



CATALOG ADDENDUM

HD Series Linear Positioners

The information contained in this addendum is intended as a supplement to the HD Series information provided in our catalog.

HD Series linear tables are covered on pages 90-111 of the Daedal Electromechanical Positioning System Catalog. The page numbers in this addendum correspond to the appropriate page in our catalog.

Please contact our office or your local Daedal Distributor with any questions.



Screw Driven
Tables

Introducing:

New HD Series Industrial Grade Series

Parker Daedal now offers the HD series in two performance grades:

- Standard (as currently specified in the catalog)
- Industrial (as detailed in this addendum)

For applications that do not require the high level of accuracy and repeatability of our standard product, our new industrial grade offers a very cost-effective alternative.

Comparative specifications are provided in this addendum. All specifications and data not specifically designated as Industrial grade in this addendum are provided in their entirety in the catalog and are applicable to both product grades. Please refer to the appropriate Daedal catalog pages or visit our website.

Also, please refer to the last page of this addendum for additional How to Order instructions.

New Parallel Motor Options

Parker Daedal has dramatically expanded the motor mount options available for both the standard and new Industrial grade products with new parallel motor mount options.

Available on the HD085, HD125 and HD185, these parallel motor options provide a more compact positioner footprint.

Please refer to the last page of this addendum for additional How to Order instructions.

**HD085 Series Linear Table
85 mm Wide Profile**

Common Characteristics

Performance	Standard	Industrial
Bidirectional Repeatability ⁽¹⁾ – (µm)	±8.0	±50.0
Duty Cycle	100%	100%
Max Acceleration – m/sec ² (in/sec ²)	20 (773)	20 (773)
Rated Normal Load ⁽²⁾ – kgf (lbs)	170 (374)	170 (374)
Rated Axial Loading ⁽³⁾ – kgf (lbs)	90 (198)	90 (198)
Drive Screw Efficiency – %	90	90
Max. Breakaway Torque – Nm (ft-lbs)	0.21 (0.15)	0.21 (0.15)
Running Torque – Nm (ft-lbs)	0.18 (0.13)	0.18 (0.13)
Linear Bearing Coefficient of Friction	0.01	0.01
Carriage Weight – kg (lbs)	0.9 (1.98)	0.9 (1.98)



Travel Dependent Characteristics

Travel	Positional Accuracy ⁽¹⁾ (µm)		Straightness & Flatness Accuracy (µm)		Max. Velocity (mm/sec.)			Input Inertia (kg-m ² x 10 ⁻⁹)			Total Table Weight (kg)
	Standard	Industrial	Standard	Industrial	5 mm	10 mm	20 mm	5 mm	10 mm	20 mm	
100	25	50	10	20	370	740	1480	1.826	1.925	2.322	3.86
200	25	50	15	30	370	740	1480	2.214	2.313	2.710	4.56
300	30	75	20	40	370	740	1480	2.601	2.701	3.097	5.26
400	35	100	25	50	370	740	1480	2.989	3.088	3.485	5.96
500	40	120	30	60	370	740	1480	3.377	3.476	3.873	6.66
600	45	130	35	70	260	520	1040	3.764	3.864	4.260	7.36
800	55	150	45	90	180	360	720	4.540	4.639	5.036	8.76
1000	65	200	55	110	—	240	480	—	5.414	5.811	10.16
1200	75	250	65	130	—	170	340	—	6.190	6.586	11.56

Motor Characteristics

	M01x M02x SM232AE	M11x M12x SM232AQ	M100 Series* HV232	M100 Parallel* HV232
Max. Voltage	340	340	170	170
Peak Current	8.3	8.3	1.38	2.76
RMS Current	2.0	2.0	1.38	2.76
Resistance	7.50	7.50	3.41	0.85
Inductance	2.90	2.90	12.28	3.07
Recommended Drive	S025	AR-04	E-AC	E-AC

