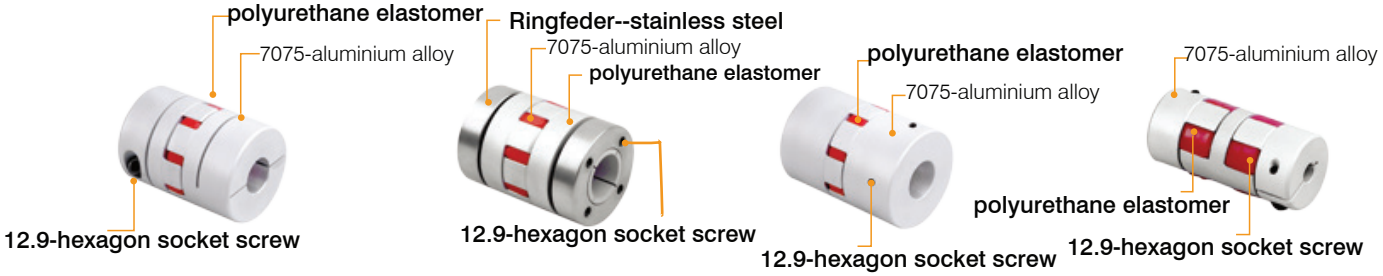
Jaw coupling :

Optional stainless steel HUB



Charasteristic :

- Light weight, moment of inertia small torque is high
- make the drive vibration get buffer, and absorption by motor's uneven operation generated by the impact
- Can effectively correct the axial and radial and angular installation deviation

Coupling selection :

一、coupling selection involves symbols and coefficient shows

Induction force: **Installation for the axial prestress by coupling specification, elastomer materials and manufacturing tolerance decision, Elastomer hardness low required axial prestress is small, large conversely.**

T_{KN}: **Coupling of the rated torque (N.m) ,In the set speed range continuous transferred moment.**

T_{kmax}: **Coupling of the maximum torque (N.m) In the work transfer more than 105 times dynamic load or 5 x 104 times alternating load of allowable torque.**

T_R: **Friction torque (N.m), Shaft and shaft sleeve clamping way connection transfer torque**

T_{AN}: **The active rated torque(N.m)**

T_{AS}: **Maximum driving moment(N.m)Ac motor produce peak moment, for example, Motor start or stop the time from the moment**

T_s: **Coupling peak moment(N.m)According to the maximum driving moment TAS rotational inertia mA or ml and impact factor SAL or SL calculation.**

S_t: **Temperature coefficient, Elastomer under stress especially in high temperature condition of the deformation work**

S_d: **Torsional rigidity coefficient,Need to consider different applications of torsional rigidity coupling the different requirements**

S_A: **Impact coefficient, in the drive end or driven end by shock when consider coefficient.**

$m_{A(L)}$: **Drive end (driven end) by impact or vibration to consider when quality distribution coefficient.**

Choose coupling is should first consider coupling rated torque than with equipment supporting the use of the motor rated torque.

1. **No alternating torque selection**

   Coupling selection should be considered when rated torque and maximum torque

2. **Rated torque calculation formula**

$$TN\ (N.m) = \frac{KW \times 9550}{rpm}$$

Condition Factor

Rature coefficient St				
	±30°C	40°C	60°C	80°C
St	1	1.2	1.4	1.4

Torsional rigidity Sd		
Machine tool spindle drive	Positioning drive	Encoder
2-5*	3-8*	10→

Impact load coefficient SA		
Machine tool spindle drive	Positioning drive	SA
Slight impact	⩽60	1.0
General impact	⩾60 ⩽300	1.4
Serious impact	⩽300	1.8

Calculation Formula

The selected coupling shall meet the following conditions:

$$T_{KN} \geq T_N . St . Sd \quad OR \quad T_{KN} \geq Ts . St . Sd$$

maximum moment : drive end by impact

$$Ts = TAs \times mA \times SA$$

Elastomer

elastomer：64/sh D
temperature range:-20～+120°C

elastomer：98/sh A
temperature range:-30～+120°C

elastomer：92/sh A
temperature range:-40～+90°C

Elastomer						
Rigidity	Colour	Material quality	Operating temperature°C		Optional specification	Application fields
			Moment	Continuation		
64/sh D	GR	Polyurethane	—30～+120	—20～+110	25-80	High Rigidity High pulling torque
98/sh A	RD	Polyurethane	—40～+120	—30～+90	14-135	Positioning drive Machine tool spindle drive
92/sh A	YL	Polyurethane	—50～+120	—40～+90	25-80	Underload Damping

