

SOH Series

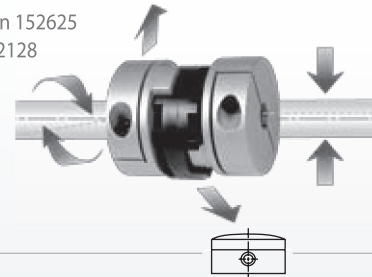
Zero Backlash Oldham Coupling

The major characteristic of OLDHAM COUPLING is that it provides exceptional flexibility and wide range of parallel and misalignment acceptability. Since there is no restoring force, there is little weight on bearing. Please, do not confuse with jaw coupling which are operated by different principle. Torque is transferred through disk that is capable of accepting misalignment error and mechanical intermittence. Replacement of disk is easy without disassembling hub from the shaft.

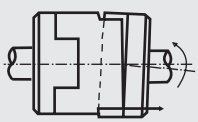
Features

- Flexible movement - little weight on bearing
- High torsion rigidity
- Free from electro-magnetism
- Superior performance toward parallel, angular and misalignment
- Electricity insulation effect
- Low inertia
- Easy assembly

※ Registration of Design 152625
 ※ Patent on a Device 12128



The past coupling



SUNGIL COUPLING



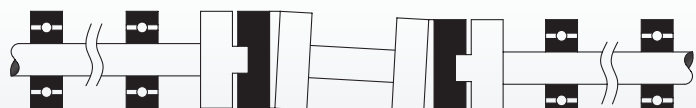
Micro rounding in the Hub accepts angular movement and lessens the load of shaft. Conventional OLDHAM coupling occurs bending moment in outer diameter for angular use. Therefore, it allows a little angular movement. SUNGIL OLDHAM coupling featuring micro rounding in the hub is designed for the angular disposition occurring in the center part. In consequence, angular allowance, lessen the shaft load transfer full torque.

Proper installation of OLDHAM COUPLING

- Cascade layout should be avoided and proper bearing support is necessary
- OLDHAM coupling is not adequate for connecting moving shafts or used in pair

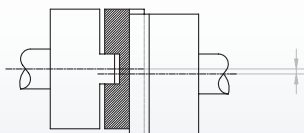


Right Use

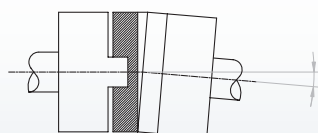


Wrong Use

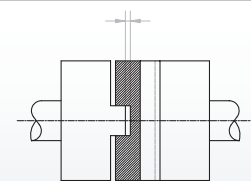
Misalignment



Parallel allowance : $\pm$ mm



Angle allowance : $\pm$ °



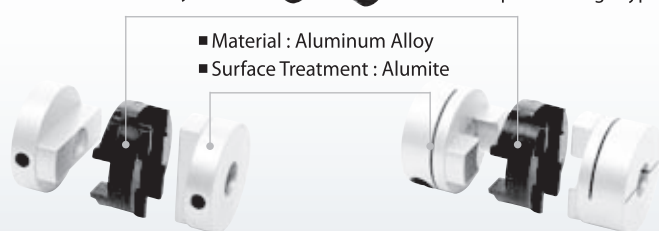
END-PLAY Angle allowance : $\pm$ mm

Application

- X-Y Position Table
- Good for small sized motor like AC motor, DC motor, Servo motor, Tacho generator and so forth
- Hydraulic distribution system and optical system
- Ventilation equipment, environmental equipment, encoder and small pump
- Paper, disk, tape transporting device

Structure & Material

- Material : Polyacetal
- There is space through type



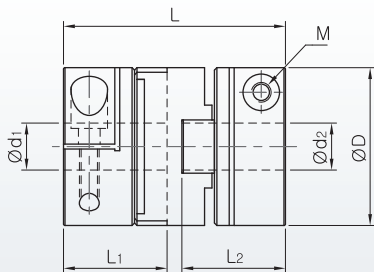
- Material : Aluminum Alloy
- Surface Treatment : Alumite

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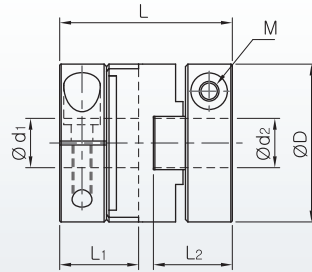
SOH - ■ ■ C

[CLAMP TYPE]



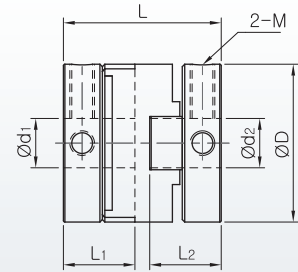
SOHM - ■ ■ C

[CLAMP TYPE]



