

CUTTING, POSITIONING & WELDING EQUIPMENT

HEADSTOCK/TAILSTOCK



Koike Aronson, Inc./Ransome

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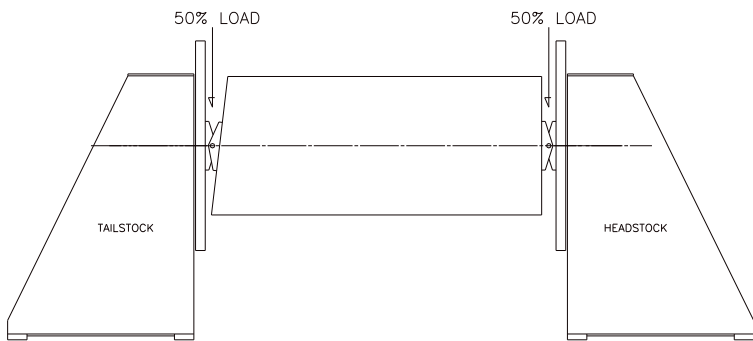
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How to Size Head & Tailstocks

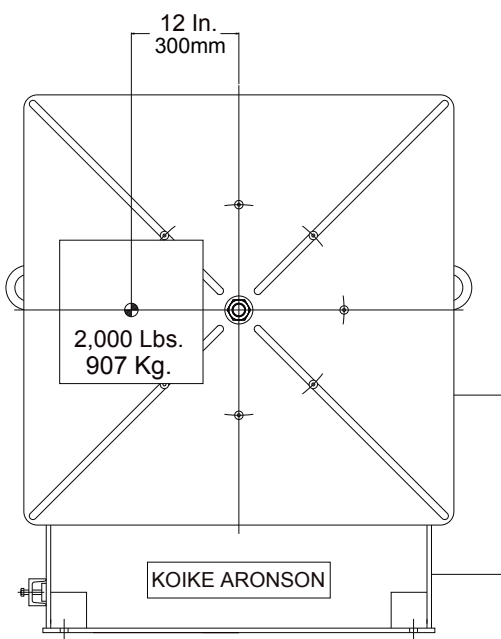
Weight Capacity

The basic Head and Tailstock configuration includes one (1) Powered rotation Headstock and a companion Non Powered Tailstock. The Headstock supports one end of the work-piece and imparts rotational motion to the work. The Tailstock merely supports the other end of the work-piece as it rotates. The first factor in selecting a HTS is to determine the maximum weight capacity required. The load should be evenly distributed between the head and tailstock; if either supports more than half of the load, (determined on CG location along the rotational centerline), an increased capacity model may be required.



Rotation Torque Load:

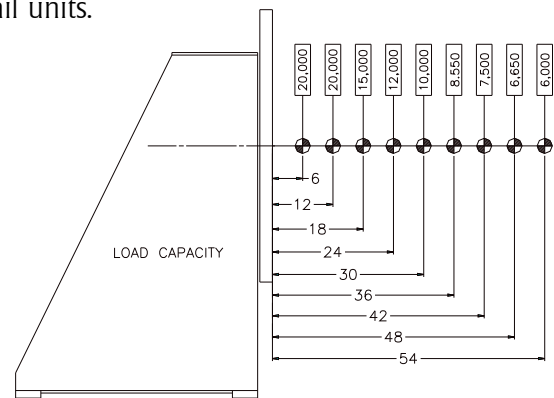
To find your weldments' Rotation Torque Load, multiply the weldment weight in Pounds by the distance in inches that the Center-of-Gravity (CG) will be from the center of the table. This measurement is taken parallel to the table surface. Do not exceed the maximum load torque shown in the "rotation" column.



Overhung Loads:

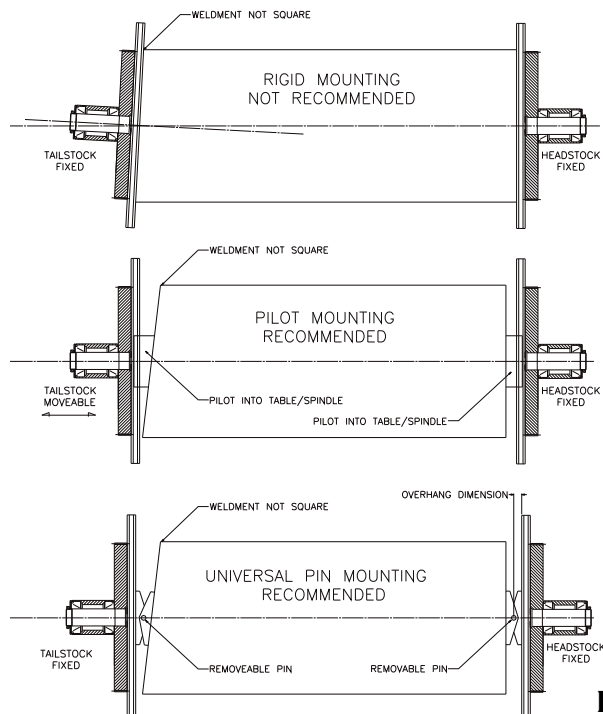
Head and tail units are rated for overhanging loads. Determine the weight and how far off of the table surface the CG (Center-of-Gravity) of the work-piece will be located, and then select the proper model Positioner.

When head and tail units are used together, the load weight is shared by both units. As explained below, if the weight is imposed on a universal joint or clamping fixture, the distance that the flexible point is off from the table face determines the overhanging load on the head and tail units.



Fixturing:

Rigidly mounted work pieces between a head and tailstock should be avoided if possible. Misalignment, or inaccurate work pieces can create stresses that can tear the work form the table or damage the Positioners, leading to un-safe work conditions or machine failures.



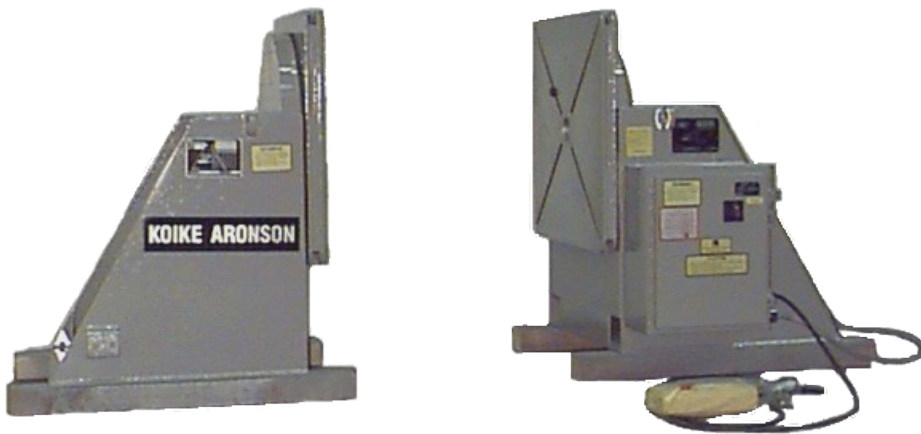
Load Capacity Tables

MODEL	Load off Rotation CG lb @ 6"	Rotation Torque in/lb	Max. Load between Head & Tail (lb)	CG @ 6"	CG@ 12"	CG@ 18"	CG@ 24"	CG@ 30"	CG@ 36"	CG@ 42"
HS2VF	2,500	30,000	-	2,500	2,500	1,100	850	700	600	500
TS2	2,500	-	-	2,500	2,500	1,100	850	700	600	500
HTS5VF-GE	5,000	30,000	5,000	-	-	-	-	-	-	-
2H/2T-PE	5,000	30,000	5,000	-	-	-	-	-	-	-
3H/3T-PE	6,000	36,000	-	-	-	-	-	-	-	-
HS4VF	4,500	54,000	-	4,500	2,700	2,000	1,550	1,300	1,100	950
TS4	4,500	-	-	4,500	2,700	2,000	1,550	1,300	1,100	950
HTS9VF-GE	9,000	54,000	9,000	-	-	-	-	-	-	-
3.5H/3.5T-PE	9,000	54,000	9,000	-	-	-	-	-	-	-
HS6VF	6,000	72,000	-	6,000	6,000	4,400	3,450	2,850	2,400	2,100
TS6	6,000	-	-	6,000	6,000	4,400	3,450	2,850	2,400	2,100
HTS12VF-GE	12,000	72,000	12,000	-	-	-	-	-	-	-
4H/4T-PE	12,000	72,000	12,000	-	-	-	-	-	-	-
HS10VF	10,000	120,000	-	10,000	10,000	7,350	5,850	4,850	4,100	3,500
TS10	10,000	-	-	10,000	10,000	7,350	5,850	4,850	4,100	3,500
HTS20VF-GE	20,000	120,000	20,000	-	-	-	-	-	-	-
5H/5T-PE	20,000	120,000	20,000	-	-	-	-	-	-	-
HS16VF	16,000	192,000	-	16,000	16,000	12,000	9,600	8,000	6,850	6,000
TS16	16,000	-	-	16,000	16,000	12,000	9,600	8,000	6,850	6,000
HTS32VF-GE	32,000	192,000	32,000	-	-	-	-	-	-	-
6H/6T-PE	32,000	192,000	32,000	-	-	-	-	-	-	-
HS20VF	20,000	240,000	-	20,000	20,000	15,000	12,000	10,000	8,550	7,500
TS20	20,000	-	-	20,000	20,000	15,000	12,000	10,000	8,550	7,500
HTS40VF-GE	40,000	240,000	40,000	-	-	-	-	-	-	-
HS25VF	25,000	300,000	-	25,000	25,000	18,900	15,200	12,750	10,950	9,600
TS25	25,000	-	-	25,000	25,000	18,900	15,200	12,750	10,950	9,600
HTS50VF-GE	50,000	300,000	50,000	-	-	-	-	-	-	-
7H/7T-PE	50,000	300,000	50,000	-	-	-	-	-	-	-
HS30VF	30,000	360,000	-	30,000	30,000	22,850	18,450	15,500	13,350	11,600
TS30	30,000	-	-	30,000	30,000	22,850	18,450	15,500	13,350	11,600
HTS60VF-GE	60,000	360,000	60,000	-	-	-	-	-	-	-
8H/8T-PE	80,000	480,000	80,000	-	-	-	-	-	-	-
HS45VF	45,000	540,000	-	45,000	45,000	34,400	27,850	23,400	20,150	17,700
TS45	45,000	-	-	45,000	45,000	34,400	27,850	23,400	20,150	17,700
HTS90VF-GE	90,000	540,000	90,000	-	-	-	-	-	-	-
10H/10T-PE	120,000	720,000	120,000	-	-	-	-	-	-	-
HS80VF	80,000	960,000	-	80,000	80,000	61,150	49,500	41,600	35,850	31,500
TS80	80,000	-	-	80,000	80,000	61,150	49,500	41,600	35,850	31,500
HTS160VF-GE	160,000	960,000	160,000	-	-	-	-	-	-	-
16H/16T-PE	160,000	960,000	160,000	-	-	-	-	-	-	-
HS120VF	120,000	1,440,000	-	120,000	92,000	75,000	63,000	54,000	48,000	42,000
TS120	120,000	-	-	120,000	92,000	75,000	63,000	54,000	48,000	42,000
HTS240VF-GE	240,000	1,440,000	240,000	-	-	-	-	-	-	-

All dimensions are for reference only and subject to change without notice.

ARONSON Series

Fixed Height 2.5 ton to 10 ton Capacity



Koike Aronson / Ransome manufactures Head and Tailstock Positioners with a wide range of capacities and options. These units are a strong and simple solution for the rotation of long elliptical work pieces. When used together, they require much less floor space than a Gear Driven Positioner of similar capacity.

Head and Tailstock Positioners can be used like a lathe to maintain rotation around the horizontal axis. High quality positioned welds can be performed while saving production and handling costs. Depending on the industrial application these Positioners may be mounted on fixed bases, manually adjustable bases or powered bases.

