# RELIABLE TOOL SUPPORT PRODUCTS > FOR HARSH INDUSTRIAL ENVIRONMENTS

Positioners, Retractors, Balancers, Torque Reels, Grounding Reels





# TOOL SUPPORT PRODUCTS > THAT ENHANCE PRODUCTIVITY AND INCREASE EFFICIENCY



Over the last 75 years Aero-Motive® has designed and manufactured a wide range of tool support products to enhance productivity and increase efficiency, while reducing worker fatigue and common injuries in the workplace. Aero-Motive® balancers and retractors provide best-in-class ergonomics, with tools that become almost weightless in the hands of operators. This enables our customers to optimize their performance without sacrificing safety.

Aero-Motive® products provide the right solution for the right application, for every industry while creating long-term value through lasting performance. Our commitment to our customers is strong, and we aim to meet the expectations of our valued customers by providing efficient and valuable solutions.

Aero-Motive® products are proven to provide:

- Improved safety of employees
- Best-in-class ergonomics
- Increased efficiency and productivity in the workplace
- Value through lasting performance



- 1. Measure the total weight of the tool (including hoses, fluids etc.) to find the weight of the load.
- 2. Choose the balancer or retractor that will position the total weight of the load at the midrange of published weight capacity.
- 3. Use a safety chain or a safety cable to secure the balancer or retractor to a separate trolley on runways.
- 4. Adjust tension on the balancer or retractor using the external adjustment mechanism until the tool becomes weightless in operator's hand.
- 5. Monitor integrity of main cables and secondary supports on a daily basis.

#### **TOOL SUPPORT PRODUCTS**

## TABLE OF CONTENTS >

Aero-Motive® Tool Support Products		
Industrial Applications		5
Installation Information		6
Feature Identifiers	7	7 to 9
Aero-Motive® Positioners		
Series GM for Light Industrial Duty Applications	12	to 13
Aero-Motive® Retractors		
Series RB for Light Industrial Duty Applications	. 16	to 17
Series RF and RFL for Light Industrial Duty Applications	. 18	to 19
Series 5F and 5FLR for Standard Industrial Duty Applications	20	to 21
Series 10F/22F and 10FLR/22FLR for Standard Industrial-Duty Applications	22	to 23
Series 10FLS/22FLS and 10FLSR/22FLSR for Standard Industrial-Duty Applications	. 24	to 25
Series FLRC for Heavy Industrial Duty Applications	26	to 27
Aero-Motive® Balancers		
Series AB and ABRL for Light Industrial Duty Applications	30	to 31
Series BF and BFL for Light Industrial Duty Applications	32	to 33
Series EB & EBR, and EBR & EBSR for Standard Industrial Duty Applications	. 34	to 35
Series EA for Heavy Industrial Duty Applications	36	to 37
Series EL for Heavy Industrial Duty Applications	38	to 39
Series JA for Heavy Industrial Duty Applications		
Series KA for Heavy Industrial Duty Applications		
Series LA for Heavy Industrial Duty Applications	44	to 45
Aero-Motive® Torque Reels		
Series T and TR for Standard Industrial Duty Applications	48	to 49
Aero-Motive® Grounding Reels		
Series 1025 for Standard Industrial Duty Applications	52	to 53
Series 2050 for Standard Industrial Duty Applications		

#### **TOOL SUPPORT PRODUCTS**

## INDUSTRIAL APPLICATION >

#### Industries Served by Aero-Motive®

General Factory Floor Assembly

Automotive - Body Shop, Power Train and General Assembly

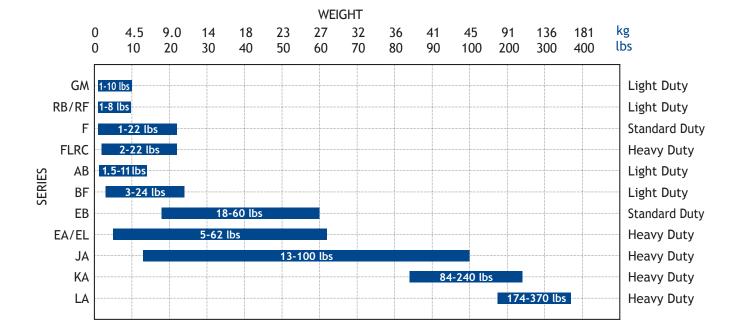
Consumer/Home Appliance - White Goods and Electronics

Industrial Automation - Food and Beverage

Industrial Electrical

Medical

Heavy Equipment Manufacturing



## INSTALLATION INFORMATION >

**LOAD** refers to the **TOTAL SYSTEM WEIGHT** that should be considered when selecting a balancer or retractor. This includes the tool, the cable or hose and fluids, as well as any additional attachments.

**ACTIVE CABLE TRAVEL** is the cable available to be pulled out and retracted into the unit, and is used to place the load within the ergonomic zone.

**OVERHANG CABLE** is any additional length of cable attached to or part of the active cable travel, but will not be retracted into the unit. Overhang cables are used in industrial applications with high ceilings to properly position loads into the ergonomic zone.

UNIT OVERHEAD MOUNTING: STATIONARY – For maximum operator efficiency and unit life, mount tool support products directly over workspace with the cable perpendicular to the floor when in use. Not doing so may cause fatigue and can lead to excessive wear on the cable and drum.

UNIT OVERHEAD MOUNTING: TROLLEYS AND RUNWAYS - For industrial applications that require the continuous movement of tools, a system of trolleys and runways is used and the tool support product must be properly mounted to a trolley using an upper mount.

SECONDARY SUPPORT in the form of a safety chain or cable for tool support products that are mounted overhead is strongly recommended to prevent any unit from accidentally falling. For trolley systems, we recommend attaching the safety chain or cable to two separate trolleys to maximize safety.



## FEATURE IDENTIFIERS >

#### **External Tension Adjustment**

Tension can be adjusted easily to match the weight of the load while controlling the retraction speed (See next page for more information).

#### **Upper Mount**

This feature allows the unit to be safely mounted or secured within applications, upper mounts can be fixed allowing minimum rotational freedom or best designs allow a 360° rotational freedom for unit movement.

#### **Automatic Safety Lock**

This is an internal mechanism which prevents a load from falling in the event that a unit loses tension or a power-spring breaks.

#### Manual Safety Lock

Facilitates quick and safe tool/load changeover without the risk of cable fly-back.

#### Manual Remote Safety Lock

Enables manual lock to be engaged or disengaged using a cam/lever arm, operated by a conveniently placed floor-level handle.

#### Cable Replacement

Plug and play feature allows cable replacement to be done easily while balancer is still in service.

#### **Containerized Spring Cassettes**

Power springs are contained in cassettes to allow easy and safe handling.

#### Ratchet Lock ("ON")

Special cam design which allows cable locking at the desired position, ratchet is unlocked with a simple tug of the cable. Ratchet is always ON by design.

#### Ratchet Lock ("ON/OFF")

Same as ratchet lock "ON", but ratchet lock function can be manually engaged or disengaged. Ratchet functionality is disabled in "OFF" mode.

#### **Cable Arrest**

Added safety feature to eliminate cable fly-backs caused by cable failures or accidental tool detachments.

#### **Declutching Spring Hub**

Automatically prevents damage to power spring in the event of reverse winding.

#### WearGuard™ Epoxy

Drum is coated with WearGuard™ epoxy to extend cable and drum life in harsh environments.

#### Cable Guide

Designed specifically to extend Cable Life as cables are pulled at different angles within applications for different tasks. Best Cable Guides employ Roller Guides as to eliminate complete Friction between Cable and Cable Guide.

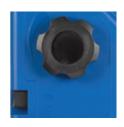
## FEATURE IDENTIFIERS >

#### **External Tension Adjustment**



#### Ergo Knob [RB Series]

This system employs a spring loaded knob and a positive manual ratchet design. To add tension, turn ergo knob clockwise or towards "+" until desired tension is reached. To remove tension, pull and turn the knob counterclockwise one ratchet at a time.



