SOH SERIES

Oldham Coupling

SOH Series Classification

- SOH series transmits motion through the middle spacer and is particularly excellent for absorption of parallel misalignment.
- It has a simple structure for easier self-maintenance.
- It enables reaction force on the shaft to be reduced by moving the spacer even though there is parallel misalignment.
- Sung-il Machinery provides various spacer types which are allowed to be used in special circumstances.

Spacer Material	Model	Hub Material	Set-screw	Side-clamp
Polyacetal(POM) / General	SOH	High Strength Aluminum Alloy		
	SOHM (Spacer-saving)		-	
PEEK / For Vacuum application	SOHMP		-	
VESPEL(PI) / For High-temperature application)	SOHV	Stainless Steel	-	

Center-Through Spacer Option is available


Center-Solid (no mark)


Center-Through (TH)

- If the shaft has to be inserted deeper than L_1 value, we can provide appropriate center-through sleeves.
- Please indicate additional mark (TH) next to the part no. Please refer to "HOW TO ORDER" for more details.
- Center-Through (TH) is standard for the following models, SOH-6,8,10,12, SOHM-12C, SOH-70C, 90C, 120C and all sizes of SOHMP & SOHV series.
- The standard color of spacer for SOH-6, 8, 10, 12 is white, but the material is the identical Polyacetal(POM).

Model	Max. standard ID	Spacer-TH ID
SOH-16	Φ6	Φ7
SOH-20	Φ8	Φ10
SOH-25	Φ10	Φ14
SOH-32	Φ15	Φ16
SOH-43	Φ19	Φ21
SOH-53	Φ25	Φ24
SOH-57	Φ28	Φ26
SOH-70	Φ40	Φ35
SOH-90	Φ50	Φ40
SOH-120	Φ60	Φ50

SOH SERIES

Oldham Coupling

Structure and Material

Structure	Material	Surface Treatment
Hub	High Strength Aluminum Alloy	Anodizing
Spacer	Polyacetal(POM)	-
Screw	SCM435	Black Oxide

※ The standard surface treatment for SOH-70C, 90C and 120C (Side-clamp) is Electroless Nickel Plating.

※ There is no surface treatment for SOH-6,8,10,12 (Set-screw) and SOHM-12C(Side-clamp).

Product Features & Application

High Torque (Durability)		○
Torsional Stiffness		△
Vibration Absorption		○
Misalignment Absorption		☆
nsulation of Electric Curren		○
Minimized Reaction Force		☆
Oil Resistance		△
Applicable Motors	Servo	△
	Stepping	○
	Encoder	○
	General	☆
Permissible Temperature		-20°C ~ 80°C

Application : Part feeder, Cartesian Robot, Logistics facilities

Temperature Correction Factor

- Please modify rated/max. torque value with the below temperature correction factor when it's higher than 30°C.

Ambient Temperature	Correction Factor
-20 °C ~ 30 °C	1.0
30 °C ~ 40 °C	0.8
40 °C ~ 60 °C	0.7
60 °C ~ 80 °C	0.55

Clamping Methods

Set-screw (No mark)	General	△
	With Keyway	○
Side-clamp (C)	General	○
	Hub Split	△
	With Keyway	○
Taper-ring (T)		X

※You may check the sizes that Side-clamp Hub Split type is applicable from the "Dimensions / Performance" tables in the following pages.

How to Order

SOH - 70 CW - TH - 20 W K6 x 25 W K8

Model	OD(D) size	① Clamping Methods	② Center-Through (TH)	ID(d1) size	③ Side-clamp Hub Split (W)	④ Keyway (K)	ID(d2) size	③ Side-clamp Hub Split (W)	④ Keyway (K)
SOH	70	CW	TH	20	W	K6	25	W	K8

① Clamping Methods

No mark	Set-screw
C	General Side-clamp
CW	Side-clamp Hub Split

② Center-Through

No mark	Center-Solid
TH	Center-Through

③ Side-clamp Hub Split

No mark	Not Split
W	Split (Only applicable on Side-clamp Type)

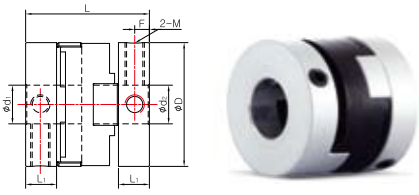
④ Keyway

No mark	No Keyway
K(b size)	Keyway processed according to the indicated b size.

