

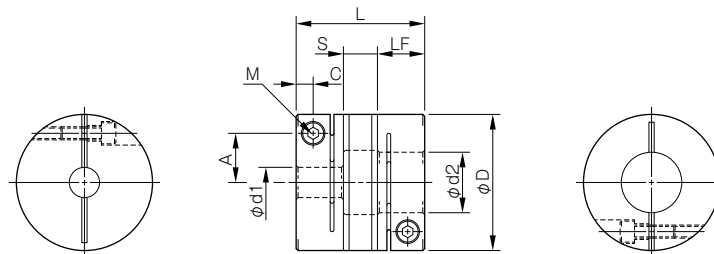
STEPFLEX STF - Datasheet

Specifications

Model	Torque		Misalignment			Max. rotation speed [min ⁻¹]	Torsional stiffness [N-m/rad]	Moment of inertia [kg-m ²]	Mass [kg]
	Nominal [N-m]	Max. [N-m]	Parallel [mm]	Angular [°]	Axial [mm]				
STF-013SA1	0.5	1	0.15	1.5	± 0.2	10000	15	0.11 × 10 ⁻⁶	0.004
STF-016SA1	1	2	0.15	1.5	± 0.2	10000	27	0.31 × 10 ⁻⁶	0.009
STF-019SA1	1.5	3	0.15	1.5	± 0.2	10000	38	0.70 × 10 ⁻⁶	0.013
STF-024SA1	2.5	5	0.15	1.5	± 0.2	10000	127	1.89 × 10 ⁻⁶	0.023
STF-029SA1	4	8	0.2	1.5	± 0.3	10000	201	4.40 × 10 ⁻⁶	0.034
STF-034SA1	6	12	0.2	1.5	± 0.3	10000	371	9.77 × 10 ⁻⁶	0.056
STF-039SA1	8.5	17	0.2	1.5	± 0.3	10000	485	21.13 × 10 ⁻⁶	0.091
STF-044SA1	15	30	0.2	1.5	± 0.3	10000	996	37.30 × 10 ⁻⁶	0.120
STF-056SA1	30	60	0.2	1.5	± 0.3	10000	2075	125.5 × 10 ⁻⁶	0.251

- Higher rpm possible with balancing.
- The static torsional stiffness values are analysis values for the element taken at a temperature of 20 °C at maximum bore diameter.
- The moment of inertia and mass are specified for the maximum bore diameter.

Dimensions



Model	d1 • d2 [mm]		D [mm]	L [mm]	LF [mm]	S [mm]	A [mm]	C [mm]	M Qty-Nominal diameter	Tightening torque [N-m]
	Min.	Max.								
STF-013SA1	3	5	13	18	6	6	3.9	2	1-M1.6	0.23 ~ 0.28
STF-016SA1	3	6	16	22	7.5	7	4.8	2.5	1-M2	0.4 ~ 0.5
STF-019SA1	3	8	19	25	9	7	5.8 (6)	3.15	1-M2.5 (M2)	1.0 ~ 1.1 (0.4 ~ 0.5)
STF-024SA1	5	10	24	27	9	9	8.7	3.15	1-M2.5	1.0 ~ 1.1
STF-029SA1	5	14	29	30	10	10	11	3.3	1-M2.5	1.0 ~ 1.1
STF-034SA1	5	16	34	34	12	10	12.5	3.75	1-M3	1.5 ~ 1.9
STF-039SA1	6	19	39	41	15.5	10	14	4.5	1-M4	3.4 ~ 4.1
STF-044SA1	8	24	44	48	15.5	17	17	4.5	1-M4	3.4 ~ 4.1
STF-056SA1	8	30	56	60	20.5	19	22	6	1-M5	7.0 ~ 8.5

- The figures in parentheses () for the STF-019 are the values when d1 or d2 is ø8 mm.
- The recess in the internal diameter of the element is equal to dimension d2 (large diameter) plus ø0.9 mm.
- The rated dimension tolerance for shafts is h7.

Standard Bore Diameter

Model	Standard bore diameter d1 • d2 [mm]																								
	3	4	5	6	6.35	7	8	9	9.525	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30
STF-013SA1	●	●	●																						
STF-016SA1	●	●	●	●																					
STF-019SA1	●	●	●	●	●	●	●																		
STF-024SA1			●	●	●	●	●	●	●	●															
STF-029SA1			●	●	●	●	●	●	●	●	●	●	●	●											
STF-034SA1			●	●	●	●	●	●	●	●	●	●	●	●	●	●									
STF-039SA1				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
STF-044SA1							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
STF-056SA1							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Max. Torque for the Shaft Diameter

Model	Standard bore diameter [mm] and max. torque for the shaft diameter [N·m]																											
	3	4	5	6	6.35	7	8	9	9.525	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30			
STF-013SA1	0.10	0.25	0.40																									
STF-016SA1	0.5	0.6	0.7	0.8																								
STF-019SA1	0.8	1.2	1.6	1.9	1.9	2.3	0.8																					
STF-024SA1			1.6	2.1	2.1	2.6	3.3	4.0	4.0	4.7																		
STF-029SA1			1.8	2.2	2.2	2.7	3.4	4.1	4.1	4.8	5.5	6.3	7.8	8.0														
STF-034SA1			2.7	3.0	3.0	3.3	4.0	4.8	4.8	5.6	6.5	7.8	9.0	10.7	12.0	12.0												
STF-039SA1			3.4	3.4	4.0	5.0	6.1	6.1	7.1	8.2	9.3	10.4	11.5	12.8	14.0	15.3	16.6	17.0										
STF-044SA1						6.0	8.3	8.3	9.8	11.3	12.8	14.3	16.0	17.3	18.8	20.3	21.8	23.5	24.8	27.8	30.0							
STF-056SA1						10.7	11.9	11.9	13.4	14.9	16.3	17.8	18.7	20.8	22.2	23.7	25.2	27.0	32.0	41.9	52.0	56.3	60.0	60.0				

* Max. torque correlates with the smallest bores diameter. However, please note type STF-019 with 8 mm bore (see table below).

STF-019SA1 standard bore diameter and max. torque

d1-d2	Max torque [N·m]	d1-d2	Max torque [N·m]	d1-d2	Max torque [N·m]	d1-d2	Max torque [N·m]	d1-d2	Max torque [N·m]	d1-d2	Max torque [N·m]	d1-d2	Max torque [N·m]
3B-3B	0.8	3B-4B	0.8	3B-5B	0.8	3B-6B	0.8	3B-6.35B	0.8	3B-7B	0.8	3B-8B	0.8
		4B-4B	1.2	4B-5B	1.2	4B-6B	1.2	4B-6.35B	1.2	4B-7B	1.2	4B-8B	0.8
				5B-5B	1.6	5B-6B	1.6	5B-6.35B	1.6	5B-7B	1.6	5B-8B	0.8
						6B-6B	1.9	6B-6.35B	1.9	6B-7B	1.9	6B-8B	0.8
								6.35B-6.35B	1.9	6.35B-7B	1.9	6.35B-8B	0.8
										7B-7B	2.3	7B-8B	0.8
												8B-8B	0.8

How to Place an Order

