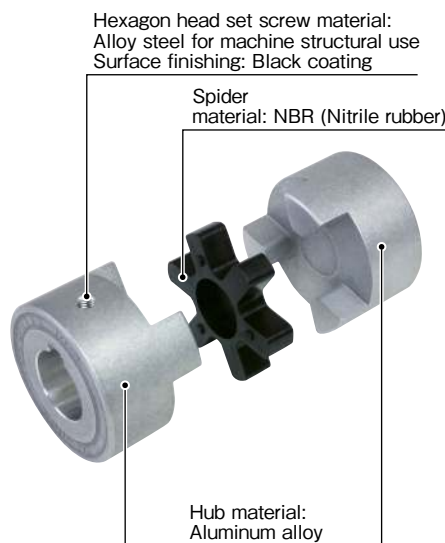
MODELS
AL

Structure and Materials

■ Pilot bore



■ Key/set screw types



■ Spider (rubber buffer)



AL Models

Specifications

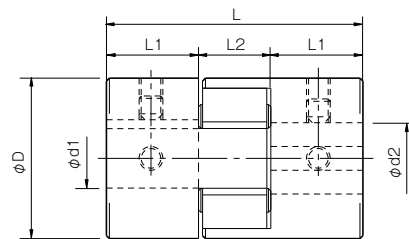
Model	Torque		Misalignment			Max. rotation speed [min ⁻¹]	Moment of inertia [kg·m ²]	Mass [kg]
	Nominal [N·m]	Max. [N·m]	Parallel [mm]	Angular [°]	Axial [mm]			
AL-035	0.5	1.5	0.1	0.5	+0.3	18000	0.38 × 10 ⁻⁶	0.01
AL-050	1.5	4.5	0.2	1.0	± 0.5	12000	5.10 × 10 ⁻⁶	0.06
AL-070	3	9	0.2	1.0	± 0.5	9000	1.79 × 10 ⁻⁵	0.12
AL-075	5	15	0.2	1.0	± 0.5	7000	5.36 × 10 ⁻⁵	0.21
AL-090	8	24	0.3	1.0	± 0.5	6000	1.15 × 10 ⁻⁴	0.31
AL-095	10	30	0.3	1.0	± 0.5	6000	1.40 × 10 ⁻⁴	0.36
AL-100	25	75	0.3	1.0	± 0.7	5000	4.34 × 10 ⁻⁴	0.78
AL-110	50	150	0.3	1.0	± 0.7	4000	1.43 × 10 ⁻³	1.56

- Higher rpm possible with balancing.
- The moment of inertia and mass are specified for the pilot bore.

Dimensions (Couplings)

Model	d1 · d2		D	L	L1	L2
	Min.	Max.				
	AL-035	4				
AL-050	6	16	27	43.2	15.5	12.2
AL-070	6	20	35	49.2	18.5	12.2
AL-075	7	26	45	54.4	21.0	12.4
AL-090	9	28	54	55.0	21.0	13.0
AL-095	9	28	55	61.0	24.0	13.0
AL-100	11	36	66	88.0	35.0	18.0
AL-110	11	48	85	110.0	44.0	22.0

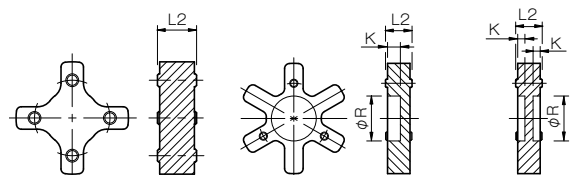
- Minimums and maximums for d1 and d2 are values at the Miki Pulley standard hole-drillings.
- The value marked *1 leaves a 1 mm space for the thickness of the spider body.



Dimensions (Spider)

Couplings model	Spider model	Unit [mm]		
		L2	R	K
AL-035	L-035	6.5	—	—
AL-050	L-050	12.2	—	—
AL-070	L-070	12.2	—	—
AL-075	L-075	12.4	20	6.0
AL-090	L-090/095	13.0	22	6.3
AL-095	L-090/095	13.0	22	6.3
AL-100	L-100	18.0	26	6.0
AL-110	L-110	22.0	30	6.0

■ L-035 - 070 ■ L-075 - 095 ■ L-100 - 110



How to Place an Order

Pilot Bore

AL-050

Size

Key/Set Screw Types

AL-050 12H-14N

Size

Spiders

L-075

Size

Bore diameter: d1 (Small diameter) - d2 (Large diameter)
 Bore specifications
 Blank: Compliant with the old JIS standards (class 2)
 H: Compliant with JIS standards
 N: Compliant with motor standards

AL Models

COUPLINGS

ELECTROMAGNETIC
CLUTCHES & BRAKES

TORQUE LIMITERS

SERIES

- Metal Disc Couplings
SERVOFLEX
- Metal Coil Spring Couplings
BAUMANNFLEX
- Cardan Couplings
PARAFLEX
- Sliced Couplings
ASK
- Rigid Couplings
STK
- Jaw Couplings
MIKI PULLEY
STARFLEX
- Jaw Couplings
SPRFLEX
- Dual Rubber Couplings
STEPFLEX
- Oldham Couplings
KSK