#### Ergo Knob and Push Cam [RF and RFL Series]

This system employs a spring loaded and positive spring loaded ratchet cam design. To add tension, turn ergo knob clockwise or towards "+" until desired tension is reached. To remove tension, hold ergo knob whilst pushing on the cam - the knob will turn counterclockwise one ratchet at a time.



#### Hex Cam and Lock Lever [AB Series]

This system allows the cam to manually lock in place at a desired position by means of a lock lever. To add tension, insert a hex key into the cam and turn it clockwise or in the direction of the "+" sign. Do not release the hex key until the cam is locked in place by the lock lever.



#### Worm Gear Vertical [EB; EL; EA; JA; KA & LA Series]

Designed to easily add or remove tension for loads of up to 375 lbs (170 kg) using nut runner tools. Add tension by simply turning bolt clockwise or in "+" direction. Remove tension by turning bolt counterclockwise or in "-" direction.

#### **External Tension Adjustment**



Shaft and Spring Friction Clutch System [F; FLR; FLRC; FLS; FLSR Series] This system works by locking the main shaft in place by exerting pressure which is evenly dispersed around the circumference of the main shaft. Add tension by simply turning main shaft counter-clockwise or in the "+" direction. To remove tension, first hold main shaft by means of a manual key and then press on the spring clutch lever to allow rotation of shaft.



#### Shaft and Push Cam [BF & BFL Series]

Add tension by simply turning main shaft counter-clockwise or in the "+" direction until desired tension is reached. To remove tension, first hold main shaft by means of a manual key and then push on the Cam Lever to allow rotation of shaft in the "-" or clockwise direction.



#### Friction Brake [GM31 Series]

This design allows the unit to build friction instead of building tension. It builds up friction as the cable is pulled out of the unit. Simple tension adjustment using a flat driver or a coin. To achieve desired Ergonomics, add friction by turning the shaft in "+" direction or remove friction by turning the shaft in "-" direction.

## POSITIONING > WITHOUT EFFORT



Positioners are reeling devices that employ a friction brake design to enable the positioning of light loads at a desired height throughout the active cable travel, and maintain the established position without requiring extra force.

Depending on the adjustment of the friction brake, the tool can be moved downward with very little effort. However, to move the tool upward, the full weight of the object must be lifted.



AERO-MOTIVE® POSITIONERS



#### **APPLICATIONS**

**GENERAL INDUSTRIAL** 

**WORKSTATIONS** 

**PENDANT STATIONS** 

SHIELD

**MAGNIFIERS** 

**HEAT LAMPS** 

SIGNS

**LIGHTS** 

**LIGHT TOOLS** 

## POSITIONERS >

GM31 Series Light Industrial Duty

Aero-Motive® Positioner GM31 provides a low-cost solution for low-cycle and light-load applications such as lights, heat lamps, and signs without requiring extra force to maintain the established position. GM31 was designed such that its compact size will enable the unit to fit within most industrial air coiled hoses.

#### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No Upper Mount: Fixed S-Hook

External Tension Adjustment: Friction Brake

Secondary Support: No

Serviceable: No

**Upper Mount:** Fixed S-Hook \_ Quick and Easy Installation

High-Impact ABS Housing \_

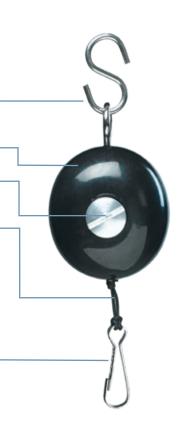
**External Tension Adjustment:** 

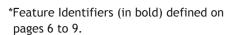
Friction Break-Easily Operated

Durable Nylon Cable \_\_\_\_

Tool Clip\_

for Easy Attachment and Removal

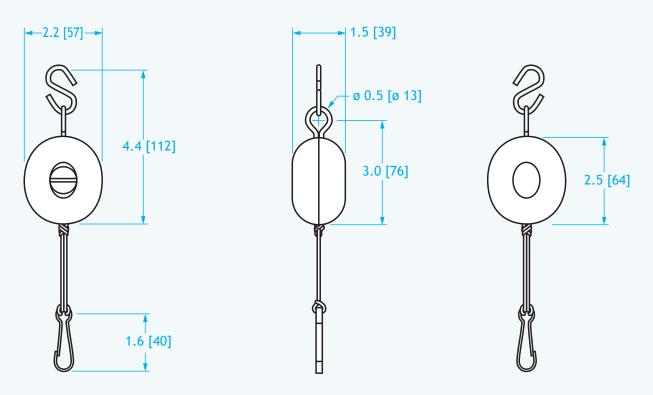




Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
GM31	1301690002	0.5 to 4.5	1.0 to 10.0	1.4 m (4.7')	No

## **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
GM31	51	2	71	3	97	4	0.1	0.2

## LOAD > WITHOUT COUNTERWEIGHT



Retractors are designed to retract a tool or load when no force is applied to it. Constant downward force has to be applied in order to keep the suspended tool or load in position. The torque output of the rewind spring increases as the cable is pulled out of the unit, retracting the suspended tool/load to the uppermost adjusted position when released.



## AERO-MOTIVE® RETRACTORS



#### **APPLICATIONS**

GENERAL INDUSTRIAL
ELECTRICAL TOOLS
MECHANICAL TOOLS
PNEUMATIC TOOLS
SCANNING GUNS
CABLING & HOSES

## RETRACTORS >

RB Series Light Industrial Duty

Aero-Motive® RB retractors equipped with power springs for best-in-class ergonomics and long life cycles, are the product of choice in virtually any light assembly applications.

#### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No

External Tension Adjustment: Ergo Knob

**Upper Mount:** 360° Swivel

Secondary Support: Safety Cable (Optional)

Serviceable: No



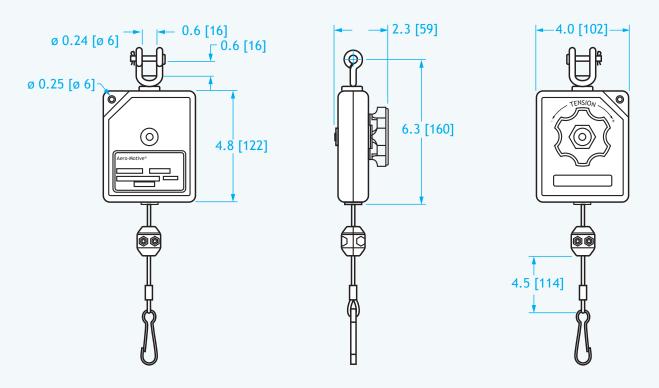


<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
RB2	1301730036	0.5 to 0.9	1.0 to 2.0	1.6 m (5.2')	
RB4	1301730048	0.9 to 1.8	2.0 to 4.0	(6.2 )	No
RB210	1301730037	0.5 to 0.9	1.0 to 2.0	3.0 m (10.0°)	

## **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
RB Series	65	3	115	5	225	9	0.5	1.0

## **RETRACTORS** >

RF and RFL Series Light Industrial Duty

Aero-Motive® RF and RFL retractors feature a tension adjusting push-lever to allow for easy de-tension of the unit and easy adjustment of power spring tension to fit the weight-range capacity of the tools weighing up to 8 lb [3.6 kg].

#### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No

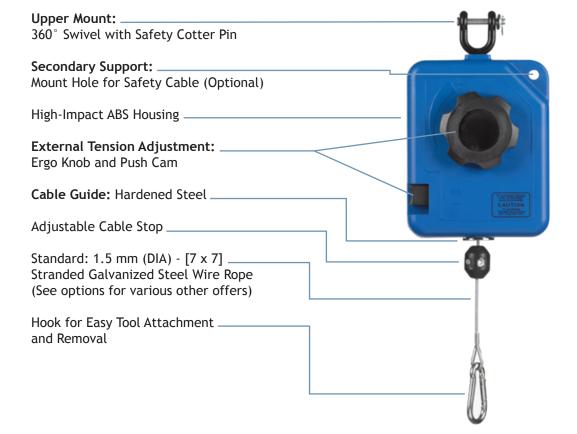
**Upper Mount:** 360° Swivel Hanger

External Tension Adjustment: Ergo Knob and Push Cam

Ratchet Lock (ON): RFL Model

Secondary Support: Safety Cable (Optional)

Serviceable: No



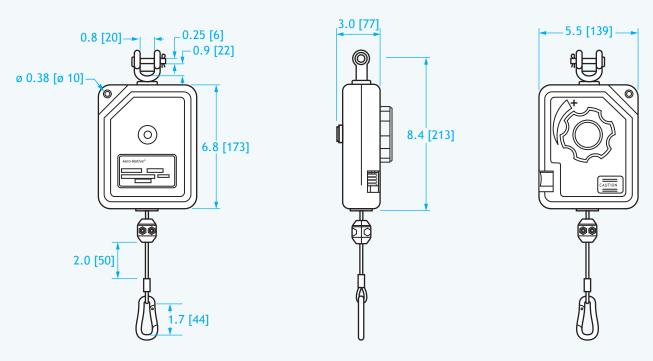


<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
RF6	1301730055	1.8 to 2.7	4.0 to 6.0		
RF8	1301730061	2.7 to 3.6	6.0 to 8.0	2.0 m (6.6')	No
RFL6	1301730069	1.8 to 2.7	4.0 to 6.0	2.0 (0.0 )	.,0
RFL8	1301730074	2.7 to 3.6	6.0 to 8.0		

## **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
RF Series	85	2	140	4	310	12	1.5	3.5
RFL Series		3	140	6	310	12	1.3	3.3

## RETRACTORS >

5F and 5FLR Series Standard Industrial Duty

Aero-Motive® 5F and 5FLR retractors, equipped with power springs, provide best-in-class ergonomics and long-lasting lifecycles, and are a great choice for tools weighing between 1 to 5 lb (0.4 to 2.3 kg).

#### **Product Features\***

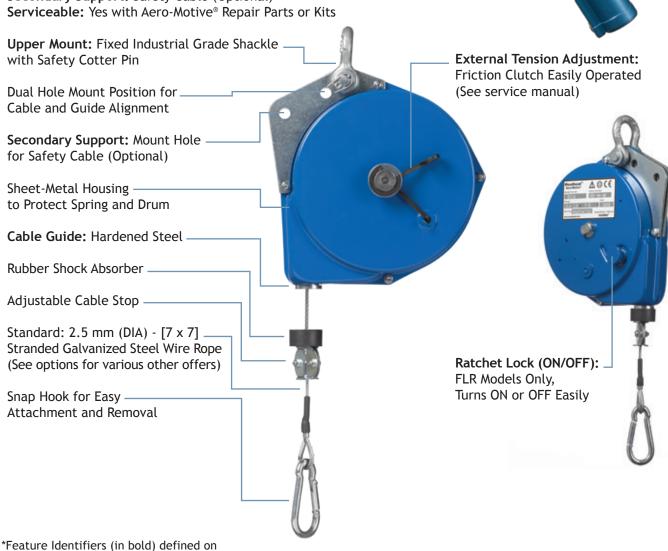
Automatic Safety Lock: No Manual Safety Lock: No

Upper Mount: Fixed-Shackle & Cotter Pin

External Tension Adjustment: Shaft and Spring Friction Clutch

Ratchet Lock (ON/OFF): FLR Model

Secondary Support: Safety Cable (Optional)

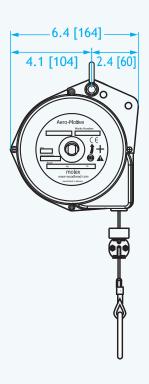


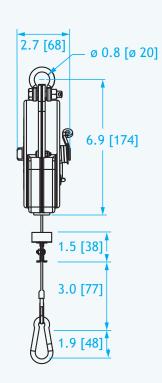
pages 6 to 9.

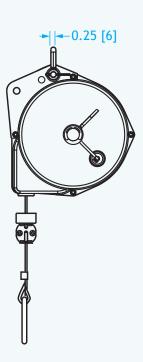
Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
5F	1301750014	0.4 to 2.3	1.0 to 5.0	2.4 m (8.0°)	Yes
5FLR	1301750016	0.4 to 2.3	1.0 to 5.0	2.4 111 (6.0 )	ies

## **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)







## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
5F	140	6 203	202	8	262	10	2.2	5.0
5FLR			203					

## RETRACTORS >

10F/22F and 10FLR/22FLR Series Standard Industrial Duty

Aero-Motive® 10/22F and 10/22FLR retractors equipped with NEW Power Springs achieve best-in-class ergonomics and long lasting life cycles. These series retractors are the ideal tool support products for common assembly tools weighing up to 22 lb [10 kg] in any general assembly process.

#### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No

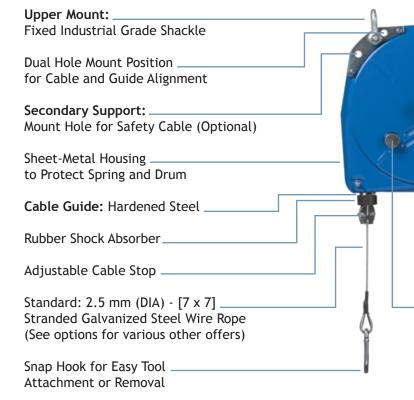
Upper Mount: Fixed Shackle & Cotter Pin

External Tension Adjustment: Shaft and Spring Friction Clutch

Ratchet Lock (ON/OFF): FLR Model

Secondary Support: Safety Cable (Optional)

Serviceable: Yes with Aero-Motive® Repair Parts or Kits



External Tension Adjustment: Friction Clutch Easily Operated (See service manual)

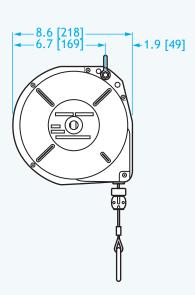
Ratchet Lock (ON/OFF): FLR Models
Only Turns ON or OFF Easily

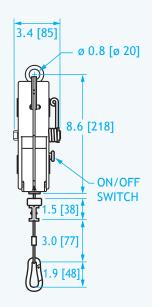
<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

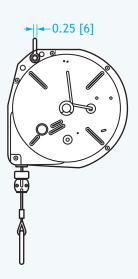
Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
10F	1301750001	1.8 to 4.5	4.0 to 10.0		
22F	1301750011	3.6 to 10.0	8.0 to 22.0	2.4 m (8.0°)	Yes
10FLR	1301750003	1.8 to 4.5	4.0 to 10.0	2.1 (0.0 )	103
22FLR	1301750012	3.6 to 10.0	8.0 to 22.0		

## **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)







## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight		
	mm	inches	mm	inches	mm	inches	kg	lb	
10F & 10FLR	165	16 E	145 7	204	286 11	200	12	4.5	10.0
22F & 22FLR		/	286	11	300	12	4.5	10.0	

## RETRACTORS >

10/22FLS and 10/22FLSR Series Standard Industrial Duty



Aero-Motive® 10/22FLS and 10/22FLSR retractors offer the exact same performance as 10/22F and 10/22FLR, but are equipped with Automatic Safety Lock. These retractors meet DIN15112 standards, which require arresting a load in place should the unit lose tension or in the event of a power spring failure.