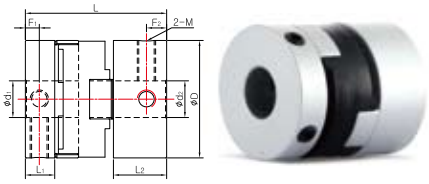
SOH SERIES

Oldham Coupling

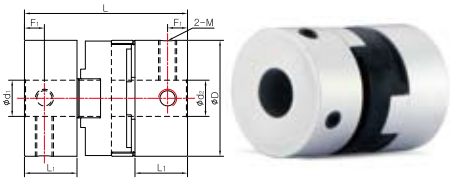
Set-screw



SOH-(no mark)



SOH-S



SOH-SS

Dimensions / Performance

SOH-(no mark)

Model	Size (±0.3mm)				Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment		
	D	L	L_1	F	Size	Fastening Torque(N·m)							Angular (°)	Parallel (mm)	End-play (mm)
SOH-6	5.9	8.4	2.5	1.3	M2	0.3	0.2	0.4	22,000	2.5×10^{-9}	5	0.5	1.5	0.5	0.05
SOH-8	7.9	9.8	2.5	1.3	M2	0.3	0.5	1	20,000	8.4×10^{-9}	10	0.9	1.5	0.7	0.05
SOH-10	9.9	10.4	2.9	1.5	M2	0.3	0.7	1.4	18,000	2.4×10^{-8}	25	1.7	1.5	0.9	0.05
SOH-12	11.9	14.5	3.9	2	M3	0.7	0.9	1.8	15,000	6.3×10^{-8}	55	3	1.5	1	0.05
SOH-16	16	17.9	4.7	2.2	M3	0.7	1	2	13,000	2.4×10^{-7}	65	7	1.5	1	0.1
SOH-20	20	19.9	5.1	2.4	M4	1.7	1.5	3	11,000	6.4×10^{-7}	120	12	1.5	1.5	0.1
SOH-25	25.5	25.4	6.9	3.1	M4	1.7	2.5	5	10,000	2.2×10^{-6}	200	24	1.5	2	0.1
SOH-32	32	31.9	8	3.8	M5	4	7	14	9,000	6.3×10^{-6}	620	41	1.5	2.5	0.2
SOH-43	43	52	16.5	7.1	M5	4	12.5	25	8,000	3.7×10^{-5}	1,200	135	1.5	3	0.15
SOH-53	53	58.3	19.5	7.5	M6	7	20	40	7,000	1.0×10^{-4}	1,400	228	1.5	3.2	0.15
SOH-57	57	76.2	26.9	9.9	M8	15	34	68	6,000	1.8×10^{-4}	2,600	345	1.5	3.5	0.2
SOH-70	73	75.5	25	12.2	M8	15	60	120	4,500	4.5×10^{-4}	5,000	567	1.5	3.5	0.2

SOH-S

Model	Size (±0.3mm)						Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment		
	D	L	L_1	L_2	F_1	F_2	Size	Fastening Torque(N·m)							Angular (°)	Parallel (mm)	End-play (mm)
SOH-16S	16	20.9	4.7	7.7	2.2	3.8	M3	0.7	1	2	13,000	2.7×10^{-7}	65	7.9	1.5	1	0.1
SOH-20S	20	22.8	5.1	8	2.4	3.6	M4	1.7	1.5	3	11,000	7.5×10^{-7}	120	13	1.5	1.5	0.1
SOH-25S	25.5	28.7	6.9	10.2	3.1	4.9	M4	1.7	2.5	5	10,000	2.6×10^{-6}	200	27.2	1.5	2	0.1
SOH-32S	32	38.3	8	14.4	3.8	5.5	M5	4	7	14	9,000	8.1×10^{-6}	620	52	1.5	2.5	0.2

