

# 60000CT Series

## Outstanding Accuracy

For high duty cycle applications requiring superior accuracy, the 60000CT series meets the challenge with oversized, super precision cross roller ways and a precision grade ground ball screw. The table body is designed with an extremely rigid cross section to minimize deflection. These tables are ideal for use in applications requiring extremely smooth, flat motion, such as surface finish inspection and semiconductor testing.



## 60000CT Series

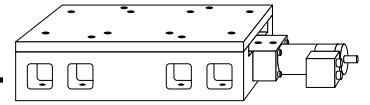
		606004CT 610004CT	606006CT 610006CT	606008CT 610008CT
Travel – inches (mm)		4 (100)	6 (150)	8 (200)
Life @ Listed Specifications – x 1 million inches (km)		152 (3861)	143 (3632)	123 (3124)
Positional Accuracy – x 0.001 in (µm) Over Total Table Travel		0.2 (5,1)	0.3 (7,6)	0.4 (10,2)
Positional Repeatability – x 0.001 in (µm)		±0.05 (±1,3)	±0.05 (±1,3)	±0.05 (±1,3)
Straight Line Accuracy – x 0.001 in (µm) Over Total Table Travel		0.11 (2,79)	0.16 (4,06)	0.22 (5,59)
Flatness Accuracy – x 0.001 in (µm) Over Total Table Travel		0.11 (2,79)	0.16 (4,06)	0.22 (5,59)
Max Screw Speed – rps		55	55	55
Max Acceleration – in/sec <sup>2</sup> (mm/sec <sup>2</sup> )		96 (2400)	96 (2400)	96 (2400)
Duty Cycle – % of motion to dwell cycle		100	100	100
Direct Loading* – lbs (kgf)	Normal	360 (163)	400 (181)	445 (202)
	Inverted	180 (81)	200 (91)	220 (101)
Axial Loading – lbs (kgf)	Smooth Operation**	240 (109)	240 (109)	240 (109)
Input Inertia*** – 10 <sup>-3</sup> oz-in-sec <sup>2</sup> (10 <sup>-6</sup> kg-m-sec <sup>2</sup> )	6" wide	5.73 (4,13)	6.66 (4,80)	7.59 (5,46)
	10" wide	5.89 (4,24)	6.84 (4,93)	7.79 (5,61)
Maximum Running Torque – oz-in (N-m)		25 (0,18)	25 (0,18)	25 (0,18)
Maximum Breakaway Torque – oz-in (N-m)		27.5 (0,19)	27.5 (0,19)	27.5 (0,19)
Drive Screw Efficiency – %		90	90	90
Coefficient of Linear Bearing Friction		0.003	0.003	0.003
Carriage Weight - lbs (kgf)	6" wide	7.6 (3,4)	8.9 (4,04)	10.2 (4,63)
	10" wide	12 (5,44)	14.2 (6,44)	16.3 (7,39)
Table Weight - lbs (kgf)	6" wide	20 (9,07)	23.3 (10,6)	26.6 (12,06)
	10" wide	32.3 (14,7)	37.8 (17,1)	43.3 (19,64)

\* Refer to page B68-B69 for moment load graphs.

\*\* For applications with vibration, consult factory for axial loads.

\*\*\* Based on 5 pitch (0.2 inch lead) ballscrew.

# Cross Roller Tables



## Quality Design

The 600000CT series' body is constructed of aluminum alloy and is protected with a black anodize surface finish. The top and bottom mounting surfaces are precision ground to assure flatness and all mounting holes are fitted with locking steel threaded inserts to prevent mounting bolts from working loose. The cross rollers are larger than most comparable units, enabling load capacities to 645 pounds. The drive is a precision ground, preloaded ball screw which virtually eliminates backlash. The ball screw is supported by two sets of ABEC 7 class precision angular contact bearings to provide smooth screw rotation and high thrust capacity.

## Options:

### Motor Couplings

Bellows couplings are available for 1/4" and 3/8" motor shafts. These couplings provide very little radial wind up and compensate for motor to screw shaft misalignment.

### Motor Mount

The motor mount is designed for an industry standard NEMA 23 motor flange with shaft lengths between 0.65 and 0.85 inches.

