

SHDL SERIES



High Torque Disk Type Connecting Shaft

Structure and Material



Structure	Material	Surface Treatment
Hub	Ultra High Strength Aluminum Alloy	Anodizing
Plate Spring	Stainless Steel	-
Collar (Spacer)	Steel	Black Oxide
Assembly Screw	SCM435	Black Oxide
Hollow Shaft	High Strength Aluminum Alloy	Anodizing
Fastening Screw	SCM435	Black Oxide

Product Features

- Enhanced durability with SHD series coupling
- Precise concentricity/straightness
- Minimized moment of inertia by aluminum alloy material
- Backlash free
- High Torsional Stiffness
- Easier installation and simpler maintenance

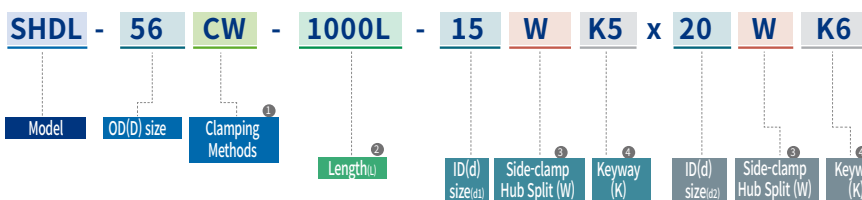
Parts with Alternative Material Options

- Sung-il Machinery provides alternative material options for Coupling parts for customers who are worried about corrosion on Black oxide finish. Please see the below table for more details.

Mark	Material	Surface treatment
No mark	Steel	Black Oxide
SUS/ASS	Stainless Steel	-



How to Order



¹ Clamping Methods

C	General Side-clamp
CW	Side-clamp Hub Split
T	Taper-ring (T)

² L (Total Length)

³ Side-clamp Hub Split

No mark	Not Split
W	Split

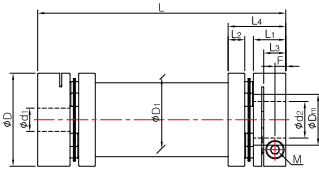
⁴ Keyway

No mark	No Keyway
K(b size)	Keyway processed according to the indicated b size. (Keyway is not applicable on Taper-ring type)

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Side-clamp

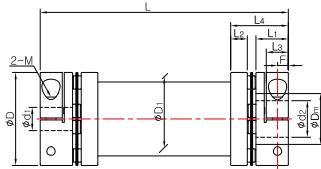


Integral Shaft Type



Inserted Shaft Type

Side-clamp Hub Split (W)



Integral Shaft Type



Inserted Shaft Type

Dimensions / Performance

Integral Shaft Type

Model	Size (±0.3mm)								Screw		Length (mm)		Permissible Torque (N·m)	Max. rpm (min ⁻¹)	Static Torsional Stiffness (N·m/rad)		Permissible Misalignment		
	D	D ₁	D _m	L ₁	L ₂	L ₃	L ₄	F	Size	Fastening Torque (N·m)	min.	max.			coupling [TSc]	PIPE/m [TSS]	Angular (°)	Parallel (mm)	End-play (mm)
SHDL-56□□	56	35	30.6	19.5	6	13.3	30.7	6.5	M6	13	80	130	60	1,500	2.0 x 10 ⁴	1.6 x 10 ⁴	1.4	0.5	± 1.2
SHDL-66□□	66	41	35.6	24.5	8	15.5	40	7.5	M6	13	100	150	120	1,500	3.0 x 10 ⁴	2.9 x 10 ⁴	1.4	0.5	± 1.6
SHDL-88□□	88	55	46.1	30	10	19	49.6	9.9	M8	30	120	170	200	1,500	7.0 x 10 ⁴	6.0 x 10 ⁴	1.4	0.5	± 2.0

