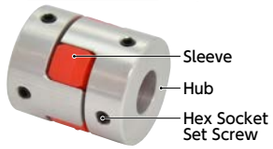
MJC Flexible Coupling - Jaw - Type

High torque　Vibration absorption　Electrical Insulation

Couplicon®

Structure

● Set Screw Type ➡ P.xxxx
MJC--**** Tight Fit
MJC--E**** Easy Fit



● Clamping Type ➡ P.xxxx
MJC-CS-**** Tight Fit
MJC-CS-E**** Easy Fit

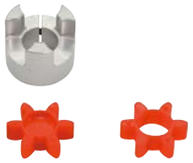
● Set Screw + Key Type ➡ P.xxxx
MJC-K-**** Tight Fit
MJC-K-E**** Easy Fit

● Clamping + Key Type ➡ P.xxxx
MJC-CSK-**** Tight Fit
MJC-CSK-E**** Easy Fit

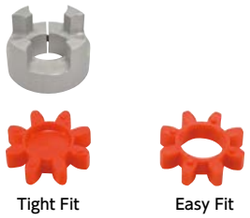
● Sleeve

Outside Diameter: ϕ14 - ϕ30

Outside Diameter: ϕ40



Outside Diameter: ϕ55 - ϕ95



● Material/Finish

RoHS

	MJC / MJC-CS / MJC-K / MJC-CSK
Hub	A2017 Anodized*1
Sleeve	Polyurethane
Hex Socket Set Screw	SCM435 Ferrosoferric Oxide Film (Black)
Hex Socket Head Cap Screw	SCM435 Ferrosoferric Oxide Film (Black)

*1 : Due to manufacturing process requirements, couplings may have bores and keyways with or without surface treatment. This does not affect the performance of the couplings.

● Part number specification

MJC - 30CSK - ERD - 10-11

Product Code | Size | Sleeve Type | bore diameter

Please refer to dimensional table for part number specification.

Additional Keyway at Shaft Hole ➡ P.xxxx	Cleanroom Wash & Packaging ➡ P.xxxx	Change to Stainless Steel Screw ➡ P.xxxx
Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

● Applicable motors

	Tight Fit	Easy Fit
Servomotor	◎	○
Stepping Motor	◎	◎
General-Purpose Motor	◎	◎

◎: Excellent ○: Very good

● Property

	Tight Fit	Easy Fit
Zero Backlash	○	–
High Torque	◎	◎
Allowable Misalignment	○	○
Vibration Absorption	◎	◎
Electrical Insulation	◎	◎
Assembling	○	◎
Allowable Operating Temperature	−20℃ to 60℃	−20℃ to 60℃

◎: Excellent ○: Very good

- This is a jaw type flexible coupling.
- Tight Fit enables transmission with zero backlash at low torque.
- Easy fit allows you to assemble and partition the hub and sleeve smoothly.
- Excellent flexibility allows eccentricity, angular misalignment and twisting vibration to be accepted.
- It has electrical insulation. Resistance value: Not less than 2 MΩ
- There are four types of sleeve hardness. Please select desirable units according to usage conditions including torque and misalignment.

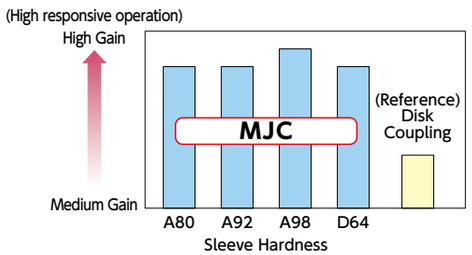
● Sleeve Type

Sleeve Type	Sleeve Hardness (JIS)			
	A80	A92	A98	D64
Tight Fit	BL	WH	RD	GR
Easy Fit	EBL	EWH	ERD	EGR

Small ← Rated Torque / Max. Torque → Large
Large ← Allowable Misalignment → Small

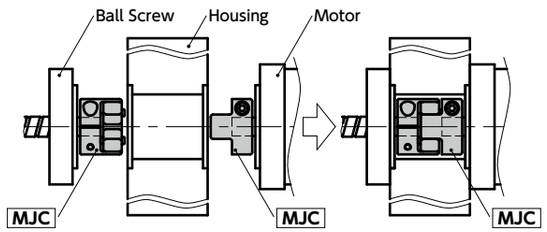
● Tight Fit
The hub and sleeve are press-fit and can be used under zero backlash*1.Since the sleeve's vibration absorption can raise the gain of a servomotor, this unit can achieve high responsive operation exceeding the Disk coupling.