SOH-SS

Model	Size (±0.3mm)				Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment		
	D	L	L_1	F_1	Size	Fastening Torque(N·m)							Angular (°)	Parallel (mm)	End-play (mm)
SOH-8SS	7.9	12.6	4.6	2.3	M3	0.7	0.5	1	20,000	1.3×10^{-8}	10	1.5	1.5	0.7	0.05
SOH-16SS	16	23.9	7.7	3.8	M3	0.7	1	2	13,000	3.4×10^{-7}	65	9.3	1.5	1	0.1
SOH-20SS	20	25.7	8	3.6	M4	1.7	1.5	3	11,000	8.9×10^{-7}	120	15	1.5	1.5	0.1
SOH-25SS	25.5	32	10.2	4.9	M4	1.7	2.5	5	10,000	2.9×10^{-6}	200	31	1.5	2	0.1
SOH-32SS	32	44.7	14.4	5.5	M5	4	7	14	9,000	9.5×10^{-6}	620	63	1.5	2.5	0.2

- The Moment of Inertia and Mass values are based on products with max. Inner diameter.
- Please modify rated/max. torque value with temperature correction factor when it's higher than 30°C.
- Max. torque/rated torque is the value regarding to a coupling's self-durability and is not related to slip-torque between the coupling bore and the shaft. (Set-screw type is usually less durable than other clamping method, thus please consider it has a complementary option e.g. keyway along with.)

SOH SERIES

Oldham Coupling

Standard Inner Diameter (ID)

Model	Standard Inner Diameter (d_1, d_2) (mm)																	
	1	1.5	2	2.5	3	4	4.5	5	6	6.35	8	9	9.525	10	11	12	14	15
SOH-6□□	●	●	●															
SOH-8□□	●		●	●	●													
SOH-10□□			●		●	●												
SOH-12□□					●	●	●	●										
SOH-16□□					●	●		●	●									
SOH-20□□						●		●	●	●	●							
SOH-25□□								●	●	●	●	●	●	●				
SOH-32□□									●	●	●	●	●	●	●	●	●	●

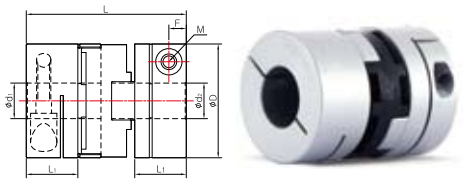
Model	Standard Inner Diameter (d_1, d_2) (mm)																			
	8	9	9.525	10	11	12	14	15	16	18	19	20	22	24	25	25.4	28	30	32	35
SOH-43□□	●	●	●	●	●	●	●	●	●	●	●									
SOH-53□□				●	●	●	●	●	●	●	●	●	●	●	●					
SOH-57□□								●	●	●	●	●	●	●	●	●	●			
SOH-70								●	●	●	●	●	●	●	●	●	●	●	●	●

- The recommended shaft tolerance is h7.
- Custom process (e.g. non-standard Inner diameter, special tolerance etc.) is also available upon a special request in prior to order placement.
- Keyway is available. (Optional)