Deviation compensation

Deviation compensation							
Specification	Elastomer rigity	Single deviation			Double deviation		
		Axial (mm)	lateral (mm)	Angular (°)	Axial (mm)	lateral (mm)	Angular (°)
14	92A	+0，6 -0，3	0.10	1.0°	+0，6 -0，6	0.21	1.0°
	98A		0.06	0.9°		0.19	0.9°
	64D		0.04	0.8°		0.17	0.8°
16	92A	+0，6 -0，3	0.11	1.0°	+0，6 -0，6	0.22	1.0°
	98A		0.07	0.9°		0.19	0.9°
	64D		0.04	0.8°		0.17	0.8°
20	92A	+0，8 -0，4	0.13	1.0°	+0，8 -0，8	0.26	1.0°
	98A		0.08	0.9°		0.24	0.9°
	64D		0.05	0.8°		0.21	0.8°
25	92A	+0，8 -0，4	0.14	1.0°	+0，9 -0，9	0.32	1.0°
	98A		0.08	0.9°		0.29	0.9°
	64D		0.05	0.8°		0.25	0.8°
30	92A	+1，0 -0，5	0.15	1.0°	+1，0 -1，0	0.37	1.0°
	98A		0.09	0.9°		0.33	0.9°
	64D		0.06	0.8°		0.29	0.8°
40	92A	+1，2 -0，5	0.10	1.0°	+1，2 -1，0	0.45	1.0°
	98A		0.06	0.9°		0.41	0.9°
	64D		0.04	0.8°		0.36	0.8°
55	92A	+1，4 -0，5	0.14	1.0°	+1，4 -1，0	0.59	1.0°
	98A		0.10	0.9°		0.53	0.9°
	64D		0.07	0.8°		0.47	0.8°
65	92A	+1，5 -0，7	0.15	1.0°	+1，5 -1，4	0.66	1.0°
	98A		0.11	0.9°		0.60	0.9°
	64D		0.08	0.8°		0.53	0.8°
80	92A	+1，8 -0，7	0.17	1.0°	+1，8 -1，4	0.77	1.0°
	98A		0.12	0.9°		0.69	0.9°
	64D		0.09	0.8°		0.61	0.8°
95	98A	+2,0 -1,0	0.14	0.9°	——		
	64D		0.10	0.8°			
105	98A	+2,1 -1,0	0.16	0.9°	——		
	64D		0.11	0.8°			
120	98A	+2,2 -1,0	0.17	0.9°	——		
	64D		0.12	0.8°			
135	98A	+2,6 -1,0	0.18	0.9°			
	64D		0.13	0.8°			

Ordering instruction

Optional stainless steel HUB

Position screw fixed

JM

Binodal

JDM Outside diameter 20-80

Clamping screw

WJM -C

Ringfeder

WJM -T

For eample :

WJM30 - RD - 8 - 8 Positioning screw fixed

WJM30	RD	8	8
Model	Elastomer	Aperture	Aperture

For eample :

WJM40C - RD - 16 - 19 Clamping screw

WJM40C	RD	16	19
Model	Elastomer	Aperture	Aperture

Jaw Coupling

Optional stainless steel HUB

May according to the customer request processing key and special aperture:

■ 1、Splined hole

We provide is rectangle spline hole processing, Continue to use GB/T1144-2001, Involute spline hole processing, Continue to use din DIN5480 5482 standard, Involute spline characteristic is manufacturability good manufacturing precision, Spline tooth roots high strength, Spline tooth roots high strength, Easy to constant heart, When transfer torque of larger by involute spline.. Rectangle spline characteristic is centering precision, Centering stability is good.