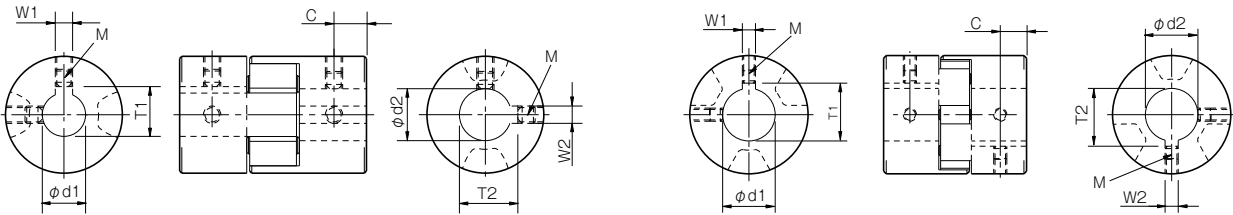
MODELS

AL

Standard Hole-Drillings

AL-035 to 070

AL-075 to 110



Unit [mm]

Models compliant with the old JIS standard (class 2) JIS B 1301 1959					Models compliant with the new JIS standard (H9) JIS B 1301 1996					Models compliant with the motor standard JIS C 4210 2001				
Nominal bore diameter	Bore diameter [d1 · d2]	Keyway width [W1 · W2]	Keyway height [T1 · T2]	Set screw hole [M]	Nominal bore diameter	Bore diameter [d1 · d2]	Keyway width [W1 · W2]	Keyway height [T1 · T2]	Set screw hole [M]	Nominal bore diameter	Bore diameter [d1 · d2]	Keyway width [W1 · W2]	Keyway height [T1 · T2]	Set screw hole [M]
	Tolerance H7, H8	Tolerance E9	—	—		Tolerance H7	Tolerance H9	—	—		Tolerance G7, F7	Tolerance H9	—	—
6	6 ^{+0.018} ₀	—	—	2-M4	6H	6 ^{+0.018} ₀	—	—	2-M4	—	—	—	—	—
7	7 ^{+0.022} ₀	—	—	2-M4	7H	7 ^{+0.022} ₀	—	—	2-M4	—	—	—	—	—
8	8 ^{+0.022} ₀	—	—	2-M4	8H	8 ^{+0.022} ₀	—	—	2-M4	—	—	—	—	—
9	9 ^{+0.022} ₀	—	—	2-M4	9H	9 ^{+0.022} ₀	—	—	2-M4	—	—	—	—	—
10	10 ^{+0.022} ₀	—	—	2-M4	10H	10 ^{+0.022} ₀	—	—	2-M4	—	—	—	—	—
11	11 ^{+0.018} ₀	—	—	2-M4	11H	11 ^{+0.018} ₀	—	—	2-M4	—	—	—	—	—
12	12 ^{+0.018} ₀	4 ^{+0.050} _{+0.020}	13.5 ^{+0.3} ₀	2-M4	12H	12 ^{+0.018} ₀	4 ^{+0.030} ₀	13.8 ^{+0.3} ₀	2-M4	—	—	—	—	—
14	14 ^{+0.018} ₀	5 ^{+0.050} _{+0.020}	16.0 ^{+0.3} ₀	2-M4	14H	14 ^{+0.018} ₀	5 ^{+0.030} ₀	16.3 ^{+0.3} ₀	2-M4	14N	14 ^{+0.024} _{+0.006}	5 ^{+0.030} ₀	16.3 ^{+0.3} ₀	2-M4
15	15 ^{+0.018} ₀	5 ^{+0.050} _{+0.020}	17.0 ^{+0.3} ₀	2-M4	15H	15 ^{+0.018} ₀	5 ^{+0.030} ₀	17.3 ^{+0.3} ₀	2-M4	—	—	—	—	—
16	16 ^{+0.018} ₀	5 ^{+0.050} _{+0.020}	18.0 ^{+0.3} ₀	2-M4	16H	16 ^{+0.018} ₀	5 ^{+0.030} ₀	18.3 ^{+0.3} ₀	2-M4	—	—	—	—	—
17	17 ^{+0.018} ₀	5 ^{+0.050} _{+0.020}	19.0 ^{+0.3} ₀	2-M4	17H	17 ^{+0.018} ₀	5 ^{+0.030} ₀	19.3 ^{+0.3} ₀	2-M4	—	—	—	—	—
18	18 ^{+0.018} ₀	5 ^{+0.050} _{+0.020}	20.0 ^{+0.3} ₀	2-M4	18H	18 ^{+0.018} ₀	6 ^{+0.030} ₀	20.8 ^{+0.3} ₀	2-M5	—	—	—	—	—
19	19 ^{+0.021} ₀	5 ^{+0.050} _{+0.020}	21.0 ^{+0.3} ₀	2-M4	19H	19 ^{+0.021} ₀	6 ^{+0.030} ₀	21.8 ^{+0.3} ₀	2-M5	19N	19 ^{+0.028} _{+0.007}	6 ^{+0.030} ₀	21.8 ^{+0.3} ₀	2-M5