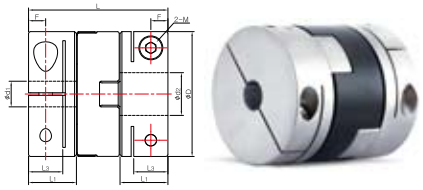
SOH SERIES

Oldham Coupling

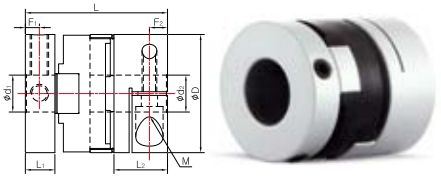
Side-clamp



SOH-C : Size 16C ~ 57C



SOH-C : Size 70C ~ 120C



SOH-SC

Dimensions / Performance

SOH-C

Model	Size (±0.3mm)					Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment			Side-clamp Hub Split (W)
	D	L	L_1	L_3	F	Size	Fastening Torque (N·m)							Angular (°)	Parallel (mm)	End-play (mm)	
SOH-16C	16	23.9	7.7	-	2.7	M2.6	1	1	2	13,000	3.1×10^{-7}	65	8.5	1.5	1	0.1	X
SOH-20C	20	25.7	8	-	2.8	M2.6	1	1.5	3	11,000	8.2×10^{-7}	120	14.2	1.5	1.5	0.1	X
SOH-25C	25.5	32	10.2	-	3.5	M3	1.7	2.5	5	10,000	2.7×10^{-6}	200	29.3	1.5	2	0.1	X
SOH-32C	32	44.7	14.4	-	4.9	M4	3.5	7	14	9,000	9.2×10^{-6}	620	59.6	1.5	2.5	0.15	X
SOH-43C	43	52	16.5	-	5.8	M5	8	12.5	25	8,000	3.4×10^{-5}	1,200	127	1.5	3	0.15	X
SOH-53C	53	58.3	19.5	-	6.3	M5	8	20	40	7,000	9.1×10^{-5}	1,400	217	1.5	3.2	0.2	X
SOH-57C	57	76.2	26.9	-	7.7	M6	13	34	68	6,000	1.6×10^{-4}	2,600	329	1.5	3.5	0.2	X
SOH-70C	73	81.5	28	20	10	M8	30	65	130	4,500	5.4×10^{-4}	5,000	670	1.5	3.5	0.3	○
SOH-90C	88	97	33.5	25	12	M10	50	105	210	4,500	1.2×10^{-3}	7,500	1,240	1.5	4	0.35	○
SOH-120C	118	138	40.5	26.5	13	M12	90	200	400	3,500	6.5×10^{-3}	14,000	2,600	1.5	4.5	0.4	○

- The Moment of Inertia and Mass values are based on products with max. Inner diameter.
- Please modify rated/max. torque value with temperature correction factor when it's higher than 30°C.
- Max. torque/rated torque is the value regarding to a coupling's self-durability and is not related to slip-torque between the coupling bore and the shaft.

SOH-SC (Combination)

Model	Size (±0.3mm)						Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment		
	D	L	L_1	L_2	F_1	F_2	Size	Fastening Torque (N·m)							Angular (°)	Parallel (mm)	End-play (mm)
SOH-16SC	16	20.9	4.7	7.7	2.2	2.7	M3/M2.6	0.7/1	1	2	13,000	2.9×10^{-7}	65	7.5	1.5	1	0.1
SOH-20SC	20	22.8	5.1	8	2.4	2.8	M4/M2.6	1.7/1	1.5	3	11,000	7.2×10^{-7}	120	12.6	1.5	1.5	0.1
SOH-25SC	25.5	28.7	6.9	10.2	3.1	3.5	M4/M3	1.7/1.7	2.5	5	10,000	2.6×10^{-6}	200	26	1.5	2	0.1
SOH-32SC	32	38.3	8	14.4	3.8	4.9	M5/M4	4/3.5	7	14	9,000	7.8×10^{-6}	620	50.3	1.5	2.5	0.2

- The Moment of Inertia and Mass values are based on products with max. Inner diameter.
- Please modify rated/max. torque value with temperature correction factor when it's higher than 30°C.
- Max. torque/rated torque is the value regarding to a coupling's self-durability and is not related to slip-torque between the coupling bore and the shaft.
- The values about Screw (size and fastening torque) are stated in left-to-right order. (S/C=Set-screw/Side-clamp)

SOH SERIES

Oldham Coupling

Standard Inner Diameter (ID)

