

UltiMate Torque Arms & UltiMate Torque Tubes



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Manipulator Specialists, Inc.

Maximize productivity and increase quality control by utilizing the complete line of **UltiMate Torque Arms** and **UltiMate Torque Tubes**. Smooth, effortless movement offers the operator virtually no resistance. Quality workmanship makes the UltiMate built to withstand the rugged environments of the assembly process.

STANDARD or **CUSTOM** engineered solutions will accommodate virtually any unique tool, torque or weight requirements.

UltiMate Spring Controlled Torque Arm

The UltiMate Spring Controlled Torque Arm series provides precise tool positioning in an economical fashion. Built with seasoned craftsmanship, this style features heavy duty, long life springs, and is available with options for adjustable height, variable mountings and an adjustable tool clamp.

TA10-1S

The TA10-1S provides an economical solution for the lighter tool weight and torque requirements. Adjustable spring tension allows for variable tool weights up to 4 lbs. and torque reaction of 10 ft-lb. A swivel end allows the operator the option of multiple tool placements and yet maintains the smooth, ergonomic features that eliminate fatigue.

TA15-2S

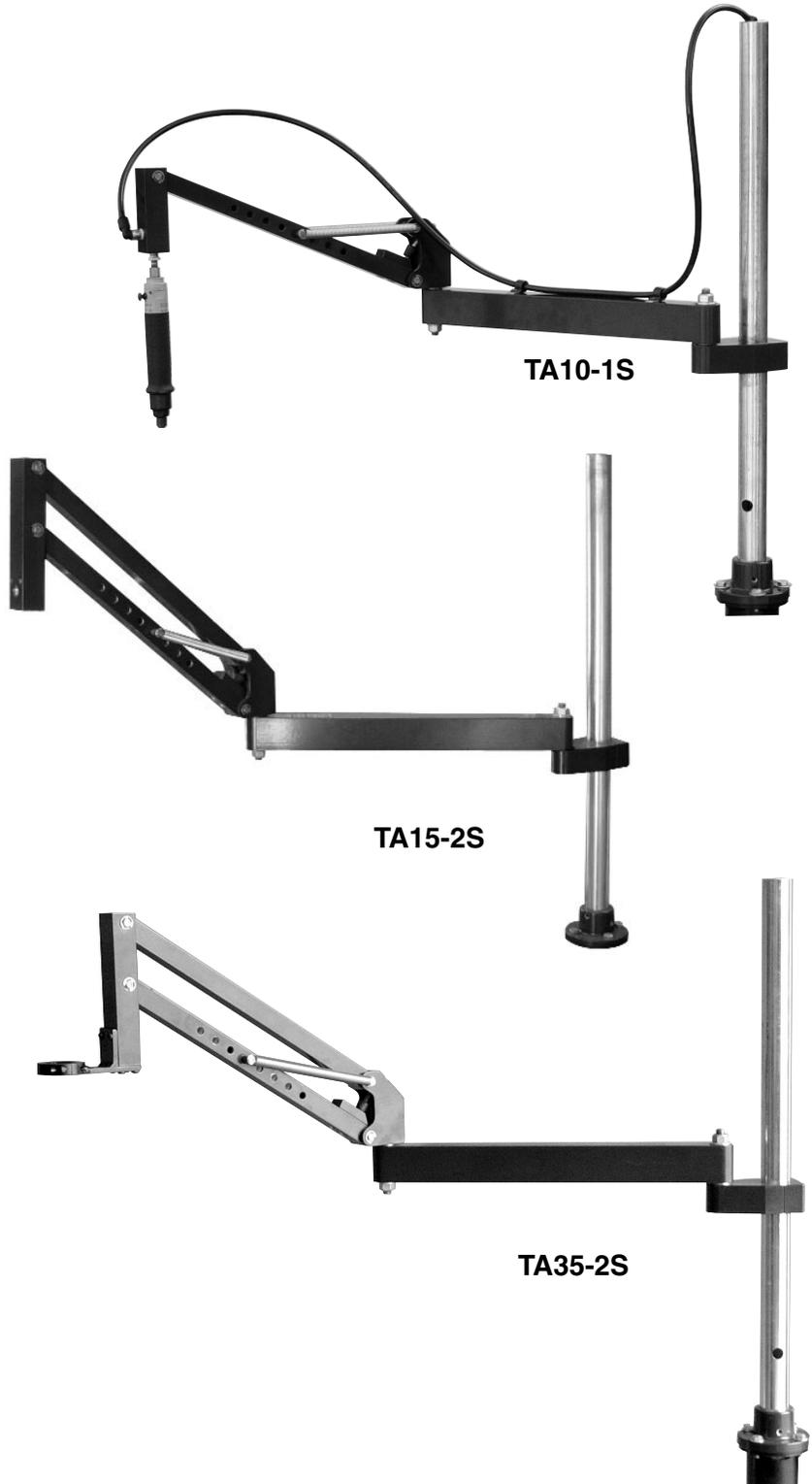
Adjustable springs on this model allow the operator to regulate for weights up to 4 lbs., and torque requirements up to 15 ft-lbs. This torque arm promises to keep tool rigid to maintain alignment. The smooth movement will maintain product integrity and help protect against injury.