*1 : For the torque used under zero backlash, please refer to dimensional table.



● Tight Fit Applications
XY stage / Index table / Machine tool / Injection molding machine

● Easy Fit
This unit allows you to easily assemble and partition the hub and sleeve. This allows you to reduce the time of assembling the unit and maintenance.It is possible to mount a hub on the shaft in advance and easily assemble the unit even in a location where the coupling is less-visible.

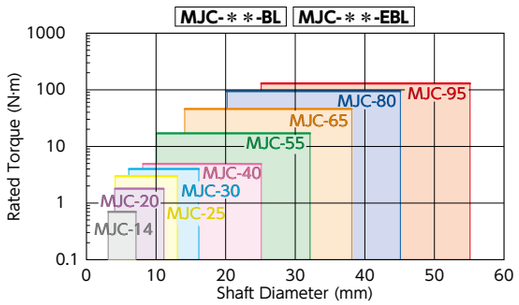


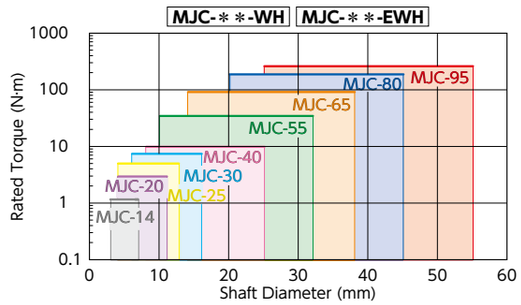
● Easy Fit Applications
Transport device / Mixer / Ventilator / Pump / Dispenser

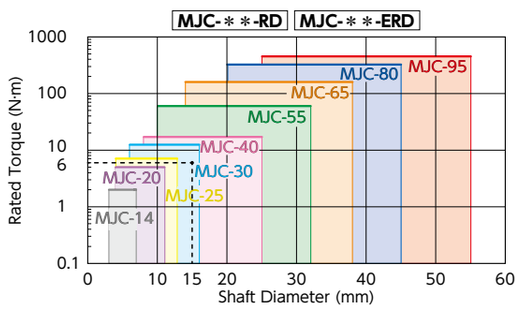
Selection

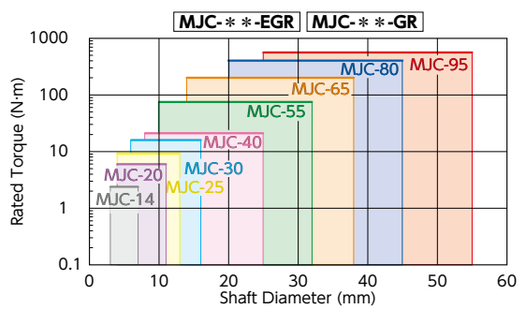
● Selection based on shaft diameter and rated torque

The area bounded by the shaft diameter and rated torque indicates is the selection size.









● Selection Example

In case of selected parameters of shaft diameter of ϕ15 and load torque of 6 N•m, the selected size for **MJC-＊＊-RD**, **MJC-＊＊-ERD** is **MJC-30-RD**, **MJC-30-ERD**.

● Selection based on the rated output of the servomotor

Rated Output (W)	Servomotor Specifications			Selection Outside Diameter Size			
	Diameter of Motor Shaft (mm)	Rated Torque (N・m)	Instantaneous Max. Torque (N・m)	MJC-**-BL MJC-**-EBL	MJC-**-WH MJC-**-EWH	MJC-**-RD MJC-**-ERD	MJC-**-GR MJC-**-EGR
10	5 - 6	0.032	0.096	14	14	14	14
20	5 - 6	0.064	0.19	14	14	14	14
30	5 - 7	0.096	0.29	14	14	14	14
50	6 - 8	0.16	0.48	20	20	20	20
100	8	0.32	0.95	20	20	20	20
200	9 - 14	0.64	1.9	30	30	30	30
400	14	1.3	3.8	30	30	30	30
750	16 - 19	2.4	7.2	–	40	40	40

● Motor specifications are based on general values.For details, see the motor manufacturer's catalogs.This is the size for cases where devices such as reduction gears are not used.