#### **Product Features\***

Automatic Safety Lock: Yes Manual Safety Lock: No

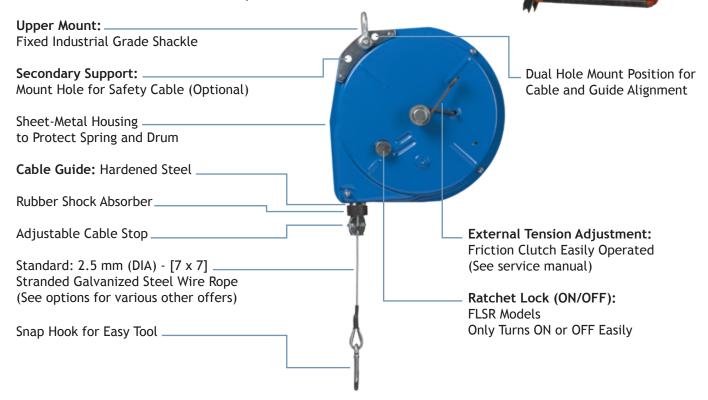
Upper Mount: Fixed-Shackle and Cotter Pin

External Tension Adjustment: Shaft and Spring Friction Clutch

Ratchet Lock (ON/OFF): FLSR Model

Secondary Support: Safety Cable (Optional)

Serviceable: Yes with Aero-Motive® Repair Parts or Kits

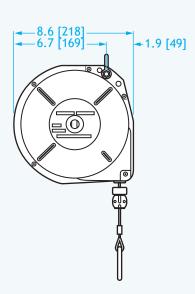


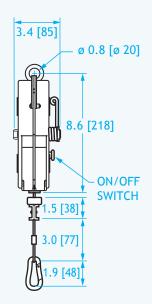
<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

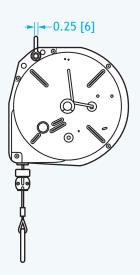
Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
10FLS	1301750062	1.8 to 4.5	4.0 to 10.0		
22FLS	1301750063	3.6 to 10.0	8.0 to 22.0	2.4 m (8.0°)	Yes
10FLSR	1301750064	1.8 to 4.5	4.0 to 10.0	2.1111 (0.0 )	ies
22FLSR	1301750065	3.6 to 10.0	8.0 to 22.0		

## **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)







## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
10FLS & 10FLSR	165	7	286	11	300	12	4.5	10.0
22FLS & 22FLSR	100	/	286	11	300	12	4.5	10.0

## **RETRACTORS** >

FLRC Series Heavy Industrial Duty

Aero-Motive® FLRC Series retractors are built tough to be able to withstand the harshest environments within the general assembly area. These retractors work in heavy industrial-duty environments and are exposed to high-impact collisions with other larger sized products mounted on the same assembly rails.

#### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No

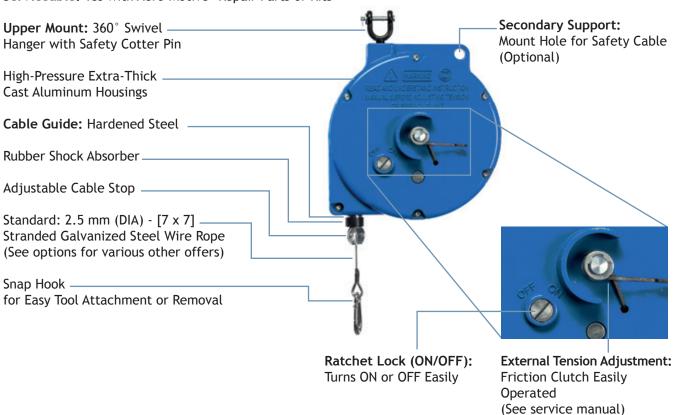
**Upper Mount:** 360° Swivel Hanger

External Tension Adjustment: Shaft and Spring Friction Clutch

Ratchet Lock (ON/OFF): Yes

Secondary Support: Safety Cable (Optional)

Serviceable: Yes with Aero-Motive® Repair Parts or Kits

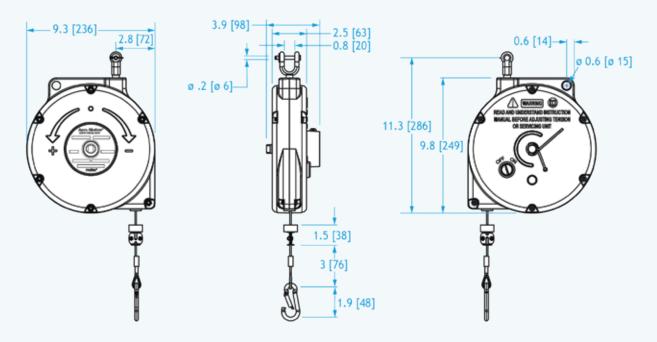


<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
5FLRC	1301740014	0.8 to 3.2	2.0 to 7.0		
10FLRC	1301740001	1.8 to 4.5	4.0 to 10.0	2.4 m (8.0°)	Yes
22FLRC	1301740009	3.6 to 10.0	8.0 to 22.0		

## **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



## **Unit Packaging Specification**

	Не	Height		Width		Depth		Weight	
Aero-Motive Model	o-Motive Model mm	inches	mm	inches	mm	inches	kg	lb	
5FLRC	305	12	330	13	210	Q	5.9	13.0	
10FLRC	303	303 12	330	13	210	O	J.7	13.0	
22FLRC	305	12	330	13	210	8	5.9	13.0	

## WEIGHT BALANCING > FOR HIGH PRODUCTIVITY



Balancers are devices designed to provide true balance or referred to as Zero Gravity for a specified load at any position within the active cable travel. A true balance condition is achieved through precise power-spring tension control and a unique cable drum design which matches the torque buildup from the power spring.

Tools or loads attached to Aero-Motive® Balancers become almost weightless in the hands of operators, allowing maximum freedom to work more efficiently and reduce fatigue throughout work shifts, leading to increased productivity.



AERO-MOTIVE®

BALANCERS
(WEIGHT BALANCING)



#### **APPLICATIONS**

**GENERAL INDUSTRIAL** 

MANUFACTURING/ASSEMBLY FACILITIES

**WORKSTATIONS** 

**PORTABLE TOOLS** 

**ELECTRIC TOOLS** 

**MECHANICAL TOOLS** 

PNEUMATIC TOOLS

**CABLING & HOSES** 

**WELDING GUNS** 

## **BALANCERS** >

AB and ABRL Series Light Industrial Duty

Designed for the light weight and small assembly tools to provide best ergonomics and long lasting life cycles. Balancers provide a cost-effective solution for improving productivity while keeping work stations organized and safeguarding expensive power tools from accidental drops.

#### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No Upper Mount: 360° Swivel

External Tension Adjustment: Hex Cam and Lock Lever

Ratchet Lock (ON/OFF): ABRL Model Secondary Support: Factory Equipped

with Safety Chain **Serviceable:** No

with Snap hook and Lock-Nut

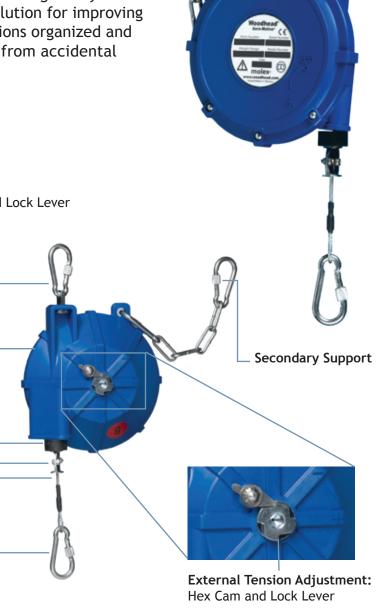
Upper Mount: 360° Swivel

High-Impact ABS Housing -

Rubber Shock Absorber\_
Adjustable Cable Stop \_

Standard: 2.5 mm (DIA) - [7 x 7] \_\_\_\_ Stranded Galvanized Steel Wire Rope (See options for various other offers)

Snap Hook and Lock-Nut

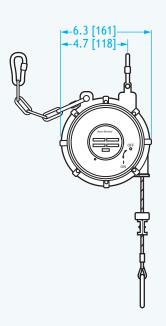


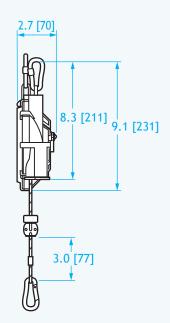
<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

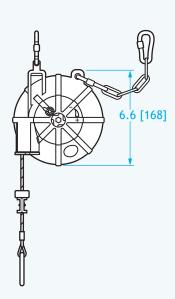
Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
AB4	1302370001	0.7 to 1.8	1.5 to 4.0		
AB8	1302370002	1.8 to 3.6	4.0 to 8.0		
AB11	1302370003	3.6 to 5.0	8.0 to 11.0	1.6 m (5.3')	No
AB4RL	1302370004	0.7 to 1.8	1.5 to 4.0	(6.6 )	
AB8RL	1302370005	1.8 to 3.6	4.0 to 8.0		
AB11RL	1302370006	3.6 to 5.0	8.0 to 11.0		

#### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)







## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
AB Series	135	5	198	8	267	11	1 5	2.5
ABRL Series	133	)	198	0	207	11	1.5	3.5

## **BALANCERS** >

BF and BFL Series Light Industrial Duty

BF series balancers provide true balance or Zero Gravity for tools weighing up to 24 lb [11 kg], anywhere within the active cable travel. Equipped with both automatic and manual safety lock, BF & BFL balancers prevent tools or loads from falling in the event that a unit loses tension or if a power spring failure would occur.

