

# SHD Series

## High Torque Flexible Disk Coupling



## New Ideal and Best Suited Design Ideal-Realization of Servo System

**New developed** flexible disk coupling realized the servo system perfectly by securing the flexibility and increase the number of mounting hole and maximizing the mobility space of sus disk plate.

We consider each component most carefully and make the disk together with bush by one package in order to long life time of disk.

The outside diameter size of bush is bigger than outside diameter size of hole and disk shape is similar with shape of R. so this product has durability about big torsion because of these features.

New flexible disk coupling is constructed by package of some sus disk and bush. This product is protected from load and the form of disk is not changed by making into one package.

We assemble new flexible disk coupling perfectly.

We measure and adjust concentricity every process so new flexible disk coupling of SI is assembled completely by adjusting concentricity perfectly.

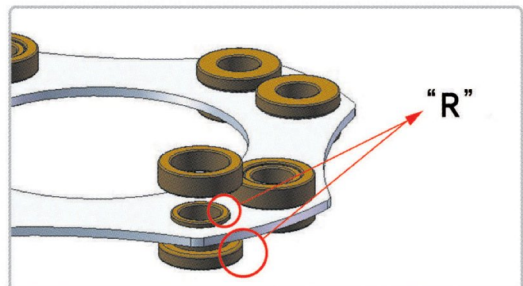
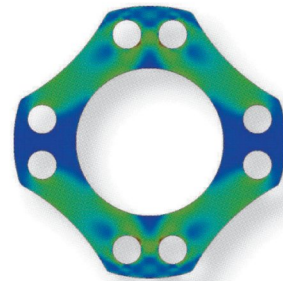
There is a hole in outside diameter part in order to assemble easily and prevent the coupling moving when you assembly the taper clamp type

### Material

AL 7075-T6 and Anodizing

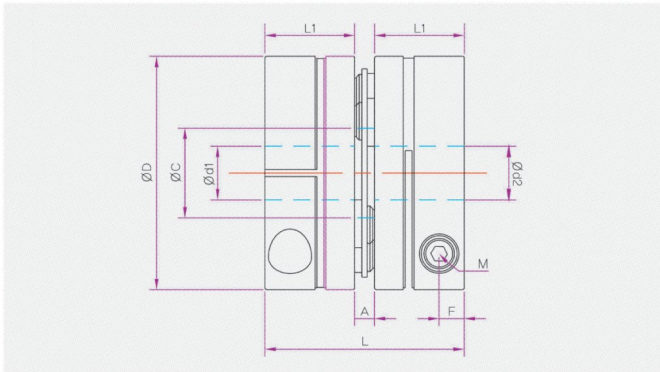
### Features

- \* Application of new developed and high quality disk file
- \* Compact Design
- \* High Speed
- \* High Torque
- \* High Torsion Rigidity
- \* Zero Backlash
- \* Low Inertia Moment
- \* Retain of 1/10 Taper Bushing

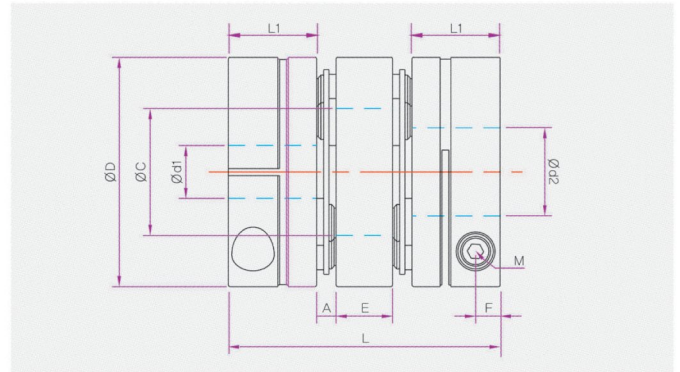


# SHD Series High Torque Flexible Disk Coupling

## SHDS - ■■C (CLAMP TYPE)



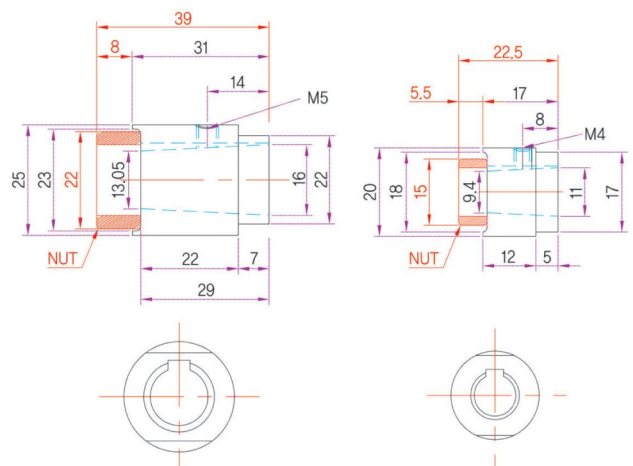
## SHDW - ■■C (CLAMP TYPE)