**Capacities from 5,000 to 20,000 pounds
between Headstock and Tailstock**

Features

- Piloted tables for centering loads
- NEMA 12 Electricals
- Full length table slots
- Chassis mounted weld current grounding blocks
- Low voltage hand control pendants
- 50:1 Variable speed drives
- AC brake motors



**Standard hand pendant
provided with all models**

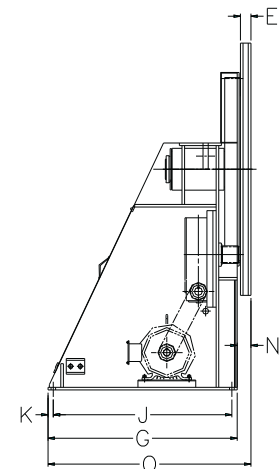
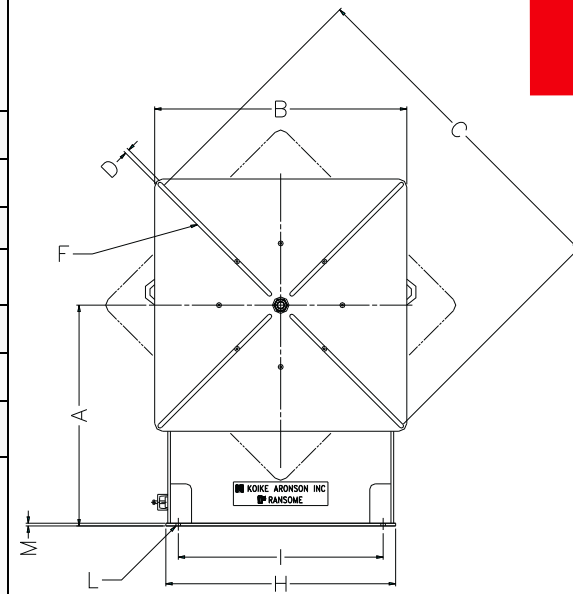


**Optional foot switch
controls available**

Specifications

HTS 5 to HTS 20

MODEL	HTS5	HTS9	HTS12	HTS20
Load Capacity, lb (kg) Max. Between Head & Tail	5,000 lb (2268)	9,000 lb (4082)	12,000 lb (5443)	20,000 lb (9072)
Overhung load 6" CG Height	2,500 (1134)	4,500 (2041)	6,000 (2721)	10,000 (4536)
on either or both 12" CG Height	1,500 (680)	2,700 (1225)	6,000 (2721)	10,000 (4536)
Head or Tailstock 18" CG Height	1,100 (499)	2,000 (907)	4,400 (1996)	7,350 (3334)
24" CG Height	850 (386)	1,550 (703)	3,450 (1565)	5,850 (2653)
30" CG Height	700 (317)	1,300 (590)	2,850 (1293)	4,850 (2200)
36" CG Height	600 (272)	1,100 (499)	2,400 (1089)	4,100 (1860)
42" CG Height	500 (227)	950 (431)	2,100 (952)	3,600 (1633)
48" CG Height	450 (204)	871 (395)	1,850 (839)	3,200 (1451)
54" CG Height	400 (181)	783 (355)	1,650 (748)	2,850 (1293)
60" CG Height	350 (159)	711 (323)	1,500 (680)	2,600 (1179)
72" CG Height	300 (136)	651 (296)	1,250 (567)	2,200 (998)
Tailstock model	TS 2	TS 4	TS 6	TS 10
Headstock model	HS 2VF	HS 4VF	HS 6VF	HS 10VF
Rotation: Torque, in-lb (N.m)	30,000 (3390)	54,000 (6102)	72,000 (8136)	120,000 (13560)
Rotation: Speed Range	1.13 - 0.02 rpm	1.2 - 0.02 rpm	1.3 - 0.03 rpm	1.0 - 0.02 rpm
Motor HP (AC variable Frequency)	1-1/2	3	3	5
Pendant cable length	20'	20'	20'	20'
Ground current (Amps)	1500	1500	2000	2000
A: Rotation centerline height Matching Positioner	27-3/4" (705) HD25-HD45	27-3/4" (705) HD25-HD45	36" (914) HD60	36" (914) HD100
B: Table Size (Square)	30"(762)	30"(762)	48"(1219)	48"(1219)
C: Max. Clamping Dia.	38-1/2" (978)	38-1/2" (978)	64" (1626)	64" (1626)
D: No. of slots and width	(4) 13/16" (21)	(4) 13/16" (21)	(4) 13/16" (21)	(4) 13/16" (21)
E: Table Thickness	1-3/4" (44)	1-3/4" (44)	2" (51)	2" (51)
Pilot hole and Depth	3.130" x 1/2"	3.130" x 1/2"	3.130" x 1/2"	3.130" x 1/2"
Thru-hole	none	none	none	none
F: Table nut thread	3/4"-10	3/4"-10	3/4"-10	3/4"-10
Dim G	30" (762)	30" (762)	36" (914)	36" (914)
Dim H	30-3/4" (781)	30-3/4" (781)	43" (1092)	43-3/4" (1111)
Dim I	27" (686)	27" (686)	39" (991)	39" (991)
Dim J	27" (686)	27" (686)	34" (864)	34" (864)
Dim K	1-1/2" (38)	1-1/2" (38)	1" (25)	1" (25)
Dim L	13/16" (20.6)	13/16" (20.6)	7/8" (22)	7/8" (22)
Dim M	3/8" (9)	3/8" (9)	1/2" (13)	1/2" (13)
Dim N	2" (51)	2" (51)	2-1/2" (63)	2-1/2" (63)
Dim O	32" (813)	32" (813)	38-1/2" (978)	38-1/2" (978)
Approx. Weight HS lb (Kg)	1,210 (549)	1,270 (576)	2,650 (1202)	3,250 (1474)
Approx. Weight TS lb (kg)	950 (431)	1,015 (460)	2,354 (1068)	2,605 (1182)
Standard Voltage	460/3/60	460/3/60	460/3/60	460/3/60



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ARONSON Series

Fixed Height 16 ton to 120 ton Capacity



Koike Aronson / Ransome manufactures Head and Tailstock Positioners with a wide range of capacities and options. These units are a strong and simple solution for the rotation of long elliptical work pieces. When used together, they require much less floor space than a Gear Driven Positioner of similar capacity.

Head and Tailstock Positioners can be used like a lathe to maintain rotation around the horizontal axis. High quality positioned welds can be performed while saving production and handling costs. Depending on the industrial application these Positioners may be mounted on fixed bases, manually adjustable bases or powered bases.

**Capacities from 32,000 to 240,000 pounds
between Head and Tailstock**



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Features

- Piloted tables for centering loads
- NEMA 12 Electricals
- Full length table slots
- Chassis mounted weld current grounding blocks
- Low voltage hand control pendants
- 50:1 Variable speed drives
- AC brake motors



**Standard hand pendant
provided with all models**

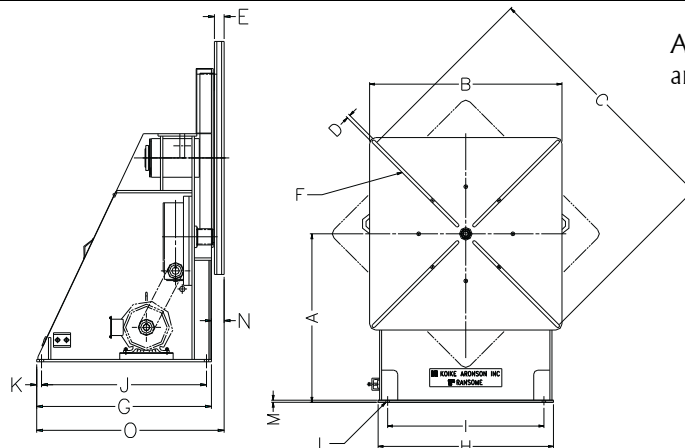


**Optional foot switch
controls available**

Specifications

HTS 32 to HTS 240

MODEL	HTS32	HTS40	HTS50	HTS60	HTS90	HTS160	HTS240
Load Capacity, lb (kg) Max. Between Head & Tail	32,000 lb (14515)	40,000 lb (18144)	50,000 lb (22680)	60,000 lb (27215)	90,000 lb (40823)	160,000 lb (72575)	240,000 lb (108862)
Overhung load 12" CG Height on either or both 18" CG Height Head or Tailstock 24" CG Height	16,000 (7257) 12,000 (5443) 9,600 (4354)	20,000 (9072) 15,000 (6804) 12,000 (5443)	25,000 (11340) 18,900 (8573) 15,200 (6895)	30,000 (13608) 22,850 (10364) 18,450 (8369)	45,000 (20214) 34,400 (15603) 27,850 (12632)	80,000 (36287) 61,150 (27737) 49,500 (22453)	120,000 (54431) 92,000 (41730) 75,000 (34019)
30" CG Height	8,000 (3629)	10,000 (4536)	12,750 (5783)	15,500 (7031)	23,400 (10614)	41,600 (18869)	63,000 (28576)
36" CG Height	6,850 (3107)	8,550 (3878)	10,950 (4967)	13,350 (6055)	20,150 (9140)	35,850 (16261)	54,000 (24494)
42" CG Height	6,000 (2721)	7,500 (3402)	9,600 (4354)	12,200 (5534)	17,700 (8028)	31,500 (14288)	48,000 (21772)
48" CG Height	5,300 (2404)	6,650 (3016)	8,550 (3878)	10,450 (4740)	15,800 (7167)	28,100 (12746)	42,000 (19051)
54" CG Height	4,800 (2177)	6,000 (2721)	7,700 (3493)	9,400 (4264)	14,250 (6464)	25,350 (11498)	38,000 (17236)
60" CG Height	4,350 (1973)	5,450 (2472)	7,000 (3175)	8,550 (3878)	13,000 (5897)	23,100 (10478)	35,000 (15876)
72" CG Height	3650 (1656)	4,600 (2086)	5950 (2699)	7,250 (3288)	11,000 (4989)	19,600 (8890)	30,000 (13608)
Tailstock model	TS 16	TS 20	TS 25	TS 30	TS 45	TS 80	TS 120
Headstock model	HS 16VF	HS 20VF	HS 25VF	HS 30VF	HS 45VF	HS 80VF	HS 120VF
Rotation: Torque, in-lb (N.m)	192,000 (21696)	240,000 (27120)	300,000 (33900)	360,000 (40680)	540,000 (61020)	960,000 (108480)	1,440,000 (162720)
Rotation: Speed Range Motor HP (AC variable frequency)	0.60 - 0.012 rpm 5	0.50 - 0.010 rpm 5	0.40 - 0.008 rpm 5	0.50 - 0.010 rpm 10	0.50 - 0.010 rpm 10	0.40 - 0.008 rpm 15	0.40 - 0.008 rpm 20
Pendant cable length	20'	20'	20'	20'	20'	20'	20'
Ground current (Amps)	2000	2000	2000	3000	3000	3000	3000
A: Rotation centerline height Matching Positioner	50" (1270) HD160	50" (1270) HD240	50" (1270) HD240	50" (1270) —	50" (1270) —	50" (1270) —	72" (1829) —
B: Table Size (Square)	54" (1372) 70" (1778)	54" (1372) 70" (1778)	60" (1524) 77" (1956)	54" (1372) 70" (1778)	54" (1372) 70" (1778)	54" (1372) 70" (1778)	84" (2134) 108" (2743)
C: Max. Clamping Dia.	—	—	—	—	—	—	—
D: No. of slots and width	(4) 1-1/16" (27)	(4) 1-1/16" (27)	(4) 1-1/16" (27)	(4) 1-5/16" (33)	(4) 1-5/16" (33)	(4) 1-5/16" (33)	(4) 1-7/8" (48)
E: Table Thickness	2-1/2" (64)	2-1/2" (64)	2-3/4" (70)	2-3/4" (70)	3" (76)	3" (76)	3-1/2" (89)
F: Pilot hole and Depth	8.627" x 1"	8.627" x 1"	8.627" x 1"	12.253" x 1"	12.253" x 1"	12.253" x 1"	12.000" x 1-3/4"
Thru-hole	8-1/2" thru	8-1/2" thru	8-1/2" thru	11-7/8" thru	11-7/8" thru	11-7/8" thru	11-7/8" thru
F: Table nut thread	1"-8	1"-8	1"-8	1"-8	1.25"-7	1"-8	1-3/4"-8
Dim G	48" (1219)	48" (1219)	48" (1219)	50" (1270)	60" (1524)	60" (1524)	72" (1829)
Dim H	48" (1219)	48" (1219)	48" (1219)	52" (1321)	65" (1651)	65" (1651)	80" (2032)
Dim I	46" (1168)	46" (1168)	46" (1168)	46" (1168)	58" (1473)	58" (1473)	76" (1930)
Dim J	46" (1168)	46" (1168)	46" (1168)	46" (1168)	56" (1422)	56" (1422)	68" (1727)
Dim K	1" (25)	1" (25)	1" (25)	2" (51)	2" (51)	2" (51)	2" (51)
Dim L	1-1/16" (27)	1-1/16" (27)	1-1/16" (27)	1-5/8" (41)	2-1/8" (54)	2-1/8" (54)	2-1/8" (54)
Dim M	1-1/2" (38)	1-1/2" (38)	1-1/2" (38)	3/4" (19)	1" (25)	1" (25)	1-1/4" (32)
Dim N	2-3/4" (70)	2-3/4" (70)	2-3/4" (70)	2-3/4" (70)	3-1/2" (89)	3-1/2" (89)	4" (102)
Dim O	50-3/4" (1289)	50-3/4" (1289)	50-3/4" (1289)	52-3/4" (1340)	63-1/2" (1613)	63-1/2" (1613)	74" (1880)
Approx. Weight HS lb (kg)	5,100 (2313)	5,300 (2404)	5,820 (2640)	6,000 (2721)	9,532 (4234)	10,000 (4536)	21,850 (9910)
Approx. Weight TS lb (kg)	4,255 (1930)	4,255 (1930)	4,930 (2236)	5,000 (2268)	7,891 (3579)	8,960 (4064)	19,480 (8836)
Standard Voltage	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60



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ARONSON Series

Geared Elevation 2.5 ton to 10 ton



Koike Aronson / Ransome geared elevation Head and Tailstock Positioners provide all the advantages of standard fixed height models but also include adjustable elevation to provide ergonomic working heights and improve safety.

