

3 Axis Welding Positioners

Description

ROTOLIFT is a 3 axis hydraulic positioner and handler specifically designed for assembling and welding operations. Thanks to its functional features, the machine considerably reduces the moving of the workpiece and therefore the use of traditional lifting systems.

ROTOLIFT is an ergonomic Welding Positioner featuring great flexibility. Our welding positioner innovative feature is the possibility not only to tilt and rotate the workpiece, but also to lift and lower it.

Welding Positioners with loading capacity up to 100.000 kg available upon request.

In 2 versions:

1. HYDRAULIC: Hydraulic lifting, titling and rotaion
2. ELETRIC: hydraulic lifting and titling, electromechanic rotation by means of power-ventilated vectorial inverter

Advantages:

- Reduction of weldments handling time
- Minor use of traditional lifting equipment
- Safer and more ergonomic working enviroment
- Lifting, titling and rotation of a weldment on a single machine
- Improvement of welding quality
- Fast return on investment (ROI)
- Simplified welding precedure specifications (WPS)
- 3 axis: elevation, rotation, titling

Cost-Benefit Analysis



Application Fields



Welding Positioners Features



- Parallelogram lifting system of the workpiece , patented by Sideros, allows to lift the workpiece by keeping the same inclination.



- Workpiece inclination up to 90/140°



- Rotary ground for welding operations from 400 to 1500 Ampere integrated in the machine



- Sturdy and compact design



■ Electric workpiece rotation by **potentiometer and inverter**



■ Customized perforated plate with **modular welding table**



■ Suitable for **welding and assembly** operations



■ Touch screen HMI with **Teaching System** for automatic **programming of movement steps**



■ Remote pushbutton panel and foot pedal to ease movement control



■ Available Voltages:
400V - 50/60Hz CE
480V - 60Hz UL complied
600V - 60Hz CSA complied

Datasheet

Rotolift DATASHEET

Technical features		RL 1250	RL 2000	RL 3000	RL 4500	RL 6500	RL 8500	RL 11000	RL 13000	RL 18000
Load capacity	kg (lbs)	1.250 (2,750)	2.000 (4,410)	3.000 (6,610)	4.500 (9,920)	6.500 (14,330)	8.500 (18,730)	11.000 (24,240)	13.000 (28,600)	18.000 (39,600)
Max. table tilting	°	95	95/140	95/140	95/140	95	95	95	95	95
Rotation torque	Nm (lbs/in)	490 (4,337)	800 (7,080)	2.350 (17,347)	5.300 (46,908)	7.500 (67,708)	8.000 (71,691)	10.070 (95,500)	15.600 (138,072)	17.651 (156,220)
Tilt torque	Nm (lbs/in)	4.900 (43,369)	7.850 (69,478)	11.750 (103,996)	21.200 (187,636)	31.900 (282,339)	41.700 (369,076)	53.950 (477,498)	63.750 (564,235)	88.290 (781,450)
Min. height vertical table	mm (in)	540 (21.2)	550 (21.6)	740 (29.1)	830 (32.6)	910 (35.8)	980 (38.5)	1.100 (43.3)	970 (38.2)	1.070 (42.4)
Max height vertical table	mm (ft)	1.120 (3.7)	1.300 (4.3)	1.590 (5.3)	2.080 (6.8)	2.380 (7.9)	2. 740 (9.1)	2.900 (9.5)	2.710 (8.6)	2.770 (8.8)
Min height horizontal table	mm (ft)	700 (2.3)	650 (2.3)	720 (2.4)	880 (2.9)	950 (3.1)	1.180 (4)	1.300 (4.3)	1.260 (4.2)	1.300 (4.3)
Max height horizontal table	mm (in)	1.280 (50.4)	1.400 (55.1)	1.570 (61.8)	2.130 (83.8)	2.420 (95.3)	2.840 (111.8)	3.200 (126)	3.000 (118.1)	3.000 (118.1)
Table dimension	mm (ft)	Ø 800 (Ø 2.6)	Ø 800 (Ø 2.6)	1.100 X 1.100 (3.6 x 3.6)	1.500 x 1.500 (4.9 x 4.9)	1.500 x 1.500 (4.9 x 4.9)	1.500 x 1.500 (4.9 x 4.9)	1.800 × 1.800 (5.9 × 5.9)	1.800 × 1.800 (5.9 × 5.9)	1.800 × 1.800 (5.9 x 5.9)

OVERSIZED POSITIONERS DATASHEET:

Technical features		RL 20000	RL 30000	RL 40000	RL 60000	RL 80000	RL 100000
Load capacity	kg (lbs)	20.000 (44,090)	30.000 (66,140)	40.000 (88,190)	60.000 (132,280)	80.000 (176,370)	100.000 (220,460)
Tilt moment	Nm (lbs/in)	16.000 (1,388,740)	24.000 (2,083,115)	40.000 (3,471,860)	60.000 (5,207,790)	120.000 (10,415,570)	180.000 (15,623,360)
Rotation torque	Nm (lbs/in)	3.000 (260,390)	4.000 (347,190)	6.000 (520,780)	9.000 (781,160)	12.000 (1,041,550)	180.000 (1,301,940)
Table height from floor	mm (in)	1.000 (39.4")	1.200 (47.2")	1.400 (55.1")	1.600 (63")	1.850 (72.8")	2.200 (86.6")
Max table tilting	°	0-120°	0-120°	0-120°	0-110°	0-110°	0-110°