● Selection Example

In case of motor specification of shaft diameter of ϕ14 and rated torque of 0.64 N•m, the selected size of **MJC-＊＊-BL** is as follows.

- Set Screw Type —— **MJC-30-BL**
- Clamping Type —— **MJC-30CS-BL**
- Set Screw + Key Type —— **MJC-30K-BL**
- Clamping + Key Type —— **MJC-30CSK-BL**

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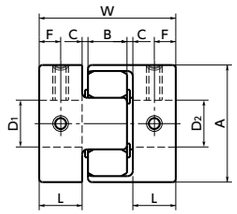
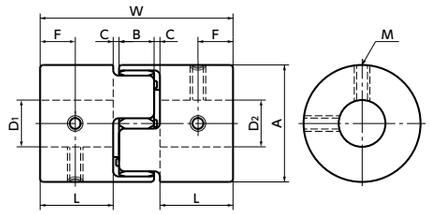
MJC Flexible Coupling - Jaw - Type - Set Screw Type

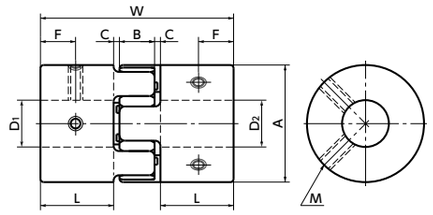
High torque　Vibration absorption　Electrical Insulation



Outside Diameter: ϕ14 - ϕ30



Outside Diameter: ϕ40



Outside Diameter: ϕ55 - ϕ95

Dimensions

Unit : mm

Part Number ①	A	L	W	B	C*1	Sleeve E	F	M	Screw Tightening Torque (N・m)
MJC-14	14	7	22	6	1	4	3.5	M3	0.7
MJC-20	20	10	30	8	1	6	5	M3	0.7
MJC-25	25	12	34	8	1	8	6	M4	1.7
MJC-30	30	11	35	10	1.5	10	5.5	M4	1.7
MJC-40	40	25	66	12	2	17	12.5	M5	4
MJC-55	55	30	78	14	2	26	15	M6	7
MJC-65	65	35	90	15	2.5	29.5	17.5	M8	15
MJC-80	80	45	114	18	3	35.5	22.5	M8	15
MJC-95	95	50	126	20	3	44	25	M8	15

*1 : Use with C Dimension

Part Number	Standard metric bore diameter (dimensional allowance H8) D1・D2 ③																													
	3	4	4.5	5	6	6.35	7	8	9.525	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55
MJC-14	●	●	●	●	●	●	●																								
MJC-20		●	●	●	●	●	●	●	●	●	●																				
MJC-25		●	●	●	●	●	●	●	●	●	●	●																			
MJC-30					●	●	●	●	●	●	●	●	●	●	●																
MJC-40								●	●	●	●	●	●	●	●	●	●	●	●	●	●										
MJC-55										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
MJC-65													●	●	●	●	●	●	●	●	●	●	●	●	●	●					
MJC-80																		●	●	●	●	●	●	●	●	●	●	●			
MJC-95																					●	●	●	●	●	●	●	●	●	●	●

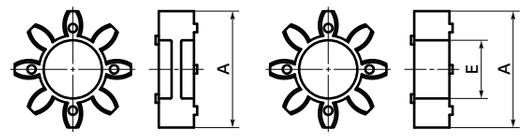
Part Number	Standard inch bore diameter (dimensional allowance H7) D1・D2 ③																					
	1 / 8	3 / 16	1 / 4	5 / 16	3 / 8	7 / 16	1 / 2	9 / 16	5 / 8	11 / 16	3 / 4	13 / 16	7 / 8	15 / 16	1	1- 1 / 8	1-1 / 4	1-3 / 8	1-1 / 2	1-5 / 8	1-3 / 4
MJC-14	●	●	●																		
MJC-20		●	●	●	●																
MJC-25		●	●	●	●	●	●														
MJC-30			●	●	●	●	●	●	●												
MJC-40				●	●	●	●	●	●	●	●										
MJC-55					●	●	●	●	●	●	●	●	●	●	●						
MJC-65							●	●	●	●	●	●	●	●	●	●	●	●	●		
MJC-80											●	●	●	●	●	●	●	●	●	●	●
MJC-95											●	●	●	●	●	●	●	●	●	●	●

- All products are provided with hex socket set screw.
- In a case where the bore diameter are ϕ3,ϕ4 and ϕ 1/8, the setscrew is used in only one place.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with set screw type for one side and clamping type or other type for the other side is available upon request.
- For the shaft insertion amount to the coupling, see Mounting/maintenance.