Gear rack cut into vertical posts and multiple interlocked drive pinions provide the highest degree of safety in the industry. NEMA 12 electricals, ground blocks and tapered roller bearings are provided on every unit. Lift-time lubrication and sealed drive units insure many years of trouble free service. Special engineered elevation heights and options are also available.

Headstock and Tailstock axes on Koike Aronson Ransome systems are electronically synchronized to prevent workpiece / fixture skewing. Both axes are driven by an encoded motor, controlled by a drive with internal PLC capabilities. Encoder information from both axes is fed back to the Tailstock drive. The Tailstock encoder provides closed-loop position information to the Tailstock drive, which in turn, follows the reference signal from the Headstock encoder. The Headstock drive and motor respond to commands from the operator control pendant (or optionally a supervisory programmable control system). When the Headstock moves, the Tailstock automatically follows, step-for-step, based upon encoder feedback. If any errors are detected internally, or from external devices by either drive, the system will immediately halt to prevent workpiece/fixture skewing.

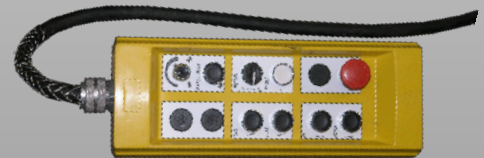
**Capacities from 5,000 to 20,000 pounds
between Head and Tailstock**



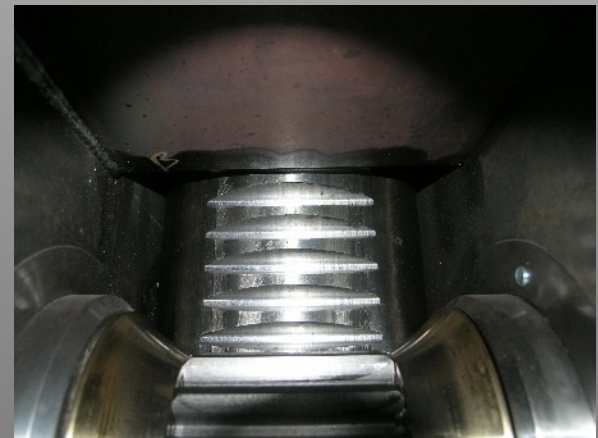
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Features

- **Multiple lift drive pinions**
- **50:1 AC Variable speed rotation**
- **Low efficiency gear-boxes for safety**
- **360° continuous rotation**
- **Low voltage hand control pendants**
- **Travel cars for multiple lengths available**



**Standard hand pendant
provided with all models**

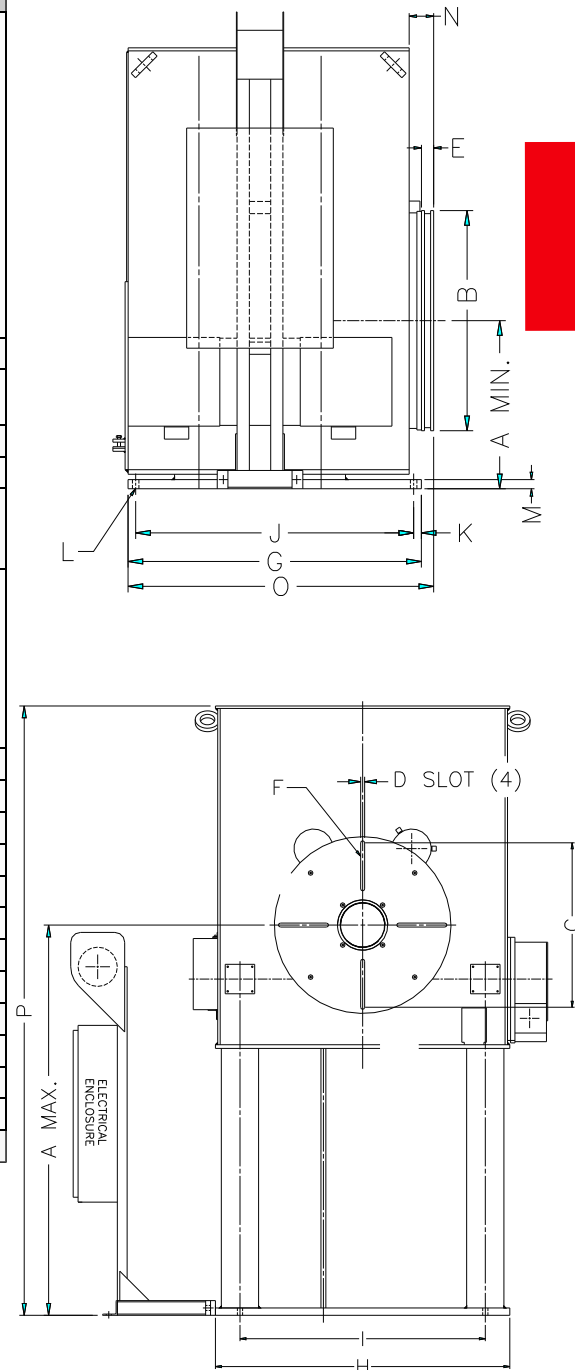


Specifications

HTS 5-GE to HTS 20-GE

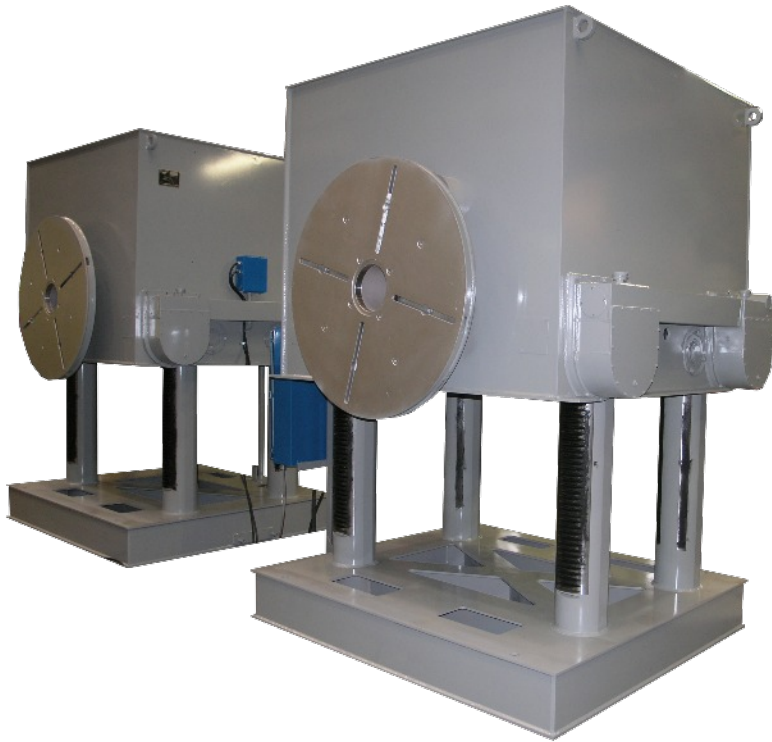
MODEL	HTS5-GE	HTS9-GE	HTS12-GE	HTS20-GE	
Load Capacity, lb (kg) Max. Between Head & Tail	5,000 lb (2268)	9,000 lb (4082)	12,000 lb (5443)	20,000 lb (9072)	
Overhung load on either or both Head or Tailstock	6" CG Height	2,500 (1134)	4,500 (2041)	6,000 (2721)	10,000 (4536)
	12" CG Height	1,500 (680)	2,700 (1225)	3,600 (1633)	6,000 (2721)
	18" CG Height	1,100 (499)	2,000 (907)	2,850 (1293)	4,850 (2200)
	24" CG Height	850 (386)	1,550 (703)	2,100 (952)	3,600 (1633)
	30" CG Height	700 (317)	1,300 (590)	1,850 (839)	3,200 (1451)
	36" CG Height	600 (272)	1,100 (499)	1,650 (748)	2,850 (1293)
	42" CG Height	500 (227)	982 (446)	1,500 (680)	2,600 (1179)
	48" CG Height	450 (204)	871 (395)	1,250 (567)	2,200 (998)
	54" CG Height	400 (181)	783 (355)		
	60" CG Height	350 (159)	711 (323)		
72" CG Height	300 (136)	651 (296)			
Rotation: Torque, in-lb (N.m)	30,000 (3390)	54,000 (6102)	72,000 (8136)	120,000 (13560)	
Rotation: Speed Range	2.0 - 0.04 rpm	2.0 - 0.04 rpm	1.3 - 0.03 rpm	1.2 - 0.02 rpm	
Motor HP (AC variable Frequency)	1-1/2	2	2	5	
Pendant cable length	20'	20'	20'	20'	
Ground current (Amps)	1500	1500	2000	2000	
A: CL height Range In(mm)	30-54 (762-1362)	30-54 (762-1362)	27.5-79.5 (699-2019)	27.5-79.5 (699-2019)	
Elevation speed ipm(mm/min)	34 ipm (864)	30 ipm (762)	21 ipm (533)	21 ipm (533)	
Motor HP (Qty 2)	1	2	2	3	
B: Table Size (Round)	30"(762)	30"(762)	36"(914)	36"(914)	
C: Max. Clamping Dia.	27" (686)	27" (686)	33" (838)	33" (838)	
D: No. of slots and width	(4) 13/16" (21)	(4) 13/16" (21)	(4) 13/16" (21)	(4) 13/16" (21)	
E: Table Thickness	1-3/4" (44)	1-3/4" (44)	2" (50)	2" (50)	
Pilot hole and Depth	3.130" x 1/2"	3.130" x 1/2"	9.127" x 1-1/2"	9.127" x 1-1/2"	
Through-hole	none	none	9" Thru	9" Thru	
F: Table nut thread	3/4"-10	3/4"-10	3/4"-10	3/4"-10	
Dim G	39" (991)	39" (991)	48" (1219)	48" (1219)	
Dim H	43" (1092)	43" (1092)	60" (1524)	60" (1524)	
Dim I	41-1/2" (1054)	41-1/2" (1054)	50" (1270)	50" (1270)	
Dim J	37" (940)	37" (940)	45-1/2" (1156)	45-1/2" (1156)	
Dim K	1" (25)	1" (25)	1-1/4" (32)	1-1/4" (32)	
Dim L	13/16" (21)	13/16" (21)	1-1/16" (25)	1-1/16" (25)	
Dim M	3/8" (9)	3/8" (9)	1-1/2" (38)	1-1/2" (38)	
Dim N	2" (51)	2" (51)	4" (102)	4" (102)	
Dim O	41" (1041)	41" (1041)	50" (1270)	50" (1270)	
Dim P (Max overall height)	69" (1753)	69" (1753)	116" (2946)	116" (2946)	
Approx. Weight HS lb (kg)	4,610 (2091)	4,800 (2177)	9,000 (4082)	9,140 (4146)	
Approx. Weight TS lb (kg)	4,540 (2059)	4,650 (2110)	8,450 (3832)	8,785 (3985)	
Standard Voltage	460/3/60	460/3/60	460/3/60	460/3/60	

All dimensions are for reference only and subject to change without notice.



