

# Spring Balancers

## ENDO Series



**CONDUCTIX**  
wampfler

# Table of Contents

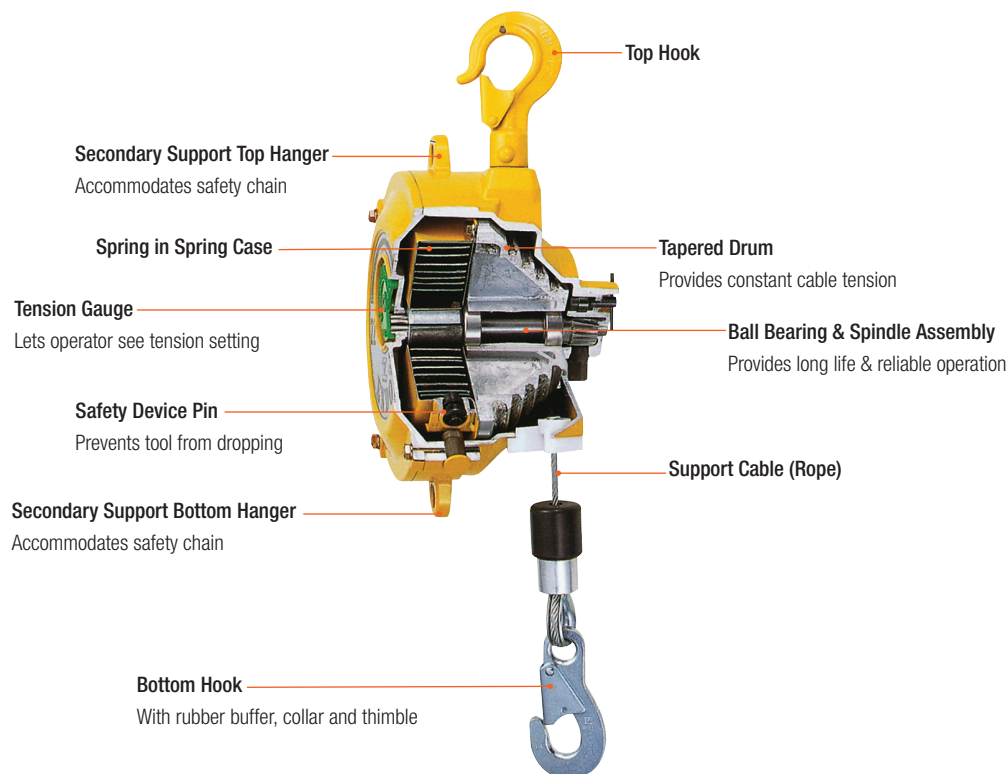
<b>ENDO Balancers - Features &amp; Benefits</b>	<b>3</b>
<b>Specification Data Sheet</b>	<b>4</b>
<b>Balancer Summary Chart</b>	<b>5</b>
<b>Spring Balancer Safety Features</b>	<b>6</b>
<b>Application Guidelines and Spring Tension Adjustment Systems</b>	<b>7</b>
<b>Spring Retractors and Torque Reels</b>	<b>8</b>
ERP Series Retractor . . . . .	8
ER Series Torque Reel . . . . .	8
<b>Standard Spring Balancers</b>	<b>9</b>
EK Series. . . . .	9
EW Series . . . . .	9
EWF C-Series . . . . .	9
<b>EWF Series Standard Stroke Balancers</b>	<b>10</b>
<b>ELF Series Long Stroke Balancers</b>	<b>11</b>
<b>EW-X Series "ECO" Balancers</b>	<b>12</b>
<b>EW-Y Series "ECO" Balancers</b>	<b>13</b>
<b>Specialty Balancers</b>	<b>14-16</b>
EWS Series Safety Balancers . . . . .	14
ETP Series High Capacity . . . . .	14
EWA Series "Snap-Back" Prevention Balancer . . . . .	15
EKN Series Electrostatic Discharge Balancer . . . . .	15
SBC Series Clean Room Balancer . . . . .	16
<b>Air Tool Balancers</b>	<b>17-18</b>
ATB Series - 1/4" ID Hose . . . . .	17
THB Series - 3/8" ID Hose . . . . .	17
ST-30 Series Twin Hose Balancer . . . . .	18
ATR Series Air Tool Reel . . . . .	18
Air Tool Reel Accessories . . . . .	18
<b>Accessories</b>	<b>19</b>
Series PTF Manual Trolleys for I-Beams . . . . .	19
Balancer Cushions . . . . .	19
<b>Spare Springs, Cables and Hoses</b>	<b>20</b>



# ENDO Balancers - Features and Benefits

**ENDO Spring Balancers** by Conductix-Wampfler are a valuable addition to your assembly line. They support heavy tools with cable tension equal to the weight of the suspended tools, which makes them seem virtually “weightless”. As the tool is repositioned the balancer extends or retracts the support cable to follow the tool’s movements. Constant tension on the cable is accomplished with a spring motor and tapered drum. The assembler has the flexibility to reposition the tool, while experiencing comfortable operation and less fatigue. Similar to a balancer is the **Retractor**, which does not have a tapered drum. The tension on the cable increases as the cable is extended.

## Typical Balancer Features (Depending on Model)



## Advantages of Using an ENDO Spring Balancer

- Suspend tools in assembly lines or other work areas
- Help the assembler with repetitive tasks such as installed fasteners: screws, nuts, bolts, etc.
- Hold fixtures, tools, welding guns, and similar equipment
- Improves efficiency and diminishes worker fatigue
- Stabilizes tool positioning and contributes to work accuracy
- Contributes to a safer working environment
- Keeps fixtures, tools and welding guns off the floor and clean
- Eliminates the need to separately power the balancer

**All ENDO Retractors and Balancers  
have an Exclusive  
18 Month Warranty - See Pg. 28!**

## Balancers for Many Special Applications



Food Prep - Pgs. 12-13



Clean Room - Pg. 16



Static Discharge - Pg. 15



Air Tools - Pgs. 17-18



I-Beam Trolleys - Pg. 19

# Specification Data Sheet

In order to choose the balancer that will perform properly for your application, please fill out the following information to obtain a quote.