Additional Keyway at Shaft Hole ➡ P.xxxx	Cleanroom Wash & Packaging ➡ P.xxxx	Change to Stainless Steel Screw ➡ P.xxxx
Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

- Sleeve Details

Tight Fit　Easy Fit



- Ambient Temperature / Temperature Correction Factor

Ambient Temperature	Temperature Correction Factor
−20℃ to 30℃	1.00
30℃ to 40℃	0.80
40℃ to 60℃	0.70

Performance

Part Number	Sleeve ② Tight Fit	Sleeve ② Easy Fit	Max. Bore Diameter (mm)	Rated*1 torque (N・m)	Max.*1 torque (N・m)	Zero Backlash*3 Allowable Transmission Torque (N・m)	Max. Rotational Frequency (min^{-1})	Moment*2 of Inertia ($kg・m^2$)	Static Torsional Stiffness (N・m / rad)	Max. Lateral Misalignment (mm)	Max. Angular Misalignment (°)	Max. Axial Misalignment (mm)	Mass*2 (g)	Sleeve Hardness (JIS)
MJC-14	BL	EBL	7	0.7	1.4	0.1	45000	2.0×10^{-7}	8	0.15	1	$^{+0.6}_{0}$	6.6	
MJC-20	BL	EBL	11	1.8	3.6	0.2	31000	1.1×10^{-6}	16	0.2	1	$^{+0.8}_{0}$	17	
MJC-25	BL	EBL	12.7	3	6	0.4	25000	3.3×10^{-6}	32	0.2	1	$^{+0.9}_{0}$	34	
MJC-30	BL	EBL	16	4	8	0.5	21000	6.2×10^{-6}	46	0.2	1	$^{+1.0}_{0}$	44	
MJC-40	BL	EBL	25	4.9	9.8	1.2	15000	3.7×10^{-5}	380	0.15	1	$^{+1.2}_{0}$	130	A80
MJC-55	BL	EBL	32	17	34		11000	1.6×10^{-4}	1400	0.2	1	$^{+1.4}_{0}$	320	
MJC-65	BL	EBL	38.1	46	92		9000	3.6×10^{-4}	2800	0.2	1	$^{+1.5}_{0}$	520	
MJC-80	BL	EBL	45	95	190		7000	1.1×10^{-3}	3200	0.2	1	$^{+1.8}_{0}$	1000	
MJC-95	BL	EBL	55	130	260		6000	2.3×10^{-3}	3600	0.2	1	$^{+2.0}_{0}$	1500	
MJC-14	WH	EWH	7	1.2	2.4	0.1	45000	2.0×10^{-7}	14	0.1	1	$^{+0.6}_{0}$	6.6	
MJC-20	WH	EWH	11	3	6	0.2	31000	1.1×10^{-6}	29	0.15	1	$^{+0.8}_{0}$	17	
MJC-25	WH	EWH	12.7	5	10	0.4	25000	3.3×10^{-6}	60	0.15	1	$^{+0.9}_{0}$	34	
MJC-30	WH	EWH	16	7.5	15	0.5	21000	6.2×10^{-6}	73	0.15	1	$^{+1.0}_{0}$	44	
MJC-40	WH	EWH	25	10	20	1.2	15000	3.7×10^{-5}	570	0.1	1	$^{+1.2}_{0}$	130	A92
MJC-55	WH	EWH	32	35	70		11000	1.6×10^{-4}	1600	0.15	1	$^{+1.4}_{0}$	320	
MJC-65	WH	EWH	38.1	95	190		9000	3.6×10^{-4}	3000	0.15	1	$^{+1.5}_{0}$	520	
MJC-80	WH	EWH	45	190	380		7000	1.1×10^{-3}	5300	0.15	1	$^{+1.8}_{0}$	1000	
MJC-95	WH	EWH	55	265	530		6000	2.3×10^{-3}	6200	0.15	1	$^{+2.0}_{0}$	1500	
MJC-14	RD	ERD	7	2	4	0.1	45000	2.0×10^{-7}	22	0.1	1	$^{+0.6}_{0}$	6.6	
MJC-20	RD	ERD	11	5	10	0.2	31000	1.1×10^{-6}	55	0.1	1	$^{+0.8}_{0}$	17	
MJC-25	RD	ERD	12.7	7.2	14.4	0.4	25000	3.3×10^{-6}	120	0.1	1	$^{+0.9}_{0}$	34	
MJC-30	RD	ERD	16	12.5	25	0.5	21000	6.2×10^{-6}	130	0.1	1	$^{+1.0}_{0}$	44	
MJC-40	RD	ERD	25	17	34	1.2	15000	3.7×10^{-5}	1200	0.1	1	$^{+1.2}_{0}$	130	A98
MJC-55	RD	ERD	32	60	120		11000	1.6×10^{-4}	2600	0.1	1	$^{+1.4}_{0}$	320	
MJC-65	RD	ERD	38.1	160	320		9000	3.6×10^{-4}	4900	0.1	1	$^{+1.5}_{0}$	520	
MJC-80	RD	ERD	45	325	650		7000	1.1×10^{-3}	6500	0.1	1	$^{+1.8}_{0}$	1000	
MJC-95	RD	ERD	55	450	900		6000	2.3×10^{-3}	8900	0.1	1	$^{+2.0}_{0}$	1500	
MJC-14	GR	EGR	7	2.4	4.8	0.1	45000	2.0×10^{-7}	66	0.08	1	$^{+0.6}_{0}$	6.6	
MJC-20	GR	EGR	11	6	12	0.2	31000	1.1×10^{-6}	87	0.08	1	$^{+0.8}_{0}$	17	
MJC-25	GR	EGR	12.7	9.6	19.2	0.4	25000	3.3×10^{-6}	160	0.08	1	$^{+0.9}_{0}$	34	
MJC-30	GR	EGR	16	16	32	0.5	21000	6.2×10^{-6}	200	0.08	1	$^{+1.0}_{0}$	44	
MJC-40	GR	EGR	25	21	42	1.2	15000	3.7×10^{-5}	3000	0.08	1	$^{+1.2}_{0}$	130	D64
MJC-55	GR	EGR	32	75	150		11000	1.6×10^{-4}	9000	0.08	1	$^{+1.4}_{0}$	320	
MJC-65	GR	EGR	38.1	200	400		9000	3.6×10^{-4}	13000	0.08	1	$^{+1.5}_{0}$	520	
MJC-80	GR	EGR	45	405	810		7000	1.1×10^{-3}	14000	0.08	1	$^{+1.8}_{0}$	1000	
MJC-95	GR	EGR	55	560	1120		6000	2.3×10^{-3}	15000	0.08	1	$^{+2.0}_{0}$	1500	