* Series/Parallel denotes wiring of step motor to drive

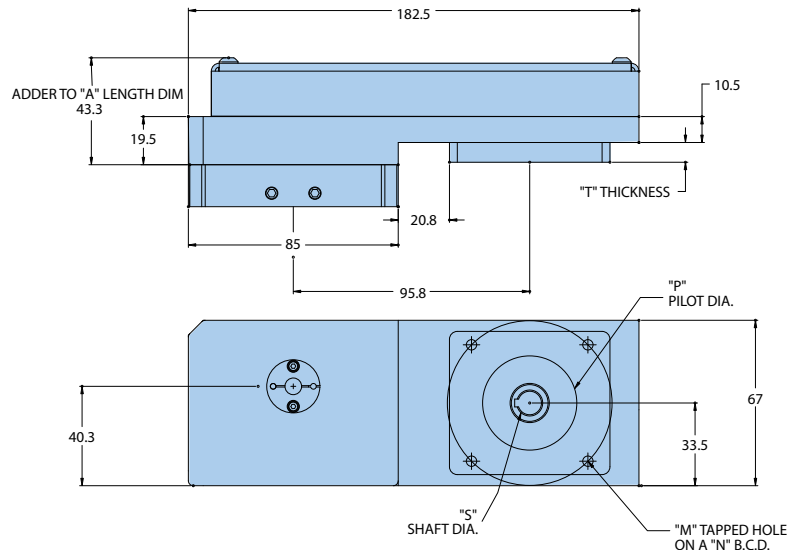
(1) Accuracy and Repeatability apply to in-line motors only. Contact factory for parallel motor configurations. The accuracy and repeatability shown are for mechanics only and assume no error contribution from the motor. With standard 4000 count encoders an additional error must be added to both the accuracy and repeatability. For 5 mm lead add 1.25 microns, for 10 mm leads add 2.5 microns and for 20 mm leads add 5 microns of error to the accuracy and repeatability value stated above.

(2) Normal load capacities apply to centralized load on the linear bearing to a life of 2540 Km. Refer to life/load charts to determine life of your particular application. Normal load capacity ratings are to be used as a reference of linear bearing load to life rating. This value SHOULD NOT be used as a safe loading value since other application factors (such as mounting) affect the safe load rating.

(3) Axial load capacities assumes an average axial load on a 10 mm lead ball screw and a life of 2540 Km. Refer to life/load charts to determine life of your particular application.

New HD085 Parallel Motor Options

Dimensions (mm)



NOTE : SHOWN AS SIDE "A" ("B" IS MIRROR IMAGE . ROTATED 180° ABOUT TABLE SCREW CENTERLINE)

Motor Adapter Assembly Part Number	Dimensions				Example Motors
	M	P	S	T	
A011-HD085 or B011-HD085	M4 x 0.7	30.0	8.0	6.5	Yaskawa SGMAH-01, SGM-01 Kollmorgen AKM1X-AN Allen Bradley Y-1002, Y-1003
A232-HD085 or B232-HD085	M5 x 0.8	38.1	9.53	8.0	Parker SM23X , BE23X

**HD125 Series Linear Table
125 mm Wide Profile**

Common Characteristics

Performance	Standard	Industrial
Bidirectional Repeatability ⁽¹⁾ – (µm)	±8.0	±50.0
Duty Cycle	100%	100%
Max Acceleration – m/sec ² (in/sec ²)	20 (773)	20 (773)
Rated Normal Load ⁽²⁾ – kgf (lbs)	630 (1390)	630 (1390)
Rated Axial Loading ⁽³⁾ – kgf (lbs)	90 (198)	90 (198)
Drive Screw Efficiency – %	90	90
Max. Breakaway Torque – Nm (ft-lbs)		
0 to 1000 mm Travel	0.25 (0.18)	0.25 (0.18)
1200 to 1500 mm Travel	0.35 (0.26)	0.35 (0.26)
Running Torque – Nm (ft-lbs)		
0 to 1000 mm Travel	0.21 (0.15)	0.21 (0.15)
1200 to 1500 mm Travel	0.32 (0.24)	0.32 (0.24)
Linear Bearing Coefficient of Friction	0.01	0.01
Carriage Weight – kg (lbs)	2.2 (4.84)	2.2 (4.84)