ARONSON Series

Geared Elevation 16 ton to 120 ton Capacity



Koike Aronson / Ransome geared elevation Head and Tailstock Positioners provide all the advantages of standard fixed height models, and they also include adjustable elevation to provide ergonomic working heights and improve safety.

Gear rack cut into vertical posts and multiple interlocked drive pinions provide the highest degree of safety in the industry. NEMA 12 electricals, ground blocks, and tapered roller bearings are provided on every unit. Lifetime lubrication and sealed drive units ensure many years of trouble-free service. Special engineered elevation heights and options are also available. Headstock and Tailstock axes on Koike Aronson Ransome systems are electronically synchronized to prevent workpiece / fixture skewing. Both axes are driven by an encoded motor which is controlled by a drive with internal PLC capabilities. Encoder information from both axes is fed to the tailstock drive. The Tailstock encoder provides closed-loop position information to the Tailstock drive, which in turn, follows the reference signal from the Headstock encoder. The Headstock drive and motor respond to commands from the operator control pendant (or optionally a supervisory programmable control system). When the Headstock moves, the Tailstock automatically follows, step-for-step, based upon encoder feedback. If any errors are detected internally or from external devices by either drive, the system will immediately halt to prevent workpiece/fixture skewing.

**Capacities from 32,000 to 240,000 pounds
between Head and Tailstock**



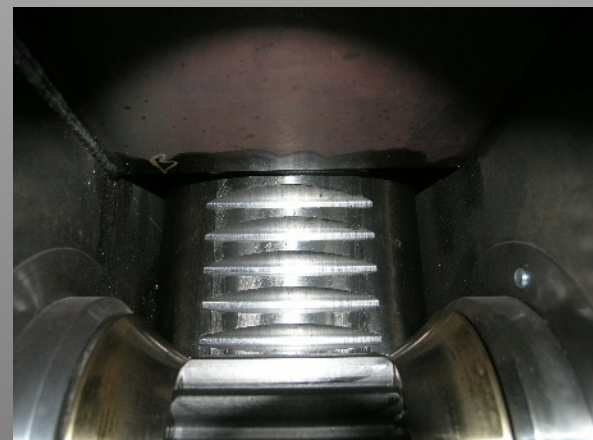
KOIKE ARONSON, INC. / RANSOME

Features

- Multiple lift drive pinions
- 50:1 AC Variable speed rotation
- Low efficiency gear-boxes for safety
- 360° continuous rotation
- Low voltage hand control pendants
- Travel cars for multiple lengths available



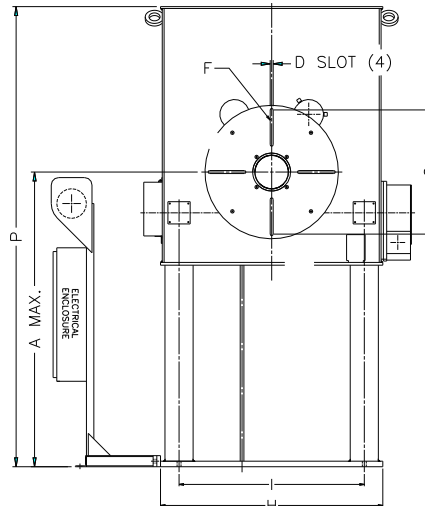
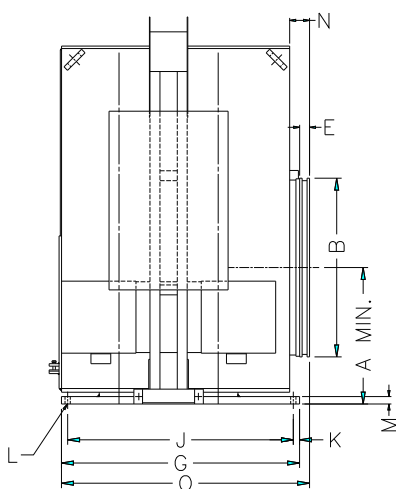
**Standard hand pendant
provided with all models**



Specifications

HTS 32-GE to HTS 240-GE

MODEL	HTS32-GE	HTS40-GE	HTS50-GE	HTS60-GE	HTS90-GE	HTS160-GE
Load Capacity, lb (kg) Max. Between Head & Tail	32,000 lb (14515)	40,000 lb (18144)	50,000 lb (22680)	60,000 lb (27215)	90,000 lb (40823)	160,000 lb (72575)
Overhung load on either or Both Head or Tailstock						
12" CG Height	16,000 (7264)	20,000 (9072)	25,000 (11350)	30,000 (13608)	45,000 (20214)	80,000 (36287)
18" CG Height	12,000 (5448)	15,000 (6804)	18,900 (8581)	22,850 (10364)	34,400 (15603)	61,150 (27737)
24" CG Height	9,600 (4358)	12,000 (5443)	15,193 (6898)	18,450 (8369)	27,850 (12632)	49,500 (22453)
30" CG Height	8,000 (3632)	10,000 (4536)	12,702 (5767)	15,500 (7031)	23,400 (10614)	41,600 (18869)
36" CG Height	6,857 (3113)	8,550 (3878)	10,912 (4954)	13,350 (6055)	20,150 (9140)	35,850 (16261)
42" CG Height	6,000 (2724)	7,500 (3402)	9,565 (4343)	12,200 (5534)	17,700 (8028)	31,500 (14288)
48" CG Height	5,333 (2421)	6,550 (3016)	8,514 (3865)	10,450 (4740)	15,800 (7167)	28,100 (12746)
54" CG Height	4,800 (2179)	6,000 (2721)	7,670 (3482)	9,400 (4264)	14,250 (6464)	25,350 (11498)
60" CG Height	4,364 (1981)	5,450 (2472)	6,979 (3168)	8,530 (3878)	13,000 (5897)	23,100 (10478)
72" CG Height	4,000 (1816)	4,600 (2086)	6,402 (2907)	7,850 (3288)	11,000 (4989)	19,600 (8890)
Rotation: Torque, in-lb (N.m)	192,000 (21696)	240,000 (27120)	300,000 (33900)	360,000 (40680)	540,000 (61020)	960,000 (108480)
Rotation: Speed Range Motor HP (AC variable Frequency)	0.60 - 0.012 rpm 5	0.50 - 0.01 rpm 5	0.60 - 0.012 rpm 5	0.50 - 0.01 rpm 10	0.50 - 0.01 rpm 15	0.40 - 0.008 rpm 15
Pendant cable length	20'	20'	20'	20'	20'	20'
Ground current (Amps)	2000	2000	2000	3000	3000	3000
A: CL height Range In(mm) Elevation speed ipm(mm/min) Motor HP (Qty 2)	28"-80" (711-2032) 19 ipm (483) 5	28"-80" (711-2032) 15 ipm (381) 5	30-3/4"-82-3/4" (781-2102) 21 ipm (533) 7-1/2	30-3/4"-82-3/4" (781-2102) 21 ipm (533) 10	30-3/4"-82-3/4" (781-2102) 21 ipm (533) 20	52-1/2" -112-1/2" (1333-2857) 18 ipm (457) 25
B: Table Size (Round) C: Max. Clamping Dia. D: No. of slots and width E: Table Thickness Pilot hole and Depth Through-hole F: Table nut thread	36"(914) 33" (838) (4) 1-1/16" (27) 2-1/2" (63) 8.627" x 1-1/2" 8-1/2" Through 1"-8	36"(914) 33" (838) (4) 1-1/16" (27) 2-1/2" (63) 8.627" x 1-1/2" 8-1/2" Through 1"-8	48"(1219) 43" (1092) (4) 1-1/16" (27) 2-1/2" (63) 8.627" x 1-1/2" 8-1/2" Through 1"-8	48"(1219) 43" (1092) (4) 1-1/16" (27) 2-3/4" (70) 12.253" x 1" 11-7/8" Through 1"-8	48"(1219) 43" (1092) (4) 1-1/16" (27) 3" (76) 12.253" x 1" 11-7/8" Through 1"-8	66"(1676) 62" (1575) (4) 1-5/16" (33) 3" (76) 12.253" x 1" 11-7/8" Through 1-1/4"-7
Dim G	48" (1219)	48" (1219)	73" (1854)	73" (1854)	73" (1854)	108" (2743)
Dim H	60" (1524)	60" (1524)	84" (2134)	84" (2134)	84" (2134)	84" (2134)
Dim I	50" (1270)	50" (1270)	64" (1626)	64" (1626)	64" (1626)	64" (1626)
Dim J	45-1/2" (1156)	45-1/2" (1156)	69" (1753)	69" (1753)	69" (1753)	104" (2642)
Dim K	1-1/4" (32)	1-1/4" (32)	2" (51)	2" (51)	2" (51)	2" (51)
Dim L	1-1/16" (25)	1-1/16" (25)	1-5/8" (41)	1-5/8" (41)	1-5/8" (41)	1-5/8" (41)
Dim M	2" (51)	2" (51)	11" (279)	11" (279)	11" (279)	11" (279)
Dim N	5" (127)	5" (127)	7-1/4" (184)	9" (229)	3-5/8" (92)	9" (229)
Dim O	51-3/8" (1305)	51-3/8" (1305)	76-1/4" (1949)	77-1/2" (1966)	77" (1956)	111" (2819)
Dim P (Max overall height)	116-1/2" (2959)	116-1/2" (2959)	128-1/4" (3258)	127-1/2" (3239)	137-1/2" (3493)	160" (4064)
Approx. Weight HS lb (kg)	13,110 (5947)	13,110 (5947)	14,505 (6580)	15,500 (7030)	21,000 (9525)	23,000 (10433)
Approx. Weight TS lb (kg)	11,950 (5421)	11,950 (5421)	13,460 (6105)	14,660 (6650)	20,080 (9108)	22,000 (9979)
Standard Voltage	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60



All dimensions are for reference only and subject to change without notice.

RANSOME Series

Ball Screw Elevation 2.5 ton to 10 ton



The Powered Elevation design makes maximum use of commercially available components, both in the elevation and rotation systems.

Elevation is by means of commercial ball screw jacks for high duty cycle operation and driven by a worm/wormgear arrangement. The elevation axis uses two of these screw jacks for redundancy by coupling them together, and then they are driven by a common motor. Belts, chains, and transfer gears are no longer utilized in the design.

Guidance is provided by means of wide, large diameter cam follower bearings on flat guide-ways. Cam follower contact with the guide-ways is adjustable for wear. Guidance is provided on the front, back, and sides of two columns that rigidly support the cantilevered load.