Model	Standard Inner Diameter (d_1, d_2) (mm)																														
	3	4	5	6	6.35	8	9	9.525	10	11	12	14	15	16	18	19	20	22	24	25	25.4	28	30	32	35	40	42	45	50	55	60
SOH-16□□	●	●	●	●																											
SOH-20□□		●	●	●	●	●																									
SOH-25□□			●	●	●	●	●	●	●																						
SOH-32□□				●	●	●	●	●	●	●	●	●	●																		
SOH-43□□						●	●	●	●	●	●	●	●	●	●	●															
SOH-53□□									●	●	●	●	●	●	●	●	●	●	●	●											
SOH-57□□													●	●	●	●	●	●	●	●	●	●									
SOH-70□□													●	●	●	●	●	●	●	●	●	●	●	●	●	●					
SOH-90□□													●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
SOH-120□□																				●	●	●	●	●	●	●	●	●	●	●	●

- The recommended shaft tolerance is h7.
- Custom process (e.g. non-standard Inner diameter, special tolerance etc.) is also available upon a special request in prior to order placement.
- Keyway is available. (Optional)

Slip Torque

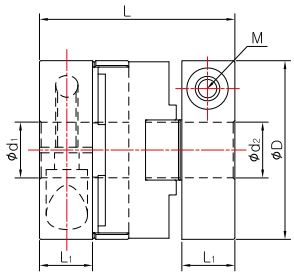
- The below table shows the actual permissible torque values when the slip torque value is lower than the coupling's max. torque value.
- If the slip torque value is lower than the coupling's max. torque value, please check and compare between the slip torque in the below table and the operating torque value of the connected motor. It is safer to size up the coupling or use a key/keyway when the slip torque value is lower than the motor's operating torque.
- The below slip torque values may be subject to change according to different testing conditions. (e.g. shaft tolerance, Surface roughness, or acceleration/deceleration of driving shafts). On the other hand, the values could be affected when a different kind of fastening screw is used (body material or surface treatment). Therefore, we recommend you test under the same conditions before mounting.

제품 번호	Max. Torque (N.m)	Slip Torque (N.m) by Inner Diameter (d_1, d_2)																									
		3	4	5	6	6.35	8	9.525	10	11	12	14	15	16	18	19	20	22	24	25	28	30	35	40	42	45	50
SOH-16C	2	0.5	1																								
SOH-20C	3		1	1.5	2																						
SOH-25C	5			2	3.5	3.9																					
SOH-32C	14				7	7.2																					
SOH-43C	25						15	15.7	18	18.2	21																
SOH-53C	40								21	22.4	23.8	30															
SOH-57C	68												42	46.2	49	51.8	56.7										
SOH-70C	130												60	65	85	90	100	120									
SOH-90C	210												40	50	65	80	85	88	90	95	110	130	170	180	190	200	210
SOH-120C	400																			200	250	275	300	320	330	350	380

SOH SERIES (SOHM)

Oldham Coupling

Side-clamp (Spacer-saving)



Dimensions / Performance

Model	Size (±0.3mm)				Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment		
	D	L	L_1	F	Size	Fastening Torque (N·m)							Angular (°)	Parallel (mm)	End-play (mm)
SOHM-12C	11.9	16.5	5	2.5	M2	0.5	0.9	1.8	15,000	7.4×10^{-8}	55	3.5	1.5	1	0.05
SOHM-16C	16	20.7	6.1	3	M2.6	1	1	2	13,000	2.6×10^{-7}	65	7.4	1.5	1	0.1
SOHM-20C	20	21.9	6.1	2.9	M2.6	1	1.5	3	11,000	6.8×10^{-7}	120	12	1.5	1.5	0.1
SOHM-25C	25.5	26.4	7.4	3.7	M3	1.7	2.5	5	10,000	2.2×10^{-6}	200	23	1.5	2	0.1
SOHM-32C	32	34.9	9.5	4.7	M4	3.5	7	14	9,000	6.8×10^{-6}	620	44	1.5	2.5	0.2
SOHM-43C	43	47	14.7	7.3	M5	8	12.5	25	8,000	3.0×10^{-5}	1,200	114	1.5	3	0.15
SOHM-53C	53	53.1	16.9	8.3	M5	8	20	40	7,400	8.3×10^{-5}	1,400	197	1.5	3.2	0.15
SOHM-57C	57	56.8	18	8.7	M6	13	34	68	6,000	1.2×10^{-4}	2,600	232	1.5	3.5	0.2
SOHM-70C	73	75.5	25	12.3	M8	30	60	120	4,500	4.5×10^{-4}	5,000	547	1.5	3.5	0.2