*1 : Correction of rated torque and max. torque due to load fluctuation is not required. However, if ambient temperature exceeds 30℃, be sure to correct the rated torque and max. torque with temperature correction factor shown in the table. MJC 's allowable operating temperature is −20℃ to 60℃.

*2 : These are values with max. bore diameter.

*3 : For transmission with Zero Backlash, please use a tight fit sleeve.

- Part number specification

MJC-95 - EBL - 40-45

① ② ③

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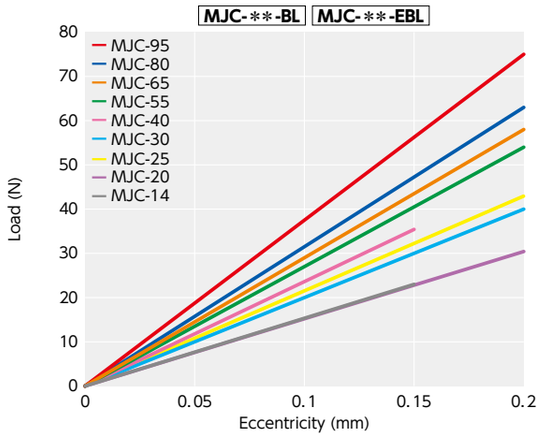
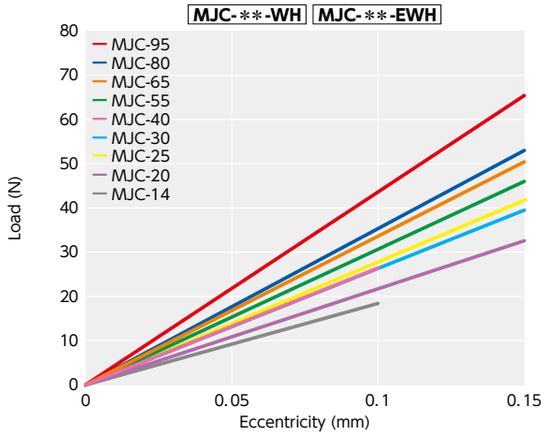
Technical Information