Spline hole code:H
for eample：

WJM40-GR-H16-H19

■ 2、Taper hole

We provide taper hole processing, Points 1:5 taper hole and 1:8 taper hole
Taper axis relative to the ordinary shaft convenient installation removeÿ
Key connection safe and reliable

Taper hole code:Z
for eample：

WJM55-RD-Z18-Z20

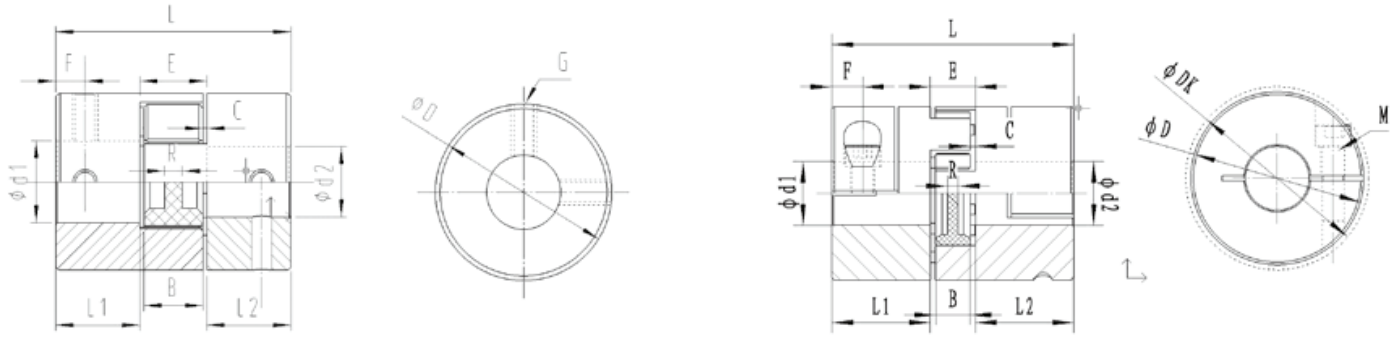
■ 3、Keyway

aperture 5-95 can process keyways

Standard aperture (mm)	Keyways (mm)				Keys (mm)
	b		t		Wide×Tall
	Standard keyway	JS9-Tolerances	Axial groove depth	Hub groove depth	
6～8	2	±0.012	1.2	1.0	2×2
9～10	3		1.8	1.4	3×3
11～12	4		2.5	1.8	4×4
14～16	5		3.0	2.3	5×5
18～22	6		3.5	2.8	6×6
24～30	8	±0.015	4.0	3.3	8×7
32～38	10		5.0		10×8
40～42	12	±0.018			12×8
45～50	14		5.5	3.8	14×9
55～56	16		6.0	4.3	16×10
60～65	18		7.0	4.4	18×11
70～75	20	±0.021	7.5	4.9	20×12
80～85	22		9.0	5.4	22×14
90～95	25		9.0	5.4	25×14

Specification :

Optional stainless steel HUB



Dimesion : (mm) must be sure the distance of "C"