### Limit and Home Switches

The 600000CT series can be equipped with either mechanical reed switch or optical sensor type limit and home switch assemblies. The limit switches provide a signal when the table is approaching its end of travel and is used to command the motor to stop. The Home sensor provides a fixed reference point to which the table can always return. Refer to page B78 for Limit and Home switch details.

### Linear Encoders

This option mounts to the side of the table and gives direct positional feedback of the carriage. Imperial resolution of 0.0001 inch and metric resolution of 0.001 mm are available. Refer to page B80 for linear encoder details.

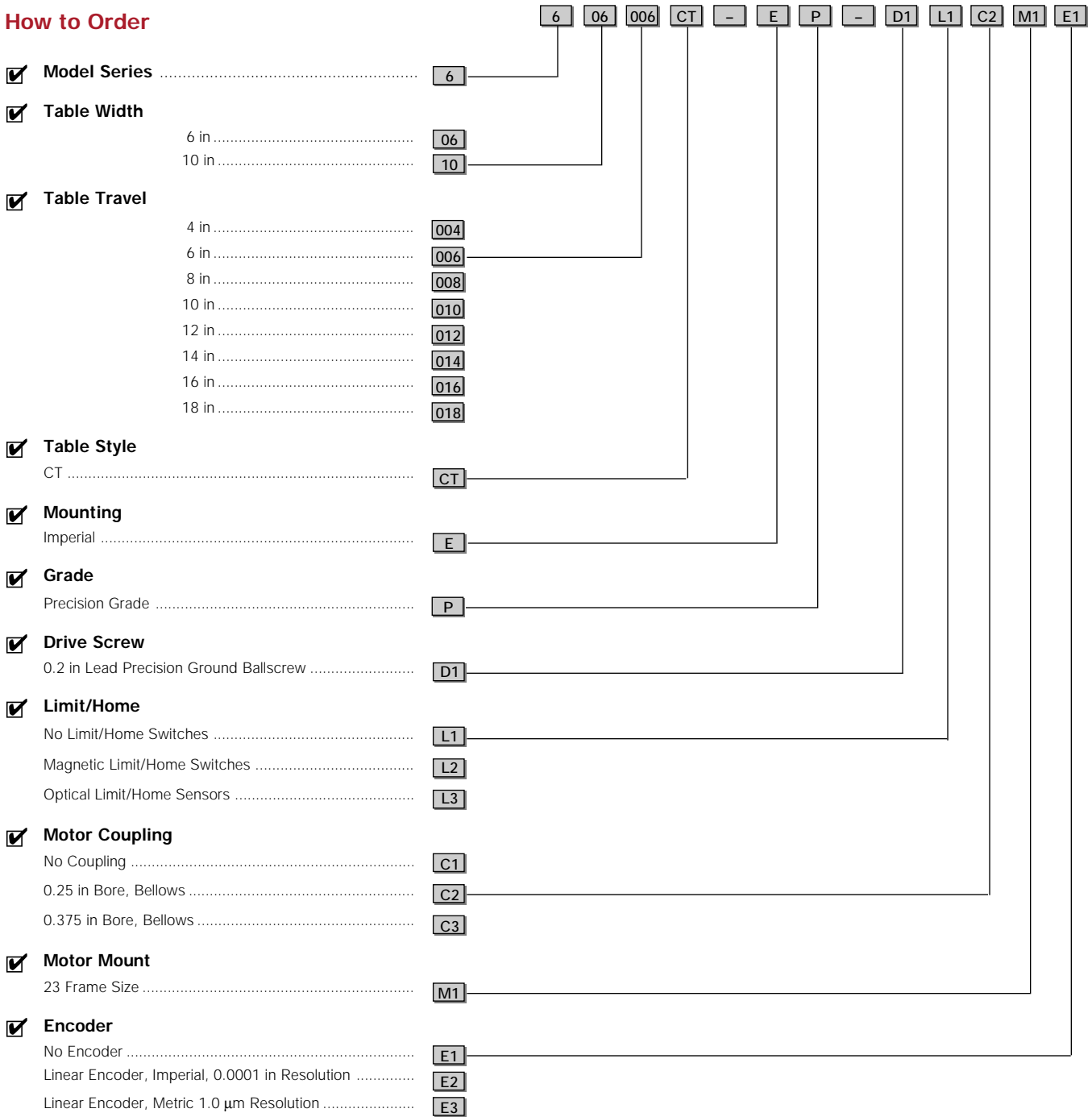
600000CT

606010CT 610010CT		606012CT 610012CT		606014CT 610014CT		606016CT 610016CT		606018CT 610018CT	
10	(250)	12	(300)	14	(350)	16	(400)	18	(450)
117	(2972)	112	(2845)	110	(2794)	110	(2794)	110	(2794)
0.4	(10,2)	0.4	(10,2)	0.5	(12,7)	0.6	(15,2)	0.7	(17,8)