● Eccentric Reaction Force

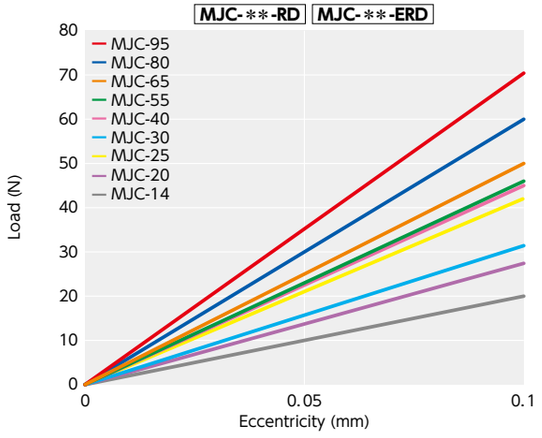
MJC-****-BL** **MJC-******-EBL**



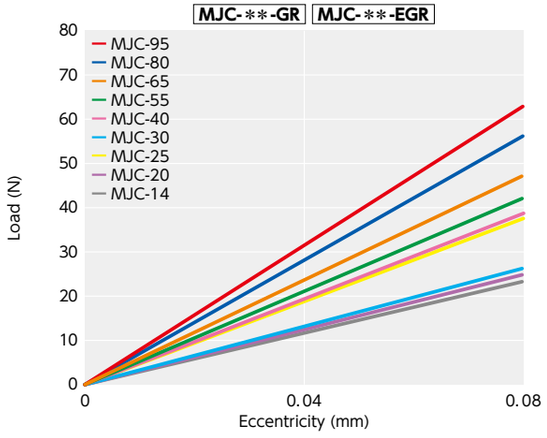
MJC-****-WH** **MJC-******-EWH**



MJC-****-RD** **MJC-******-ERD**



MJC-****-GR** **MJC-******-EGR**



● Slip Torque

For set screw type **MJC**, see Aluminum Alloy Coupling under "Slip Torque of Coupling - Set Screw Type" for details.

Concerning the sizes shown in the table, please note that the shaft's slip torque is smaller than the max. torque of **MJC-CS**.

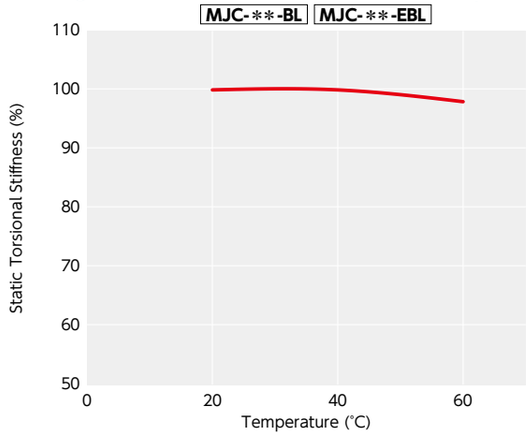
Unit : N・m

Part Number	Bore Diameter (mm)																														
	3	4	4.5	5	6	6.35	7	8	9.525	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55
MJC-14CS	0.8	1.4	1.7	2.1	1.3	1.4	1.5																								
MJC-20CS		3.4	4.1	4.9	6.4	6.9	7.9	9.4	5.1	6	8																				
MJC-25CS		1.7	2.4	3.2	4.8	5.3	6.4	7.9	10	11	8.1	9.4																			
MJC-30CS					4	4.9	6.6	9.3	13	14	17	20	15	21	27																
MJC-40CS								18	23	24	28	31	38																		
MJC-55CS									29	33	39	46	59	65	72	85	91	98	110	120	130		110	120							
MJC-65CS													100	110	130	160	170	190	220	250	260	310	330	360	180	200					
MJC-80CS																		150	170	180	190	220	240	260	290	320	340	360	500		
MJC-95CS																					340	410	460	500	500	500	500	500	500	500	500