## Standards & Performance

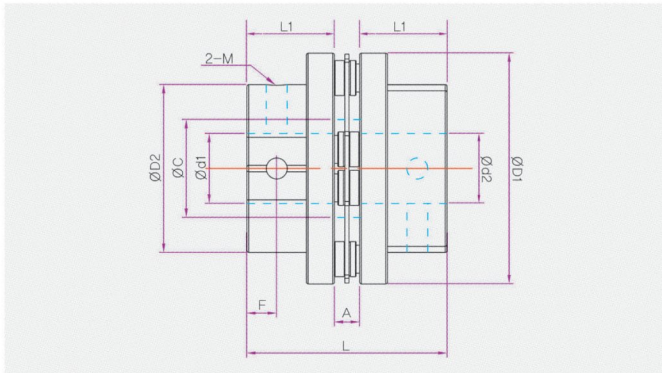
Product Number	SHDS - 56C	SHDW - 56C	SHDS - 66C	SHDW - 66C	SHDS - 88C	SHDW - 88C
Ø D	56	56	66	66	88	88
Ø d1, d2	10 ~ 25	10 ~ 25	15 ~ 32	15 ~ 32	20 ~ 45	20 ~ 45
L1	19.5	19.5	24.5	24.5	30	30
A	5.2	5.2	7.5	7.5	9.6	9.6
L	44.2	60.5	56.5	80	69.5	99.2
F	6.5	6.5	7	7	9	9
Ø C	28	28	33	33	45	45
E		11		16		20
M	M6	M6	M6	M6	M8	M8
Wrench Torque(N • m)	15	15	15	15	27	27
Rated Torque(N • m)	30	30	60	60	120	120
Max Torque(N • m)	60	60	120	120	200	200
Max • RPM(r/min)	7,700	7,700	7,000	7,000	6,000	6,000
Moment of inertia(Kg • m <sup>2</sup> )	4.0 × 10 <sup>-5</sup>	5.8 × 10 <sup>-5</sup>	1.0 × 10 <sup>-4</sup>	1.4 × 10 <sup>-4</sup>	4.3 × 10 <sup>-4</sup>	5.7 × 10 <sup>-4</sup>
Torsional Stiffness(N • m/rad)	2.0 × 10 <sup>4</sup>	1.0 × 10 <sup>4</sup>	8.0 × 10 <sup>4</sup>	4.0 × 10 <sup>4</sup>	2.6 × 10 <sup>5</sup>	1.3 × 10 <sup>5</sup>
mass(g)	210	300	380	520	900	1200
Allowance Angle(°)	0.7	1	0.7	1	0.7	1
Allowance Parallel(±mm)	0	0.3	0	0.3	0	0.3
Allowance End-Play±(mm)	0.2	0.3	0.2	0.3	0.2	0.3

## 1/10 Taper Bushing

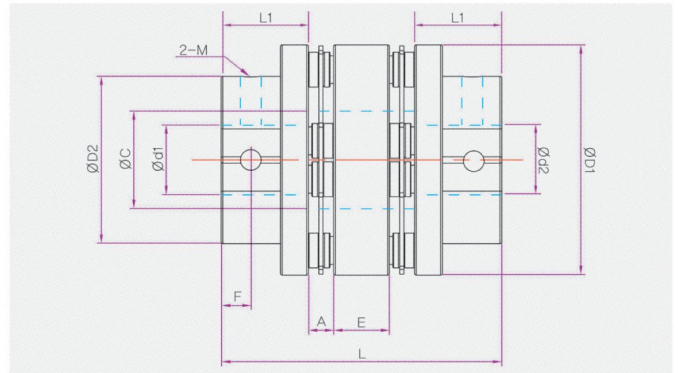


# SHD Series High Torque Flexible Disk Coupling

SHDS - ■■ (SET SCREW)



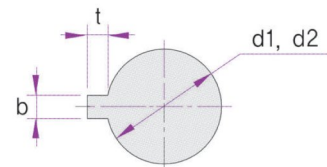
SHDW - ■■ (SET SCREW)



## Standards & Performance

Product Number	SHDS - 56	SHDW - 56	SHDS - 66	SHDW - 66	SHDS - 88	SHDW - 88
Ø D1	56	56	66	66	88	88
Ø D2	39	39	46	46	63	63
Ø d1, d2	10 ~ 25	10 ~ 25	15 ~ 32	15 ~ 32	20 ~ 45	20 ~ 45
F	6.5	6.5	7.5	7.5	9.5	9.5
L1	19.5	19.5	24.5	24.5	30	30
A	5.2	5.2	7.5	7.5	9.6	9.6
L	44.2	60.5	56.5	80	69.5	99.2
Ø C	28	28	33	33	45	45
E		11		16		20
M	M6	M6	M8	M8	M8	M8
Wrench Torque(N • m)	6	6	15.7	15.7	28	28
Rated Torque(N • m)	30	30	60	60	120	120
Max Torque(N • m)	60	60	120	120	200	200
Max • RPM(r/min)	8,200	8,200	7,500	7,500	6,500	6,500
Moment of inertia(Kg • m <sup>2</sup> )	2.9 × 10 <sup>-5</sup>	4.6 × 10 <sup>-5</sup>	8.0 × 10 <sup>-5</sup>	1.2 × 10 <sup>-4</sup>	2.9 × 10 <sup>-4</sup>	4.3 × 10 <sup>-4</sup>
Torsional Stiffness(N • m/rad)	2.0 × 10 <sup>4</sup>	1.0 × 10 <sup>4</sup>	8.0 × 10 <sup>4</sup>	4.0 × 10 <sup>4</sup>	2.6 × 10 <sup>5</sup>	1.3 × 10 <sup>5</sup>
mess(g)	150	240	300	440	600	900
Allowance Angle(°)	0.7	1	0.7	1	0.7	1
Allowance Parallel(±mm)	0	0.3	0	0.3	0	0.3
Allowance End-Play(±mm)	0.2	0.3	0.2	0.3	0.2	0.3

