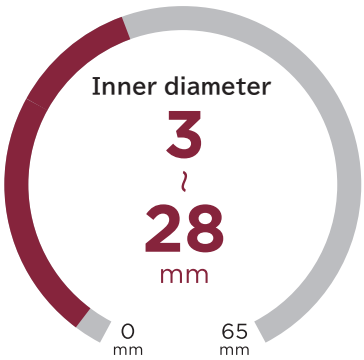
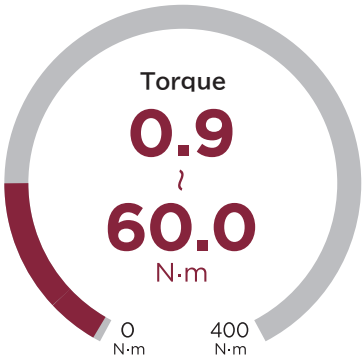
Discpack Couplings

MX series

MX / MXC / MXB / MXBC

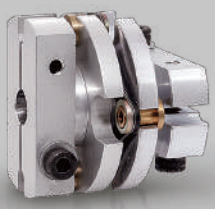




rivet assembly
MX

Set screw

rivet assembly
MXC

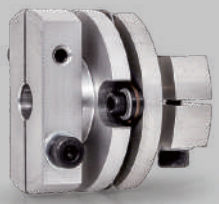


Clamp

bolt assembly
MXB

Set screw

bolt assembly
MXBC



Clamp

Features

Principle	Deflection shaft couplings that use elastic deformation of one or more discpacks (discs) to allow misalignment
Temperature range	-40 ~ 120℃
Misalignment	S: Allow angular and endplay D·L: Lateral, angular and endplay are tolerated in a balanced manner
Hub-Shaft Connection	Set screw Fixes a shaft by digging sets crews into the shaft directly Clamp Fixes a shaft using elastic deformation of hub notch by tightening cap screws
Body size	Relatively short in length
Backlash	Zero backlash
Electric isolation	No electrically isolated
Magnetic properties	Magnetic
Dustproofness	Dustproof

INNER DIA. [mm]

LATERAL | ANGULAR | ENDPLAY | STIFFNESS | BACKLASH | KEYWAY | PRESS FIT | Q T A | M T O | CUSTOM

Discpack couplings

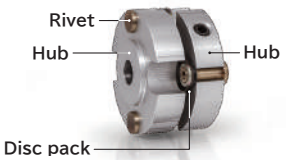
MX/ MXC

Coupling size
19 ~ 41

Inner diameter G6
3 ~ 16 mm

Torque
0.9 ~ 11.3 N·m

Single
MX-S



Set screw

Double
MX-D

Set screw

Long
MX-L

Set screw

Single
MXC-S

Clamp

Double
MXC-D

Clamp

Long
MXC-L

Clamp

TORQUE [N·m]

Specifications

Type		Size	Torque [N·m]	Lateral [mm]	Angular [°]	Endplay [mm]	Inertia [kg·m²×10⁻³]	Rotation spring constant [N·m/rad]	Lateral spring constant [N/mm]	Angular spring constant [N/deg]	Endplay spring constant [N/mm]	Mass [g]
MX	S	19	0.9	—	2	0.1	30	220	—	0.40	< 7	7
MXC	S	19	0.9	—	2	0.1	40	220	—	0.40	< 7	9
MX	D	19	0.9	0.2	4	0.2	50	150	14	0.25	< 7	10
MXC	D	19	0.9	0.2	4	0.2	60	150	14	0.25	< 7	13
MX	L	19	0.9	0.4	4	0.2	60	145	4	0.30	< 7	12
MXC	L	19	0.9	0.4	4	0.2	60	145	4	0.30	< 7	14
MX	S	25	2.3	—	2	0.1	120	585	—	0.75	< 7	15
MXC	S	25	2.3	—	2	0.1	130	585	—	0.75	< 7	16
MX	D	25	2.3	0.2	4	0.2	160	385	37	0.50	< 7	18
MXC	D	25	2.3	0.2	4	0.2	160	385	37	0.50	< 7	20
MX	L	25	2.3	0.4	4	0.2	200	400	7	0.40	< 7	23
MXC	L	25	2.3	0.4	4	0.2	210	400	7	0.40	< 7	25
MX	S	33	5.6	—	1.5	0.1	560	1,560	—	2.00	< 8	37
MXC	S	33	5.6	—	1.5	0.1	520	1,560	—	2.00	< 8	37
MX	D	33	5.6	0.2	3	0.2	800	935	48	1.00	< 8	52
MXC	D	33	5.6	0.2	3	0.2	730	935	48	1.00	< 8	51
MX	L	33	5.6	0.4	3	0.2	830	980	13	1.20	< 8	55
MXC	L	33	5.6	0.4	3	0.2	760	980	13	1.20	< 8	55
MX	S	41	11.3	—	1	0.1	1,540	2,710	—	4.00	< 8	69
MXC	S	41	11.3	—	1	0.1	1,530	2,710	—	4.00	< 8	72
MX	D	41	11.3	0.2	2	0.2	2,250	1,980	100	2.00	< 8	97
MXC	D	41	11.3	0.2	2	0.2	2,220	1,980	100	2.00	< 8	100
MX	L	41	11.3	0.4	2	0.2	2,450	2,020	25	2.00	< 8	107
MXC	L	41	11.3	0.4	2	0.2	2,370	2,020	25	2.00	< 8	109