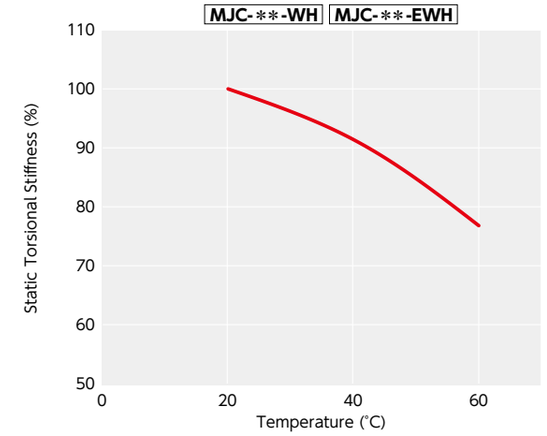
● These are test values based on the condition of shaft's dimensional allowance: h7, hardness: from 34 - 40 HRC, and screw tightening torque of the values described in **MJC-CS** dimensional table.

● Change in static torsional stiffness due to temperature

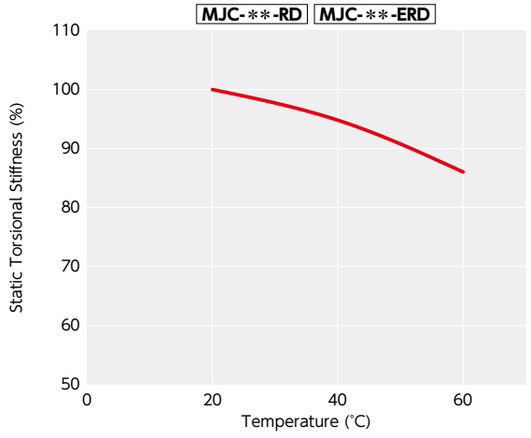
MJC-****-BL** **MJC-******-EBL**



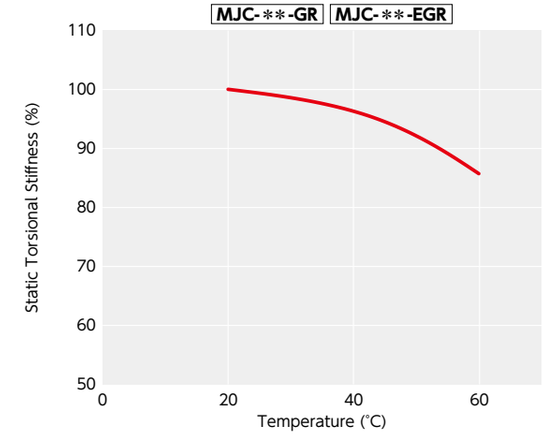
MJC-****-WH** **MJC-******-EWH**



MJC-****-RD** **MJC-******-ERD**



MJC-****-GR** **MJC-******-EGR**



This is a value under the condition where the static torsional stiffness at 20℃ is 100%.
The change of torsional stiffness within the range of allowable operating temperature is as shown in the graph.
Before using the unit, be aware of the deterioration of responsiveness.

● Slip Torque

Concerning the sizes shown in the table, please note that the shaft's slip torque is smaller than the max. torque of **MJC-CS**.

Unit : N・m

Part Number	Bore Diameter (inch)																						
	1 / 8	3 / 16	1 / 4	5 / 16	3 / 8	7 / 16	1 / 2	9 / 16	5 / 8	11 / 16	3 / 4	13 / 16	7 / 8	15 / 16	1	1-1 / 8	1-1 / 4	1-3 / 8	1-1 / 2	1-5 / 8	1-3 / 4
MJC-14CS	0.9	1.9	1.4																		
MJC-20CS		4.5	6.9	9.3	5.1																
MJC-25CS		2.9	5.3	7.8	10	8.2	10														
MJC-30CS			4.9	9.1	13	17	7.5	17	26												
MJC-40CS				17	23	28	34	39													
MJC-55CS					29	40	50	60	71	81	91	100	110	120	130	110	120				
MJC-65CS							85	100	130	150	170	200	220	240	270	310	360	180	200		
MJC-80CS											140	150	170	180	200	230	260	290	320	350	500
MJC-95CS															350	420	500	500	500	500	500

● These are test values based on the condition of shaft's dimensional allowance: h7, hardness: from 34 - 40 HRC, and screw tightening torque of the values described in **MJC-CS** dimensional table.

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