Travel Dependent Characteristics

Travel	Positional Accuracy ⁽¹⁾ (µm)		Straightness & Flatness Accuracy (µm)		Max. Velocity (mm/sec.)				Input Inertia (kg-m ² x 10 ⁻⁵)				Total Table Weight (kg)
	Std	Ind	Std	Ind	5 mm	10 mm	20 mm	40 mm	5 mm	10 mm	20 mm	40 mm	
200	25	50	15	30	370	740	1480	2240	3.061	3.416	4.834	14.386	11.50
300	30	75	20	40	370	740	1480	2240	3.449	3.804	5.222	15.612	12.75
400	35	100	25	50	370	740	1480	2240	3.837	4.191	5.610	16.837	14.00
500	40	120	30	60	315	630	1260	2240	4.224	4.579	5.997	18.062	15.25
600	45	130	35	70	240	480	960	1920	4.612	4.967	6.385	19.287	16.50
800	55	150	45	90	155	310	620	1240	5.387	5.742	7.160	7.936	19.00
1000	65	200	55	110	—	212	424	848	—	6.517	7.936	24.189	21.50
1200	75	200	65	130	—	—	420	840	—	—	21.577	27.251	24.00
1500	90	300	80	150	—	—	280	560	—	—	25.253	30.927	25.75

Motor Characteristics

	M01x M02x SM232AE	M11x M12x SM232AQ	M03x SM233AE	M13x SM233AQ	M04x MPP921B	M14x MPP921B	M100 Series* HV232	M100 Parallel* HV232
Max. Voltage	340	340	340	340	340	340	170	170
Peak Current	8.3	8.3	8.1	8.1	7.0	7.0	1.38	2.76
RMS Current	2.0	2.0	1.9	1.9	1.8	1.8	1.38	2.76
Resistance	7.50	7.50	9.65	9.65	11.0	11.0	3.41	0.85
Inductance	2.90	2.90	4.08	4.08	47.0	47.0	12.28	3.07
Recommended Drive	S025	AR-04	S025	AR-04	S025	AR-04	E-AC	E-AC

* Series/Parallel denotes wiring of step motor to drive

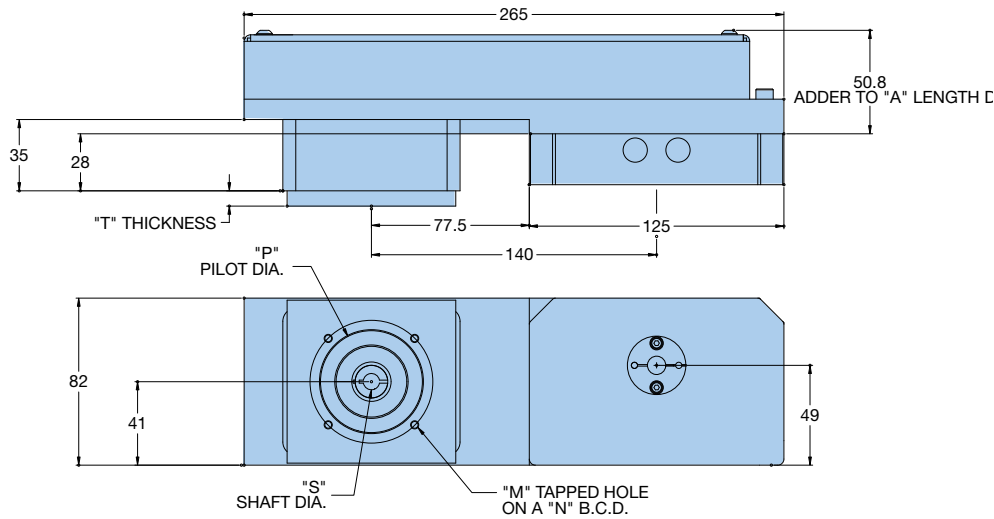
(1) Accuracy and Repeatability apply to in-line motors only. Contact factory for parallel motor configurations. The accuracy and repeatability shown are for mechanics only and assume no error contribution from the motor. With standard 4000 count encoders an additional error must be added to both the accuracy and repeatability. For 5 mm lead add 1.25 microns, for 10 mm leads add 2.5 microns and for 20 mm leads add 5 microns of error to the accuracy and repeatability value stated above.