Model	Aperture				D	L	L1	L2	F	E	B	C	R	DK	G	M	Tightening torque (N.M)
	d1		d2														
	MIN	MAX	MIN	MAX													
WJM14	3	7	3	7	14	22.0	7.0	7.0	3.5	8.0	6.0	1.0	Through	14	M3	-	0.7
WJM14C	3	6	3	6	14	22.0	7.0	7.0	3.5	8.0	6.0	1.0	Through	17.2	-	M2.5	0.5
WJM16	3	7	3	7	16	22.0	7.0	7.0	3.5	8.0	6.0	1.0	Through	16	M3	-	0.7
WJM16C	3	7	3	7	16	22.0	7.0	7.0	3.5	8.0	6.0	1.0	Through	19.2	-	M2.5	0.5
WJM20	4	10	4	10	20	30.0	10.0	10.0	5.0	10.0	8.0	1.0	1.2	20	M4	-	1.7
WJM20C	4	10	4	10	20	30.0	10.0	10.0	5.0	10.0	8.0	1.0	1.2	24	-	M3	1.5
WJM25	4	12	4	12	25	34.0	11.0	11.0	5.0	12.0	10.0	1.0	2.0	25	M4	-	1.7
WJM25C	4	12	4	12	25	34.0	11.0	11.0	5.0	12.0	10.0	1.0	2.0	26.5	-	M3	1.5
WJM30	5	16	5	16	30	35.0	11.0	11.0	5.0	13.0	10.0	1.5	2.0	30	M4	-	1.7
WJM30C	5	16	5	16	30	35.0	11.0	11.0	5.0	13.0	10.0	1.5	2.0	31.4	-	M3	1.5
WJM40	6	24	6	24	40	66.0	25.0	25.0	10.0	16.0	12.0	2.0	4.0	40	M5	-	4.0
WJM40C	6	24	6	24	40	66.0	25.0	25.0	12.0	16.0	12.0	2.0	4.0	47	-	M5	8.0
WJM55	8	28	8	28	55	78.0	30.0	30.0	10.0	18.0	14.0	2.0	4.0	55	M5	-	4.0
WJM55C	8	28	8	28	55	78.0	30.0	30.0	10.5	18.0	14.0	2.0	4.0	60	-	M6	8.0
WJM65	10	38	10	38	65	90.0	35.0	35.0	15.0	20.0	15.0	2.5	4.0	65	M8	-	15.0
WJM65C	10	38	10	38	65	90.0	35.0	35.0	11.5	20.0	15.0	2.5	4.0	72	-	M8	16.0
WJM80	12	45	12	45	80	114.0	45.0	45.0	15.0	24.0	18.0	3.0	4.0	80	M8	-	15.0
WJM80C	12	45	12	45	80	114.0	45.0	45.0	15.5	24.0	18.0	3.0	4.0	80	-	M8	16.0
WJM95	14	55	14	55	95	126.0	50.0	50.0	20.0	26.0	20.0	3.0	Through	95	M8	-	15.0
WJM95C	14	55	14	55	95	126.0	50.0	50.0	18.0	26.0	20.0	3.0	Through	95	-	M10	40
WJM105	15	62	15	62	105	140.0	56.0	56.0	20.0	28.0	21.0	3.5	Through	105	M8	-	15.0
WJM105C	15	62	15	62	105	140.0	56.0	56.0	21.0	28.0	21.0	3.5	Through	105	-	M12	115
WJM120	20	74	20	74	120	160.0	65.0	65.0	20.0	30.0	22.0	4.0	Through	120	M10	-	32
WJM120C	20	74	20	74	120	160.0	65.0	65.0	26.0	30.0	22.0	4.0	Through	120	-	M12	115
WJM135	22	80	22	80	135	185.0	75.0	75.0	20.0	35.0	26.0	4.5	Through	135	M10	-	32
WJM135C	22	80	22	80	135	185.0	75.0	75.0	33.0	35.0	26.0	4.5	Through	135	-	M12	115

Specification :

Optional stainless steel HUB

Standard	elastomer rigidity (/sh)	Allowable speed (min^{-1})		Torque (N.m)		Torsional stiffness (N.m/rad)	Dynamic stiffness (N.m/rad)	Moment of inertia (kg.m2)	net weight (g)
		Fixed mode		Rated torque (TKN)	MAX torque				
		Set screw (WJM)	Cramp screw (WJMC)						
WJM14	92A	28000	25000	1.2	2.4	14.3	43.0	0.085×10	6.7
	98A			2.0	4.0	22.9	69.0		
	64D			2.4	4.8	34.3	103.0		
WJM16	92A	27000	24700	1.4	2.8	14.8	45.0	0.09×10^{-6}	9.0
	98A			2.2	4.4	23.4	72.0		
	64D			3.0	6.0	36.0	108.0		
WJM20	92A	26000	25500	3.0	6.0	31.5	95.0	0.49×10^{-6}	19.8
	98A			5.0	10.0	51.6	155.0		
	64D			6.0	12.0	74.6	224.0		
WJM25	92A	19000	17000	5.0	10.0	160.4	482.0	1.3×10^{-6}	37.0
	98A			9.0	18.0	240.7	718.0		
	64D			12.0	24.0	327.9	982.0		
WJM30	92A	15200	12600	7.5	15.0	114.6	344.0	2.8×10^{-6}	50.0
	98A			12.5	25.0	171.9	513.0		
	64D			16.0	32.0	234.2	702.0		
WJM40	92A	10000	9000	10.0	20.0	1090	1815	20.4×10^{-6}	156.0
	98A			17.0	34.0	1512	2540		
	64D			21.0	42.0	2560	3810		
WJM55	92A	8200	6500	35.0	70.0	2280	4010	50.8×10^{-6}	362.0
	98A			60.0	120.0	3640	5980		
	64D			75.0	150.0	5030	10895		
WJM65	92A	6300	5260	95.0	190.0	4080	6745	200.3×10	582.0
	98A			160.0	320.0	6410	9920		
	64D			200.0	400.0	10260	20177		
WJM80	92A	5800	4600	190.0	380.0	6525	11050	400.6×10	966.0
	98A			325.0	650.0	11800	17160		
	64D			405.0	810.0	26300	42515		
WJM95	–	4000	3800	–	–	–	–	2246×10^{-6}	1820.0
	98A			450.0	900.0	21594	37692		
	–			–	–	–	–		
WJM105	–	3600	3300	–	–	–	–	3786×10^{-6}	2430.0
	98A			525.0	1050.0	25759	45620		
	–			–	–	–	–		
WJM120	–	3200	2800	–	–	–	–	7496×10^{-6}	4530
	98A			685.0	1370.0	42117	61550		
	–			–	–	–	–		
WJM135	–	3000	2500	–	–	–	–	12000×10	6980
	98A			940.0	1880.0	48520	71660		
	–			–	–	–	–		