Request Date: _____	Sales Person: _____
Company _____	Contact _____
_____	Title _____
_____	Telephone _____
_____	Fax _____
_____	e-mail: _____

## General Operating Conditions

Environment: ☐ Indoor ☐ Outdoor      Temperature Range (°F) \_\_\_\_\_ Min. \_\_\_\_\_ Max.

Humidity (%): \_\_\_\_\_

Corrosives? (List): \_\_\_\_\_

Clean Room? \_\_\_\_\_

Food Prep Area? \_\_\_\_\_

## Balancer Specifications

General Application \_\_\_\_\_

Type of item to be suspended (including any accessories) \_\_\_\_\_

Required Travel Distance ("stroke") \_\_\_\_\_

Average Cycles (per day) \_\_\_\_\_

## Balancer Feature Key - Referring to Chart on Page: 4

These are all the features available based on the model chosen - see listing in the table on Page 5 - far right column. See detailed model descriptions within the catalog and see Pages 6&7 for further information.

Code	Feature
A	Tension Gauge
B	Plug Type Cable Set
C	Cartridge Spring Assembly
D	Drum Locking Device
E	Ratchet Device (drum lock to keep wire rope extended)
F*	Fall Arrest Device

Code	Feature
G	Snap-Back Protection
H	Handle System Torque Adjustment
I	Cushion Cover Available
J	Worm Gear Torque Adjustment
K	Ratchet System Spring Tension Adjustment
L	Plastic Drum

\*= Models that end with (S) are also Fall Arrest Devices

Phone: 800 521 4888 | 800 780 8329 | 402 339 9300

Fax: 402 339 9627

e-mail: [info.us@conductix.com](mailto:info.us@conductix.com)





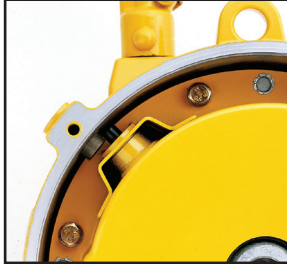
# Balancer Summary Chart

	Model	Page	Capacity: lb (kg)	Stroke: ft (m)	Feature Set (See Page 4)
Light Capacity	EK00 / EKN-00	9	1.1-3.3 (0.5-1.5)	1.64 (0.5)	K
	EK-0 / EKN-0 / SBC-15	9	1.1-3.0 (0.5-1.5)	3.28 (1.0)	K
	ERP-06 (retractor)	8	0.7-1.3 (0.6-0.6)	4.92 (1.5)	H
	ERP-1 (retractor)	8	1.1-2.2 (0.5-1.0)	4.92 (1.5)	H
	ERP-2 (retractor)	8	2.2-4.4 (1.0-2.0)	4.92 (1.5)	H
	ERM-2 (torque reel)	8	2.2-4.4 (1.0-2.0)	11.48 (3.5)	E, K
	ERM-4 / ERM-4S (torque reel)	8	4.4-8.81 (2.0-4.0)	11.48 (3.5)	E, K (+ F on 4S)
	ERM-6 / ERM-6S (torque reel)	8	8.81-13.2 (4.0-6.0)	8.20 (2.5)	E, K (+ F on 6S)
	ERM-8 / ERM-8S (torque reel)	8	13.2-17.6 (6.0-8.0)	8.20 (2.5)	E, K (+ F on 8S)
	ERL-3 (torque reel)	8	3.3-6.6 (1.5-3.0)	8.37 (3.8)	E, K
	ERL-6 / ERL-6S (torque reel)	8	6.6-13.2 (3.0-6.0)	9.70 (4.4)	E, K (+ F on 6S)
	ERL-8 / ERL-8S (torque reel)	8	11.0-17.6 (5.0-8.0)	13.12 (4)	E, K (+ F on 8S)
	ERL-11 / ERL-11S (torque reel)	8	17.6-24.2 (8.0-11.0)	11.24 (5.1)	E, K (+F on 11S)
	ERL-14 / ERL-14S (torque reel)	8	24.2-30.8 (11.0-14.0)	11.24 (5.1)	E, K (+F on 14S)
Standard	EW-3, EW-3X, EW-3Y	9, 12, 13	2.2-6.6 (1.0-3.0)	4.27 (1.3)	B, K
	EW-4	9	4.4-8.8 (2.0-4.0)	4.27 (1.3)	B, K
	EW-5, EW5-X, EW-5Y	9, 12, 13	5.5-11.0 (2.5-5.0)	4.27 (1.3)	B, K
	EW-3C	9	3.3-6.6 (1.5-3.0)	4.27 (1.3)	B, F, L, Riveted Spring
	EW-5C	9	6.6-11.0 (3.0-5.0)	4.27 (1.3)	B, F, L, Riveted Spring
	EW-7C	9	11.0-15.4 (5.0-7.0)	4.27 (1.3)	B, F, L, Riveted Spring
	EWS-3, EWS-3X, EWS-3Y	14, 12, 13	3.3-6.6 (1.5-3.0)	4.27 (1.3)	B, D, F, J
	EWS-5, EWS-5X, EWS-5Y	14, 12, 13	6.6-11.0 (3.0-5.0)	4.27 (1.3)	B, D, F, J
	EWS-7, EWS-7X, EWS-7Y	14, 12, 13	11.0-15.4 (5.0-7.0)	4.27 (1.3)	B, D, F, J
	EW-9, EW-9X, EW-9Y	10, 12, 13	9.9-19.8 (4.5-9.0)	4.27 (1.3)	A, B, C, D, F, J
	EW-15, EW-15X, EW-15Y	10, 12, 13	19.8-33.1 (9.0-15)	4.93 (1.5)	A, B, C, D, F, J
	EW-22, EW-22X, EW-22Y, EWA-22	10, 12, 13, 15	33.1-48.5 (15.0-22.0)	4.93 (1.5)	A, B, C, D, F, I, J (+ K, G, EWA)
	EW-30, EW-30X, EW-30Y, EWA-30	10, 12, 13, 15	48.5-66.1 (22.0-30.0)	4.93 (1.5)	A, B, C, D, F, I, J (+ K, G, EWA)
	EW-40, EW-40X, EW-40Y, EWA-40	10, 12, 13, 15	66.1-88.2 (30.0-40.0)	4.93 (1.5)	A, B, C, D, F, I, J (+ K, G, EWA)
	EW-50, EW-50X, EW-50Y, EWA-50	10, 12, 13, 15	88.2-110.2 (40.0-50.0)	4.93 (1.5)	A, B, C, D, F, I, J (+ K, G, EWA)
	EW-60, EW-60X, EW-60Y, EWA-60	10, 12, 13, 15	110.2-132.2 (50.0-60.0)	4.93 (1.5)	A, B, C, D, F, I, J (+ K, G, EWA)
	EW-70, EW-70X, EW-70Y, EWA-70	10, 12, 13, 15	132.2-154.3 (60.0-70.0)	4.93 (1.5)	A, B, C, D, F, I, J (+ K, G, EWA)
High Capacity	EW-90, EW-90X, EW-90Y	10	154.3-198.4 (70.0-90.0)	6.56 (2.0)	A, B, C, D, F, I, J
	EW-105, EW-105X, EW-105Y	10	198.4-231.5 (90.0-105.0)	6.56 (2.0)	A, B, C, D, F, I, J
	EW-120, EW-120X, EW-120Y	10	231.5-264.5 (105.0-120.0)	6.56 (2.0)	A, B, C, D, F, I, J
	ETP-15	14	264.6-308.6 (120.0-140.0)	3.94 (1.2)	F, J
	ETP-15	14	308.6-374.8 (140.0-170.0)	3.94 (1.2)	F, J
Long Stroke	ETP-16	14	374.8-440.9 (170.0-200.0)	3.94 (1.2)	F, J
	ELF-3	11	3.3-6.6 (1.5-3.0)	8.20 (2.5)	B, D, F
	ELF-5	11	5.5-11.0 (3.0-5.0)	8.20 (2.5)	B, D, F
	ELF-9	11	11.0-19.8 (5.0-9.0)	8.20 (2.5)	B, D, F
	ELF-15	11	19.8-33.1 (9.0-15.0)	8.20 (2.5)	A, B, C, D, F, J
	ELF-22	11	33.1-48.5 (15.0-22.0)	8.20 (2.5)	A, B, C, D, F, J
	ELF-30	11	48.5-66.1 (22.0-30.0)	8.20 (2.5)	A, B, C, D, F, J
	ELF-40	11	66.1-88.2 (30.0-40.0)	8.20 (2.5)	A, B, C, D, F, J
	ELF-50	11	88.2-110.2 (40.0-50.0)	8.20 (2.5)	A, B, C, D, F, J
	ELF-60	11	110.2-132.2 (50.0-60.0)	8.20 (2.5)	A, B, C, D, F, J
	ELF-70	11	132.2-154.3 (60.0-70.0)	8.20 (2.5)	A, B, C, D, F, J