±0.05	(±1,3)	±0.05	(±1,3)	±0.05	(±1,3)	±0.05	(±1,3)	±0.05	(±1,3)
0.24	(6,10)	0.26	(6,60)	0.27	(6,86)	0.29	(7,37)	0.31	(7,87)
0.24	(6,10)	0.26	(6,60)	0.27	(6,86)	0.29	(7,37)	0.31	(7,87)
55		55		55		55		55	
96	(2400)	96	(2400)	96	(2400)	96	(2400)	96	(2400)
100		100		100		100		100	
490	(222)	535	(243)	580	(263)	600	(272)	645	(323)
245	(111)	265	(121)	290	(131)	300	(136)	320	(161)
240	(109)	240	(109)	240	(109)	240	(109)	240	(109)
8.51	(6,13)	9.44	(6,80)	10.37	(7,50)	11.30	(8,14)	12.22	(8,80)
8.75	(6,30)	9.70	(6,99)	10.66	(7,68)	11.61	(8,36)	12.57	(9,05)
25	(0,18)	25	(0,18)	25	(0,18)	25	(0,18)	25	(0,18)
27.5	(0,19)	27.5	(0,19)	27.5	(0,19)	27.5	(0,19)	27.5	(0,19)
90		90		90		90		90	
0.003		0.003		0.003		0.003		0.003	
11.5	(5,22)	12.8	(5,8)	14.1	(6,40)	15.4	(7,0)	16.7	(7,58)
18.4	(8,35)	20.4	(9,25)	22.5	(10,2)	24.6	(11,16)	26.8	(12,16)
30	(13,61)	33.2	(15,06)	36.4	(16,5)	39.7	(18,0)	43	(19,5)
48.8	(22,14)	54.3	(24,6)	59.8	(27,1)	65.3	(29,6)	70.9	(32,2)

