



JACK SIZES					JACK SELECTION									Page Ref
MODEL	Capacity (tons)	Lifting Screw Dia. (in)	Screw Lead (in)	Root Dia. (in)	Gear Ratio	Turns of Worm for 1" Travel	Maximum Input Torque (in.-lb.)	Maximum Allowable Input (hp)	Maximum Worm Speed at Rated Load	Maximum Load at 1750 RPM	Torque to Raise 1 lb. (in.-lb.)	Tare Drag Torque (in.-lb.)		
MJ-20	.5	1/2	.250	.332	5:1	20	19	1/3	1090	631	.019	—	319	
MJ-25	.5	5/8	.200	.377	5:1	25	21	1/3	1040	571	.021	—	319	
MJ-40	.5	5/8	.125	.457	5:1	40	17	1/3	1260	706	.017	—	319	
MJ-50	.5	1/2	.100	.359	5:1	50	14	1/3	1560	857	.014	—	319	
MJ-80	.5	1/2	.250	.332	20:1	80	8	1/6	1310	750	.008	—	319	
MJ-100	.5	5/8	.200	.377	20:1	100	9	1/6	1210	667	.009	—	319	
MJ-160	.5	5/8	.125	.457	20:1	160	7	1/6	1500	857	.007	—	319	
MJ-200	.5	1/2	.100	.359	20:1	200	6	1/6	1800	1000	.006	—	319	
1-MSJ	1	3/4	.200	.502	5:1	25	45	1/2	700	800	.0225	3	320	
					20:1	100	21	1/4	750	857	.0105	3	320	
2-MSJ	2	1	.250	.698	6:1	24	100	2	1260	2881	.0250	4	321	
					12:1	48	62	1 1/2	1525	3456	.0154	4	321	
					24:1	96	42	1/2	750	1715	.0105	4	321	
2R-MSJ	2	1	.250	.698	6:1	24	100	2	1260	2881	.0250	4	322	
					12:1	48	62	1 1/2	1525	3486	.0154	4	322	
					24:1	96	42	1/2	750	1715	.0105	4	322	
2.5-MSJ	2 1/2	1	.250	.698	6:1	24	126	2	1000	2858	.0252	5	323	
					12:1	48	74	1 1/2	1277	3650	.0148	5	323	
					24:1	96	53	1/2	594	1699	.0106	5	323	

* Measurements listed are for non-keyed units. See individual jack pages for keyed jack info.

NOTES:

- 1) The recommended maximum speed is 1800 rpm provided that the recommended horsepower and temperature are not exceeded.
- 2) Input torque is shown as torque to lift one pound of load. Starting Torque is 100% greater than torque shown. For loads less than 25% of rated loads add tare drag torque.
- 3) Maximum allowable horsepower ratings are based on a 25% duty cycle. For operation at higher duty cycles or repeated use over any segment of the total travel, temperature must be monitored and remain less than 200°F.
- 4) Overload capacity of the Machine Screw Jack is as follows: 10% for dynamic loads, 30% for static loads.
- 5) Machine Screw Jacks having gear ratios between 20:1 and 32:1, are self-locking and will hold loads without backdriving in the absence of vibrations. All other ratios may require a brake to prevent backdriving.
- 6) All units are suitable for intermittent operation providing that the housing temperature including ambient is not lower than -20°F. or higher than +200°F. Factory supplied grease in standard units will operate in this range. For higher or lower operating temperature ranges consult Nook Industries, Inc.
- 7) Accessories such as boots, limit switches, top plates and clevises are available.

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5-MSJ	5	1 1/2	.375	1.066	6:1	16	376	3	500	2873	.0376	10	324
					24:1	64	144	3/4	330	1875	.0144	10	324
10-MSJ	10	2	.500	1.410	8:1	16	753	5	418	4766	.0377	20	325
					24:1	48	384	1 1/2	246	2813	.0192	20	325
15-MSJ	15	2 1/4	.500	1.684	8:1	16	1221	5	258	4424	.0407	20/29	326
					24:1	48	654	1 1/2	144	2478	.0218	20/29	326
20-MSJ	20	2 1/2	.500	1.908	8:1	16	1740	7 1/2	272	6209	.0435	40	327
					24:1	48	873	2 1/2	180	4130	.0218	40	327
30-MSJ	30	3 3/8	.667	2.652	10 2/3:1	16	2710	11	256	8764	.0452	50	328
					32:1	48	1411	3 1/2	156	5364	.0235	50	328
35-MSJ	35	3 3/4	.667	3.009	10 2/3:1	16	3450	11	200	8035	.0493	50	329
					32:1	48	1800	3 1/2	122	4904	.0257	50	329
50-MSJ	50	4 1/2	.667	3.782	10 2/3:1	16	5555	16	181	10382	.0555	100	330
					32:1	48	3014	5	104	5982	.0301	100	330
75-MSJ	75	5	.667	4.286	10 2/3:1	16	8236	28	214	18368	.0549	155	331
					32:1	48	3780	9	150	12862	.0252	155	331
100-MSJ	100	6	.667	5.254	10 2/3:1	16	13166	32	153	17330	.0665	205	332
					32:1	48	7460	12 1/2	106	11941	.0377	205	332

* Measurements listed are for non-keyed units. See individual jack pages for keyed jack info.

NOTES:

8) Catalog dimensions are representative only and are subject to change without notice. For construction, use only certified prints.

9) Units are not to be used as personnel support or movement.

10) End-of-travel stops are not provided.

$$\text{Horsepower per jack} = \frac{\text{Torque to raise one pound} \times \text{Number of pounds to be raised} \times \text{rpm}}{63,025}$$

* Tare drag torque need only be added if operating under 25% rated load.

Starting Torque is 100% greater than torque shown.