# Balancer Safety Features

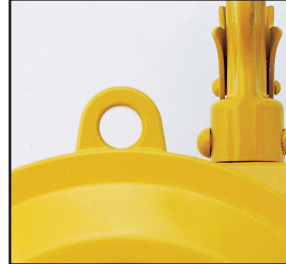
Check out these great safety features! (some balancer models don't have all features shown - see Page 5)

## Fall Arrest System



Prevents tool from dropping in the unlikely event that a spring breaks

## Secondary Support Hangers

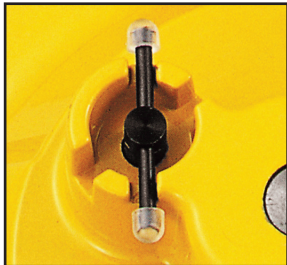


On top and bottom to accommodate safety chain

## Snap-Back Protection

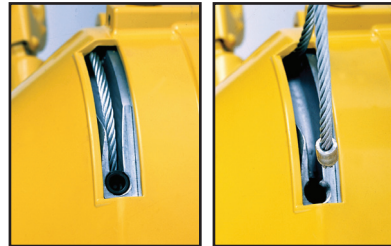
Works similar to the Fall Arrest System, except this is designed

## Drum Lock System



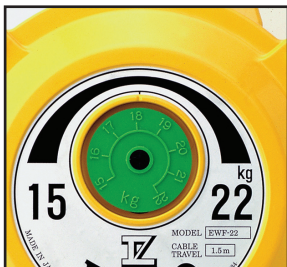
Available to lock the spool while replacing a tool

## Plug-in Cable Set



For easy cable replacement

## Tension Gauge



Lets operator see tension setting

## Safety Spring Canister



For safe spring replacement

All ENDO balancers have an exclusive 18 month warranty - see Page 28 for details.

# Application Guidelines

---

## Spring Balancer usage guidelines

---

- Size the balancer to carry the total weight to be balanced - tool plus all accessories - and stroke (maximum to minimum height) required.
- Size to the upper end of capacity range of the balancer when possible. For example, if the total weight is 10.5 pounds the EW-5 (5.5-11.0 pounds) would be a better choice than the EWF-9 (9.9-19.8 pounds).
- Always attach secondary support cable(s) to the eyelet provided for additional safety.
- Balancers are normally hung vertically and the rope is pulled out vertically. To prevent the rope from wearing on the guide, the rope should not be pulled out at an angle to the balancer body. The balancer can also be mounted horizontally, however a pulley system must be employed to guide the rope straight out of the balancer then down to the tool. Again, care must be taken to prevent the rope from wearing on the guide. A trolley and rail system can be used to help the balancer adjust to changing angles. Please refer to Page 19 of this catalog and to the Conductix-Wampfler Tasksaver Workstation Equipment Catalog #401.
- If multiple balancers are used close together, install them at staggered heights to keep them from hitting each other.
- The spring tension is factory preset to the mid-range of the rated capacity. To adjust the tension turn the worm gear or spindle clockwise to increase the tension and counterclockwise to decrease the tension. See below for more information.