(2) Normal load capacities apply to centralized load on the linear bearing to a life of 2540 Km. Refer to life/load charts to determine life of your particular application. Normal load capacity ratings are to be used as a reference of linear bearing load to life rating. This value SHOULD NOT be used as a safe loading value since other application factors (such as mounting) affect the safe load rating.

(3) Axial load capacities assumes an average axial load on a 10 mm lead ball screw and a life of 2540 Km. Refer to life/load charts to determine life of your particular application.

New HD125 Parallel Motor Options

Dimensions (mm)



NOTE : SHOWN AS SIDE "B" ("A" IS MIRROR IMAGE . ROTATED 180° ABOUT TABLE SCREW CENTERLINE)

Motor Adapter Assembly Part Number	Dimensions					Example Motors
	M	N	P	S	T	
A021-HD125 or B021-HD125	M4 x 0.7	60.0	50.0	8.0	7.5	Allen Bradley LD-2003
A031-HD125 or B031-HD125	M5 x 0.8	63.0	40.0	9.0	7.5	Parker SMB60/HDY55 Allen Bradley MPL1510/1520/1530
A041-HD125 or B041-HD125	M4 x 0.7	63.0	40.0	9.0	7.5	Kollmorgen AKM2X-AN Indramat MKD025
A061-HD125 or B061-HD125	M5 x 0.8	70.0	50.0	8.0	10.0	Yaskawa SGMP-01, SGMPH-01-XXXX
A062-HD125 r B062-HD125	M5 x 0.8	70.0	50.0	14.0	10.0	Yaskawa SGMAH-02XXF4X, SGMAH-04XXF4X, SGM-02, SGM-04 Allen Bradley Y-2006, Y-2012
A071-HD125 or B071-HD125	M5 x 0.8	75.0	60.0	11.0	-	Parker J070/NO70/HDY70 Allen Bradley MPL210/220/230 Kollmorgen B102/BH-122
A081-HD125 or B081-HD125	M6 x 1.0	90.0	70.0	14.0	10.0	Yaskawa SGMPH-02XXX, SGMPH-04XXX, SGMP-02, SGMP-04
A101-HD125 or B101-HD125	M6 x 1.0	95.0	50.0	14.0	10.0	Indramat MKD041
A111-HD125 or B111-HD125	M6 x 1.0	100.0	80.0	14.0	10.0	Parker JO92X/NO92X
A121-HD125 or B121-HD125	M6 x 1.0	100.0	80.0	16.0	8.0*	Kollmorgen AKM4X-AN Mounting Code
A231-HD125 or B231-HD125	M5 x 0.8	66.68	38.1	6.35	10.0	Parker ES23X Allen Bradley N-2302, N-2304 Anematics SM2310D, SM2320D
A232-HD125 or B232-HD125	M5 x 0.8	66.68	38.1	9.53	10.0	Parker SM23X , BE23X
A233-HD125 or B233-HD125	M4 x 0.7	66.68	38.1	12.7	10.0	Yaskawa SGMAH-0XXN2XX, SGMAH-04XXN2XX NEMA 23 Face
A341-HD125 or B341-HD125	M5 x 0.8	98.43	73.03	6.35	15.0	Parker HV/LV34
A342-HD125 or B342-HD125	M5 x 0.8	98.43	73.03	12.7	15.0	Parker BE34

*Not outer support bearing assembly block (no 35 mm dimension pulley on motor shaft).

**HD185 Series Linear Table
185 mm Wide Profile**

Common Characteristics

Performance	Standard	Industrial
Bidirectional Repeatability ⁽¹⁾ – (µm)	±8.0	±50.0
Duty Cycle	100%	100%
Max Acceleration – m/sec ² (in/sec ²)	20 (773)	20 (773)
Rated Normal Load ⁽²⁾ – kgf (lbs)	1470 (3241)	1470 (3241)
Rated Axial Loading ⁽³⁾ – kgf (lbs)	90 (198)	90 (198)
Drive Screw Efficiency – %	90	90
Max. Breakaway Torque – Nm (ft-lbs)		
0 to 1000 mm Travel	0.32 (0.24)	0.32 (0.24)
1200 to 1600 mm Travel	0.38 (0.28)	0.38 (0.28)
Running Torque – Nm (ft-lbs)		
0 to 1000 mm Travel	0.21 (0.15)	0.21 (0.15)
1200 to 1600 mm Travel	0.35 (0.26)	0.35 (0.26)
Linear Bearing Coefficient of Friction	0.01	0.01
Carriage Weight – kg (lbs)	3.6 (7.92)	3.6 (7.92)