#### **Product Features\***

Automatic Safety Lock: Yes Manual Safety Lock: No

**Upper Mount:** 360° Swivel Hanger **External Tension Adjustment:** Shaft and Push Cam

Ratchet Lock (ON): BFL Model

Secondary Support: Safety Cable (Optional) Serviceable: Yes with Aero-Motive® Repair

arts or Kits

Secondary Support:

Mount Hole for Safety Cable (Optional)

High-Impact ABS Housing \_

Main Shaft: Easy Unit \_ Tension Adjustment

Rubber Shock Absorber \_

Adjustable Cable Stop \_

Standard: 3.0 mm (DIA) - [7 x 19] \_\_ Stranded Galvanized Steel Wire Rope (See options for various other offers)

Snap Hook for Easy Tool Attachment or Removal



Cable Guide: Snap fit —

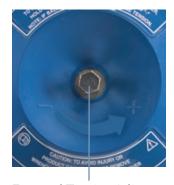
high-impact plastic

**Upper Mount:** 360° Swivel with Safety Cotter Pin



Push Cam:

Easy Unit De-Tensioning



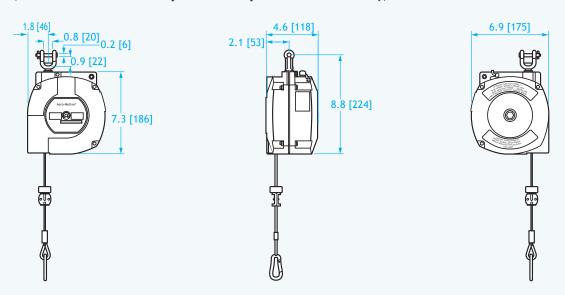
**External Tension Adjustment:** Shaft and Push Cam

\*Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
BF6	1301700021	1.4 to 2.7	3.0 to 6.0		
BF9	1301700023	2.7 to 4.1	6.0 to 9.0		
BF13	1301700015	4.1 to 5.9	9.0 to 13.0		Yes
BF18	1301700017	5.9 to 8.2	13.0 to 18.0		
BF24	1301700019	8.2 to 10.9	18.0 to 24.0	2.0 m (6.6')	
BFL6	1301700032	1.4 to 2.7	3.0 to 6.0	, ,	
BFL9	1301700033	2.7 to 4.1	6.0 to 9.0		
BFL13	1301700025	4.1 to 5.9	9.0 to 13.0		
BFL18	1301700027	5.9 to 8.2	13.0 to 18.0		
BFL24	1301700030	8.2 to 10.9	18.0 to 24.0		

#### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
BF Series	127	E	185	7	312	12	2.0	6.7
BFL Series	127	Э	163	/	312	12	3.0	6.7

## **BALANCERS** >

EB & EBS and EBR & EBSR Series Standard Industrial Duty

EB balancers provide true balance or Zero Gravity for tools weighing up to 45 lb [21 kg] while Cast Aluminum Housings make these products a perfect fit for Standard Industrial Applications. Equipped with a Vertical Worm Gear Tension Adjustment which provides easy and precise power spring tension control.



#### **Product Features\***

Automatic Safety Lock: Yes Manual Safety Lock: Yes Upper Mount: 360° Swivel

External Tension Adjustment: Worm Gear Vertical

Ratchet Lock (ON): EBR Model

Secondary Support: Factory Equipped with Safety Chain Serviceable: Yes with Aero-Motive® Repair Parts or Kits

Cable Guide:

high-impact plastic

Snap fit -

**Upper Mount:** 360° Swivel Industrial Grade Shackle

High-Pressure Thick \_\_\_\_ Cast Aluminum Housings

Rubber Shock Absorber

Adjustable Cable Stop -

Standard: 3.0 mm (DIA) - [7 x 19] \_ Stranded Galvanized Steel Wire Rope (See options for various other offers)

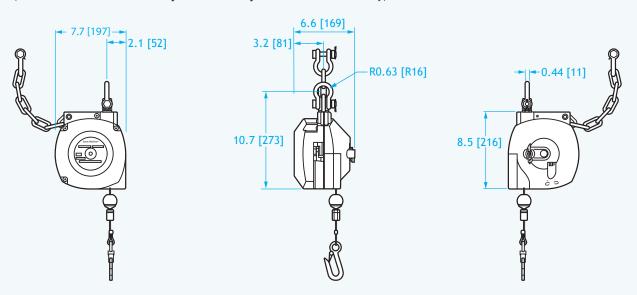
Industrial-Grade Eye Hook with Spring-Loaded Latch

\*Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
25EB	1301710300	8.2 to 11.4	18.0 to 25.0		
35EB	1301710302	11.4 to 15.9	25.0 to 35.0		
45EB	1301710305	15.9 to 20.5	35.0 to 45.0	2.0 m (6.6')	
25EBR	1301710301	8.2 to 11.4	18.0 to 25.0	210 (616 )	
35EBR	1301710303 11.4 to 15.9		25.0 to 35.0		Yes
45EBR	1301710306	15.9 to 20.5	35.0 to 45.0		
48EBS	1301710307	15.9 to 21.8	35.0 to 48.0		
60EBS	1301710309	20.5 to 27.3	45.0 to 60.0	1.5 m (4.9')	
48EBSR	1301710308	15.9 to 21.8	35.0 to 48.0	1.5 111 (4.7 )	
60EBSR	1301710310	20.5 to 27.3	45.0 to 60.0		

#### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



## **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
EB & EBR	280	11	381	15	324	12	10.0	22.0
EBS & EBSR	200	11	381	10	324	13	10.0	22.0

## **BALANCERS** >

EA Series Heavy Industrial Duty

Equipped with Vertical Worm Gear Tension Adjustment which provides easy and precise power spring tension control. Aero-Motive® EA balancers include an easy cable change-over feature, enabling users to perform cable changes while the unit is still in service, thus reducing application down time.