---

## BALANCER SAFETY WARNINGS - PLEASE READ

---

- Do not lift or transport personnel with any of the equipment shown or described in this catalog.
- Check all applicable industry, trade association, federal, state and local regulations.
- Be sure that supporting structure and load-attaching devices used in conjunction with this equipment are adequate to handle the rated load plus the weight of the equipment.
- Read all operating instructions and warnings carefully.

---

## Spring Tensioning Systems

---

Depending on the model, the retractor or balancer will have one of three different spring tension adjustment systems: the Handle System, the Worm Gear System, or the Ratchet System.



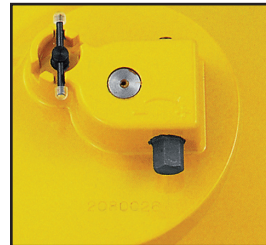
Handle System

Turn clockwise to increase tension, counter-clockwise to decrease tension



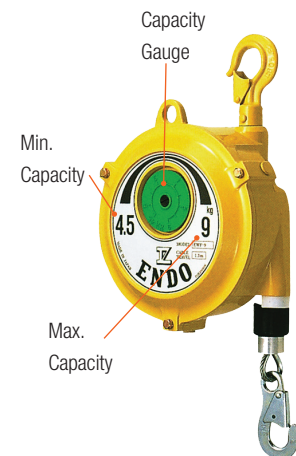
Ratchet System Spring Adjust

Insert Allen wrench and turn clockwise to increase tension and counter-clockwise to decrease tension



Worm Gear System

Turn clockwise to increase tension, counter-clockwise to decrease tension



# ERP Series Retractor

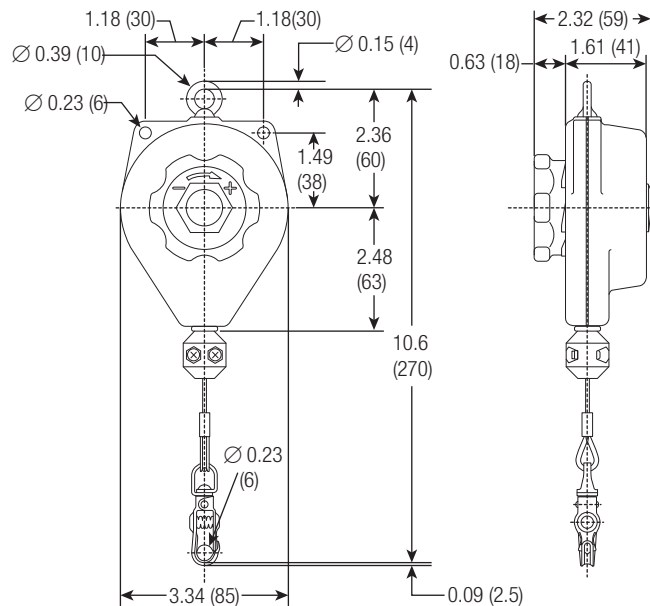
## ERP Series Retractor

ENDO ERP Series Spring Retractors are an economical choice for the suspension of tools when “zero gravity” is not required. Tension adjustment is easily performed without tools using the integrated handle system; clockwise increases tension; counter-clockwise decreases tension. Unit includes an adjustable stopper to that can be positioned to limit the stroke.



- 0.05 inch (1.20 mm) diameter nylon-coated cable for clean operation - no greasy mess
- High impact ABS case
- Forged steel swivel eyelet

ERP Series Retractors WITHOUT Ratchet			
Capacity Range: lbs. (kg)	Cable Travel: ft. (m)	Part Number	Weight: lbs. (kg)
0.7 to 1.3 (0.3 to 0.6)	4.92 (1.5)	ERP-06E	0.80 (0.36)
1.1 to 2.2 (0.5 to 1.0)	4.92 (1.5)	ERP-1E	0.80 (0.36)
2.2 to 4.4 (1.0 to 2.0)	4.92 (1.5)	ERP-2E	0.80 (0.36)



# ER Series Torque Reels

## ER Series Torque Reel

ENDO ERM and ERL Series Torque Reels are light-weight and compact. The long cable travel makes them suitable for hanging push button pendant stations and similar devices. Cylindrical drum prevents cable jamming.