Travel Dependent Characteristics

Travel	Positional Accuracy ⁽¹⁾ (µm)		Straightness & Flatness Accuracy (µm)		Max. Velocity (mm/sec.)				Input Inertia (kg-m ² x 10 ⁻⁹)				Weight (kg)
	Std	Ind	Std	Ind	5 mm	10 mm	20 mm	40 mm	5 mm	10 mm	20 mm	40 mm	
300	30	75	20	40	370	740	1480	2240	3.446	4.174	7.087	23.178	22.9
400	35	100	25	50	370	740	1480	2240	3.833	4.562	7.475	24.403	24.6
500	40	120	30	60	355	710	1420	2240	4.221	4.949	7.862	25.628	26.4
600	45	130	35	70	270	540	1080	2000	4.609	5.337	8.250	26.854	28.2
800	55	150	45	90	165	330	660	1320	5.384	6.112	9.025	29.304	31.7
1000	65	200	55	110	—	230	460	920	—	6.888	9.801	31.754	35.2
1200	75	235	65	130	—	—	440	880	—	—	22.253	34.205	38.7
1400	85	250	75	150	—	—	340	680	—	—	25.003	36.655	42.2
1600	95	300	85	180	—	—	260	520	—	—	27.454	39.106	45.8

Motor Characteristics

	M01x SM232AE	M11x SM232AQ	M03x SM233AE	M13x SM233AQ	M04x MPP921B	M14x MPP921B
Max. Voltage	340	340	340	340	340	340
Peak Current	8.3	8.3	8.1	8.1	7.0	7.0
RMS Current	2.0	2.0	1.9	1.9	1.8	1.8
Resistance	7.50	7.50	9.65	9.65	11.0	11.0
Inductance	2.90	2.90	4.08	4.08	47.0	47.0
Recommended Drive	S025	AR-04	S025	AR-04	S025	AR-04

* Series/Parallel denotes wiring of step motor to drive

(1) Accuracy and Repeatability apply to in-line motors only. Contact factory for parallel motor configurations. The accuracy and repeatability shown are for mechanics only and assume no error contribution from the motor. With standard 4000 count encoders an additional error must be added to both the accuracy and repeatability. For 5 mm lead add 1.25 microns, for 10 mm leads add 2.5 microns and for 20 mm leads add 5 microns of error to the accuracy and repeatability value stated above.

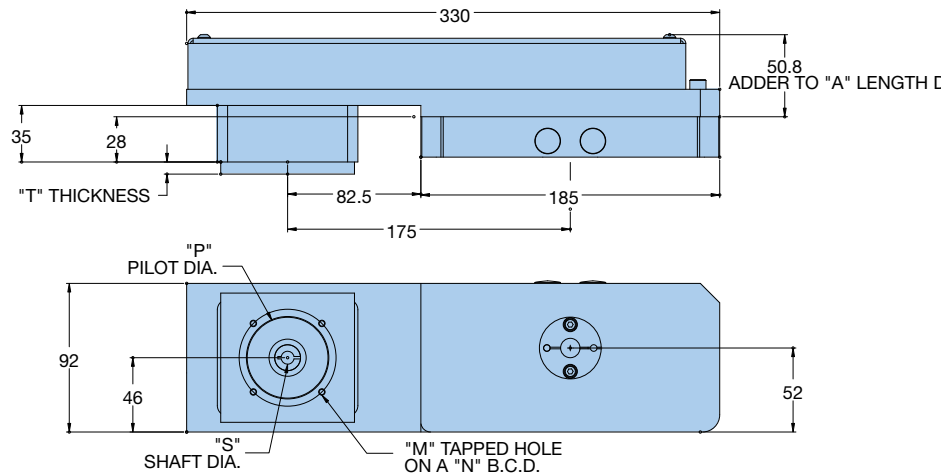
(2) Normal load capacities apply to centralized load on the linear bearing to a life of 2540 Km. Refer to life/load charts to determine life of your particular application. Normal load capacity ratings are to be used as a reference of linear bearing load to life rating. This value SHOULD NOT be used as a safe loading value since other application factors (such as mounting) affect the safe load rating.