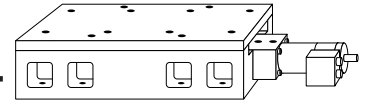
# 600000CT Series

## Order Example

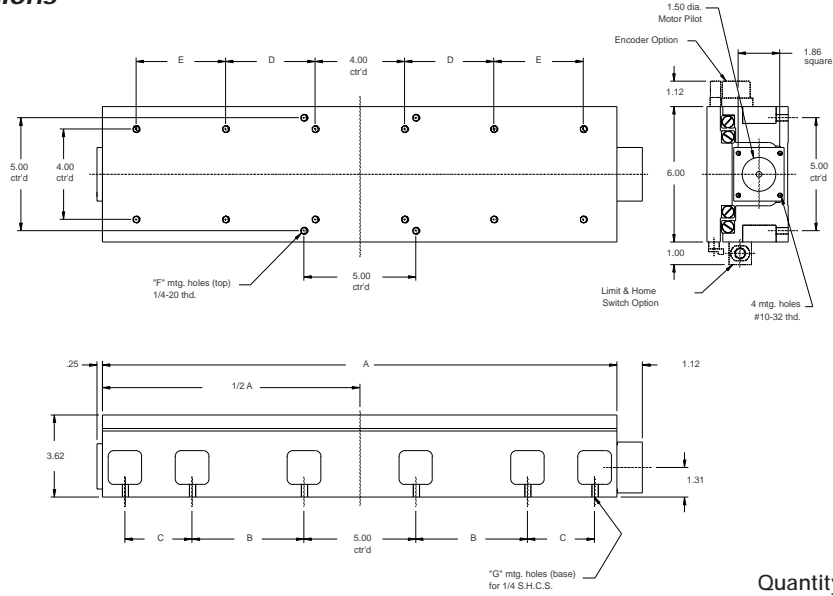
### How to Order



# Cross Roller Tables



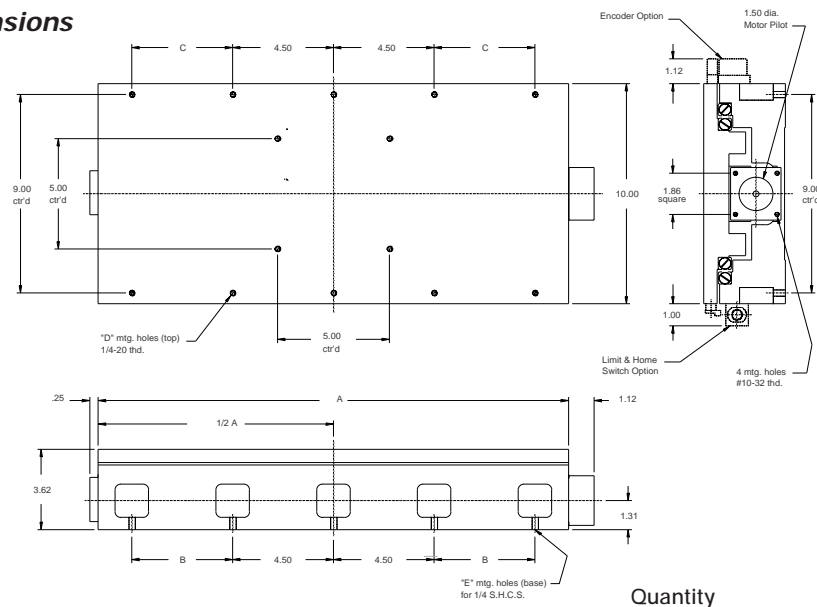
## 606000 Series Dimensions



Model	A	B	C	D	E	Quantity F	Quantity G
606004CT	11 in	2.0 in	—	2.0 in	—	12	8
606006CT	13 in	2.5 in	—	3.5 in	—	12	8
606008CT	15 in	3.5 in	—	4.0 in	—	12	8
606010CT	17 in	5.0 in	—	4.0 in	—	12	8
606012CT	19 in	5.0 in	—	4.0 in	2.0 in	16	8
606014CT	21 in	5.0 in	—	4.0 in	2.5 in	16	8
606016CT	23 in	5.0 in	3.0 in	4.0 in	4.0 in	16	12
606018CT	25 in	5.0 in	4.0 in	4.0 in	4.0 in	16	12