Headstock and Tailstock axes on Koike Aronson Ransome systems are electronically synchronized to prevent workpiece / fixture skewing. Both axes are driven by an encoded motor which is controlled by a drive with internal PLC capabilities. Encoder information from both axes is fed to the Tailstock drive. The Tailstock encoder provides closed-loop position information to the Tailstock drive, which, in turn, follows the reference signal from the Headstock encoder. The Headstock drive and motor respond to commands from the operator control pendant (or optionally a supervisory programmable control system). When the Headstock moves, the Tailstock automatically follows, step-for-step, based upon encoder feedback. If any errors are detected internally or from external devices by either drive, the system will immediately halt to prevent

**Capacities from 5,000 to 20,000 pounds
between Headstock and Tailstock**



KOIKE ARONSON, INC. / RANSOME

Features

- **Low efficiency gear-boxes for safety**
- **Ball screw jacks for high duty cycles**
- **Machined tables**
- **Low voltage hand control pendants**
- **50:1 AC Variable speed drives**
- **Boots on elevation jacks protect screws from debris**



Standard hand pendant provided with all models



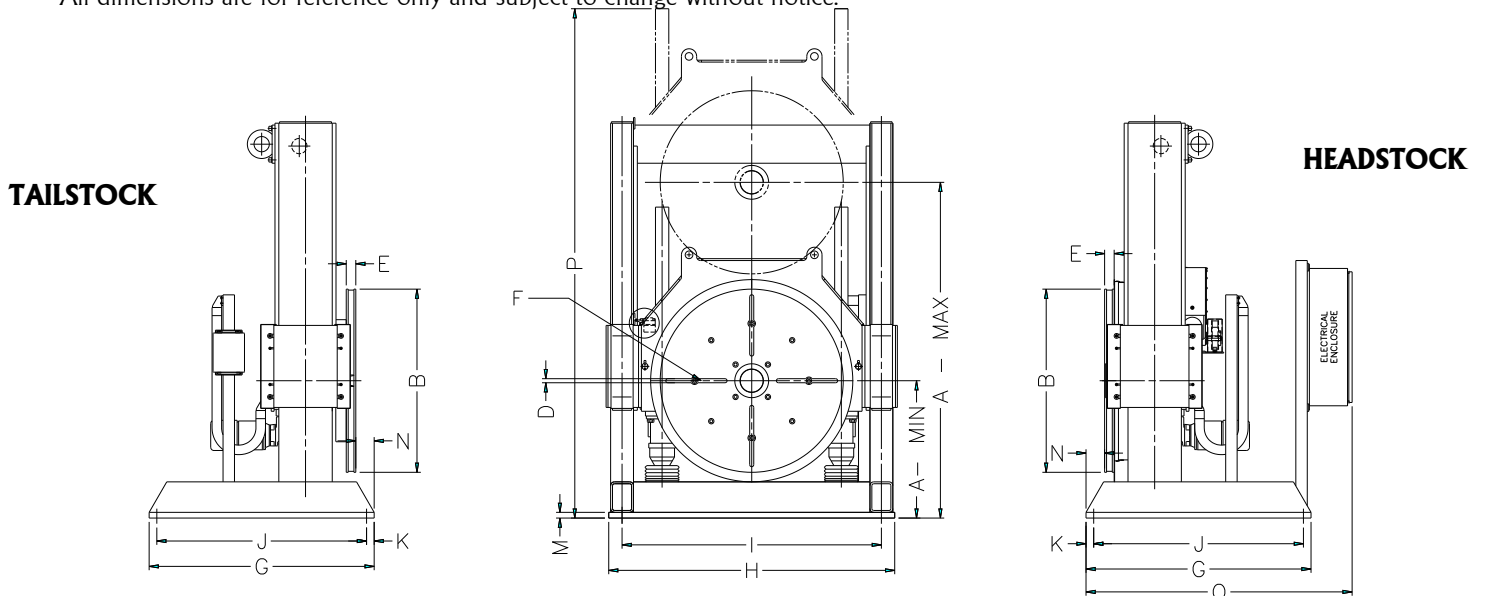
Optional foot switch controls available

Specifications

2H/2T-PE to 5H/5T-PE

MODEL	2H/2T-PE	3H/3T-PE	3.5H/3.5T-PE	4H/4T-PE	4.5H/4.5T-PE	5H/5T-PE
Load Capacity, lb (kg)	5,000 lb (2268)	6,000 lb (2722)	9,000 lb (4082)	12,000 lb (5443)	16,000 lb (7257)	20,000 lb (9072)
Max. Between Head & Tail						
12" CG Height	2,500 (1134)	3,000 (1361)	4,500 (2041)	6,000 (2722)	8,000 (3629)	10,000 (4536)
18" CG Height	2,030 (921)	2,300 (1043)	3,700 (1678)	4,980 (2259)	6,000 (2722)	8,400 (3810)
24" CG Height	1,710 (776)	1,900 (862)	3,100 (1406)	4,260 (1932)	4,800 (2177)	7,200 (3266)
30" CG Height	1,470 (667)	1,600 (726)	2,700 (1225)	3,720 (1687)	4,000 (1814)	6,300 (2858)
36" CG Height	1,295 (587)	1,400 (635)	2,400 (1089)	3,300 (1497)	3,400 (1542)	5,600 (2540)
42" CG Height	1,155 (524)	1,200 (544)	2,200 (998)	2,970 (998)	3,000 (1361)	5,100 (2313)
Rotation: Torque, in-lb (N.m)	30,000 (3390)	36,000 (4068)	54,000 (6102)	72,000 (8136)	96,000 (10848)	120,000 (13560)
Rotation: Speed Range	1.0 - 0.02 rpm	1.0 - 0.02 rpm	1.0 - 0.02 rpm	0.92 - 0.01 rpm	1.0 - 0.02 rpm	1.0 - 0.02 rpm
Motor HP (AC variable Frequency)	1	1-1/2	2	2	3	5
Pendant cable length	20'	20'	20'	20'	20'	20'
Ground current (Amps)	1500	1500	2000	2000	2000	2000
A: CL height Range In(mm)	22"-52" (559-1321)	22.25"-52.25"	22.25"-52.25"	26"-56" (660-1422)	27-1/2"-79-1/2" (699-2019)	27-1/2"-79-1/2" (699-2019)
Elevation speed ipm(mm/min)	22 ipm (559)	23 ipm (559)	23 ipm (559)	27 ipm (686)	20 ipm (508)	20 ipm (508)
Motor HP (Qty 2)	1-1/2	2	2	2	2	2
B: Table Size (Round)	36" (914)	40" (1016)	40" (1016)	48" (1219)	48" (1219)	48" (1219)
C: Max. Clamping Dia.	33" (838)	37" (940)	37" (940)	45" (1143)	45" (1143)	45" (1143)
D: No. of slots and width	(4) 13/16" (21)	(4) 13/16" (21)	(4) 13/16" (21)	(4) 13/16" (21)	(4) 1-1/8" (29)	(4) 1-1/8" (29)
E: Table Thickness	7/8" (22)	7/8" (22)	7/8" (22)	7/8" (22)	7/8" (22)	7/8" (22)
Pilot hole and Depth	2.252" x 3/4"	2.252" x 3/4"	2.252" x 3/4"	6.00" x 1/2"	6.00" x 2"	6.125" x 3"
Through-hole	2" Through	2" Through	2" Through	2-3/4" Through	5-1/2" Through	6" Through
F: Table nut thread	3/4"-10	3/4"-10	3/4"-10	3/4"-10	1"-8	1"-8
Dim G	47-1/2" (1207)	47-1/2" (1207)	47-1/2" (1207)	47-1/2" (1207)	47-1/2" (1207)	47-1/2" (1207)
Dim H	58" (1473)	58" (1473)	58" (1473)	58" (1473)	62" (1575)	62" (1575)
Dim I	52" (1321)	52" (1321)	52" (1321)	52" (1321)	56" (1422)	56" (1422)
Dim J	43-1/2" (1105)	43-1/2" (1105)	43-1/2" (1105)	43-1/2" (1105)	43-1/2" (1105)	43-1/2" (1105)
Dim K	2" (51)	2" (51)	2" (51)	2" (51)	2" (51)	2" (51)
Dim L	7/8" (22)	7/8" (22)	7/8" (22)	7/8" (22)	7/8" (22)	7/8" (22)
Dim M	2" (51)	2" (51)	2" (51)	2" (51)	2" (51)	2" (51)
Dim N	14-9/16" (370)	8-9/16" (217)	8-9/16" (217)	4-13/16" (122)	4-1/16" (103)	4-1/16" (103)
Dim O	58-5/8" (1489)	60-5/8" (1538)	55-1/2" (1410)	53-3/8" (1356)	53-3/8" (1356)	53-3/8" (1356)
Dim P (Max overall height)	80" (2032)	80" (2032)	80" (2032)	86" (2184)	124-1/2" (3150)	124-1/2" (3150)
Approx. Weight HS lb (kg)	3,240 (1470)	3,335 (1513)	3,512 (1293)	3,687 (1672)	5,500 (2495)	5,986 (2715)
Approx. Weight TS lb (kg)	2,732 (1239)	2,845 (1290)	3,296 (1495)	3,534 (1602)	5,780 (2622)	5,443 (2469)
Standard Voltage	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60

All dimensions are for reference only and subject to change without notice.



RANSOME Series

Ball Screw Elevation 16 ton to 80 ton



The Powered Elevation design makes maximum use of proven commercially available components, both in the elevation and guidance systems. Elevation is provided by means of commercial Ball screw jacks for high duty cycle operation and driven by a worm/wormgear arrangement. Elevation uses two of these screw jacks for redundancy, coupled together and driven by a common motor. Belts, chains, and transfer gears are no longer utilized in the design.

Guidance is provided by means of wide, large diameter cam follower bearing on flat guide-ways or linear ways. Cam follower contact with the guide-ways is adjustable for wear. Guidance is provided on the front, back, and sides of two columns that rigidly supports the cantilevered load.

Headstock and Tailstock axes on Koike Aronson Ransome systems are electronically synchronized to prevent workpiece / fixture skewing. Both axes are driven by an encoded motor, controlled by a drive with internal PLC capabilities. Encoder information from both axes is fed back to the Tailstock drive. The Tailstock encoder provides closed-loop position information to the Tailstock drive, which in turn, follows the reference signal from the Headstock encoder.

The Headstock drive and motor respond to commands from the operator control pendant (or optionally a supervisory programmable control system). When the Headstock moves, the Tailstock automatically follows, step-for-step, based upon encoder feedback. If any errors are detected internally, or from external devices by either drive, the system will immediately halt to prevent workpiece/fixture skewing.

**Capacities from 32,000 to 160,000 pounds
between Headstock and Tailstock**



KOIKE ARONSON, INC. / RANSOME

Features

- **Low efficiency gear-boxes for safety**
- **Ball screw jacks for high duty cycles**
- **Machined tables**
- **Low voltage hand control pendants**
- **50:1 AC Variable speed drives**
- **Boots on elevation jacks protect screws from debris**