(3) Axial load capacities assumes an average axial load on a 10 mm lead ball screw and a life of 2540 Km. Refer to life/load charts to determine life of your particular application.



New HD185 Parallel Motor Options

Dimensions (mm)



NOTE : SHOWN AS SIDE "B" ("A" IS MIRROR IMAGE . ROTATED 180° ABOUT TABLE SCREW CENTERLINE)

Motor Adapter Assembly Part Number	Dimensions					Example Motors
	M	N	P	S	T	
A021-HD185 or B021-HD185	M4 x 0.7	60.0	50.0	8.0	7.5	Allen Bradley LD-2003
A031-HD185 or B031-HD185	M5 x 0.8	63.0	40.0	9.0	7.5	Parker SMB60/HDY55 Allen Bradley MPL1510/1520/1530
A041-HD185 or B041-HD185	M4 x 0.7	63.0	40.0	9.0	7.5	Kollmorgen AKM2X-AN Indramat MKD025
A061-HD185 or B061-HD185	M5 x 0.8	70.0	50.0	8.0	10.0	Yaskawa SGMP-01, SGMPH-01-XXXX
A062-HD185 or B062-HD185	M5 x 0.8	70.0	50.0	14.0	10.0	Yaskawa SGMAH-02XXF4X, SGMAH-04XXF4X, SGM-02, SGM-04 Allen Bradley Y-2006, Y-2012
A071-HD185 or B071-HD185	M5 x 0.8	75.0	60.0	11.0	-	Parker J070/NO70/HDY70 Allen Bradley MPL210/220/230 Kollmorgen B102/BH-122
A081-HD185 or B081-HD185	M6 x 1.0	90.0	70.0	14.0	10.0	Yaskawa SGMPH-02XXX, SGMPH-04XXX, SGMP-02, SGMP-04
A082-HD185 or B082-HD185	M5 x 0.8	90.0	70.0	14.0	10.0	Yaskawa SGMAH-08 SGM-08 Allen Bradley Y-3023
A101-HD185 or B101-HD185	M6 x 1.0	95.0	50.0	14.0	10.0	Indramat MKD041
A111-HD185 or B111-HD185	M6 x 1.0	100.0	80.0	14.0	10.0	Parker JO92X/NO92X
A121-HD185 or B121-HD185	M6 x 1.0	100.0	80.0	16.0	8.0*	Parker MPP92X Allen Bradley MPL310/320/330, LD-4012
A231-HD185 or B231-HD185	M5 x 0.8	66.68	38.1	6.35	10.0	Parker ES23X Allen Bradley N-2302, N-2304 Animatec SM2310D, SM2320D
A232-HD185 or B232-HD185	M5 x 0.8	66.68	38.1	9.53	10.0	Parker SM23X , BE23X
A233-HD185 or B233-HD185	M4 x 0.7	66.68	38.1	12.7	10.0	Yaskawa SGMAH-0XXN2XX, SGMAH-04XXN2XX NEMA 23 Face
A341-HD185 or B341-HD185	M5 x 0.8	98.43	73.03	6.35	15.0	Parker HV/LV34
A342-HD185 or B342-HD185	M5 x 0.8	98.43	73.03	12.7	15.0	Parker BE34

*Not outer support bearing assembly block (no 35 mm dimension pulley on motor shaft).

Use the instructions below to supplement the Ordering Information in the Daedal Catalog:

HD085 (Page 108)

HD125 (Page 109)

HD185 (Page 110)

New Industrial Grade Products

To order an industrial grade table use an order code N under item 3 in the order string.

③ **Grade**

- N Industrial Grade
- S Standard Grade

New Parallel Motor Options

To order one of the new parallel motor options, use the first four characters from the appropriate Motor Adapter Assembly Part Number provided in this addendum under item 5 in the order string.

For example:

⑤ **Motor Options***

- A021 For an HD185 for use with an Allen Bradley LD-2003 motor