- The Moment of Inertia and Mass values are based on products with max. Inner diameter.
- Please modify rated/max. torque value with temperature correction factor when it's higher than 30°C.
- Max. torque/rated torque is the value regarding to a coupling's self-durability and is not related to slip-torque between the coupling bore and the shaft.

Standard Inner Diameter (ID)

Model	Standard Inner Diameter (d_1, d_2) (mm)																								
	3	4	4.5	5	6	6.35	8	9	9.525	10	11	12	14	15	16	18	19	20	22	24	25	25.4	28	30	32	35
SOHM-12C	●	●	●	●																						
SOHM-16C	●	●		●	●																					
SOHM-20C		●		●	●	●	●																			
SOHM-25C				●	●	●	●	●	●	●																
SOHM-32C					●	●	●	●	●	●	●	●	●	●												
SOHM-43C							●	●	●	●	●	●	●	●	●	●	●									
SOHM-53C										●	●	●	●	●	●	●	●	●	●	●	●					
SOHM-57C														●	●	●	●	●	●	●	●	●	●			
SOHM-70C														●	●	●	●	●	●	●	●	●	●	●	●	●

- The recommended shaft tolerance is h7.
- Custom process (e.g. non-standard Inner diameter, special tolerance etc.) is also available upon a special request in prior to order placement.
- Keyway is available. (Optional)

SOH SERIES (SOHM)

Oldham Coupling

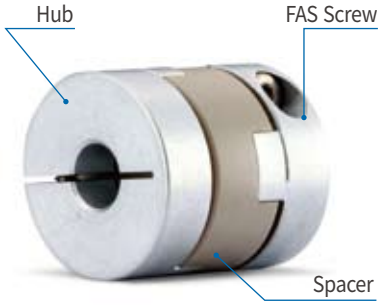
Slip Torque

- The below table shows the actual permissible torque values when the slip torque value is lower than the coupling's max. torque value.
- If the slip torque value is lower than the coupling's max. torque value, please check and compare between the slip torque in the below table and the operating torque value of the connected motor. It is safer to size up the coupling or use a key/keyway when the slip torque value is lower than the motor's operating torque.
- The below slip torque values may be subject to change according to different testing conditions. (e.g. shaft tolerance, Surface roughness, or acceleration/deceleration of driving shafts). On the other hand, the values could be affected when a different kind of fastening screw is used (body material or surface treatment). Therefore, we recommend you test under the same conditions before mounting.

Model	Max. Torque (N.m)	Slip Torque (N.m) by Inner Diameter (d_1, d_2)																	
		3	4	4.5	5	6	6.35	8	9.525	10	11	12	14	15	16	18	19	20	22
SOHM-12C	1.8	0.5	0.6	1	1.2														
SOHM-16C	2	0.6	0.6		1	1.4													
SOHM-20C	3		1		1.5	1.8	2.7												
SOHM-25C	5				1.8	2.6	3												
SOHM-32C	14					5	5.9	6.8	8.4	10	12	13							
SOHM-43C	25							14	17	18	19	22							
SOHM-53C	40									16	20	24	30	32					
SOHM-57C	68													37	43	47	50	55	60
SOHM-70C	130													72	84	95	99	108	110

SOH SERIES (SOHMP)

Oldham Coupling (PEEK Spacer)



Structure and Material

Structure	Material	Surface Treatment
Hub	High Strength Aluminum Alloy	-
Spacer	PEEK	-
Screw	SUSXM7	-

Product Features & Application

Minimized Outgas	☆
High Torque (Durability)	○
Torsional Stiffness	△
Chemical Resistance	○
Misalignment Absorption	☆
Insulation of Electric Current	☆
Minimized Reaction Force	☆
Permissible Temperature	-20°C ~ 120°C

Application : Semi-conductor machine, OLED vacuum machine, High-temperature applications, cleanroom facilities.