Standard hand pendant provided with all models



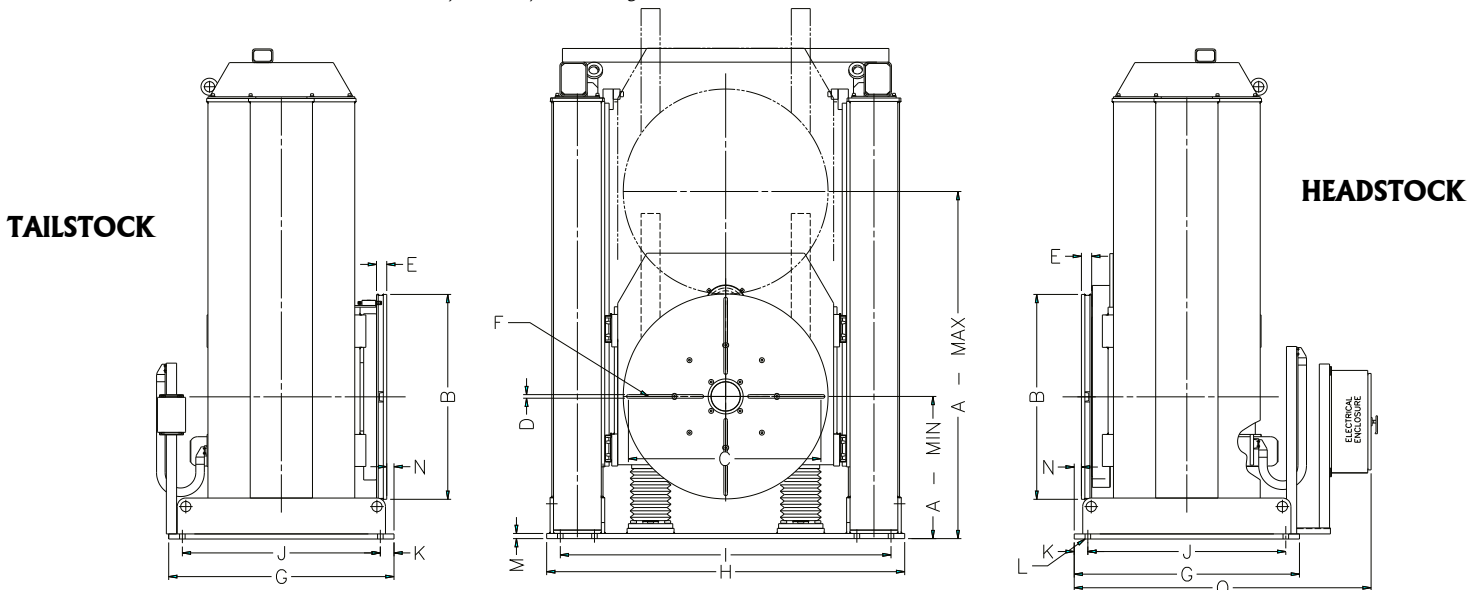
Optional foot switch controls available

Specifications

6H/6T-PE to 16H/16T-PE

MODEL	6H/6T-PE	7H/7T-PE	8H/8T-PE	10H/10T-PE	16H/16T-PE
Load Capacity, lb (kg) Max. Between Head & Tail	32,000 lb (14515)	50,000 lb (22680)	80,000 lb (36287)	100,000 lb (45359)	160,000 lb (72575)
12" CG Height	16,000 (7257)	25,000 (11340)	40,000 (18144)	50,000 (22680)	80,000 (36287)
18" CG Height	12,900 (5851)	18,900 (8573)	30,700 (13608)	37,250 (16896)	70,900 (32160)
24" CG Height	10,800(4899)	15,200 (6895)	25,000 (11340)	29,650 (13449)	63,700 (28894)
30" CG Height	9,300 (4218)	12,750 (5783)	21,000 (9525)	24,650 (11181)	57,850 (26240)
36" CG Height	8,150 (3697)	10,950 (4967)	18,200 (8255)	21,100 (9571)	52,950 (24018)
42" CG Height	7,250 (3289)	9,600 (4354)	16,000 (7257)	18,450 (8369)	48,800 (22135)
Rotation: Torque, in-lb (N.m)	192,000 (21696)	288,000 (32544)	480,000 (54240)	600,000 (67800)	960,000 (108480)
Rotation: Speed Range	0.50 - 0.01 rpm	0.50 - 0.01 rpm	0.32 - 0.006 rpm	0.30 - 0.006 rpm	0.30 - 0.006 rpm
Motor HP (AC variable Frequency)	5	7.5	7.5	10	15
Pendant cable length	20'	20'	20'	20'	20'
Ground current (Amps)	2000	2000	3000	3000	3000
A: CL height Range In(mm)	36"-88" (914-2235)	36"-88" (914-2235)	41-5/8"-101-5/8" (1057-2581)	54"-106" (1372-2692)	59"-119" (1499-3023)
Elevation speed ipm(mm/min)	20 ipm (508)	20 ipm (508)	20 ipm (508)	11 ipm (279)	11 ipm (279)
Motor HP (Qty 2)	3	3	6.4	5	5
B: Table Size (Round)	48"(1219)	60"(1524)	60"(1524)	72"(1829)	72"(1829)
C: Max. Clamping Dia.	44" (1118)	57" (1448)	57" (1448)	68" (1727)	68" (1727)
D: No. of slots and width	(4) 1-1/16" (27)	(4) 1-1/16" (27)	(4) 1-5/16" (33.3)	(4) 1-5/16" (33)	(4) 1-5/16" (33)
E: Table Thickness	2-1/2" (63.5)	2-3/4" (70)	3" (76)	3" (76)	3" (76)
Pilot hole and Depth	6.125" x 3"	8.627" x 1-1/2"	12.253" x 1"	12.253" x 1"	9.000" x 1"
Through-hole	6" Through	8-1/2" Through	11-7/8" Through	11-7/8" Through	8-3/4" Through
F: Table nut thread	1"-8	1"-8	1"-8	1-1/4"-7	1-1/4"-7
Dim G	59" (1499)	54" (1372)	66" (1676)	72" (1829)	76" (1930)
Dim H	75" (1905)	86" (2184)	104-7/8" (2664)	107-1/2" (2731)	128-1/2" (3264)
Dim I	68" (1727)	74-1/2" (1886)	96-7/8" (2461)	99-1/2" (2527)	109-1/2" (2781)
Dim J	55" (1397)	50" (1270)	58" (1473)	64" (1626)	71" (64)
Dim K	2" (51)	2" (51)	4" (102)	4" (102)	2-1/2" (64)
Dim L	1-1/16" (27)	1-1/8" (29)	1-5/8" (41)	1-5/8" (41)	2-1/8" (54)
Dim M	2" (51)	2-3/4" (70)	2" (51)	2" (51)	2" (51)
Dim N	4-13/16" (122)	0" (00)	2-1/8" (54)	3-5/8" (92)	0" (0)
Dim O	69-3/4" (1772)	60" (1524)	87" (2210)	99-3/8" (2524)	89-1/2" (2273)
Dim P (Max overall height)	133-1/2" (3391)	133" (3378)	155-1/4" (3943)	168" (4267)	176" (4470)
Approx. Weight HS lb (kg)	9,460 (4291)	12,370 (5611)	23,791 (10791)	24,500 (11113)	33,060 (14996)
Approx. Weight TS lb (kg)	8,085 (3667)	11,200 (5080)	22,707 (10299)	23,250 (10546)	33,131 (15028)
Standard Voltage	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60

All dimensions are for reference only and subject to change without notice.



180 Degree Tilter



In many applications, long weldments may be quickly mounted to 180° Tilters instead of setting up the intricate mounting often required for head and tailstock positioners.

90 degree tilt from the horizontal position assures accessibility for down-hand or flat welding, while keeping the ends of the weldment open and accessible.

180° Tilters operate in a single range of motion and are uniquely suited for many applications. The positioners also require much less floor space than other positioning products.

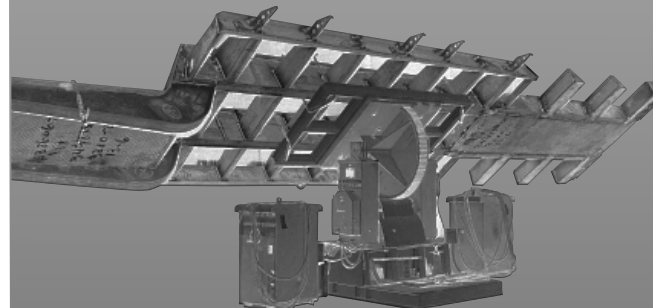
Capacities from 3,000 to 75,000 pounds

Features

- NEMA 12 Electricals
- Optional table rotation
- Powered $\pm 90^\circ$ tilt
- Optional geared elevation models available
- AC brake motors



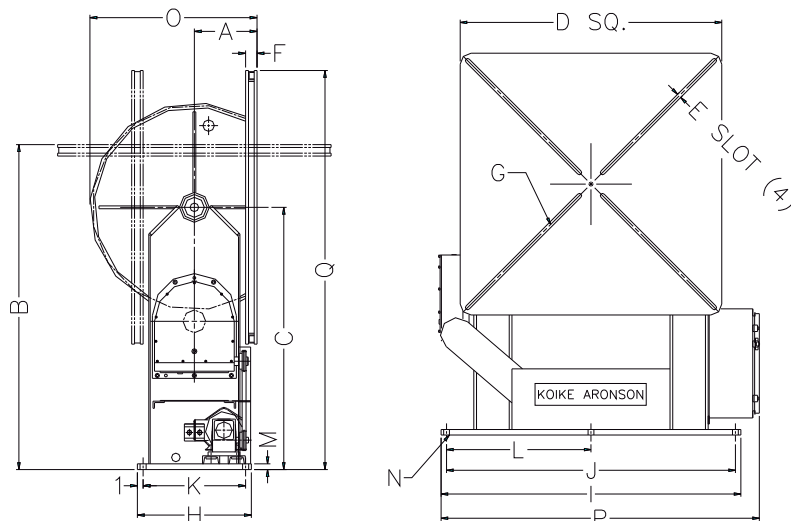
Standard hand pendant provided with all models



Specifications

180° Tilter

MODEL	180T30	180T60	180T100	180T200	180T400	180T500	180T750
Overhung Load Capacity, lb (kg)							
12" CG Height	3,000 lb (1361)	6,000 lb (2721)	10,000 lb (4536)	20,000 lb (9072)	40,000 lb (18144)	50,000 lb (22680)	75,000 lb (34019)
18" CG Height	2,370 lb (1075)	4,750 lb (2154)	7,930 lb (3597)	15,860 lb (7194)	31,720 lb (14388)	39,650 lb (17985)	60,000 lb (27215)
24" CG Height	1,970 lb (893)	3,940 lb (1787)	6,570 lb (2980)	13,140 lb (5960)	26,280 lb (11920)	32,850 lb (14900)	50,000 lb (22680)
30" CG Height	1,680 lb (762)	3,360 lb (1524)	5,610 lb (2545)	11,220 lb (5089)	22,430 lb (10174)	28,040 lb (12719)	42,850 lb (19436)
36" CG Height	1,460 lb (662)	2,930 lb (1329)	4,890 lb (2218)	9,780 lb (4436)	19,570 lb (8877)	24,460 lb (11095)	37,500 lb (17010)
42" CG Height	1,300 lb (590)	2,600 lb (1179)	4,340 lb (1968)	8,670 lb (3933)	17,350 lb (7870)	21,690 lb (9838)	33,330 lb (15118)
48" CG Height	1,160 lb (526)	2,330 lb (1057)	3,890 lb (1764)	7,790 lb (3533)	15,590 lb (7071)	19,490 lb (8840)	30,000 lb (13608)
54" CG Height	1,060 lb (481)	2,120 lb (962)	3,530 lb (1601)	7,070 lb (3207)	14,150 lb (6418)	17,690 lb (8024)	27,270 lb (12369)
60" CG Height	970 lb (440)	1,940 lb (880)	3,230 lb (1465)	6,470 lb (2935)	12,950 lb (5874)	16,190 lb (7344)	25,000 lb (11340)
66" CG Height	890 lb (404)	1,790 lb (812)	2,980 lb (1352)	5,970 lb (2708)	11,940 lb (5416)	14,930 lb (6772)	23,070 lb (10464)
72" CG Height	830 lb (376)	1,660 lb (753)	2,770 lb (1256)	5,540 lb (2513)	11,080 lb (5026)	12,850 lb (5829)	21,420 lb (9716)
A: Inherent Overhang	11" (279mm)	11" (279mm)	11" (279mm)	11" (279mm)	11-1/2" (292mm)	11-1/2" (292mm)	12" (305mm)
Tilt Torque lb-in (N.m)	69,000 (7797)	138,000 (15594)	230,000 (25990)	460,000 (51980)	940,000 (106220)	1,175,000 (132775)	1,800,000 (203400)
Table Tilt Speed	0.5 RPM	0.5 RPM	0.5 RPM	0.5 RPM	0.33 RPM	0.25 RPM	0.25 RPM
Tilt Motor HP	1-1/2	2	3	7-1/2	10	10	15
Ground current conduction	1000 Amps	1000 Amps	1500 Amps	1500 Amps	2000 Amps	2000 Amps	2000 Amps
B: Table flat	57" (1448mm)	57" (1448mm)	57" (1448mm)	57" (1448mm)	57" (1448mm)	57-1/2" (1461mm)	58" (1473mm)
C: Tilt Axis	46" (1168mm)	46" (1168mm)	46" (1168mm)	46" (1168mm)	46" (1168mm)	46" (1168mm)	46" (1168mm)
D: Table Size (Square)	48" (1219)	48" (1219)	48" (1219)	48" (1219)	48" (1219)	48" (1219)	54" (1372)
E: No. of slots and width	(4) 13/16" (21)	(4) 7/8" (22.2)	(4) 13/16" (21)	(4) 13/16" (21)	(4) 1-1/16" (27)	(4) 1-1/16" (27)	(4) 1-5/16" (33)
F: Table Thickness	2" (51)	2" (51)	2" (51)	2" (51)	2-1/2" (63)	2-1/2" (63)	3" (76)
Pilot hole diameter	3.130" (79)	3.130" (79)	3.130" (79)	3.130" (79)	3.130" (79)	3.130" (79)	3.130" (79)
G: Table nut thread	3/4" -10	3/4" -10	3/4" -10	3/4" -10	1"-8	1"-8	1-1/2"-7
H: Base length	20" (508)	20" (508)	20" (508)	24" (610)	24" (610)	24" (610)	24" (610)
I: Base width	55" (1397)	55" (1397)	55" (1397)	55" (1397)	55" (1397)	55" (1397)	61" (1549)
J: Anchor width	53" (1346)	53" (1346)	53" (1346)	51" (1295)	51" (1295)	51" (1295)	57" (1448)
K: Anchor length	18" (457)	18" (457)	18" (457)	20" (508)	20" (508)	20" (508)	20" (508)
L: Anchor middle holes	26-1/2" (673)	26-1/2" (673)	26-1/2" (673)	14" (356)	14" (356)	14" (356)	14" (356)
M: Base plate	1" (25)	1" (25)	1" (25)	2" (51)	2" (51)	2" (51)	2" (51)
N: Anchor hole size	1" (25)	1" (25)	1" (25)	2" (51)	2" (51)	2" (51)	2" (51)
O: Overall length	29-1/2" (749)	29-1/2" (749)	29-1/2" (749)	35-1/2" (902)	36" (914)	36" (914)	36-1/2" (927)
P: Overall width	57-1/2" (1460)	57-1/2" (1460)	57-1/2" (1460)	59" (1499)	59" (1499)	59" (1499)	65" (1651)
Q: Overall height	70" (1778)	70" (1778)	70" (1778)	70-1/2" (1791)	70-1/2" (1791)	70-1/2" (1791)	73" (1854)
Approx. Weight lb (kg)	2,600 lb (1179)	2,700 lb (1225)	2,800 lb (1270)	3,800 lb (1724)	4,200 lb (1905)	4,200 lb (1905)	4,800 lb (2177)



All dimensions are for reference only and subject to change without notice.