ERM Series



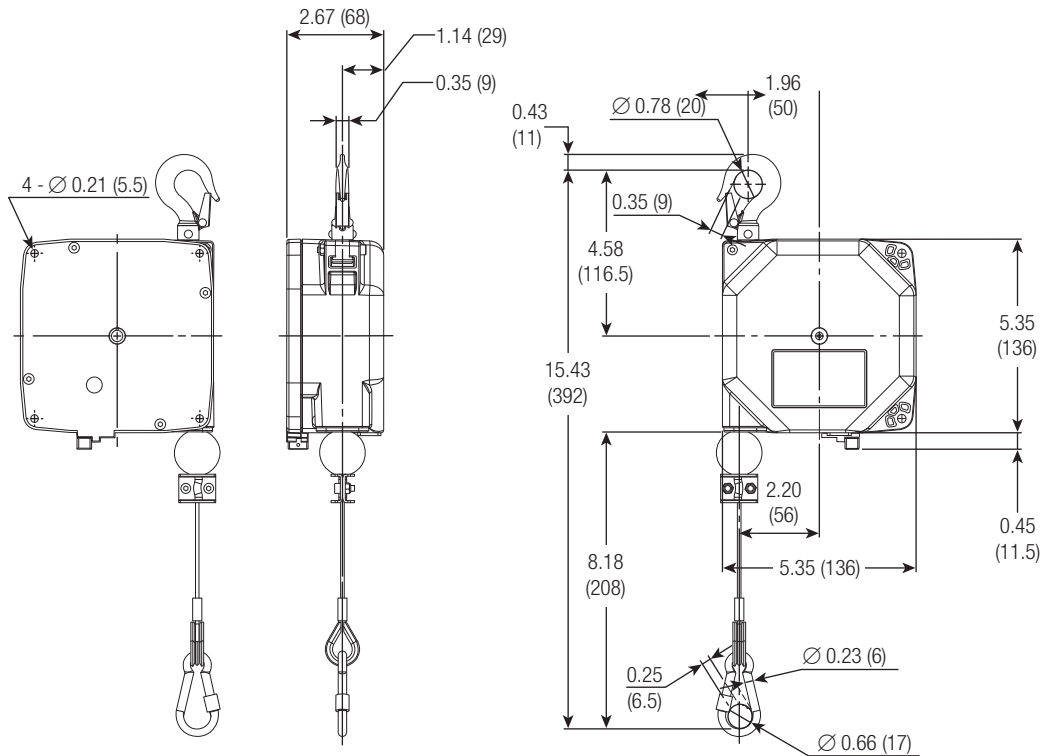
ERL Series

- Cable diameter: 0.09 in. (2.38 mm)
- Cast aluminum case

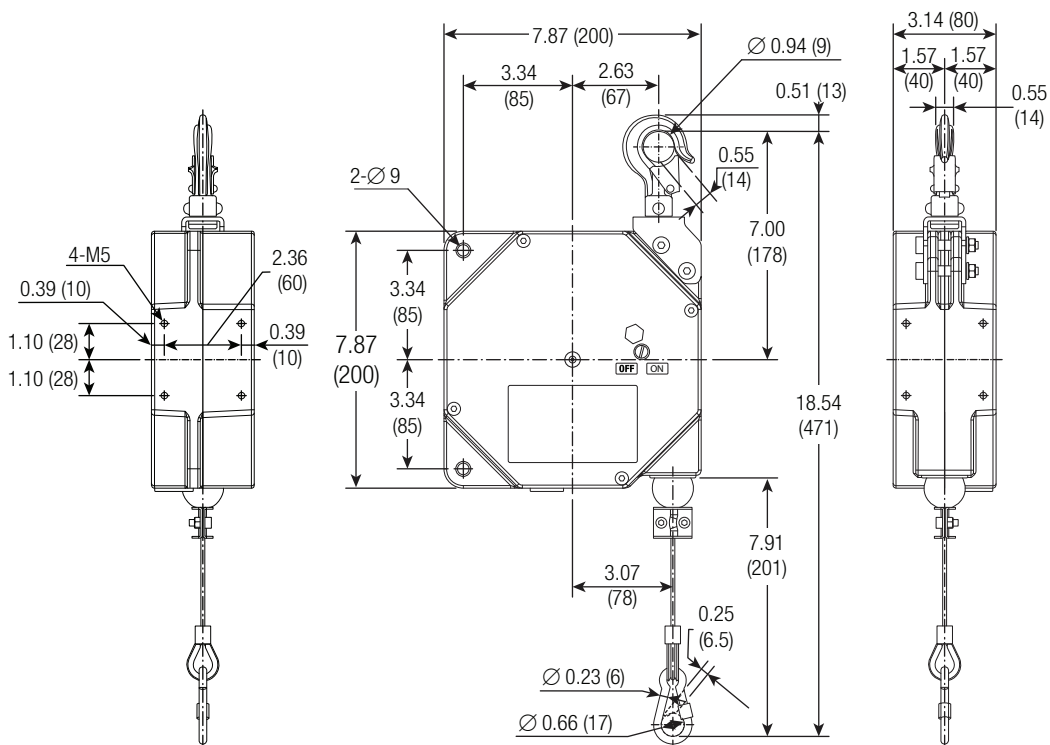
ER Series Torque Reel					
Maximum Capacity lbs. (kg)	Active Cable Travel ft (m)	Part Number	Weight lbs. (kg)	Fall Prevention Device	CE Certification
2.2-4.4 (1.0-2.0)	11.48 (3.5)	ERM-2	3.96 (1.8)	No	No
4.4-8.81 (2.0-4.0)	11.48 (3.5)	ERM-4	3.31 (2.0)	No	No
8.81-13.2 (4.0-6.0)	8.20 (2.5)	ERM-6	3.31 (2.0)	No	No
13.2-17.6 (6.0-8.0)	8.20 (2.5)	ERM-8	3.31 (2.0)	No	No
4.4-8.81 (2.0-4.0)	11.48 (3.5)	ERM-4S	3.31 (2.0)	Yes	No
8.81-13.2 (4.0-6.0)	8.20 (2.5)	ERM-6S	3.31 (2.0)	Yes	No
13.2-17.6 (6.0-8.0)	8.20 (2.5)	ERM-8S	3.31 (2.0)	Yes	No
3.3-6.6 (1.5-3.0)	13.12 (4)	ERL-3	8.37 (3.8)	No	No
6.6-13.2 (3.0-6.0)	13.12 (4)	ERL-6	9.70 (4.4)	No	No
11.0-17.6 (5.0-8.0)	13.12 (4)	ERL-8	10.58 (4.8)	No	No
17.6-24.2 (8.0-11.0)	13.12 (4)	ERL-11	11.24 (5.1)	No	No
24.2-30.8 (11.0-14.0)	13.12 (4)	ERL-14	11.24 (5.1)	No	No
6.6-13.2 (3.0-6.0)	13.12 (4)	ERL-6S	10.58 (4.8)	Yes	Yes
11.0-17.6 (5.0-8.0)	13.12 (4)	ERL-8S	10.58 (4.8)	Yes	Yes
17.6-24.2 (8.0-11.0)	13.12 (4)	ERL-11S	11.24 (5.1)	Yes	Yes
24.2-30.8 (11.0-14.0)	13.12 (4)	ERL-14S	11.24 (5.1)	Yes	Yes

# ER Series Torque Reels

## Series ERM



## Series ERL



# EK Series Balancers

## EK Series

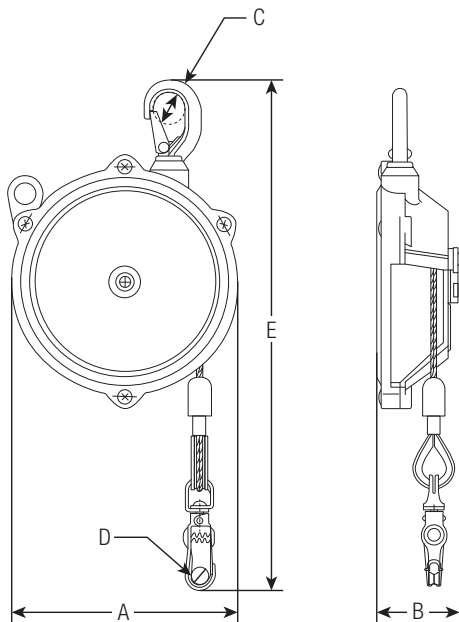
EK Series Balancers provide true “zero gravity” tool holding with no drifting or strain. The units have high impact cast ABS housings and the handle system for spring adjustment - see Page 7 for details. The tapered drums, quality springs and ball bearings provide smooth cable travel throughout the stroke. Tension adjustment is easy and precise.