#### **Product Features\***

Automatic Safety Lock: Yes—Power-Based Design

Manual Safety Lock: Yes Upper Mount: 360° Swivel

External Tension Adjustment: Worm Gear Vertical WearGuard™ Epoxy: Extends Cable and Drum Life Declutching Spring Hub: Prevents Power Spring Damage Secondary Support: Factory Equipped with Safety Chain

Serviceable: Yes with Aero-Motive® Repair Parts or Kits

**Upper Mount:** 360° Swivel \_ Industrial Grade Shackle

Dual Hole Mount Position for \_ Cable and Guide Alignment

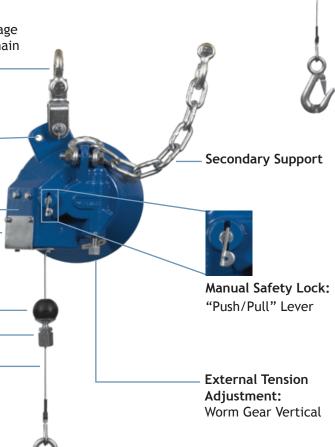
High-Pressure Extra-Thick - Cast Aluminum Housings

Cable Guide: Hardened Steel \_

Rubber Shock Absorber\_
Adjustable Cable Stop\_

Standard: 3.0 mm (DIA) - [7 x 19] \_\_\_\_ Stranded Galvanized Steel Wire Rope (See options for various other offers)

Industrial-Grade Eye Hook with Spring-Loaded Latch

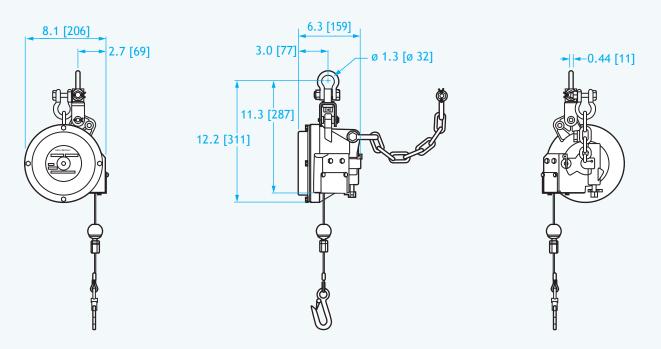


<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
10EA	1301720020	2.3 to 5.0	5.0 to 11.0		
20EA	1301720103	5.0 to 9.0	11.0 to 20.0		
30EA	1301720152	9.0 to 14.0	20.0 to 31.0	1.8 m (6.0')	Yes
40EA	1301720184	13.0 to 18.0	29.0 to 40.0	(212)	.00
50EA	1301720195	18.0 to 23.0	40.0 to 51.0		
60EA	1301720207	23.0 to 28.0	51.0 to 62.0		

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



### **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
EA Series	330	13	203	8	304	12	8.6	19.0

## **BALANCERS** >

EL Series Heavy Industrial Duty

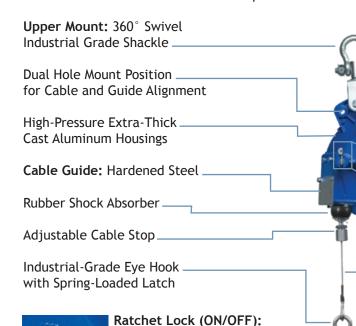
EL Series balancers share the same design features as the EA Series balancers, but employ a Ratchet Lock feature which can be turned ON or OFF depending on application requirements. The ratchet lock feature is designed to be able to lock the load in place at any desired position along the active cable travel and can withstand loads of up to 62 lb [28 kg].

### **Product Features\***

Automatic Safety Lock: Yes—Power-Based Design

Manual Safety Lock: Yes Upper Mount: 360° Swivel Ratchet Lock (ON/OFF): Yes

External Tension Adjustment: Worm Gear Vertical WearGuard™ Epoxy: Extends Cable and Drum Life Declutching Spring Hub: Prevents Power Spring Damage Secondary Support: Factory Equipped with Safety Chain Serviceable: Yes with Aero-Motive® Repair Parts or Kits



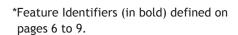
Turns ON or OFF Easily

\_Secondary Support

Manual Safety Lock: "Push/Pull" Lever

**External Tension Adjustment:** Worm Gear Vertical

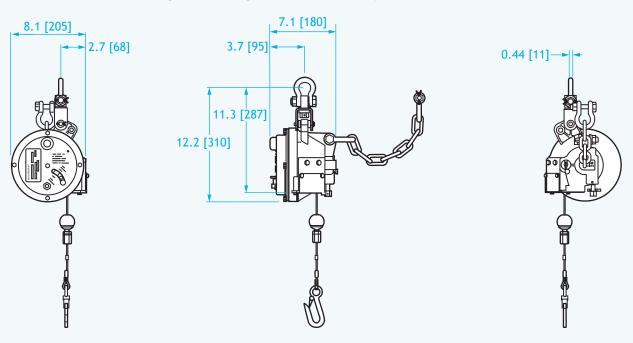
Standard: 3.0 mm (DIA) - [7 x 19] Stranded Galvanized Steel Wire Rope (See options for various other offers)



Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
10EL	1301720637	2.3 to 5.0	5.0 to 11.0		
25EL	1301720133	5.4 to 11.3	12.0 to 25.0		
40EL	1301720186	11.8 to 18.0	26.0 to 40.0	1.8 m (6.0°)	Yes
50EL	1301720197	18.0 to 23.0	40.0 to 51.0		
60EL	1301720208	23.0 to 28.0	51.0 to 62.0		

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



### **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
EL Series	330	13	203	8	304	12	9.5	21.0

## **BALANCERS** >

JA Series Heavy Industrial Duty

JA Series balancers, equipped with one power spring, were designed specifically for Heavy Industrial Applications and are ideal for balancing industrial tools weighing up to 100 lb [45 kg]. Tools attached to JA Series balancers become almost weightless in the hands of operators, allowing maximum freedom to work more efficiently and reduce fatigue throughout work shifts.

#### **Product Features\***

Automatic Safety Lock: Yes—Power-Based Design

Manual Safety Lock: Yes Upper Mount: 360° Swivel

External Tension Adjustment: Worm Gear Vertical WearGuard™ Epoxy: Extends Cable and Drum Life Declutching Spring Hub: Prevents Power Spring Damage Secondary Support: Factory Equipped with Safety Chain Serviceable: Yes with Aero-Motive® Repair Parts or Kits

Upper Mount: 360° Swivel
Industrial Grade Shackle

High-Pressure Extra Thick
Cast Aluminum Housings

Manual Safety Lock:
"Push/Pull" Lever

Cable Guide:
Unique Design with Rollers

Rubber Shock Absorber

Adjustable Cable Stop

Options including Upper Shackle Mounts,
special cable assemblies etc. are available.

**Secondary Support** 

External Tension Adjustment: Worm Gear Vertical

Standard-5.0 mm (DIA) - [7 x 19] Stranded Galvanized Steel Wire Rope (See options for various other offers)

Industrial-Grade Eye Hook with Spring-Loaded Latch

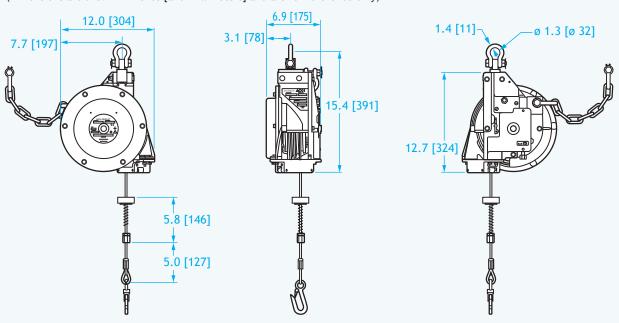
\*Feature Identifiers (in bold) defined on pages 6 to 9.

We would be happy to advise you.

Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
20JA	1301720106	6.0 to 11.0	13 to 25		
30JA	1301720157	11.0 to 16.0	24 to 35		
40JA	1301720189	13.0 to 20.0	29 to 45		
50JA	1301720199	18.0 to 25.0	40 to 55		
60JA	1301720210	25.0 to 30.0	55 to 65	2.1 m (7.0')	Yes
70JA	1301720221	24.0 to 32.0	53 to 70		
80JA	1301720241	31.0 to 39.0	68 to 86		
90JA	1301720296	36.0 to 41.0	79 to 90		
100JA	1301720015	40.0 to 45.0	88 to 100		

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



### **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
JA Series	380	15	340	13	490	19	17.5	38.0

## **BALANCERS** >

KA Series Heavy Industrial Duty

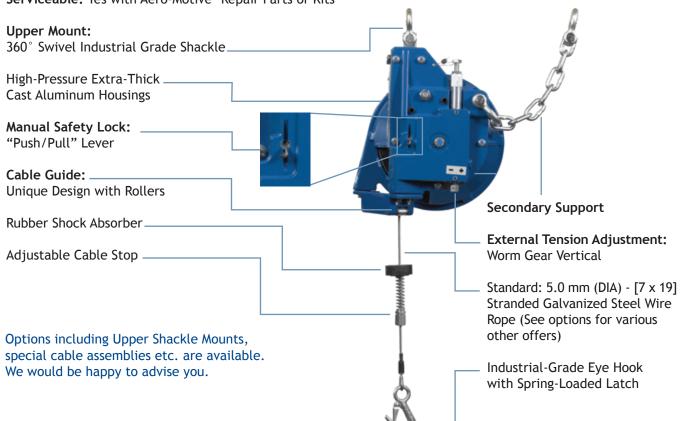
KA balancers, equipped with two power springs, are the workhorses for the heavy industrial tools weighing up to 240 lb [110 kg]. Automatic Safety Lock system is a Power Based System which triggers on power loss from any of the two power springs. The Safety Lock system can be easily adjusted and fully tested by qualified personnel to meet desired Safety Lock expectations.