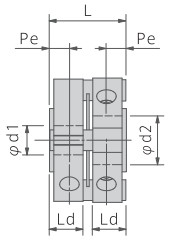
Comparative properties

◎ =excellent ○ = good

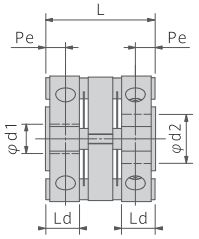
Type	Rotation spring constant	Misalignment		
		Angular	Lateral	Endplay
S	◎	○		○
D	○	◎	○	◎
L	○	◎	◎	◎

Drawings

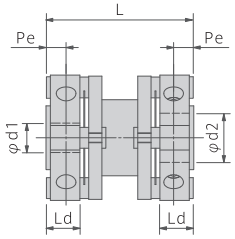
MX-S-19 MX-S-25
MX-S-33 MX-S-41

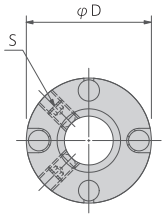


MX-D-19 MX-D-25
MX-D-33 MX-D-41

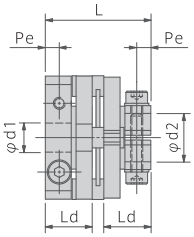


MX-L-19 MX-L-25
MX-L-33 MX-L-41

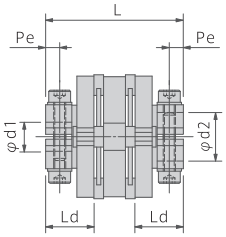




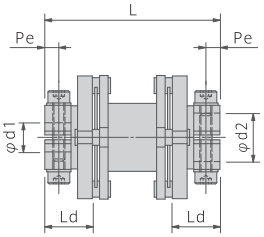
MXC-S-19 MXC-S-25
MXC-S-33 MXC-S-41

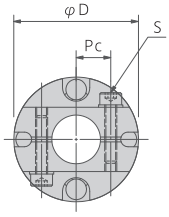


MXC-D-19 MXC-D-25
MXC-D-33 MXC-D-41



MXC-L-19 MXC-L-25
MXC-L-33 MXC-L-41





Dimensions

Type		Size	Shaft bore diameter d1, d2[mm]	Overall length L[mm]	Outer diameter D[mm]	Mouting length Ld[mm]	Distance Pe[mm]	Distance Pc[mm]	Set screw S[mm]	Cap screw S[mm]	Tightning torque [N·m]
MX	S	19	3～6	13.0	19.2	5.6	3.3	—	M3	—	0.72
MXC			3～6	20.2	19.2	9.2	2.5	4.7	—	M2.5	1.2
MX	D		3～6	19.6	19.2	5.6	3.3	—	M3	—	0.72
MXC			3～6	26.8	19.2	9.2	2.5	4.7	—	M2.5	1.2
MX	L		3～6	27.3	19.2	5.6	3.3	—	M3	—	0.72
MXC			3～6	34.5	19.2	9.2	2.5	4.7	—	M2.5	1.2
MX	S	25	4～10	15.8	25.6	7.0	4.1	—	M4	—	2.0
MXC			4～10	21.8	25.6	10.0	2.9	7.1	—	M2.5	1.2
MX	D		4～10	22.4	25.6	7.0	4.1	—	M4	—	2.0
MXC			4～10	28.4	25.6	10.0	2.9	7.1	—	M2.5	1.2
MX	L		4～10	30.1	25.6	7.0	4.1	—	M4	—	2.0
MXC			4～10	36.1	25.6	10.0	2.9	7.1	—	M2.5	1.2
MX	S	33	6～12	22.5	33.5	10.0	5.9	—	M5	—	3.9
MXC			6～12	30.5	33.5	14.0	4.0	8.6	—	M3	2.1
MX	D		6～12	32.1	33.5	10.0	5.9	—	M5	—	3.9
MXC			6～12	40.1	33.5	14.0	4.0	8.6	—	M3	2.1
MX	L		6～12	42.8	33.5	10.0	5.9	—	M5	—	3.9
MXC			6～12	50.8	33.5	14.0	4.0	8.6	—	M3	2.1
MX	S	41	8～16	27.1	41.5	12.0	7.0	—	M6	—	6.5
MXC			8～16	37.1	41.5	17.0	4.7	10.6	—	M4	4.8
MX	D		8～16	38.5	41.5	12.0	7.0	—	M6	—	6.5
MXC			8～16	48.5	41.5	17.0	4.7	10.6	—	M4	4.8
MX	L		8～16	50.1	41.5	12.0	7.0	—	M6	—	6.5
MXC			8～16	60.1	41.5	17.0	4.7	10.6	—	M4	4.8

