Technical Information

SPIDERS

PART NUMBER	OD (in)	OD (mm)	DUROMETER	TORSIONAL STIFFNESS (deg/lb-in)	TORSIONAL STIFFNESS (deg/Nm)	NOMINAL TORQUE (lb-in)	NOMINAL TORQUE (Nm)	PEAK TORQUE (lb-in)	PEAK TORQUE (Nm)	MISALIGNMENT ANGULAR (deg)	MISALIGNMENT PARALLEL (in)	MISALIGNMENT PARALLEL (mm)	AXIAL MOTION (in)	AXIAL MOTION (mm)
JD10/15-98R	0.590	15.0	98 Shore A	.121	1.068	8	0.9	16	1.8	0.8	0.002	0.05	0.020	0.51
JD12/19-98R	0.750	19.1	98 Shore A	.114	1.007	15	1.7	30	3.4	0.8	0.003	0.08	0.020	0.51
JD16/25-98R	1.000	25.4	98 Shore A	.024	0.212	75	8.5	150	17.0	0.8	0.003	0.08	0.030	0.76
JD21/33-98R	1.313	33.3	98 Shore A	.012	0.106	87	9.9	174	19.7	0.8	0.003	0.08	0.030	0.76
JD26/41-98R	1.625	41.3	98 Shore A	.006	0.053	165	18.7	330	37.4	0.8	0.004	0.10	0.050	1.27
JD32/51-98R	2.000	50.8	98 Shore A	.004	0.035	275	31.2	550	62.3	0.8	0.005	0.13	0.050	1.27
JD36/57-98R	2.250	57.2	98 Shore A	.003	0.026	410	46.5	820	92.9	0.8	0.004	0.10	0.050	1.27
JD10/15-92Y	0.590	15.0	92 Shore A	.270	2.384	5	0.6	10	1.1	0.9	0.004	0.10	0.020	0.51
JD12/19-92Y	0.750	19.1	92 Shore A	.257	2.269	9	1.0	18	2.0	0.9	0.004	0.10	0.020	0.51
JD16/25-92Y	1.000	25.4	92 Shore A	.067	0.592	29	3.3	58	6.6	0.9	0.005	0.13	0.030	0.76
JD21/33-92Y	1.313	33.3	92 Shore A	.045	0.397	35	4.0	70	7.9	0.9	0.005	0.13	0.030	0.76
JD26/41-92Y	1.625	41.3	92 Shore A	.012	0.106	97	11.0	194	22.0	0.9	0.006	0.15	0.050	1.27
JD32/51-92Y	2.000	50.8	92 Shore A	.005	0.044	220	24.9	440	49.8	0.9	0.006	0.15	0.050	1.27
JD36/57-92Y	2.250	57.2	92 Shore A	.004	0.035	285	32.3	570	64.6	0.9	0.005	0.13	0.050	1.27

Note 1 Hardware is alloy steel with black oxide finish. Parts JS10, JS12, MJS15 and MJS19 have one set screw on each end. JS16, JS21, JS26, MJS25, MJS33 and MJS41 have two set screws 90° apart.

Note 2 Performance ratings are for guidance only. The user must determine suitability for a particular application.

Technical Information

Materials
Spiders: Polyurethane
Hubs: 2024 T351 or 7075 T651 Extruded and Drawn Aluminum Bar

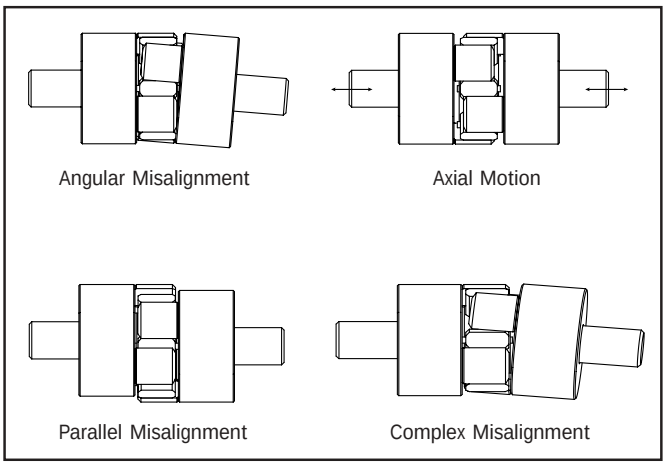
Surface Finish
Hubs: Bright Finish

Hardware
Socket Head Cap Screws: Alloy steel, heat treated. Meet or exceed ASA specification B18.3. Metric hardware meets or exceeds ASA specifications B18.3.1M and ASTM A574M property class 12.9

Forged Socket Set Screws: Alloy steel, heat treated, cup point. Meet or exceed ASA specification B18.3

Temperature Range
–10° F to 180° F

Maximum Speed
8,000 rpm



Hardware Torque Charts

TORQUE RATINGS—CLAMP SCREW

INCH Clamp Screw	Seating Torque (lb-in) ALLOY	STAINLESS STEEL	METRIC Clamp Screw	Seating Torque (Nm) ALLOY	STAINLESS STEEL
#1-72	4.3	2.3	M2	0.60	0.36
#2-56	6	3.8	M2.5	1.21	0.73
#4-40	15	8	M3	2.10	1.10
#6-32	28	15	M4	4.60	2.50
#8-32	49	28	M5	9.50	5.40
#10-32	76	45	M6	16.00	9.60
1/4-28	170	110			

TORQUE RATINGS—SET SCREW

INCH Set Screw	Seating Torque (lb-in) ALLOY	STAINLESS STEEL	METRIC Set Screw	Seating Torque (Nm) ALLOY	STAINLESS STEEL
#4-40	5	3	M3	0.92	0.73
#6-32	10	6	M4	2.20	1.76
#8-32	15	12	M5	4.00	3.20
#10-32	25	18	M6	7.20	5.76
1/4-20	87	70	M8	17.00	13.60

Installation Instructions

1. Assure that the misalignment between shafts is within the coupling's ratings.
2. Slide a hub onto each shaft to be joined with the drive tenons facing each other.
3. Fully tighten the screw(s) on the first hub to the recommended seating torque (see charts above).
4. Insert a spider into the jaws of one hub until the raised points contact the base of the hub.
5. Insert the jaws of the second hub into the spider openings until the raised points contact the base of the second hub. Some force will be required to insert the second hub. This is normal.
6. Assure that a gap is maintained between the two hubs so there is no metal to metal contact. Fully tighten the screw(s) on the second hub to the recommended seating torque (see charts above).