Inserted Shaft Type

Model	Size (±0.3mm)								Screw		Length (mm)		Permissible Torque (N·m)	Max. rpm (min ⁻¹)	Static Torsional Stiffness (N·m/rad)		Moment of Inertia (kg·m ²)		Permissible Misalignment		
	D	D ₁	D _m	L ₁	L ₂	L ₃	L ₄	F	Size	Fastening Torque (N·m)	min.	max.			coupling [TSc]	PIPE/m [TSS]	coupling	PIPE/m	Angular (°)	Parallel (mm)	End-play (mm)
SHDL-56□□	56	44.5	30.6	19.5	10	13.3	34.7	6.5	M6	13	130	2,000	60	1,500	2.0 x 10 ⁴	6,000	3.8 x 10 ⁻⁵	1.5 x 10 ⁻⁴	1.4	11.1	± 1.2
SHDL-66□□	66	49.5	35.6	24.5	11	15.5	43	7.5	M6	13	150	2,000	120	1,500	3.0 x 10 ⁴	8,000	9.3 x 10 ⁻⁵	2.7 x 10 ⁻⁴	1.4	10.8	± 1.6
SHDL-88□□	88	64.5	46.1	30	13	19	52.6	9.9	M8	30	170	2,000	200	1,500	7.0 x 10 ⁴	20,000	3.8 x 10 ⁻⁴	8.5 x 10 ⁻⁴	1.4	10.6	± 2.0

- Please contact Sung-il Customer Service team for the special lengths (out of range).

Standard Inner Diameter (ID)

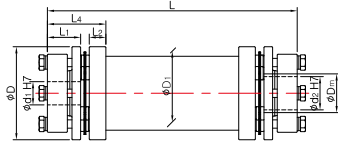
Model	Standard Inner Diameter (d ₁ , d ₂) (mm)																				
	10	11	12	14	15	16	18	19	20	22	24	25	26	28	30	32	35	38	40	42	45
SHDL-56□□	●	●	●	●	●	●	●	●	●	●	●	●									
SHDL-66□□					●	●	●	●	●	●	●	●	●	●	●	●					
SHDL-88□□									●	●	●	●	●	●	●	●	●	●	●	●	●

- 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)

SHDL SERIES

High Torque Disk Type Connecting Shaft

Taper-ring



Integral Shaft Type



Inserted Shaft Type

Dimensions / Performance

Integral Shaft Type

Model	Size ($\pm 0.3\text{mm}$)						Screw		Length (mm)		Permissible Torque (N·m)	Max. rpm (min^{-1})	Static Torsional Stiffness (N·m/rad)		Permissible Misalignment		
	D	D _m	D ₁	L ₁	L ₂	L ₄	Size	Fastening Torque (N·m)	min.	max.			coupling [TSc]	PIPE/m [TSs]	Angular (°)	Parallel (mm)	End-play (mm)
SHDL-56T	56	35	30.6	20.2	6	31.2	M6	13	80	130	60	1,500	2.0×10^4	1.6×10^4	1.4	0.5	± 1.2
SHDL-66T	66	41	35.6	25	8	40.5	M6	13	100	150	120	1,500	3.0×10^4	2.9×10^4	1.4	0.5	± 1.6
SHDL-88T	88	55	46	30	10	49.6	M8	30	120	170	200	1,500	7.0×10^4	6.0×10^4	1.4	0.5	± 2.0

Inserted Shaft Type

Model	Size ($\pm 0.3\text{mm}$)						Screw		Length (mm)		Permissible Torque (N·m)	Max. rpm (min^{-1})	Static Torsional Stiffness (N·m/rad)		Moment of Inertia ($\text{kg}\cdot\text{m}^2$)		Permissible Misalignment		
	D	D _m	D ₁	L ₁	L ₂	L ₄	Size	Fastening Torque (N·m)	min.	max.			coupling [TSc]	PIPE/m [TSs]	coupling	PIPE/m	Angular (°)	Parallel (mm)	End-play (mm)
SHDL-56T	56	44.5	30.6	20.2	10	35.2	M6	13	130	2,000	60	1,500	2.0×10^4	6,000	3.8×10^{-5}	1.5×10^{-4}	1.4	11.1	± 1.2
SHDL-66T	66	49.5	35.6	25	11	43.5	M6	13	150	2,000	120	1,500	3.0×10^4	8,000	9.3×10^{-5}	2.7×10^{-4}	1.4	10.8	± 1.6
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- Please contact Sung-il Customer Service team for the special lengths (out of range).

Standard Inner Diameter (ID)

Model	Standard Inner Diameter (d_1, d_2) (mm)																					
	10	11	12	14	15	16	18	19	20	22	24	25	26	28	30	32	35	38	40	42	45	
SHDL-56T	●	●	●	●	●	●	●	●	●	●	●	●										
SHDL-66T					●	●	●	●	●	●	●	●	●	●	●	●						
SHDL-88T									●	●	●	●	●	●	●	●	●	●	●	●	●	●

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- 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 **NOT** available.