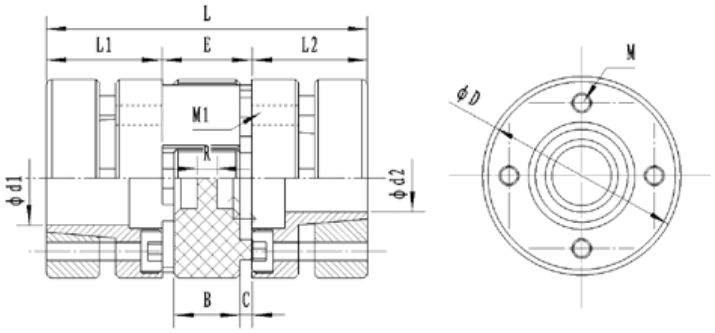
Example:

WJM	40	C	RD	16	19
Model	Outside diameter	Fixed mode	Elastomer	Aperture	Aperture

Jaw coupling

Optional stainless steel HUB

Ringfeder



must be sure the distance of "C"

Dimension : (mm)

Model	Aperture				D	L	L1	L2	E	B	C	R	DK	M1	M	Tightening torque (N.M)
	d1		d2													
	MIN	MAX	MIN	MAX												
WJM30T	6	14	6	14	30	50.0	18.5	18.5	13.0	10.0	1.5	2.0	30	M3	M3×4	1.5
WJM40T	10	20	10	20	40	66.0	25.0	25.0	16.0	12.0	2.0	4.0	40	M4	M4×6	2.5
WJM55T	11	28	11	28	55	78.0	30.0	30.0	18.0	14.0	2.0	4.0	55	M5	M5×4	4.0
WJM65T	15	38	15	38	65	90.0	35.0	35.0	20.0	15.0	2.5	4.0	65	M5	M5×8	4.0
WJM80T	20	45	20	45	80	114.0	45.0	45.0	24.0	18.0	3.0	4.0	80	M6	M6×8	8.0

Dismantle screw "M1" between cramp screw "M"

Specification :

Standard	elastomer rigidity (/sh)	Allowable speed (min^{-1})	Torque (N.m)		Torsionalstiffness (N.m/rad)	Dynamic stiffness (N.m/rad)	Moment of inertia (kg.m2)	net weight (g)
			Rated torque (TKN)	MAX torque (TK max)				
WJM30T	92A	25000	7.5	15.0	114.6	344	2.8×10^{-6}	110.0
	98A		12.5	25.0	171.9	513		
	64D		16.0	32.0	234.2	702		
WJM40T	92A	16500	10.0	20.0	1090	1815	20.4×10^{-6}	290.0
	98A		17.0	34.0	1512	2540		
	64D		21.0	42.0	2560	3810		
WJM55T	92A	12200	35.0	70.0	2280	4010	50.8×10^{-6}	700.0
	98A		60.0	120.0	3640	5980		
	64D		75.0	150.0	5030	10895		
WJM65T	92A	10500	95.0	190.0	4080	6745	200.3×10^{-6}	1130.0
	98A		160.0	320.0	6410	9920		
	64D		200.0	400.0	10260	20177		
WJM80T	92A	8650	190.0	380.0	6525	11050	400.6×10-6	2360.0
	98A		325.0	650.0	11800	17160		
	64D		405.0	810.0	26300	42515		

Example:

WJM	55	T	RD	22	24
Model	Outside diameter	Fixed mode	Elastomer	Aperture	Aperture