SOH - ■ ■ ■

[SET SCREW TYPE]



Standards & Performance

Product Number	Dimension (±0.3)				Fastening Bolt M	Fastening Torque (N · m)	Max. RPM (min ⁻¹)	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia (kg · m ²)	Mass (g)	Errors of Misalignment		
	D	L	L ₁	L ₂									Angle (°)	Parallel (mm)	End-Play (mm)
SOH-16C	16	23.6	11	11	M2.6	1	8,000	2	1	65	3.7×10^{-7}	10	1.5	1	0.1
SOH-20C	20	25.5	11.8	11.8	M2.6	1	7,000	3	1.5	120	9.3×10^{-7}	16	1.5	1.5	0.1
SOH-25C	25.5	32	14.8	14.8	M3	1.7	6,000	5	2.5	200	3.3×10^{-6}	34	1.5	2	0.1
SOH-32C	32	45	21	21	M4	3.5	4,800	14	7	620	1.3×10^{-5}	80	1.5	2.5	0.2
SOH-43C	43	52	24	24	M5	8	4,000	30	15	1,200	4.3×10^{-5}	160	1.5	3.0	0.2
SOH-53C	53	58	27	27	M5	8	3,400	50	25	1,400	1.0×10^{-4}	252	1.5	3.2	0.2
SOH-57C	57	77	36.5	36.5	M6	13	3,200	72	36	2,600	1.8×10^{-4}	390	1.5	3.5	0.2
SOHM-16C	16	21	9.5	9.5	M2.6	1	8,000	2	1	65	3.2×10^{-7}	9	1.5	1	0.1
SOHM-20C	20	22.5	10	10	M2.6	1	7,000	3	1.5	120	8.2×10^{-7}	14	1.5	1.5	0.1
SOHM-25C	25.5	27	12	12	M3	1.7	6,000	5	2.5	200	2.6×10^{-6}	27	1.5	2	0.1
SOHM-32C	32	35	16	16	M4	3.5	4,800	14	7	620	8.3×10^{-6}	52	1.5	2.5	0.2
SOHM-43C	43	47	21.2	21.2	M5	8	4,000	30	15	1,200	2.0×10^{-5}	132	1.5	3.0	0.2
SOHM-53C	53	53	24.3	24.3	M5	8	3,400	50	25	1,400	9.6×10^{-5}	235	1.5	3.2	0.2
SOHM-57C	57	56	26.7	26.7	M6	13	3,200	72	36	2,600	1.3×10^{-4}	250	1.5	3.5	0.2
SOHM-70C	73	77	37	37	M8	30	3,000	130	65	4,800	4.5×10^{-4}	450	1.5	3.5	0.2
SOH-16	16	18	8	8	M3	0.7	8,000	2	1	65	2.4×10^{-7}	7	1.5	1	0.1
SOH-20	20	20	8.9	8.9	M4	1.7	7,000	3	1.5	120	8.1×10^{-7}	14	1.5	1.5	0.1
SOH-25	25.5	25.5	11.6	11.6	M4	1.7	6,000	5	2.5	200	1.8×10^{-6}	20	1.5	2	0.1
SOH-32	32	32	14.5	14.5	M5	4	4,800	14	7	620	6.7×10^{-6}	48	1.5	2.5	0.2
SOH-43	43	52	24	24	M5	4	4,000	30	15	1,200	3.9×10^{-5}	160	1.5	3.0	0.2
SOH-53	53	58	27	27	M6	7	3,400	50	25	1,400	1.0×10^{-4}	252	1.5	3.2	0.2
SOH-57	57	77	36.5	36.5	M8	15	3,200	72	36	2,600	1.8×10^{-4}	390	1.5	3.5	0.2
SOH-70	73	77	37	37	M8	15	3,000	130	65	4,800	4.5×10^{-4}	450	1.5	3.5	0.2

※ Fastening Bolt is 1ea about SOH-16 and SOH-20

How to order product



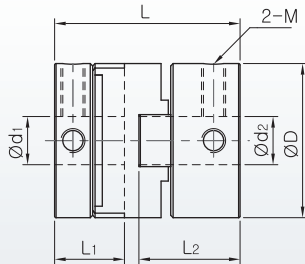
※ Please mark each inner diameter size.

※ Please mark through type in case of space through type when you order.