TA35-2S

Parallel arms increase strength and keep tools aligned to work surface with the TA35-2S. Smooth operation and handling is realized with this model. Tool weight up to 10 lbs. and neutralization of torque of 35 ft-lb. is achieved with this reaction arm.

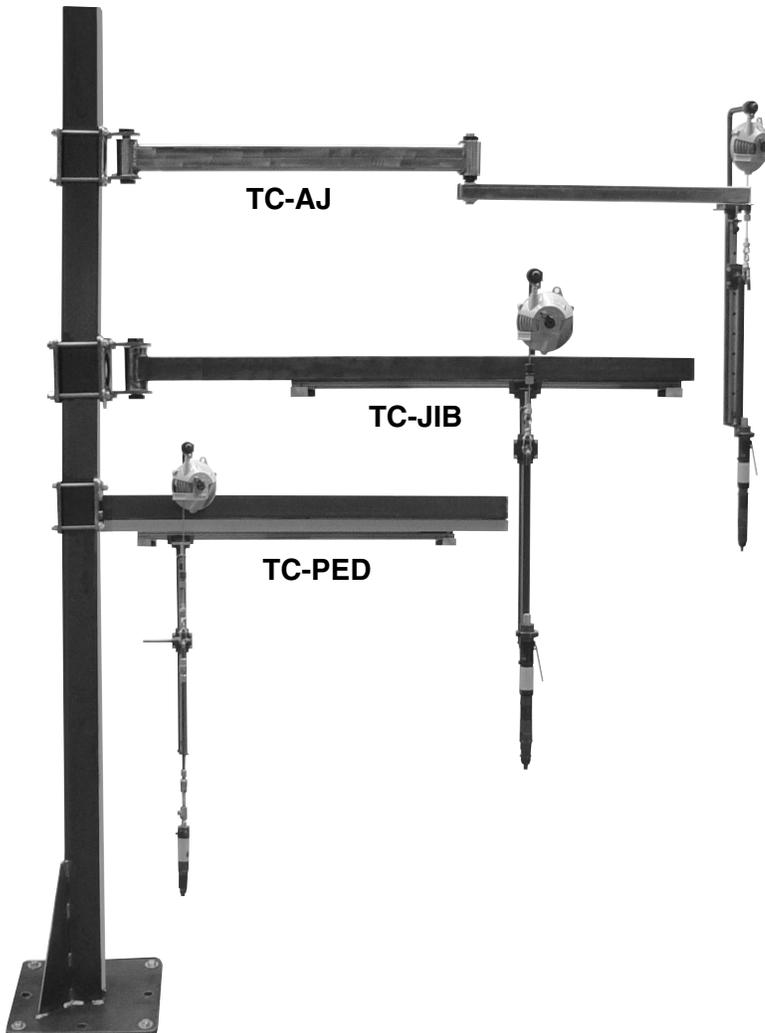
OPTIONS:

- Rigid or Rotating Tool Interface
- Horizontal or Vertical Tool Holder
- Mounting:
 - Overhead Rail
 - Bridge
 - Jib Crane
 - Articulating Jib Crane



UltiMate Linear Rail Torque Arm

The UltiMate Linear Rail Torque Arm is engineered to alleviate torque reaction exposure and increase fastening precision and consistency. The UltiMate TC series is an outstanding solution in the production and assembly process where a larger work area is required. This unit's compact design, and smooth, fluid movement will assure optimal efficiency. Choose the most functional mounting structure and tool support system for your distinct application.