600000CT

## 610000 Series Dimensions

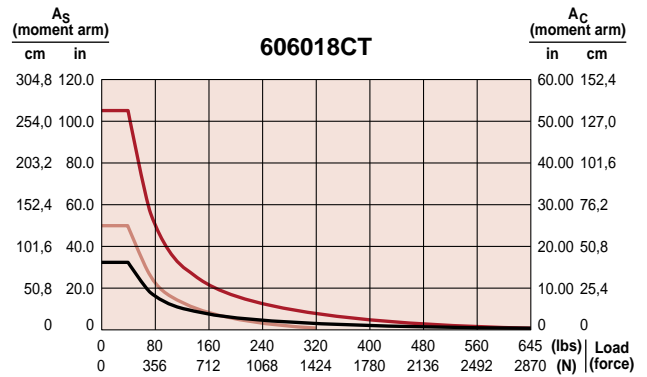
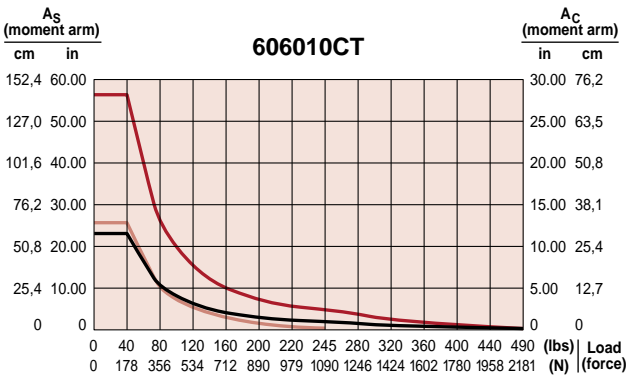
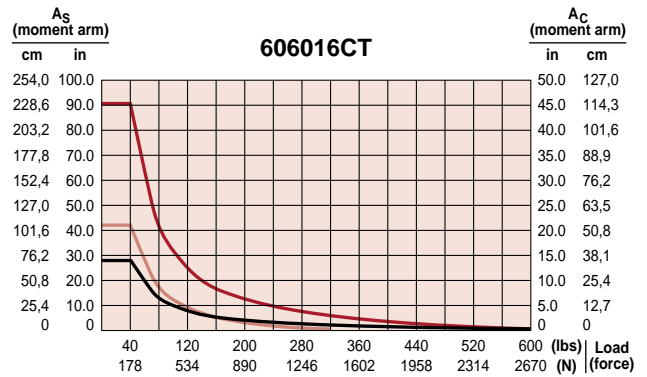
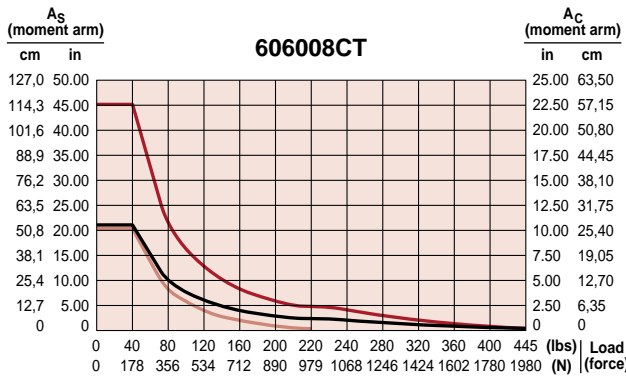
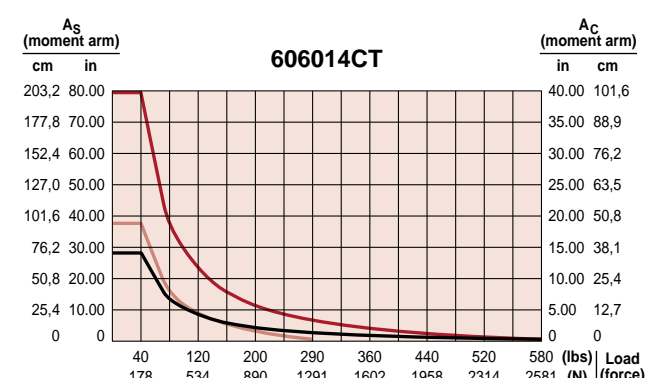
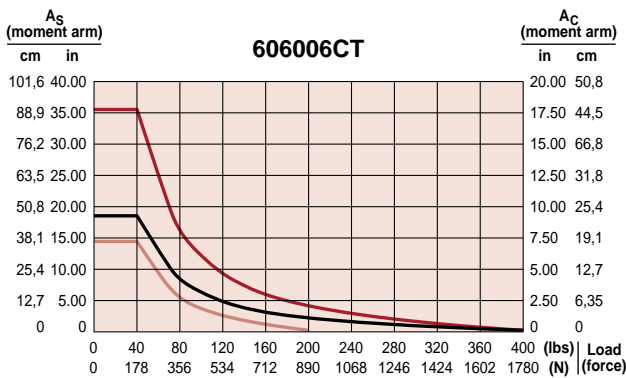
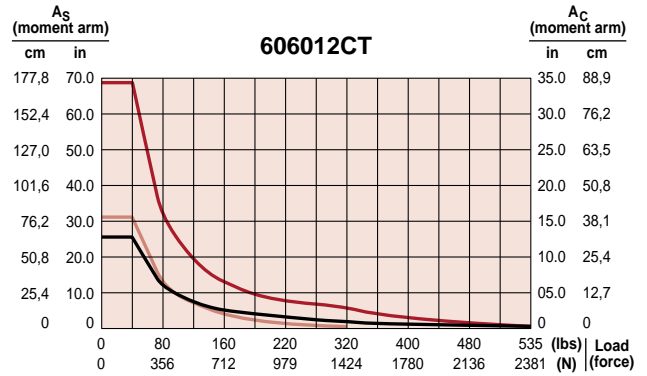
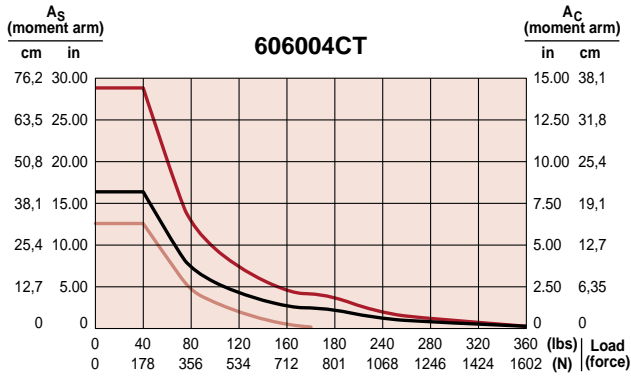