Both “EK” models have a capacity range of 1.1 to 3.3 lb. (0.5 to 1.5 kg)

See Page 5 for details on choosing the correct balancer for the application. CE Mark available.



Cable Travel: ft. (m)	Part Number	Cable Diameter: in. (mm)	Weight: lb. (kg)
1.64 (0.50)	EK-00	0.08 (2.00)	0.40 (0.20)
3.28 (1.0)	EK-0	0.12 (0.50)	1.10 (0.50)



Dimensions					
Part Number	A - in. (mm)	B - in. (mm)	C - in. (mm)	D - in. (mm)	E - in. (mm)
EK-00	3.70 (93.3)	1.30 (33.0)	0.38 (9.65)	0.24 (6.09)	6.20 to 25.9 (157.4 to 658)
EK-0	5.00 (127)	1.90 (48.2)	0.71 (18)	0.35 (8.88)	9.30 to 48.7 (236 to 1241)

# EW & EWF-C Series

## EW Series

EW Series Balancers have cast aluminum case and the ratchet system spring adjustment - see Page 7 for details. The cable is affixed with the "Plug-Type" cable set - See Page 6 for details.

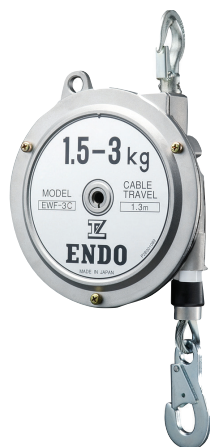


- EW Series Balancers are available in an unpainted version. To order, add "NP" at the end of the standard "EW" part number.

Maximum Capacity: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in. (mm)	Weight: lb (kg)
2.2 to 6.6 (1.0 to 3.0)	4.27 (1.30)	EW-3	0.12 (3)	3.10 (1.41)
4.4 to 8.8 (2.0 to 4.0)	4.27 (1.30)	EW-4	0.12 (3)	3.20 (1.45)
5.5 to 11.0 (2.5 to 5.0)	4.27 (1.30)	EW-5	0.12 (3)	3.30 (1.50)

## EWF-C Series

EWF-C Series Balancers have aluminum die-cast housing and non-painted surface. These are light capacity, but full of features such as:



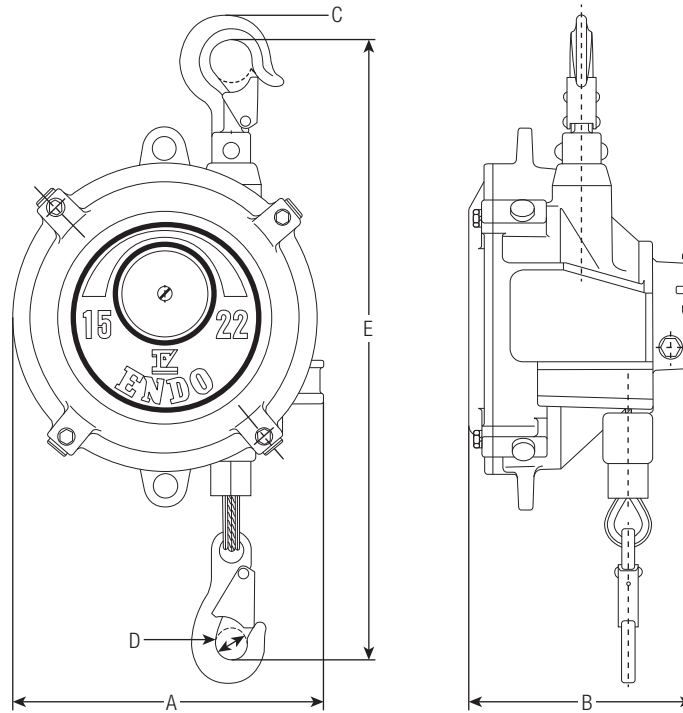
- Plastic drum, which reduces the powder from rope abrasion; replaceable wire rope
- Fall arrest device to keep tools from falling if the spring breaks
- Riveted spring to enhance the safety of spring replacement
- Fully enclosed housing

Maximum Capacity: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in. (mm)	Weight: lb (kg)
3.3 to 6.6 (1.5 to 3.0)	4.27 (1.30)	EWF-3C	0.12 (3)	3.75 (1.7)
6.6 to 11.0 (3.0 to 5.0)	4.27 (1.30)	EWF-5C	0.12 (3)	4.19 (1.9)
11.0 to 15.4 (5.0 to 7.0)	4.27 (1.30)	EWF-7C	0.12 (3)	4.19 (1.9)



# EW & EWF-C Series

## Dimensions



Part Number	A - in. (mm)	B - in. (mm)	C - in. (mm)	D - in. (mm)	E - in. (mm)
EW-3	5.80 (147)	2.70 (68.5)	0.79 (20)	0.55 (13.9)	11.4 to 62.6 (289 to 1590)
EW-4	5.80 (147)	2.70 (68.5)	0.79 (20)	0.55 (13.9)	11.4 to 62.6 (289 to 1590)
EW-5	5.80 (147)	2.70 (68.5)	0.79 (20)	0.55 (13.9)	11.4 to 62.6 (289 to 1590)
EWF-3C	6.30 (160)	3.50 (89)	0.43 (11)	0.43 (11)	
EWF-5C	6.30 (160)	3.50 (89)	0.43 (11)	0.71 (18)	
EWF-7C	6.30 (160)	3.50 (89)	0.43 (11)	0.71 (18)	

# EWF Series Standard Stroke Balancers

The EWF Series features fully enclosed housing, fall-arrest device (auto-brake), and manual drum locks. If a spring breaks, the brake automatically locks to prevent tool damage. The manual drum lock keeps the drum from rotating to allow easy change out and maintenance of tools. Springs are enclosed in a replaceable cartridge for safe and easy repair.