INTEGRATE the optimal tool support system with the most functional mounting structure for your application

Choose Tool Support System:

- Universal Joint – TC35-CB-U
- Single Axle Swivel – TC35-CB-SA
TC100-CB-SA
- Rigid – TC-35-CB-R
TC100-CB-R

Choose Mounting Structure:

- Floor Mounted Pedestal – TC-PED
 - Features a fixed 6 ft arm with 3 ft horizontal travel
 - Adjustable height
 - Integrate with models – TC35-CB-U
TC100-CB-SA
- Floor Mounted Jib – TC-JIB
 - Features a 4 ft arm with 3 ft horizontal travel
 - Provides 240 degree rotation
 - Adjustable height
 - Integrate with models TC35-CB-R
TC100-CB-R
- Floor Mounted Articulating Jib – TC-AJ
 - Dual arm provides 5 ft reach
 - Adjustable height
 - Integrate with models TC35-CB-R
TC100-CB-R

Options:

- Rigid or Rotating Tool Interface
- Horizontal or Vertical Tool Holder
- Mounting:
 - Bridge
 - Jib Crane
 - Articulating Jib Crane
 - Overhead Horizontal Rail (Rail provided in increments of 3 feet up to 12 foot maximum)

TC35-CB

This Linear Rail Torque Arm is designed to optimize the assembly process. Rail mounted, the UltiMate TC35-CB will neutralize torque reaction of 35 ft-lb. and can manage a tool weighing 10 lbs.

TC100-CB

The UltiMate TC100-CB is a Linear Rail Torque Arm with the ability to accommodate torque reaction of 100 ft-lb. and tool weight of 15 lbs. Rail mounted, it assures optimal results in the assembly process with smooth, effortless movement.

UltiMate Pneumatic Balancers

UltiMate Pneumatic Balancers provide exceptionally smooth, fluid movement for the operator. This series eliminates the pull-back reaction seen with spring regulated arms. Precise placement allows tool orientation stability which can prevent cross-threads. Seasoned craftsmanship assures outstanding durability.

TA15-2B

The UltiMate TA15-2B is a pneumatic balancer that boasts impressive features. Dual cylinder lift provides fluid movement and precise placement. The parallel arm design is effective in maintaining rigid tool placement and contributes to increased strength. Tool weight capacity is 10 lbs. and torque capacity is 15 ft-lb with this arm.

TA35-2B

This pneumatic balancer is crafted to provide exceptional precision and dexterity in the assembly process. Parallel arms increase strength and keep tools aligned to the work surface. The UltiMate TA35-2B is capable of handling tool weights up to 10 lbs. and torque capacity of 35 ft-lb.