#### **Product Features\***

Automatic Safety Lock: Yes-Power Based and Adjustable

Manual Safety Lock: Yes Upper Mount: 360° Swivel

External Tension Adjustment: Worm Gear Vertical WearGuard™ Epoxy: Extends Cable and Drum Life Declutching Spring Hub: Prevents Power Spring Damage Secondary Support: Factory Equipped with Safety Chain Serviceable: Yes with Aero-Motive® Repair Parts or Kits

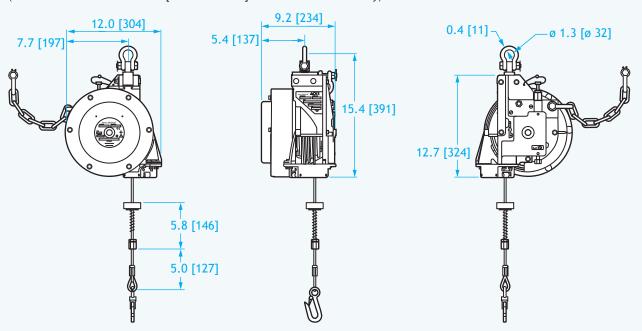


\*Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Weight Range (kg)	Travel (m)	Weight Range (lb)	Travel (ft)
115KA	1301720875	38 to 52	2.1	84 to 115	7.0
125KA	1301720785	52 to 57	2.1	115 to 125	7.0
145KA	1301720786	56 to 66	2.1	124 to 145	7.0
165KA	1301720787	65 to 75	2.1	143 to 165	7.0
175KA	1301720788	72 to 79	2.1	159 to 175	7.0
200KA	1301720098	79 to 91	2.1	175 to 200	7.0
220KA	1301720116	90 to 100	2.1	200 to 220	7.0
240KA	1301720124	100 to 110	2.1	220 to 240	7.0

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



### **Unit Packaging Specification**

Aero-Motive Model		Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb	
KA Series	380	15	340	13	490	19	28.0	6.2	

### **BALANCERS** >

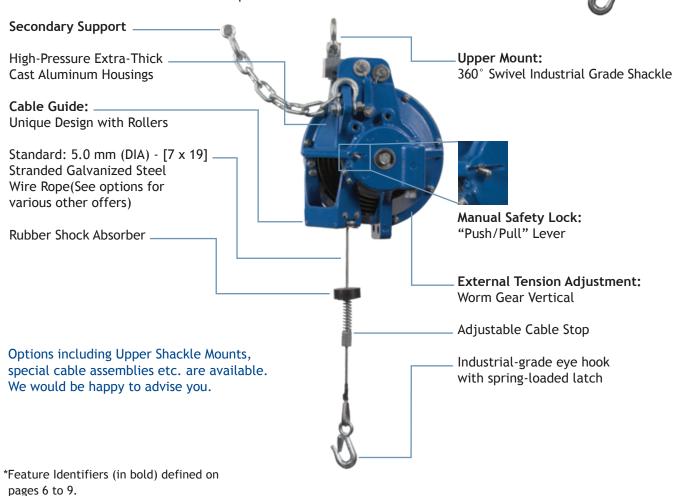
LA Series Heavy Industrial Duty

LA balancers, equipped with three power springs, have been designed for the heavy weight industrial tools weighing up to 370 lb [168 kg], working into Heavy Industrial Duty Applications. Automatic Safety Lock system is a Power Based System which triggers on power loss from any of the three power springs.

#### **Product Features\***

Automatic Safety Lock: Yes Manual Safety Lock: Yes Upper Mount: 360° Swivel

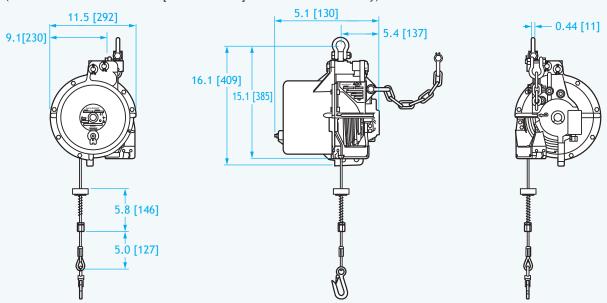
External Tension Adjustment: Worm Gear Vertical WearGuard™ Epoxy: Extends Cable and Drum Life Declutching Spring Hub: Prevents Power Spring Damage Secondary Support: Factory Equipped with Safety Chain Serviceable: Yes with Aero-Motive® Repair Parts or Kits



Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable
210LA	1301720109	79.0 to 95.0	174 to 210		
230LA	1301720118	95.0 to 107.0	7.0 209 to 236		
250LA	1301720126	106.0 to 113.0	234 to 250		
260LA	1301720135	113.0 to 120.0	249 to 265	2.1 m (7.0°)	
280LA	280LA 1301720140		265 to 280		Yes
290LA	1301720143	127.0 to 132.0	280 to 291		ies
300LA	1301720146	131.0 to 136.0	289 to 300		
330LAS	1301720169	136.0 to 150.0	300 to 331		
350LAS	1301720176	150.0 to 159.0	330 to 350	1.5 m (5.0°)	
370LAS	1301720180	163.0 to 168.0	350 to 370		

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



### **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
LA Series	431	17	420	17	520	21	37.5	83.0

# OPERATING ELEMENTS > AT SET HEIGHT



Torque Reels are reeling devices primarily designed to be able to suspend push-button pendant stations or similar equipment weighing up to 15 lb [6.8 kg] with an active cable travel of 15' [4.6 M].

A lock mechanism permits the operator to stop the pendant at a desired height, while a slight pull on the cable releases the lock and will retract the pendant to the upper suspended position.



AERO-MOTIVE®
TORQUE REELS



### **APPLICATIONS**

GENERAL INDUSTRIAL
INDUSTRIAL FACILITIES
PENDANT STATIONS
PORTABLE TOOLS
CABLING & HOSES

# TORQUE REELS >

T and TR Series Standard Industrial Duty

Aero-Motive® offers two mounting options for Torque Reels. T Models offer hanging type installation and share the same design features and envelope size as FLR Series Retractors. TR Models offer rigid mount type for both horizontal or vertical mounting positions, based on application and installation needs. T and TR models offer an active cable travel up to 15' [4.6 m] and are capable of building tension of up to 19 lb [8.7 kg] to meet most pendent station weight requirements.