Model	A	B	C	Quantity D	E
610004CT	11 in	—	—	10	6 in
610006CT	13 in	—	—	10	6 in
610008CT	15 in	—	—	10	6 in
610010CT	17 in	—	—	10	6 in
610012CT	19 in	—	—	10	6 in
610014CT	21 in	4.5 in	4.5 in	14	10 in
610016CT	23 in	4.5 in	4.5 in	14	10 in
610018CT	25 in	4.5 in	4.5 in	14	10 in

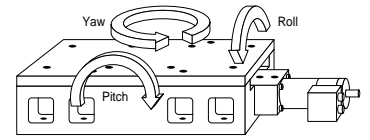
# 60000CT Series

## Yaw, Pitch and Roll

Yaw   Pitch   Roll

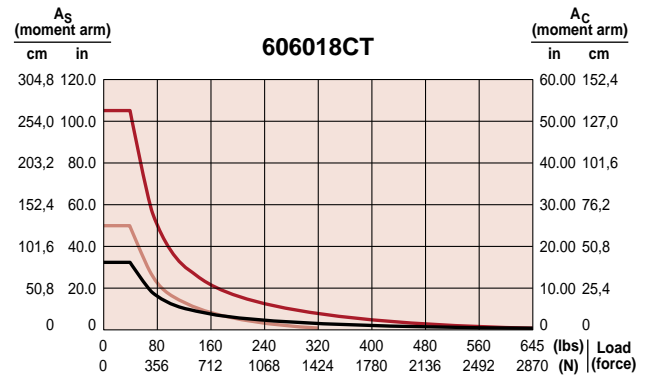