TA100-2B

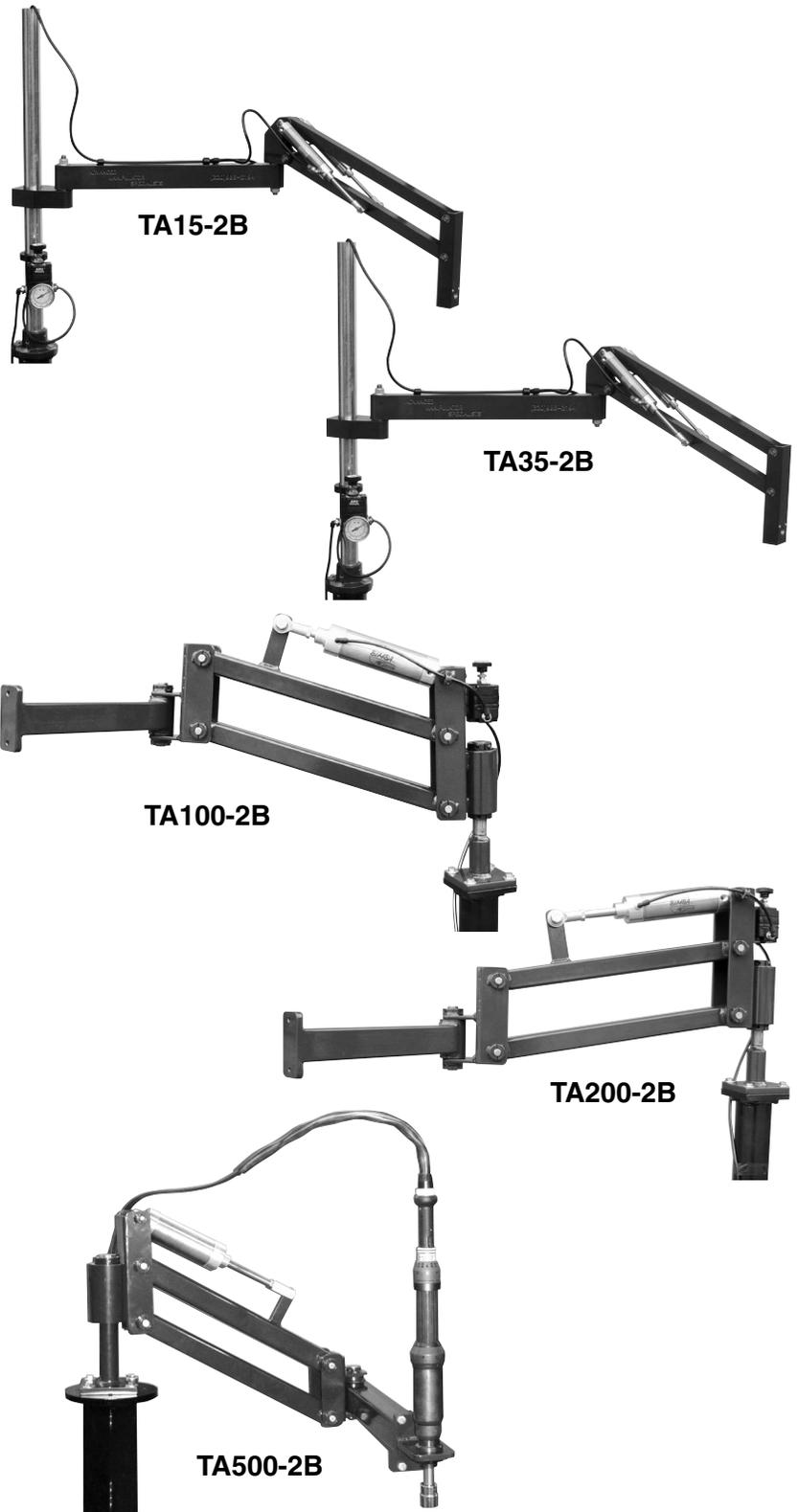
Precise and rigid tool placement is realized with the UltiMate TA100-2B torque arm. Sealed ball bearings and a precision-controlled lift cylinder provide outstanding fluid movement. Provides stability for tool weight of 15 lbs. and torque capacity of 100 ft-lb.