HT Series

Skyhook Positioners



The Skyhook series Positioner provides 2-axis motion, continuous rotation, and $\pm 180^\circ$ tilt from the horizontal table position. This configuration of Positioner can also be made in a Geared Elevation version with a third powered axis for elevation. The worktable's surface can be specified at varying distances below the tilt axis, as well as specifying swing radius clearances from the table's rotation axis to the nearest obstruction.

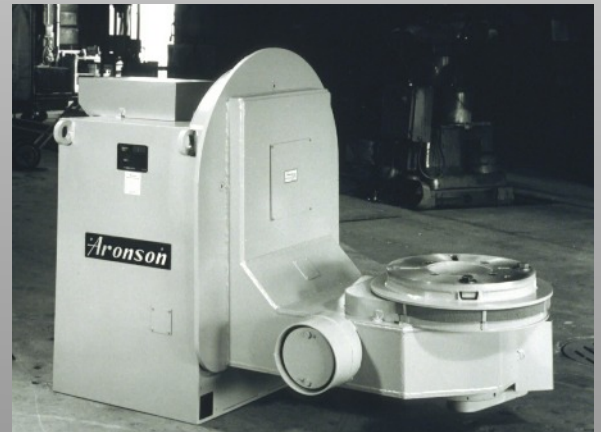
Due to the configuration of these models, it is necessary to consult the factory for sizing and capacity requirements. The counterbalancing effect of the cantilevered hanger precludes pre-calculated load capacity charts. Since applications require differing hanger lengths and the tables "dropped" distance below the tilt axis, the counterbalancing effect will vary greatly.

The load, center of gravity location, and swing clearance will be required to assist the factory in the selection of the correct model.

**Designed around customer loads
and specifications**

Features

- **AC Variable speed drives and motors**
- **Optional Servo Drives**
- **Powered $\pm 180^\circ$ tilt**
- **Optional geared elevation models available**
- **Robotic versions**



Hand pendant provided with standard models

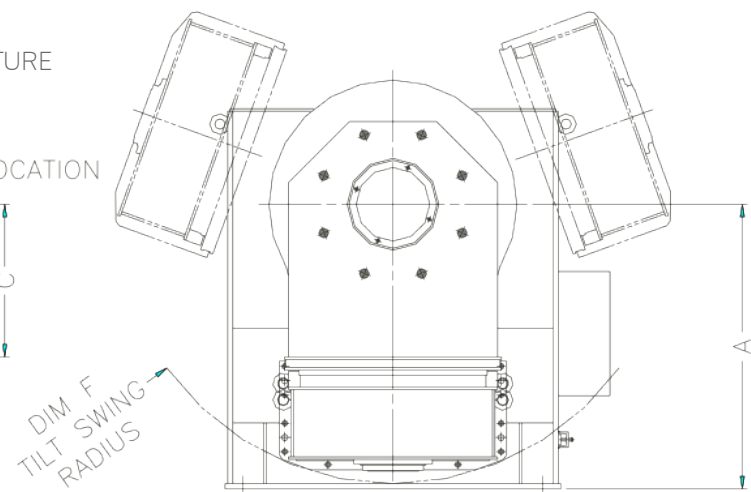
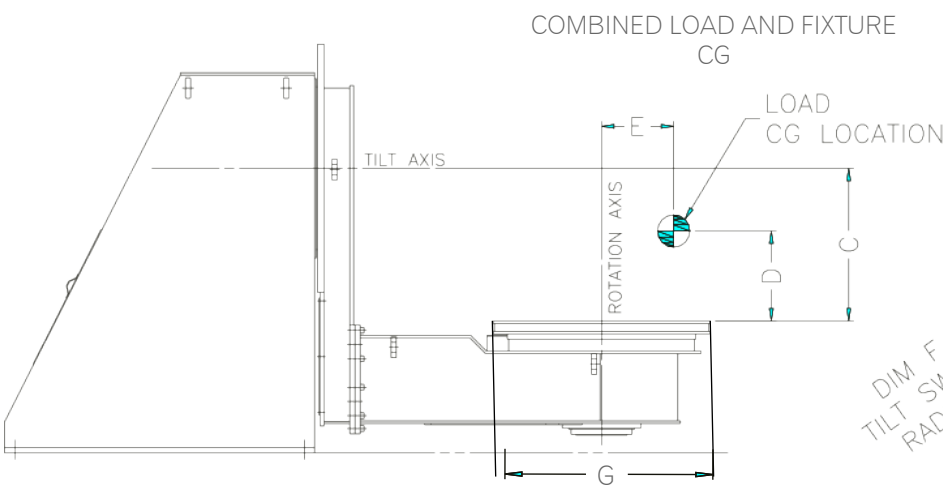
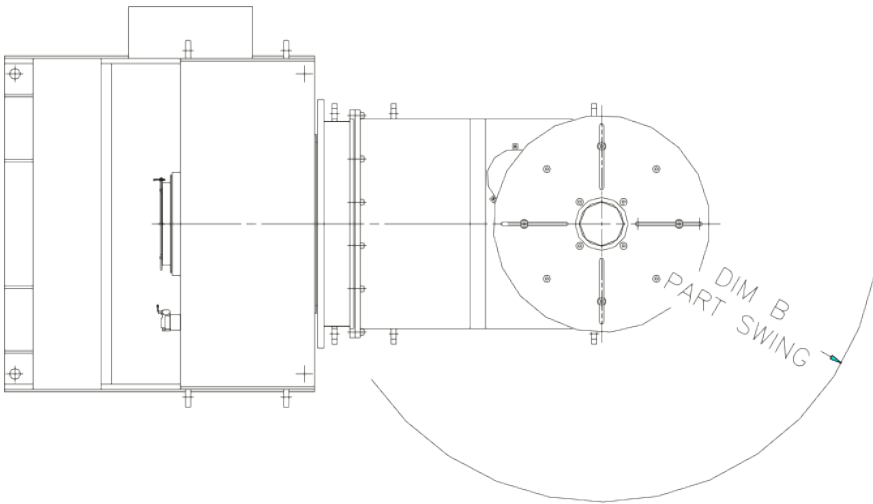
Specifications

Skyhook Requirements

Minimum requirements to size a Skyhook Positioner

Enter in your minimum requirements in the chart below.

	DIMENSIONS
TOTAL LOAD INCLUDE FIXTURE AND PART	
DIM 'A' FIXED TILT CENTERLINE HEIGHT	
IF ELEVATION IS REQUIRED	
MIN TILT CL HEIGHT	
MAX. TILT CL HEIGHT	
DIM 'B' PART ROTATION SWING RADIUS	
DIM 'C' TABLE DROP	
DIM 'D' TILT OVERHUNG LOAD	
DIM 'E' ROTATION OFF CENTER LOAD	
DIM 'F' TILT SWING RADIUS	
DIM 'G' TABLE DIAMETER	



Gear Driven (DCG) Drop Center Gravity Positioners



The DCG series Positioner provides 2-axis motion, continuous rotation, and $\pm 180^\circ$ tilt from the horizontal table position. This configuration of Positioner can also be made in a Geared Elevation version with a third powered axis for elevation. The worktable's surface can be specified at varying distances below the tilt axis, as well as specifying swing radius clearances from the table's rotation axis to the nearest obstruction.

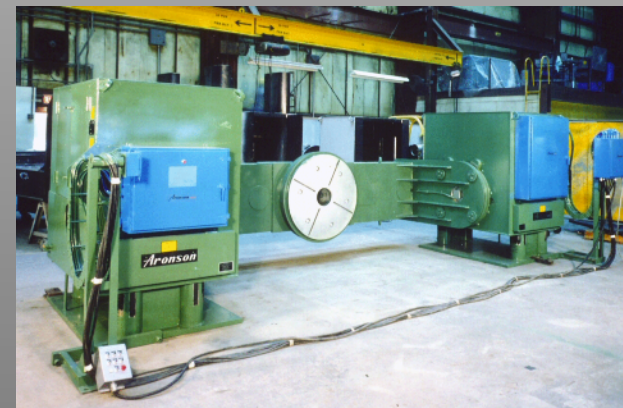
Due to the configuration of these models, it is necessary to consult the factory for sizing and capacity requirements. The counterbalancing effect of the cantilevered hanger precludes pre-calculated load capacity charts. Since applications require differing hanger lengths and the tables "dropped" distance below the tilt axis, the counterbalancing effect will vary greatly.

The load, center of gravity location, and swing clearance will be required to assist the factory in the selection of the correct model.

Designed around customer loads and specifications

Features

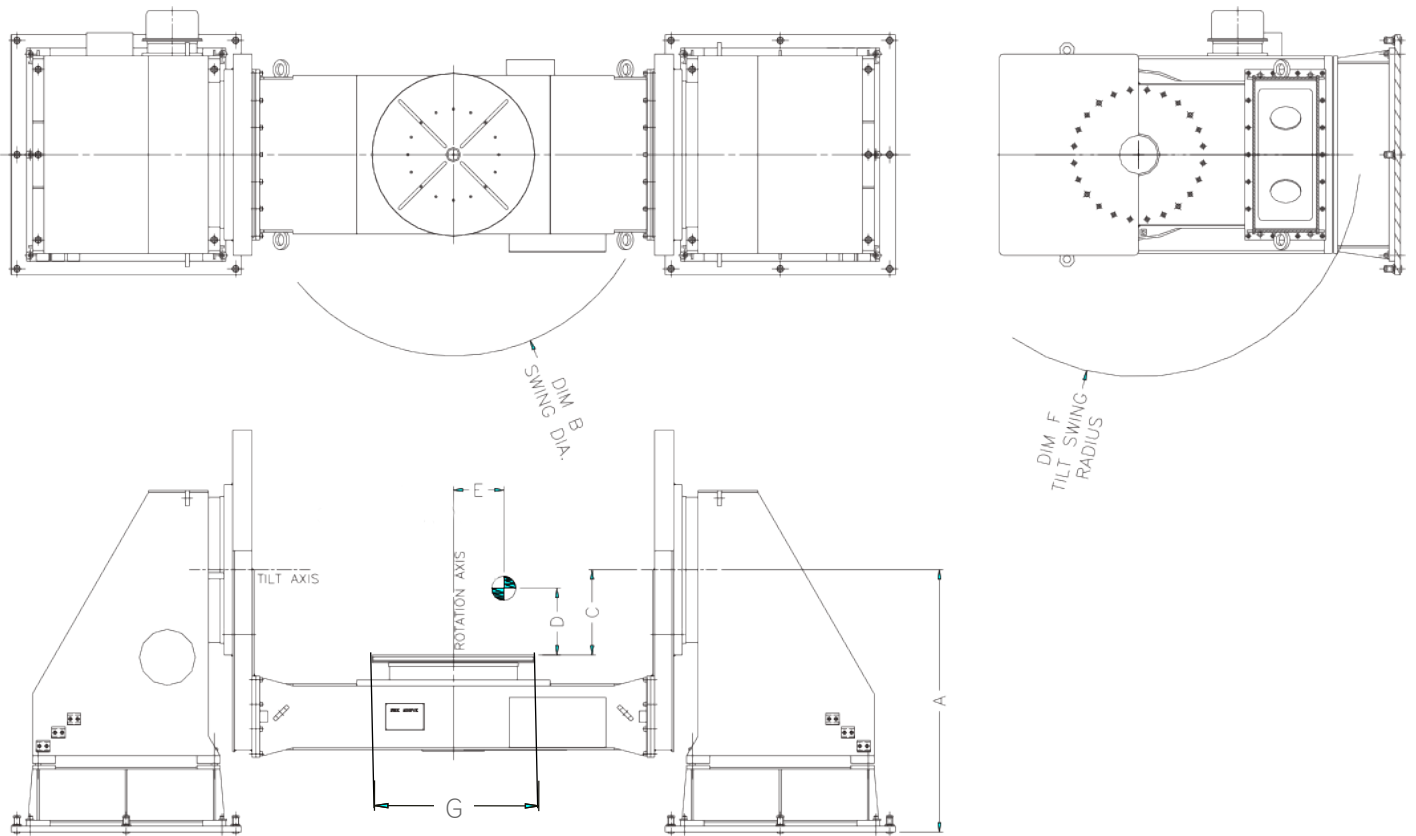
- AC Variable speed drives and motors
- Optional Servo Drives
- Powered $\pm 180^\circ$ tilt
- Optional geared elevation models available
- Robotic versions