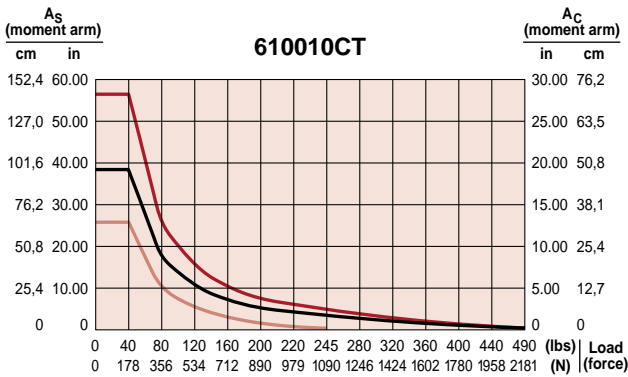
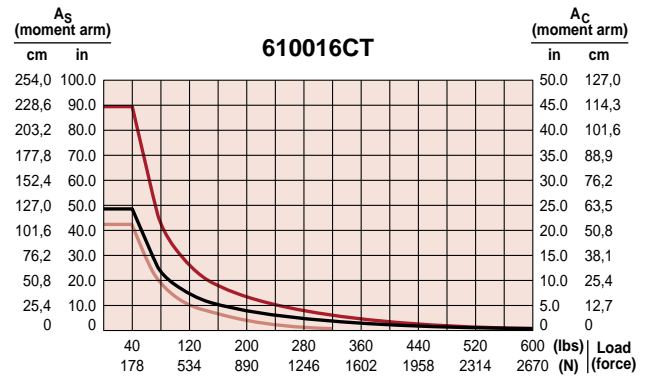
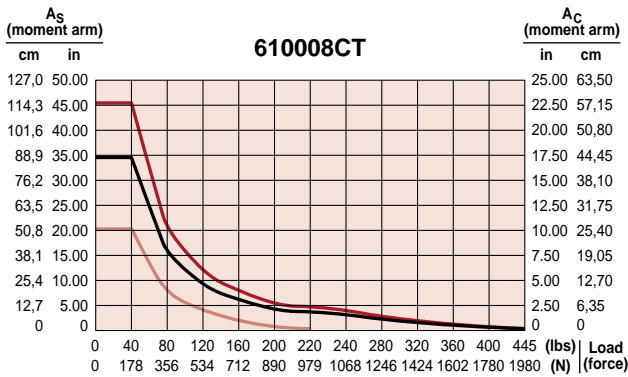
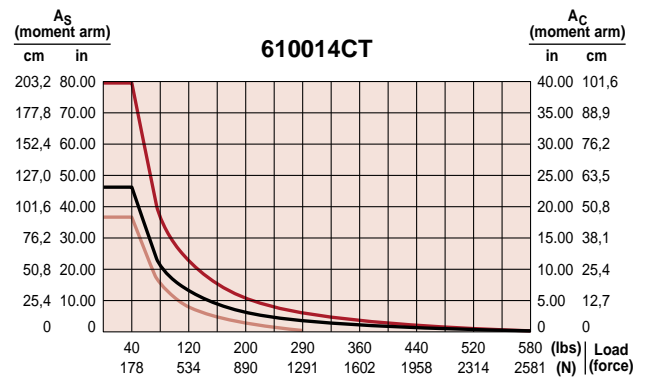
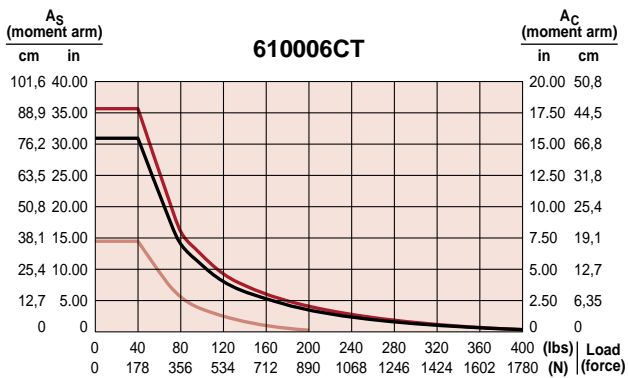
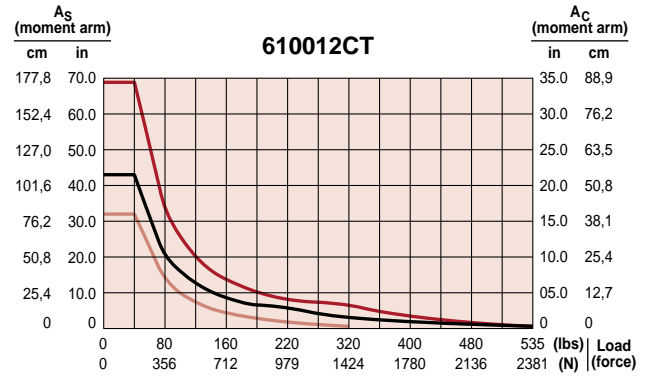
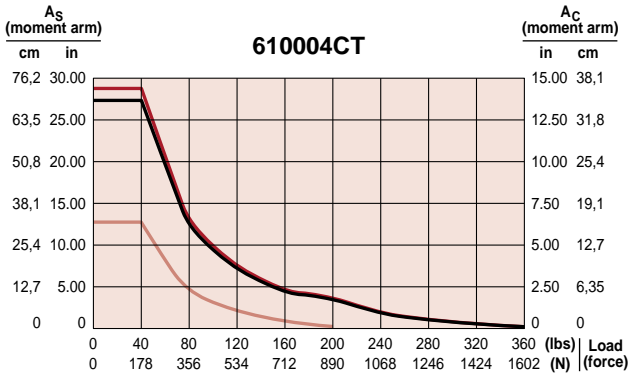


# Cross Roller Tables



## Yaw, Pitch and Roll

**Yaw**   **Pitch**   **Roll**



600000CT