TA200-2B

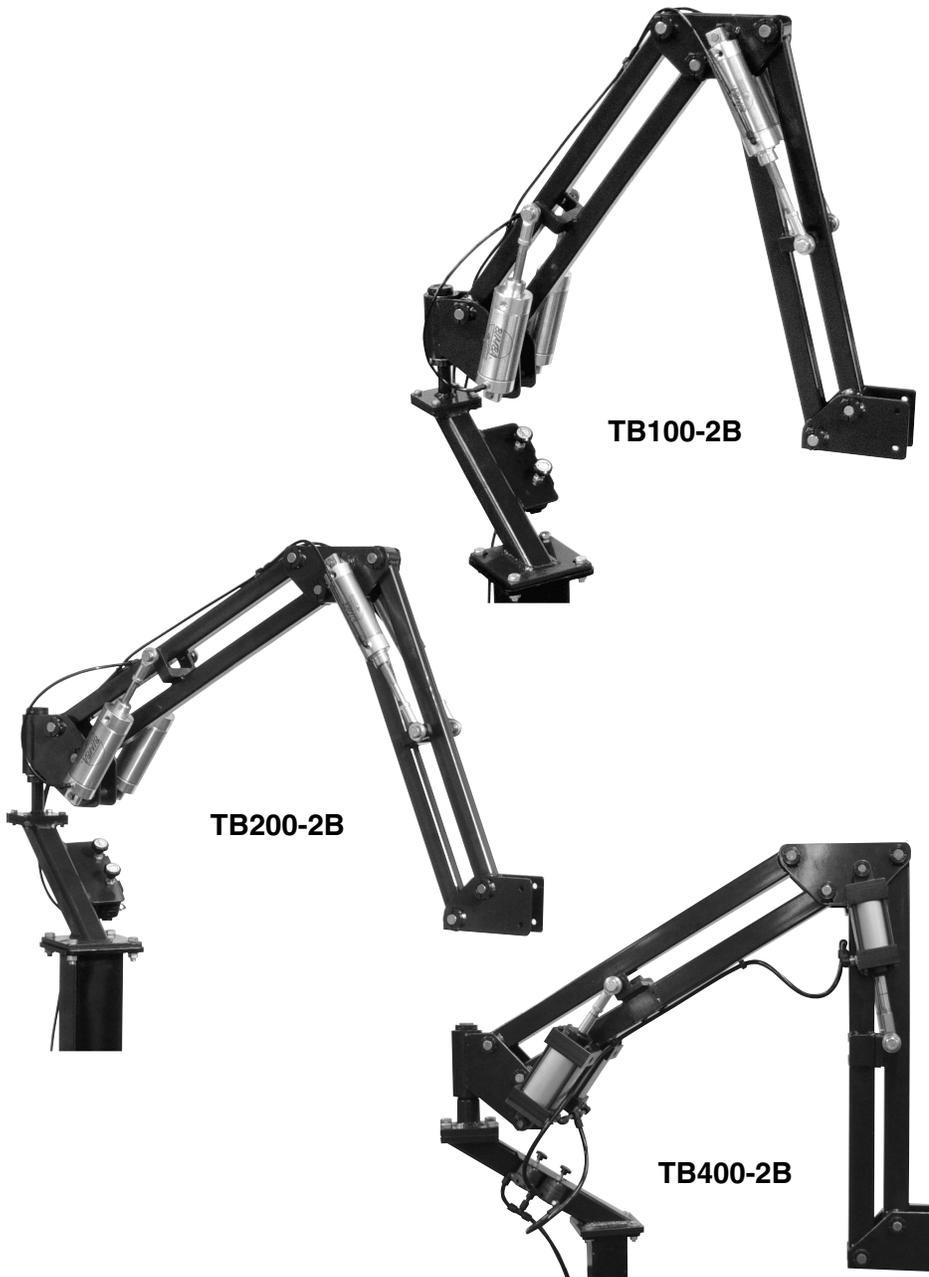
The impressive TA200-2B balancer demonstrates the superior craftsmanship of the UltiMate Torque Arm line. Sealed ball bearings and a precision-controlled lift cylinder assure smooth, fluid movement and precise placement. A tool weight up to 20 lbs., torque capacity of 200 ft-lb. and a reach up to 60 inches is attained with the UltiMate TA200-2B.

TA500-2B

A heavy duty balancer, this unit can accommodate up to a 30 lbs. tool and absorb 500 ft-lb. torque. A 72 inch reach and 360 degree rotation will maximize productivity and quality assurance.



UltiMate Pneumatic Balancers



TB100-2B

This machine is a robust, pneumatic balancer that will provide rigid support for torque capacity up to 100 ft-lb. and tool weight of 15 lbs. The UltiMate TB100-2B utilizes sealed ball bearings for ultimate fluid movement and maintains vertical tool placement for quality assurance. This torque arm can rotate 360 degrees and attain a reach of up to 45 inches.

TB200-2B

This balancer can contend with tools weighing up to 20 lbs. and absorbs torque of 200 ft-lb. It also boasts a reach of 60 inches. Sealed ball bearings assure smooth, effortless movement and eliminate wear. The TB200-2B has the capability of 360 degrees rotation.

TB400-2B

This brawny balancer can handle tools weighing up to 30 lbs. and absorb torque of 400 ft-lb. Parallel arms increase strength and keep tools aligned with work surface. The UltiMate TB400-2B torque arm is crafted with sealed ball bearings to provide smooth, effortless movement. A 36 inch vertical stroke and 72 inch reach is achieved with this unit, as well as a 360 degree rotation.

Options available for the TA & TB models:

- Rigid or Rotating Tool Interface
- Tool Holder:
 - Horizontal
 - Vertical
 - Rotary Tool Clamp
 - Pistol Grip
- Mounting:
 - Overhead Rail
 - Bridge
 - Jib Crane
 - Articulating Jib Crane

Additional Option for the TA model:

Power Down Assist (PDA), eliminates slippage between the tool bit and screw which helps alleviate operator fatigue and maintains product integrity.