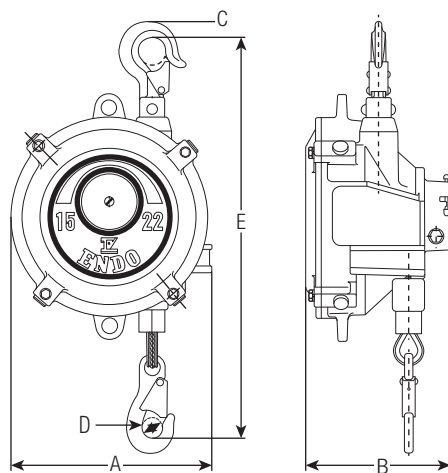
**Note:** EWF Series Balancers are also available in an **unpainted version**. To order, add “-NP” at the end of the standard “EWF” part number.

**Note:** EWF Series Balancers are also available without the adjustable stopper. To order, add “-NS” at the end of the standard “EWF” part number.



Maximum Capacity: lg (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in. (mm)	Weight: lb (kg)
9.9 to 19.8 (4.5 to 9.0)	4.27 (1.3)	EWF-9	0.16 (4.0)	7.5 (3.4)
19.8 to 33.1 (9.5 to 15.0)	4.93 (1.5)	EWF-15	0.16 (4.0)	8.4 (3.8)
33.1 to 48.5 (15 to 22)	4.93 (1.5)	EWF-22	0.19 (4.8)	16.1 (7.3)
48.5 to 66.1 (22 to 30)	4.93 (1.5)	EWF-30	0.19 (4.8)	17.0 (7.7)
66.1 to 88.2 (30 to 40)	4.93 (1.5)	EWF-40	0.19 (4.8)	21.4 (9.7)
88.2 to 110.2 (40 to 50)	4.93 (1.5)	EWF-50	0.19 (4.8)	22.2 (10.1)
110.2 to 132.3 (50 to 60)	4.93 (1.5)	EWF-60	0.19 (4.8)	24.5 (11.1)
132.3 to 154.3 (60 to 70)	4.93 (1.5)	EWF-70	0.19 (4.8)	25.1 (11.4)
154.3 to 198.4 (70 to 90)	6.56 (2.0)	EWF-90	0.19 (4.8)	48.5 (22.0)
187.4 to 231.5 (85 to 105)	6.56 (2.0)	EWF-105	0.19 (4.8)	53.0 (24.0)
220.5 to 264.5 (100 to 120)	6.56 (2.0)	EWF-120	0.19 (4.8)	61.7 (28.0)

## Dimensions



Part Number	A - in. (mm)	B - in. (mm)	C - in. (mm)	D - in. (mm)	E - in. (mm)
EWF-9	6.90 (1.75)	5.40 (137)	0.95 (24.1)	0.70 (17.7)	13.4 to 64.6 (340 to 1641)
EWF-15	6.90 (1.75)	5.40 (137)	0.95 (24.1)	0.70 (17.7)	13.4 to 64.6 (340 to 1641)
EWF-22	8.60 (218)	6.20 (157)	1.18 (29.9)	0.86 (21.8)	16.9 to 76.0 (429 to 1930)
EWF-30	8.60 (218)	6.20 (157)	1.18 (29.9)	0.86 (21.8)	16.9 to 76.0 (429 to 1930)
EWF-40	8.70 (220)	7.40 (187)	1.18 (29.9)	0.86 (21.8)	16.9 to 76.0 (429 to 1930)
EWF-50	8.70 (220)	7.40 (187)	1.18 (29.9)	0.86 (21.8)	16.9 to 76.0 (429 to 1930)
EWF-60	8.70 (220)	7.40 (187)	1.18 (29.9)	0.86 (21.8)	16.9 to 76.0 (429 to 1930)
EWF-70	8.70 (220)	7.40 (187)	1.18 (29.9)	0.86 (21.8)	16.9 to 76.0 (429 to 1930)
EWF-90	10.5 (266)	10.2 (259)	1.25 (31.7)	0.86 (21.8)	19.4 to 98.1 (429 to 2492)
EWF-105	10.5 (266)	10.2 (259)	1.25 (31.7)	0.86 (21.8)	19.4 to 98.1 (429 to 2492)
EWF-120	10.5 (266)	11.8 (299)	1.25 (31.7)	0.86 (21.8)	19.4 to 98.1 (429 to 2492)

# ELF Series Long Stroke Balancers

ENDO Long Stroke Spring Balancers are designed for high ceiling applications. They provide true “zero gravity” tool holding with no drifting or strain. The tapered drums, quality springs, and bearings provides smooth cable travel throughout the stroke. Tension adjustment is easy and precise. The ELF models offer both the automatic brake and the manual safety lock. In the event that a spring breaks, an automatic centrifugal brake engages and locks, preventing damage to the tool. With the manual lock engaged, the drum will not rotate. This allows for easy change out or maintenance of tools.

Choose the correct balancer based on the total weight to be balanced (tool and all accessories) and stroke requirements. Try to utilize the upper range of the balancer capacity ratings.