Specifications

DCG Requirements

Minimum requirements to size a Drop-Center Positioner



Enter in your minimum requirements in the chart below

	DIMENSIONS
TOTAL LOAD INCLUDE FIXTURE AND PART	
DIM 'A' FIXED TILT CENTERLINE HEIGHT IF ELEVATION IS REQUIRED	
MIN TILT CL HEIGHT	
MAX. TILT CL HEIGHT	
DIM 'B' PART ROTATION SWING RADIUS	
DIM 'C' TABLE DROP	
DIM 'D' TILT OVERHUNG LOAD	
DIM 'E' ROTATION OFF CENTER LOAD	
DIM 'F' TILT SWING RADIUS	
DIM 'G' TABLE DIAMETER	

OPTIONS

By the nature of design and function, the majority of optional equipment for Koike Aronson / Ransome Positioners should be installed at the time of manufacture. When ordering Positioners, it is therefore important to consider all optional features and equipment.



Radio Remote Controlled Pendant

The Koike Aronson/Ransome Handheld Radio Remote Controlled Pendant is user friendly and adaptable to any Positioner. The weatherproof and lightweight pendant includes a resettable E-Stop and speed potentiometer for complete, safe machine control. A magnetic holder allows operator to keep remote out of harms way when not in use.



Foot Switch Control

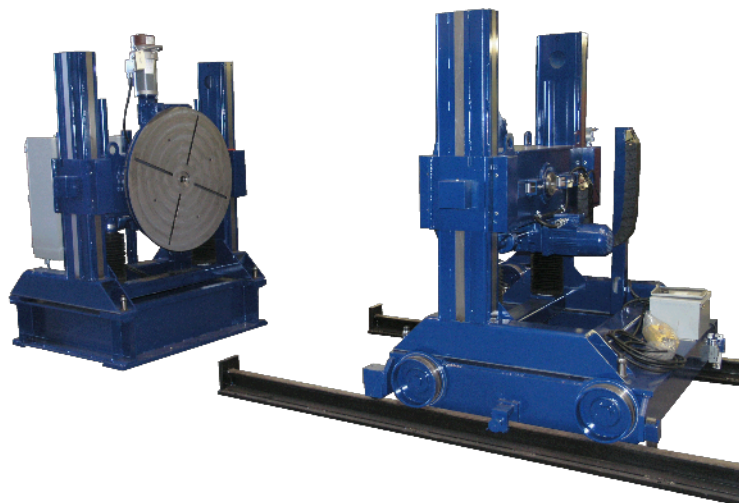
With three styles of foot switches available Koike Aronson can adapt your positioner to be used in the most efficient way.

- FSC-Foot Speed Control, provides variable speed control through the use of a foot switch.
- FPC-Provides On/Off foot control of the rotational axis.
- FWD/REV-Provides forward and reverse foot control of the rotational axis (pictured above).



Special Tables

Many standard table options are available, From round to square, machined or scribed. Standard t-slot configurations to customer specified bolt hole patterns and pilot configurations



Rail Cars and Bogies

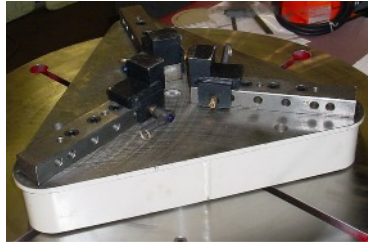
Powered and manual cars can be used for varying length parts and moving entire vessels from bay to bay.



Variable Diameter Tachometer

Reads directly in Inches Per Minute for varying diameters, 4-Digit 5/8" LED Display. Diameter settings made on two (2) potentiometers, one having Tens scale and other having Units scale for diameters of 0" to 260" in 1" increments. Selector switch provided for IPM or RPM checking. Metal case with shielded remote cable has handles and holes for hanging. Actual running speed sensed by precision generator.

OPTIONS



Chucks

Self centering scroll and gripper chucks available for a large diameter range and weight capacity.



Riser Sub-Bases

Increases the rotation centerline height for large swing diameter parts and fixtures.



DPD, Dual Pinion Drive

Provides greater safety with a second drive pinion engaged into the final gearing. With hardened gearing and four-thread worm gearing, back-lash can be reduced for more precise applications



Out-board supports

Weight capacity of 1000, 5000 and 10,000 lb adjustable for diameters from 2" to 48", with polyurethane wheels 8" in diameter. Roller assembly is mounted on a screw adjusted stand for use as an outboard support with Positioner or Headstock. Vertical adjustment of 8" provides infinite height settings by means of Acme screw and nut.



Adjustable Base Models

Manually adjustable height models that available upon request.



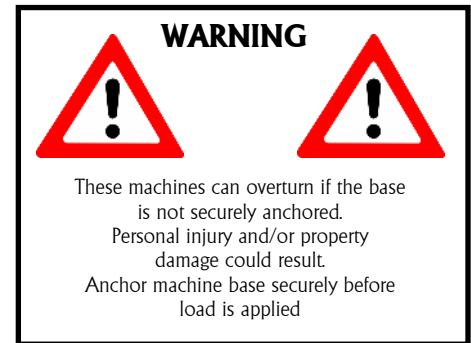
Universal Control

The programmable controller is designed to receive and memorize optimum work piece positions and increase productivity. The standard programmable control provides up to 3 part programs with 20 positions. The programmable Positioner system is designed to increase productivity of manual welding applications as well as aiding in the transition from manual to robotic welding applications. Built in I/O, can accept and provide "in position" signals to any robotic control. There is no need to reprogram a Positioner welding sequence; all existing programs can be utilized.

NOTES

Installation Considerations

MODEL	Incoming Power Requirements	Rear Anchor Bolts Minimum Tension	Floor loading Compression at front of Machine	Anchor Bolt Clearance
HS2VF	460/3/60 @ 10 FLA	935 lb	2,833 lb	13/16"
TS2	-	935 lb	2,833 lb	13/16"
HTS5VF-GE	460/3/60 @ 25 FLA	-	-	13/16"
2H/2T-PE	460/3/60 @ 25 FLA	2,300 lb	6,000 lb	7/8"
3H/3T-PE	460/3/60 @ 40 FLA	2,500 lb	6,800 lb	7/8"
HS4VF	460/3/60 @ 15 FLA	1,700 lb	5,160 lb	13/16"
TS4	-	1,700 lb	5,160 lb	13/16"
HTS9VF-GE	460/3/60 @ 30 FLA	-	-	13/16"
3.5H/3.5T-PE	460/3/60 @ 30 FLA	1,000 lb	12,000 lb	7/8"
HS6VF	460/3/60 @ 15 FLA	2,500 lb	8,500 lb	7/8"
TS6	-	2,500 lb	8,500 lb	7/8"
HTS12VF-GE	460/3/60 @ 35 FLA	2,500 lb	8,500 lb	1-1/16"
4H/4T-PE	460/3/60 @ 35 FLA	1,000 lb	18,000 lb	7/8"
4.5H/4.5T-PE	460/3/60 @ 35 FLA	1,000 lb	20,000 lb	7/8"
HS10VF	460/3/60 @ 20 FLA	5,000 lb	20,000 lb	7/8"
TS10	-	5,000 lb	20,000 lb	7/8"
HTS20VF-GE	460/3/60 @ 35 FLA	5,000 lb	20,000 lb	1-1/16"
5H/5T-PE	460/3/60 @ 35 FLA	1,100 lb	24,000 lb	7/8"
HS16VF	460/3/60 @ 20 FLA	4,750 lb	20,750 lb	1-1/16"
TS16	-	4,750 lb	20,750 lb	1-1/16"
HTS32VF-GE	460/3/60 @ 40 FLA	4,750 lb	20,750 lb	1-1/16"
6H/6T-PE	460/3/60 @ 40 FLA	7,500 lb	26,000 lb	1-1/16"
HS20VF	460/3/60 @ 20 FLA	6,400 lb	50,000 lb	1-1/16"
TS20	-	6,400 lb	50,000 lb	1-1/16"
HTS40VF-GE	460/3/60 @ 60 FLA	6,400 lb	50,000 lb	1-1/16"
HS25VF	460/3/60 @ 30 FLA	8,000 lb	33,000 lb	1-1/16"
TS25	-	8,000 lb	33,000 lb	1-1/16"
HTS50VF-GE	460/3/60 @ 60 FLA	8,000 lb	33,000 lb	1-5/8"
7H/7T-PE	460/3/60 @ 60 FLA	4,000 lb	45,000 lb	1-1/8"
HS30VF	460/3/60 @ 30 FLA	9,500 lb	39,500 lb	1-5/8"
TS30	-	9,500 lb	39,500 lb	1-5/8"
HTS60VF-GE	460/3/60 @ 100 FLA	9,500 lb	39,500 lb	1-5/8"
8H/8T-PE	460/3/60 @ 100 FLA	5,600 lb	78,000 lb	1-5/8"
HS45VF	460/3/60 @ 30 FLA	12,000 lb	100,000 lb	2-1/8"
TS45	-	12,000 lb	100,000 lb	2-1/8"
HTS90VF-GE	460/3/60 @ 100 FLA	12,000 lb	100,000 lb	1-5/8"
10H/10T-PE	460/3/60 @ 90 FLA	5,600 lb	78,000 lb	1-5/8"
HS80VF	460/3/60 @ 60 FLA	21,500 lb	101,500 lb	2-1/8"
TS80	-	21,500 lb	101,500 lb	2-1/8"
HTS160VF-GE	460/3/60 @ 100 FLA	21,500 lb	101,500 lb	1-5/8"
16H/16T-PE	460/3/60 @ 100 FLA	17,000 lb	118,000 lb	2-1/8"
HS120VF	460/3/60 @ 60 FLA	27,353 lb	147,353 lb	2-1/8"
TS120	-	27,353 lb	147,353 lb	2-1/8"



Koike Aronson / Ransome Inc. does NOT specify floor construction or foundation design. Floor loading is provided and it is the customers responsibility to insure a sufficient floor to support machine and load.

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CUTTING, POSITIONING & WELDING EQUIPMENT



Koike Aronson, Inc./Ransome



635 W. Main Street
P.O. Box 307
Arcade, NY 14009

Phone: (585) 492-2400
Fax: (585) 457-3517
Toll Free: (800) 252-5232

www.koike.com



Koike Aronson Brasil

Rua Agostinho Mazza N° 31
Bairro Parque do Trevo
Jaboticabal - SP
CEP 14871-710



Tel/Fax: (16) 3202-8439

www.koike.com/br