Features of SOHMP Series

- Excellent for Vacuum applications in regards of extremely low level of outgas. (In terms of outgas, SOHMP performs better than SOHV Series)
- Optimal heat/chemical Resistance allowing to be used in cleanroom facilities and high-temperature applications.
- Please contact Sung-il Customer Service team for more specific details about each chemical resistances. It may be varied by conditions, however, at least we can advise general information.

Properties of PEEK Material

	Item	Test Method	Value	Unit
Physical Properties	Density	ISO 1183-1	1.31	g/cm³
Thermal Properties	Heat Deflection Temperature (1.8 Mpa)	ISO 75-1	160	°C
	Coefficient of Thermal Expansion (23 - 150°C)	-	55x10⁻⁶	m/m·K
Mechanical Properties	Tensile Strength	ISO 527-1	115	Mpa
	Elongation at yield	ISO 527-1	5	%
	Rockwell Hardness	ISO 2039-2	M105	

How to Order

SOHMP - 25C - 8 K3 x 10 K3

- SOHMP: Model
- 25C: OD(D) size
- 8: ID(d) size(d1)
- K3: Keyway (K) ①
- 10: ID(d) size(d2)
- K3: Keyway (K) ①

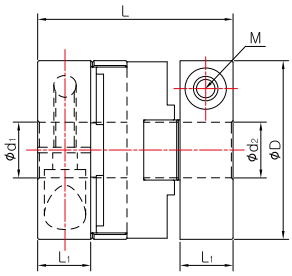
① Keyway

No mark	No Keyway
K(b size)	Keyway processed according to the indicated b size.

SOH SERIES (SOHMP)

Oldham Coupling (PEEK Spacer)

Side-clamp



Dimensions / Performance

Model	Size (±0.3mm)				Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment		
	D	L	L_1	F	Size	Fastening Torque (N·m)							Angular (°)	Parallel (mm)	End-play (mm)
SOHMP-20C	20	21.9	6.1	2.9	M2.6	1	1.2	2.4	11,000	6.8×10^{-7}	80	12	1.5	1.5	0.1
SOHMP-25C	25.5	26.4	7.4	3.7	M3	1.7	2	4	10,000	2.2×10^{-6}	120	23	1.5	2	0.1
SOHMP-32C	32	34.9	9.5	4.7	M4	3.5	5.6	11.2	9,000	6.8×10^{-6}	300	44	1.5	2.5	0.2

- The Moment of Inertia and Mass values are based on products with max. Inner diameter.
- Max. torque/rated torque is the value regarding to a coupling's self-durability and is not related to slip-torque between the coupling bore and the shaft.

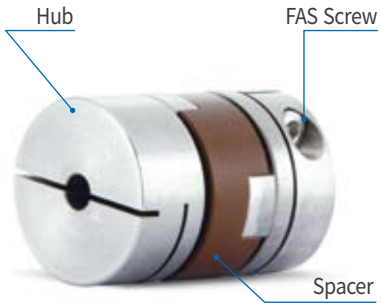
Standard Inner Diameter (ID)

Model	Standard Inner Diameter (d_1, d_2) (mm)												
	3	4	5	6	6.35	8	9	9.525	10	11	12	14	15
SOHMP-20C		●	●	●	●	●							
SOHMP-25C			●	●	●	●	●	●	●				
SOHMP-32C				●	●	●	●	●	●	●	●	●	●

- The recommended shaft tolerance is h7.
- Custom process (e.g. non-standard Inner diameter, special tolerance etc.) is also available upon a special request in prior to order placement.
- Keyway is available. (Optional)

SOH SERIES (SOHV)

Oldham Coupling (VESPEL Spacer)



Structure and Material

Structure	Material	Surface Treatment
Hub	Stainless Steel	Electro-polishing
Spacer	VESPEL (PI)	-
Screw	SUSXM7	-

Product Features & Application

Minimized Outgas	☆
High Torque (Durability)	○
Torsional Stiffness	△
Chemical Resistance	○
Misalignment Absorption	☆
Insulation of Electric Current	☆
Minimized Reaction Force	☆
Permissible Temperature	-20°C ~ 200°C

Application : Semi-conductor machine, OLED vacuum machine, High-temperature applications, cleanroom facilities.