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Call **320-986-2194** with questions.

UltiMate Torque Tubes

Ultimate Torque Tubes are designed to increase production by elimination of operator fatigue and maintaining product integrity. These machines are engineered to provide zero gravity balancing and the standard machine will eliminate torque reactions up to 500 ft-lb. The UltiMate Torque Tube can be utilized with either single or multiple spindle nutrunners. Its rugged design will withstand the vigorous elements of the assembly process.

TT100

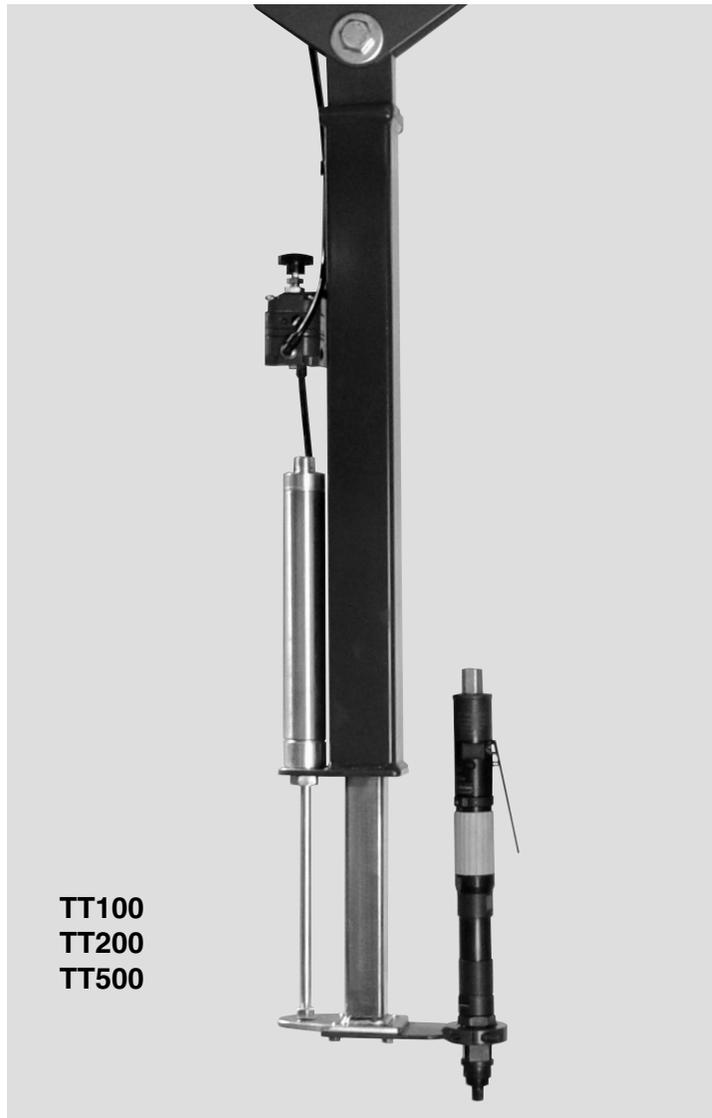
The UltiMate TT100 is a light duty torque tube that will maintain quality control by accurately positioning the tool and reducing the incidence of workers injuries. This torque tube will absorb torque reaction up to 100 ft-lb. and can handle tool weight up to 75 lbs.

TT200

Utilize the UltiMate TT200 to manage torque reaction up to 200 ft-lb. and tool weight up to 150 lbs. The intrinsic qualities of this medium duty machine increases workplace productivity by relieving operator fatigue through zero gravity balancing and allowing precise placement in the assembly process.

TT500

This Torque Tube is a potent machine that upholds the fluid movement necessary to preserve operator safety and maintain product integrity. The UltiMate TT500 neutralizes torque up to 500 ft-lb. and will accommodate tool weight up to 250 lbs.