Materials

All types	Hub		Disc pack	Rivet
	Materials	Surface treatment	Materials	Materials
	Al alloy	Non-chrome conversion coating	Stainless steel	Free-cutting brass

LATERAL | ANGULAR | ENDPLAY | STIFFNESS | BACKLASH | KEYWAY | PRESS FIT | Q T A | M T O | CUSTOM

INNER DIA. [mm]

Discpack couplings

MXB/ MXBC

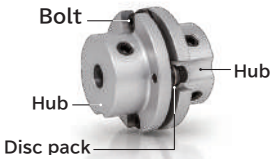
Coupling size
41 ~ 66

Inner diameter G6
8 ~ 28 mm

Torque
11.3 ~ 60.0 N·m

TORQUE [N·m]

Single
MXB-S



Set screw

Double
MXB-D

Set screw

Long
MXB-L

Set screw

Single
MXBC-S

Clamp

Double
MXBC-D

Clamp

Long
MXBC-L

Clamp

Specifications

Type		Size	Torque [N·m]	Lateral [mm]	Angular [°]	Endplay [mm]	Inertia [kg·m²×10⁻⁸]	Rotation spring constant [N·m/rad]	Lateral spring constant [N/mm]	Angular spring constant [N/deg]	Endplay spring constant [N/mm]	Mass [g]
MXB	S	41	11.3	—	1	0.1	1,160	4,000	—	3.7	< 8	63
MXBC	S	41	11.3	—	1	0.1	1,400	4,000	—	3.7	< 8	74
MXB	D	41	11.3	0.2	2	0.2	1,680	2,800	97.0	1.6	< 8	90
MXBC	D	41	11.3	0.2	2	0.2	2,010	2,800	97.0	1.6	< 8	101
MXB	L	41	11.3	0.4	2	0.2	1,790	2,600	23.0	1.6	< 8	101
MXBC	L	41	11.3	0.4	2	0.2	2,250	2,600	23.0	1.6	< 8	112
MXB	S	52	30.0	—	1	0.1	3,740	7,500	—	10.0	< 9	124
MXBC	S	52	30.0	—	1	0.1	5,660	7,500	—	10.0	< 9	164
MXB	D	52	30.0	0.2	2	0.2	5,490	4,800	313	5.0	< 9	168
MXBC	D	52	30.0	0.2	2	0.2	7,470	4,800	313	5.0	< 9	208
MXB	L	52	30.0	0.4	2	0.2	6,840	4,800	57.0	5.0	< 9	208
MXBC	L	52	30.0	0.4	2	0.2	8,870	4,800	57.0	5.0	< 9	247
MXB	S	66	60.0	—	1	0.1	13,370	19,000	—	84.0	< 9	272
MXBC	S	66	60.0	—	1	0.1	14,200	19,000	—	84.0	< 9	269
MXB	D	66	60.0	0.2	2	0.2	18,040	12,000	379	23.0	< 9	272
MXBC	D	66	60.0	0.2	2	0.2	19,300	12,000	379	23.0	< 9	357
MXB	L	66	60.0	0.4	2	0.2	23,400	12,000	93.0	23.0	< 9	447
MXBC	L	66	60.0	0.4	2	0.2	24,320	12,000	93.0	23.0	< 9	444