Features of SOHV Series

- Excellent for high-temperature applications in regards of heat resistance.
- Outgas amount is relatively lower and it's ideal to be used in cleanroom facilities and vacuum applications.
- Please contact Sung-il Customer Service team for more specific details about each chemical resistances. It may be varied by conditions, however, at least we can advise general information.

Properties of VESPEL Material

	Item	Test Method	Value	Unit
Physical Properties	Density	ISO 1183-1	1.43	g/㎤
Thermal Properties	Heat Deflection Temperature (1.8 Mpa)	ISO 75-1	340	°C
	Coefficient of Thermal Expansion (23 - 300°C)	-	$45x10^{-6}$	m/m·K
Mechanical Properties	Tensile Strength	ISO 527-1	163	Mpa
	Elongation at yield	ISO 527-1	7.5	%
	Rockwell Hardness	ISO 2039-2	E95	

How to Order

SOHV - 25C - 8 K3 x 10 K3

- SOHV: Model
- 25C: OD(D) size
- 8: ID(d) size(d1)
- K3: Keyway (K) ❶
- 10: ID(d) size(d2)
- K3: Keyway (K) ❶

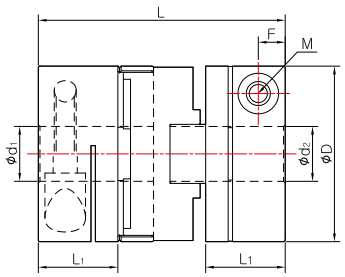
❶ Keyway

No mark	No Keyway
K(b size)	Keyway processed according to the indicated b size.

SOH SERIES (SOHV)

Oldham Coupling (VESPEL Spacer)

Side-clamp



Dimensions / Performance

Model	Size (±0.3mm)				Screw		Rated Torque (N·m)	Max. Torque (N·m)	Max. rpm (min^{-1})	Moment of Inertia ($kg·m^2$)	Static Torsional Stiffness (N·m/rad)	Mass (g)	Permissible Misalignment		
	D	L	L_1	F	Size	Fastening Torque (N·m)							Angular (°)	Parallel (mm)	End-play (mm)
SOHV-20C	20	25.7	8	2.8	M2.6	1	0.8	1.6	11,000	1.7×10^{-6}	96	31	1.5	1.5	0.1
SOHV-25C	25.5	32	10.2	3.5	M3	1.7	1.4	2.7	10,000	5.7×10^{-6}	144	62	1.5	2	0.1
SOHV-32C	32	44.7	14.4	4.9	M4	3.5	3.8	7.6	9,000	1.8×10^{-5}	360	125	1.5	2.5	0.2

- The Moment of Inertia and Mass values are based on products with max. Inner diameter.
- Max. torque/rated torque is the value regarding to a coupling's self-durability and is not related to slip-torque between the coupling bore and the shaft.

Standard Inner Diameter (ID)

Model	Standard Inner Diameter (d_1, d_2) (mm)												
	3	4	5	6	6.35	8	9	9.525	10	11	12	14	15
SOHV-20C		●	●	●	●	●							
SOHV-25C			●	●	●	●	●	●	●				
SOHV-32C				●	●	●	●	●	●	●	●	●	●

- The recommended shaft tolerance is h7.
- Custom process (e.g. non-standard Inner diameter, special tolerance etc.) is also available upon a special request in prior to order placement.
- Keyway is available. (Optional)