20	20 ^{+0.021} ₀	5 ^{+0.050} _{+0.020}	22.0 ^{+0.3} ₀	2-M4	20H	20 ^{+0.021} ₀	6 ^{+0.030} ₀	22.8 ^{+0.3} ₀	2-M5	—	—	—	—	—
22	22 ^{+0.021} ₀	7 ^{+0.061} _{+0.025}	25.0 ^{+0.3} ₀	2-M6	22H	22 ^{+0.021} ₀	6 ^{+0.030} ₀	24.8 ^{+0.3} ₀	2-M5	—	—	—	—	—
24	24 ^{+0.021} ₀	7 ^{+0.061} _{+0.025}	27.0 ^{+0.3} ₀	2-M6	24H	24 ^{+0.021} ₀	8 ^{+0.036} ₀	27.3 ^{+0.3} ₀	2-M6	24N	24 ^{+0.028} _{+0.007}	8 ^{+0.036} ₀	27.3 ^{+0.3} ₀	2-M6
25	25 ^{+0.021} ₀	7 ^{+0.061} _{+0.025}	28.0 ^{+0.3} ₀	2-M6	25H	25 ^{+0.021} ₀	8 ^{+0.036} ₀	28.3 ^{+0.3} ₀	2-M6	—	—	—	—	—
28	28 ^{+0.021} ₀	7 ^{+0.061} _{+0.025}	31.0 ^{+0.3} ₀	2-M6	28H	28 ^{+0.021} ₀	8 ^{+0.036} ₀	31.3 ^{+0.3} ₀	2-M6	28N	28 ^{+0.028} _{+0.007}	8 ^{+0.036} ₀	31.3 ^{+0.3} ₀	2-M6
30	30 ^{+0.021} ₀	7 ^{+0.061} _{+0.025}	33.0 ^{+0.3} ₀	2-M6	30H	30 ^{+0.021} ₀	8 ^{+0.036} ₀	33.3 ^{+0.3} ₀	2-M6	—	—	—	—	—
32	32 ^{+0.025} ₀	10 ^{+0.061} _{+0.025}	35.5 ^{+0.3} ₀	2-M8	32H	32 ^{+0.025} ₀	10 ^{+0.036} ₀	35.3 ^{+0.3} ₀	2-M8	—	—	—	—	—
35	35 ^{+0.025} ₀	10 ^{+0.061} _{+0.025}	38.5 ^{+0.3} ₀	2-M8	35H	35 ^{+0.025} ₀	10 ^{+0.036} ₀	38.3 ^{+0.3} ₀	2-M8	—	—	—	—	—
38	38 ^{+0.025} ₀	10 ^{+0.061} _{+0.025}	41.5 ^{+0.3} ₀	2-M8	38H	38 ^{+0.025} ₀	10 ^{+0.036} ₀	41.3 ^{+0.3} ₀	2-M8	38N	38 ^{+0.050} _{+0.025}	10 ^{+0.036} ₀	41.3 ^{+0.3} ₀	2-M8
40	40 ^{+0.025} ₀	10 ^{+0.061} _{+0.025}	43.5 ^{+0.3} ₀	2-M8	40H	40 ^{+0.025} ₀	12 ^{+0.043} ₀	43.3 ^{+0.3} ₀	2-M8	—	—	—	—	—
42	42 ^{+0.025} ₀	12 ^{+0.075} _{+0.032}	45.5 ^{+0.3} ₀	2-M8	42H	42 ^{+0.025} ₀	12 ^{+0.043} ₀	45.3 ^{+0.3} ₀	2-M8	42N	42 ^{+0.050} _{+0.025}	12 ^{+0.043} ₀	45.3 ^{+0.3} ₀	2-M8
45	45 ^{+0.025} ₀	12 ^{+0.075} _{+0.032}	48.5 ^{+0.3} ₀	2-M8	45H	45 ^{+0.025} ₀	14 ^{+0.043} ₀	48.8 ^{+0.3} ₀	2-M10	—	—	—	—	—
48	48 ^{+0.025} ₀	12 ^{+0.075} _{+0.032}	51.5 ^{+0.3} ₀	2-M8	48H	48 ^{+0.025} ₀	14 ^{+0.043} ₀	51.8 ^{+0.3} ₀	2-M10	42N	48 ^{+0.050} _{+0.025}	14 ^{+0.043} ₀	51.8 ^{+0.3} ₀	2-M10

Distance from Set Screw Edge

Model	Position of set screw C [mm]
AL-035	3.5
AL-050	7.5
AL-070	9
AL-075	10
AL-090	12
AL-095	12
AL-100	12
AL-110	15

NOTE

- For AL-035, tolerance is ^{+0.05}₀ regardless of the bore diameter, and set screw size is M3.
- Set screws are included with the product.