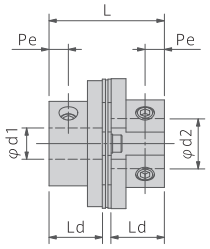
Comparative properties

◎ =excellent ○ = good

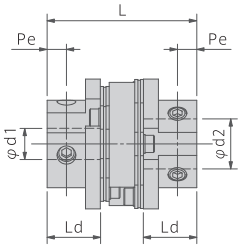
Type	Rotation spring constant	Misalignment		
		Angular	Lateral	Endplay
S	◎	○		○
D	○	◎	○	◎
L	○	◎	◎	◎

Drawings

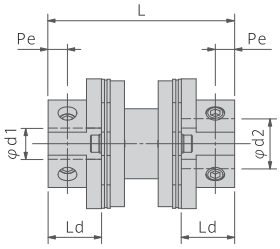
MXB-S-41 MXB-S-52 MXB-S-66

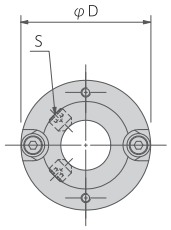


MXB-D-41 MXB-D-52 MXB-D-66

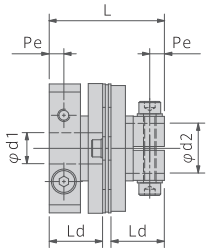


MXB-L-41 MXB-L-52 MXB-L-66

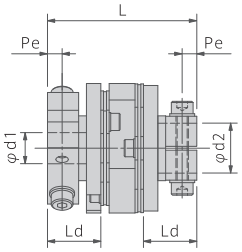




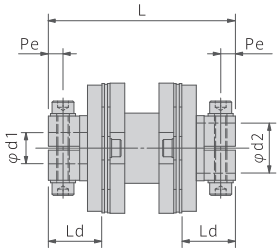
MXBC-S-41 MXBC-S-52 MXBC-S-66

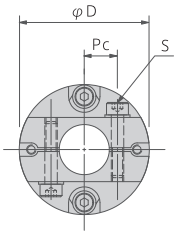


MXBC-D-41 MXBC-D-52 MXBC-D-66



MXBC-L-41 MXBC-L-52 MXBC-L-66





Dimensions

Type		Size	Shaft bore diameter d1, d2[mm]	Overall length L[mm]	Outer diameter D[mm]	Mouting length Ld[mm]	Distance Pe[mm]	Distance Pc[mm]	Set screw S[mm]	Cap screw S[mm]	Tightning torque [N·m]
MXB	S	41	8～16	36.9	41.5	17.1	6.2	—	M6	—	6.5
MXBC	S	41	8～16	36.9	41.5	17.1	4.7	10.6	—	M4	4.8
MXB	D	41	8～16	47.9	41.5	17.1	6.2	—	M6	—	6.5
MXBC	D	41	8～16	47.9	41.5	17.1	4.7	10.6	—	M4	4.8
MXB	L	41	8～16	59.7	41.5	17.1	6.2	—	M6	—	6.5
MXBC	L	41	8～16	59.7	41.5	17.1	4.7	10.6	—	M4	4.8
MXB	S	52	8～20	44.2	52.0	20.0	6.6	—	M6	—	6.5
MXBC	S	52	8～20	50.0	52.0	22.9	6.0	13.5	—	M5	9.6
MXB	D	52	8～20	55.0	52.0	20.0	6.6	—	M6	—	6.5
MXBC	D	52	8～20	60.8	52.0	22.9	6.0	13.5	—	M5	9.6
MXB	L	52	8～20	72.4	52.0	20.0	6.6	—	M6	—	6.5
MXBC	L	52	8～20	78.1	52.0	22.9	6.0	13.5	—	M5	9.6
MXB	S	66	12～28	60.4	66.0	28.0	8.5	—	M8	—	15.2
MXBC	S	66	12～28	56.4	66.0	26.0	6.5	18.0	—	M5	9.6
MXB	D	66	12～28	73.6	66.0	28.0	8.5	—	M8	—	15.2
MXBC	D	66	12～28	69.6	66.0	26.0	6.5	18.0	—	M5	9.6
MXB	L	66	12～28	94.7	66.0	28.0	8.5	—	M8	—	15.2
MXBC	L	66	12～28	90.7	66.0	26.0	6.5	18.0	—	M5	9.6

Materials

All types	Hub		Disc pack
	Materials	Surface treatment	Materials
	Al alloy	Non-chrome conversion coating	Stainless steel