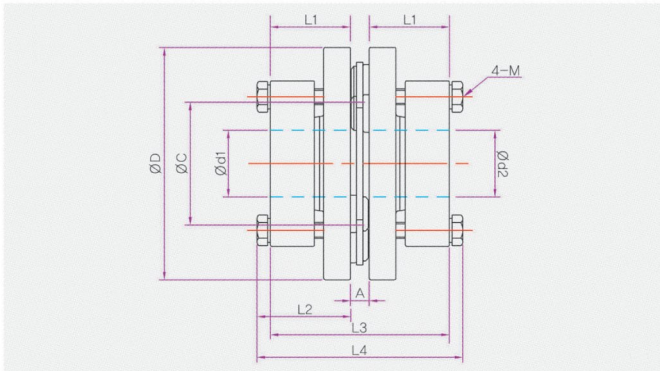
## Standard Key Groove Size



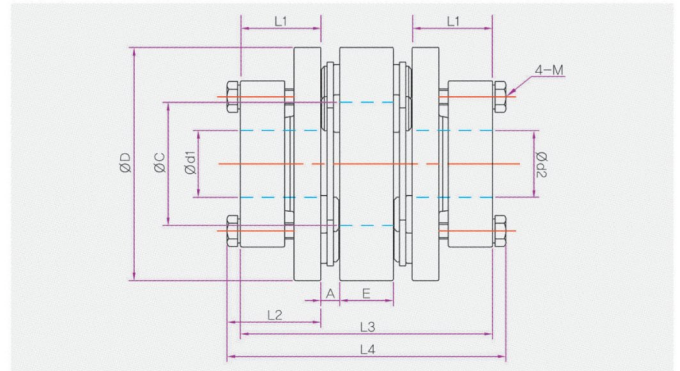
Diameter (d1, d2)	b		t		Key Size b x h
	Standard Size	Permissible Level	Standard Size	Permissible Level	
Ø 10	3	±0.0125	1.4	+0.1	3 x 3
Ø 12	4	±0.015	1.8		4 x 4
Ø 14,15,16	5		2.3	0	5 x 5
Ø 18,20,22	6		2.8		6 x 6
Ø 24,25,30	8	±0.018	3.3	+0.2	8 x 8
Ø 35	10		3.3	0	10 x 10

# SHD Series High Torque Flexible Disk Coupling

## SHDS - ■■T (TAPER TYPE)



## SHDW - ■■T (TAPER TYPE)



## Standards & Performance

Product Number	SHDS - 56T	SHDW - 56T	SHDS - 66T	SHDW - 66T	SHDS - 88T	SHDW - 88T
Ø D	56	56	66	66	88	88
Ø d1, d2	10 ~ 25	10 ~ 25	15 ~ 32	15 ~ 32	20 ~ 45	20 ~ 45
L1	20	20	25	25	30	30
L2	25	25	30.5	30.5	35.5	35.5
A	5.2	5.2	7.5	7.5	9.6	9.6
L3	45.2	61.4	57.5	81	69.5	99.2
L4	55	71	68.5	92	80	110
Ø C	28	28	33	33	45	45
E		11		16		20
M	M5	M5	M6	M6	M6	M6
Wrench Torque(N • m)	6.5	6.5	16	16	16	16
Rated Torque(N • m)	30	30	60	60	120	120
Max Torque(N • m)	60	60	120	120	200	200
Max • RPM(r/min)	7,700	7,700	7,000	7,000	6,000	6,000
Moment of inertia(Kg • m <sup>2</sup> )	$3.6 \times 10^{-5}$	$5.4 \times 10^{-5}$	$8.6 \times 10^{-5}$	$1.2 \times 10^{-4}$	$3.2 \times 10^{-4}$	$4.6 \times 10^{-4}$
Torsional Stiffness(N • m/rad)	$1.4 \times 10^4$	$0.7 \times 10^4$	$6.5 \times 10^4$	$3.3 \times 10^4$	$2.0 \times 10^5$	$1.0 \times 10^5$
mess(g)	190	280	320	460	670	970
Allowance Angle(°)	0.7	1	0.7	1	0.7	1
Allowance Parallel(±mm)	0	0.3	0	0.3	0	0.3
Allowance End-Play(±mm)	0.2	0.3	0.2	0.3	0.2	0.3