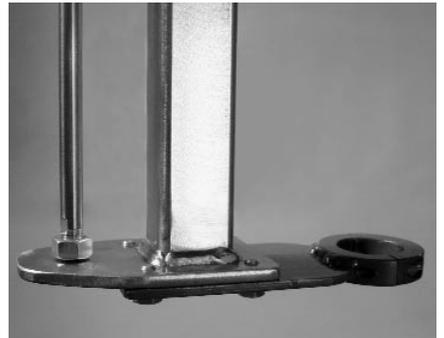
Rotary Tool Holder

Horizontal Clamp

Vertical Clamp

Options:

- Rigid or Rotating Tool Interface
- Horizontal or Vertical Tool Holder
- Mounting:
 - Overhead Rail
 - Bridge
 - Jib Crane
 - Articulating Jib Crane



Custom Engineered Torque Applications

*When your torque needs are unique or exceptionally high, opt for a custom designed reaction arm system. There are virtually no limitations to the weight or torque requirements **Advanced Manipulator Specialists can conquer.** Our engineering team will factor in your requirements to guarantee a tool balancer system that will eliminate operator fatigue, maintain product quality, and increase productivity.*



Pedestal Mount Inline

- 7 ft reach
- 48 in vertical travel
- Parking brake
- 300 ft-lbs torque capacity



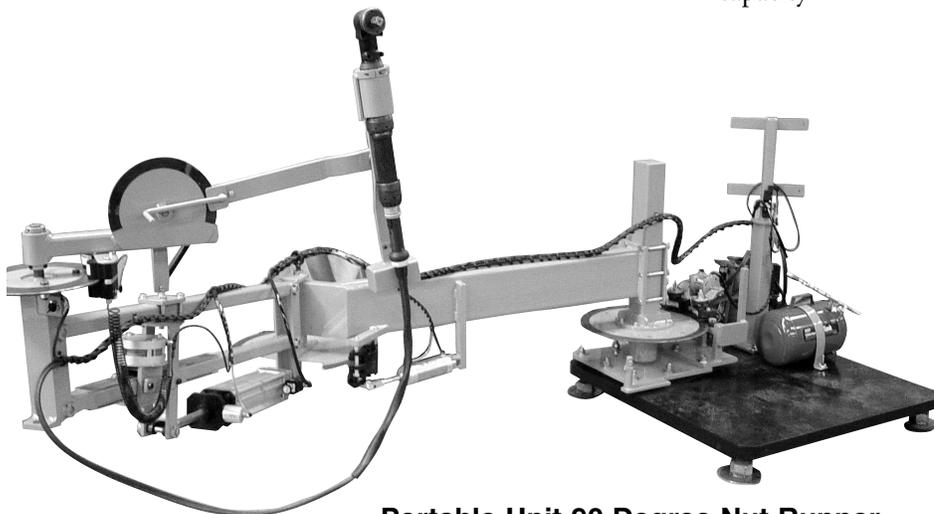
Pedestal mount pistol grip

- 8 ft reach
- 48 in vertical travel
- Three brake system
- 300 ft-lbs torque capacity



Ceiling Hung Torque Arm

- 9 ft reach
- 48 in vertical travel
- Four brake system
- Ball & socket rotary joint
- 250 ft-lbs torque capacity



Portable Unit 90 Degree Nut Runner

- 10 ft reach
- 36 in vertical travel
- Four brake system
- 270 ft-lbs torque capacity



Table Top Inline

- Linear slide 12 in travel
- 18 in vertical travel
- Pneumatic balance control
- 100 ft-lbs torque capacity

UltiMate Torque Arms & UltiMate Torque Tubes



Utilize your UltiMate to maximize productivity and increase quality control.

Model	Minimum Reach (in)	Maximum Reach(in)	Maximum Torque(ft-lb)	Maximum Tool Weight lbs	Vertical Stroke(in)
TA10-1S	3	36	10	4	17
TA15-2S	3	36	15	4	17
TA35-2S	3	36	35	10	17
TC35-CB			35	10	18
TC100-CB			100	15	18
TA15-2B	3	36	15	10	17
TA35-2B	3	36	35	10	17
TA100-2B	4	30	100	15	18
TA200-2B	6	36	200	20	24
TA500-2B	8	42	500	30	24
TB100-2B	22	45	100	15	18
TB200-2B	28	60	200	20	24
TB400-2B	35	72	400	30	36
TT100			100	75	24
TT200			200	150	24
TT500			500	250	24

The UltiMate in...

- Spring Controlled Torque Arms
- Linear Rail Torque Arms
- Pneumatic Balancers
- Torque Tubes
- Custom Engineered Torque Arms



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