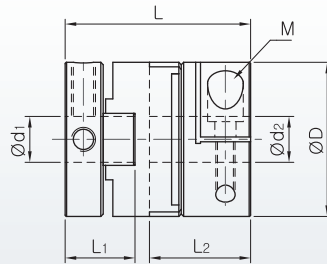
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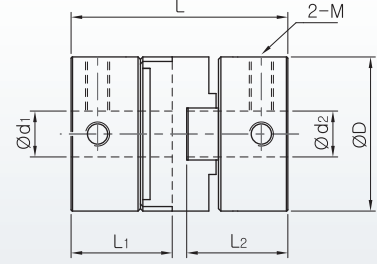
SOH - ■ ■ S [SET SCREW TYPE]



SOH - ■ ■ SC [COMPLEX TYPE]



SOH - ■ ■ SS [SET SCREW TYPE]



Standards & Performance

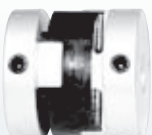
Product Number	Dimension ($\pm 0,3$)				Fastening Bolt M	Fastening Torque (N · m)	Max. RPM (min^{-1})	Max Torque (N · m)	Rated Torque (N · m)	Torsional Stiffness (N · m/rad)	Moment of Inertia ($\text{kg} \cdot \text{m}^2$)	Mass (g)	Errors of Misalignment		
	D	L	L ₁	L ₂									Angle (°)	Parallel (mm)	End-Play (mm)
SOH-16S	16	21	8	11	M3	0,7	8,000	2	1	65	$2,7 \times 10^{-7}$	10	1,5	1	0,1
SOH-20S	20	22,8	8,9	11,8	M4	1,7	7,000	3	1,5	120	$9,0 \times 10^{-7}$	15	1,5	1,5	0,1
SOH-25S	25,5	28,8	11,6	14,8	M4	1,7	6,000	5	2,5	200	$2,6 \times 10^{-6}$	30	1,5	2	0,1
SOH-32S	32	38,5	14,5	21	M5	4	4,800	14	7	620	$1,1 \times 10^{-5}$	65	1,5	2,5	0,2
SOH-16SC	16	21	8	11	M3/M2,6	0,7/1	8,000	2	1	65	$2,9 \times 10^{-7}$	7,5	1,5	1	0,1
SOH-20SC	20	22,8	8,9	11,8	M4/M2,6	1,7/1	7,000	3	1,5	120	$9,0 \times 10^{-7}$	15,5	1,5	1,5	0,1
SOH-25SC	25,5	28,8	11,6	14,8	M4/M3	1,7/1,7	6,000	5	2,5	200	$2,6 \times 10^{-6}$	27	1,5	2	0,1
SOH-32SC	32	38,5	14,5	21	M5/M4	4/3,5	4,800	14	7	620	$1,1 \times 10^{-5}$	70	1,5	2,5	0,2
SOH-16SS	16	23,6	11	11	M3	0,7	8,000	2	1	65	$2,3 \times 10^{-7}$	8	1,5	1	0,1
SOH-20SS	20	25,5	11,8	11,8	M4	1,7	7,000	3	1,5	120	$8,9 \times 10^{-7}$	14	1,5	1,5	0,1
SOH-25SS	25,5	32	14,8	14,8	M4	1,7	6,000	5	2,5	200	$1,8 \times 10^{-6}$	23	1,5	2	0,1
SOH-32SS	32	45	21	21	M5	4	4,800	14	7	620	$9,5 \times 10^{-6}$	41	1,5	2,5	0,2

Standard Inner diameter

Product Number	Standard Inner diameter (d ₁ , d ₂) Standard INNER Diameter (mm)																								
	3	4	5	6	6,35	8	9,525	10	11	12	14	15	16	18	19	20	22	24	25	25,4	28	30	32	35	40
SOH□-16□□	●	●	●	●																					
SOH□-20□□		●	●	●	●	●																			
SOH□-25□□			●	●	●	●	●	●																	
SOH□-32□□				●	●	●	●	●	●	●	●	●													
SOH□-43□□						●	●	●	●	●	●	●	●	●	●										
SOH□-53□□								●	●	●	●	●	●	●	●	●	●	●	●						
SOH□-57□□												●	●	●	●	●	●	●	●	●	●				
SOH□-70□□															●	●	●	●	●	●	●	●	●	●	●

- INNER diameter INCH type is also available
 - We recommend that tolerance of shaft is H7.
 - Non standard inner diameter product is also available
 - Please refer to following spacer through size.
 - KEY TYPE is also available
- (SOH-16 = ϕ 7,7, SOH-20 = ϕ 10,7, SOH-25 = ϕ 14,5, SOH-32 = ϕ 16,5, SOH-43 = ϕ 21,7, SOH-53 = ϕ 25,7, SOH-70 = ϕ 35,3)

SOH - ■ ■



SOH - ■ ■ SC



SOH - ■ ■ S



SOH - ■ ■ SS