### T - Hanging



### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No

Upper Mount [T Model]: Hanging - Shackle and Cotter Pin

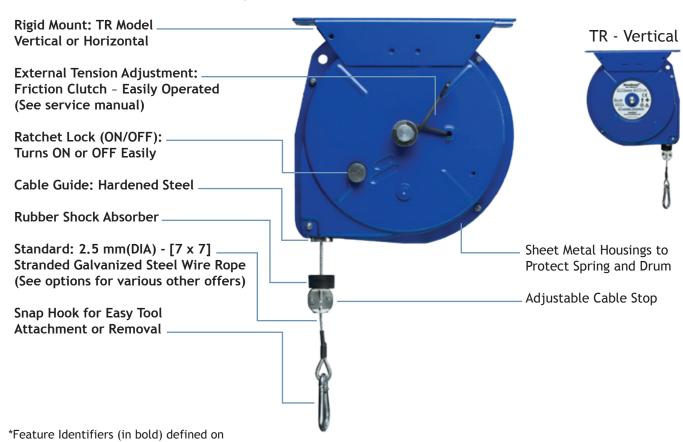
Upper Mount [TR Model]: Rigid Mount - Vertical and Horizontal Mount

External Tension Adjustment: Shaft and Spring Friction Clutch

Ratchet Lock (ON/OFF): Yes

Secondary Support: Safety Cable (Optional) - T Models only Serviceable: Yes with Aero-Motive® Repair Parts or Kits



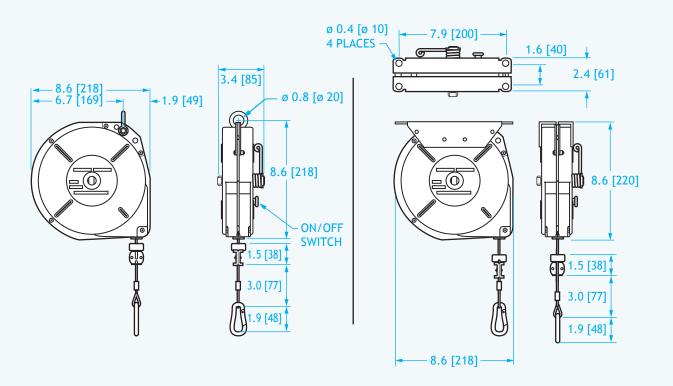


pages 6 to 9.

1	Aero-Motive Model	Reference No.	Weight Range (kg)	Weight Range (lb)	Active Cable Travel	Serviceable	
	0515T	1301760002	2.3	5			
	1015T	1301760003	4.5	10	4.5 m (15.0')	Yes	
	1515T	1301760004	6.8	15		163	
	1515TR	1301760009	6.8	15			

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)



# **Unit Packaging Specification**

Aero-Motive Model	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb
0515T	165	7	286	11	300	12	4.5	10.0
1515T & 1515TR								10.0

# CABLE RETRIEVAL > WITH GROUND PATH



Grounding Reels are reeling devices designed to provide a ground path for eliminating static build-up by means of cable and ground clamp. Adjustable light constant tension on the cable is provided by the Main Power Spring which in turn provides means for Automatic Cable Retrieval.

Units are also equipped with a Ratchet Lock for easy locking in place of cable at a desired position while a light tug on the cable will allow cable to automatically be retrieved into unit.





### **APPLICATIONS**

**GENERAL INDUSTRIAL** 

**GROUNDING APPLICATIONS** 

**SERVICE TRUCKS** 

**WELDING STATIONS** 

HAZARDOUS LIQUID TRAILERS

**REFUELING TRUCKS** 

**REFINERIES** 

**CHEMICAL PLANTS** 

**AIRPLANES** 

DOCKSIDE LOADING EQUIPMENT

## GROUNDING REELS >

1025 Series Standard Industrial Duty

Equipped with a 2.0 Ohm resistant, 100.0 A ground clamp, Aero-Motive® Static Discharge Reels safely dissipate static electrical build-up and reduce the danger of sparking in hazardous areas such petrochemical plants, shipyards, etc. 1025 Static Discharge Reel while providing an overall resistance of Less than 2 Ohms, is compact in size and built sturdy to fit in most standard industrial duty applications.

#### **Product Features\***

Automatic Safety Lock: No Manual Safety Lock: No

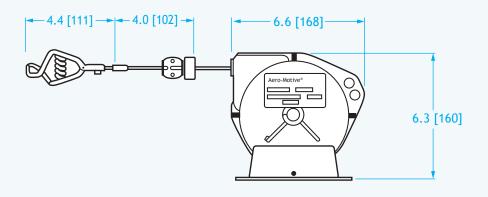
Installation: Rigid Mount - Vertical & Horizontal Mount External Tension Adjustment: Shaft and Spring Friction Clutch Cable Guide: Hardened Steel Ratchet Lock (ON/OFF): Yes Resistance: Less than 2 Ohms Rubber Shock Absorber Serviceable: Yes with Aero-Motive® Repair Parts or Kits Adjustable Cable Stop Sheet-Metal Housing to Protect Spring and Drum Ground Clamp - 100 A Rigid Mount: \_ Vertical or Horizontal External Tension Adjustment: Friction Clutch—Easily Operated (See service manual) Standard: 2.5 mm (DIA) - [7 x 7] Stranded Galvanized Steel Wire Rope (Nylon coated available-NC Series)

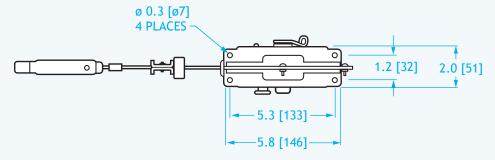
<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Active Cable Travel	Serviceable		
1025	1301770015	7.5 m (25')	Yes		
1025NC	1301770002	7.5 III (25 )			

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)





### **Unit Packaging Specification**

Aero-Motive Model	He	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb	
1025 Series	140	6	203	8	262	10	2.5	6.0	

## GROUNDING REELS >

2050 Series Standard Industrial Duty

Equipped with new power springs which provide long lasting life cycles and an automatic cable retrieval which can be set easily at desired speeds by means of external tension adjustment mechanism. 2050 Series come equipped with a single or dual ground clamps and cables are available in Nylon Coated Steel.



### **Product Features\***

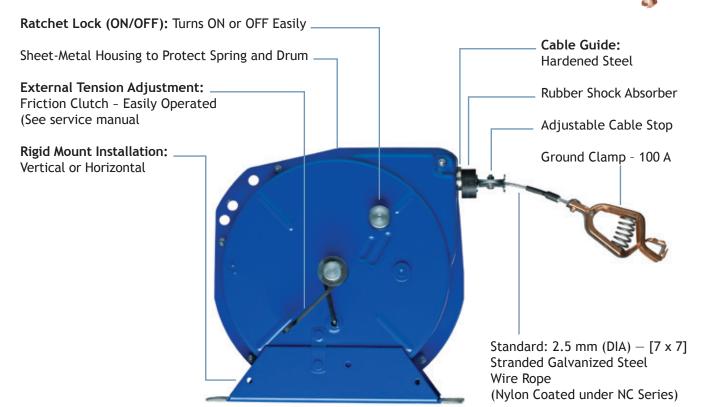
Automatic Safety Lock: No Manual Safety Lock: No

Installation: Rigid Mount - Vertical and Horizontal Mount

Ratchet Lock (ON/OFF): Yes Resistance: Less than 2 Ohms

External Tension Adjustment: Shaft and Spring Friction Clutch

Serviceable: Yes with Aero-Motive® Repair Parts or Kits

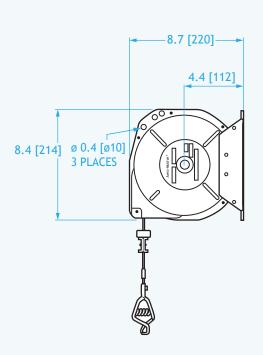


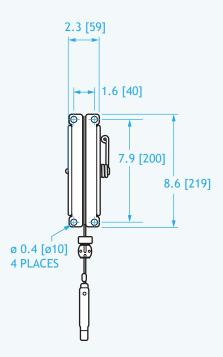
<sup>\*</sup>Feature Identifiers (in bold) defined on pages 6 to 9.

Aero-Motive Model	Reference No.	Active Cable Travel	Serviceable	
2050	1301770009			
2050NC	1301770011	15.2 m (50')	Yes	
2050Y	1301770013			

### **Unit Dimension Specification**

(Dimensions are shown in inches [and millimeters] and are for reference only)





### **Unit Packaging Specification**

Aero-Motive Model	He	Height		Width		Depth		Weight	
	mm	inches	mm	inches	mm	inches	kg	lb	
2050 Series	165	7	286	11	300	12	4.1	9.0	



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Dealer stamp □

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