## ELF Series Balancers Feature

- Cast aluminum case and a forged swivel hook
- Automatic safety brake
- Manual drum safety lock
- Exclusive 18 month warranty



ELF-3



ELF-15



ELF-22



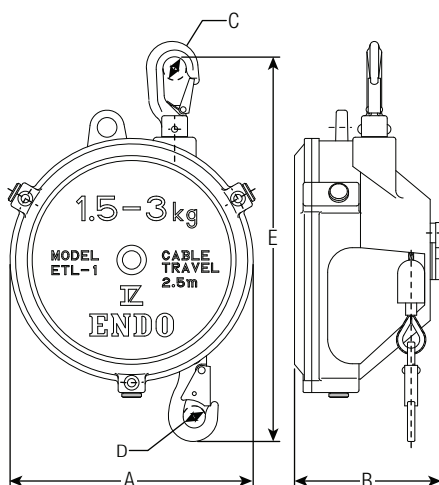
ELF-50



ELF-70

Capacity Range: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in (mm)	Weight: lb (kg)
3.3 to 6.6 (1.5 to 3.0)	8.20 (2.5)	ELF-3	0.16 (4.00)	10.1 (4.6)
6.6 to 11.0 (3.0 to 5.0)	8.20 (2.5)	ELF-5	0.16 (4.00)	10.6 (4.8)
11.0 to 19.8 (5.0 to 9.0)	8.20 (2.5)	ELF-9	0.16 (4.00)	11.9 (5.4)
19.8 to 33.1 (9.0 to 15.0)	8.20 (2.5)	ELF-15	0.19 (4.76)	22.0 (10.0)
33.1 to 48.5 (15.0 to 22.0)	8.20 (2.5)	ELF-22	0.19 (4.76)	22.5 (10.2)
48.5 to 66.1 (22.0 to 30.0)	8.20 (2.5)	ELF-30	0.19 (4.76)	24.3 (11.0)
66.1 to 88.2 (30.0 to 40.0)	8.20 (2.5)	ELF-40	0.19 (4.76)	30.9 (14.0)
88.2 to 110.2 (40.0 to 50.0)	8.20 (2.5)	ELF-50	0.19 (4.76)	32.0 (14.5)
110.2 to 132.3 (50.0 to 60.0)	8.20 (2.5)	ELF-60	0.19 (4.76)	37.6 (17.1)
132.3 to 154.3 (60.0 to 70.0)	8.20 (2.5)	ELF-70	0.19 (4.76)	39.7 (18.0)

## Dimensions



Part Number	A - in. (mm)	B - in. (mm)	C - in. (mm)	D - in. (mm)	E - in. (mm)
ELF-3	7.8 (198)	4.7 (119)	0.75 (19)	0.59 (14.9)	13.7 to 112.1 (347 to 2845)
ELF-5	7.8 (198)	4.7 (119)	0.75 (19)	0.59 (14.9)	13.7 to 112.1 (347 to 2845)
ELF-9	7.8 (198)	4.7 (119)	0.75 (19)	0.59 (14.9)	13.7 to 112.1 (347 to 2845)
ELF-15	9.1 (231)	8.4 (213)	1.18 (29.9)	0.87 (22)	17.3 to 115.7 (439 to 2939)
ELF-22	9.1 (231)	8.4 (213)	1.18 (29.9)	0.87 (22)	17.3 to 115.7 (439 to 2939)
ELF-30	9.1 (231)	8.4 (213)	1.18 (29.9)	0.87 (22)	17.3 to 115.7 (439 to 2939)
ELF-40	9.9 (251)	9.0 (228)	1.18 (29.9)	0.87 (22)	17.7 to 116.1 (449 to 2949)
ELF-50	9.9 (251)	9.0 (228)	1.18 (29.9)	0.87 (22)	17.7 to 116.1 (449 to 2949)
ELF-60	9.9 (251)	9.0 (228)	1.18 (29.9)	0.87 (22)	17.7 to 116.1 (449 to 2949)
ELF-70	9.9 (251)	9.0 (228)	1.18 (29.9)	0.87 (22)	17.7 to 116.1 (449 to 2949)

# EW-X Series “ECO” Balancers

The Series “X” balancers are the “eco-friendly” balancers. They are the ultimate solution when particulates from standard exterior finish might contaminate food or sensitive assemblies. The basic features of the EW style are on Page 12-13, EWS style are on Page 18, the EWF on Page 14. The specific features of the “X” version are as follows:

- Buffed and barrel-polishing casing and cover
- Synthetic food-grade grease (H1 grade) on the spring
- Stainless steel lower hook, plug, rivet, bolts and screws
- Zinc plated upper hook and pins

## Rope Types

- EW-3 to EWS-7: White nylon, 3 mm diameter. EWF-9 to EWF-15: Black nylon, 4mm diameter.
- EWF-22 to EWF-120: Stainless steel, 4.8 mm diameter.

Maximum Capacity: lb (kg)	Cable Travel: ft (m)	Part Number	Weight: lb (kg)
2.2 to 6.6 (1.0 to 3.0)	4.27 (1.3)	EW-3X	3.1 (1.4)
3.3 to 6.6 (1.5 to 3.0)	4.27 (1.3)	EWS-3X	4.2 (1.9)
5.5 to 11.0 (2.5 to 5.0)	4.27 (1.3)	EW-5X	3.3 (1.5)
6.6 to 11.0 (3.0 to 5.0)	4.27 (1.3)	EWS-5X	4.6 (2.1)
11.0 to 15.4 (5.0 to 7.0)	4.27 (1.3)	EWS-7X	4.6 (2.1)
9.9 to 19.8 (4.5 to 9.0)	4.27 (1.3)	EWF-9X	7.5 (3.4)
19.8 to 33.1 (9.5 to 15.0)	4.93 (1.5)	EWF-15X	8.4 (3.8)
33.1 to 48.5 (15 to 22)	4.93 (1.5)	EWF-22X	16.1 (7.3)
48.5 to 66.1 (22 to 30)	4.93 (1.5)	EWF-30X	17.0 (7.7)
66.1 to 88.2 (30 to 40)	4.93 (1.5)	EWF-40X	21.4 (9.7)
88.2 to 110.2 (40 to 50)	4.93 (1.5)	EWF-50X	11.7 (10.1)
110.2 to 132.3 (50 to 60)	4.93 (1.5)	EWF-60X	24.5 (11.1)
132.3 to 154.3 (60 to 70)	4.93 (1.5)	EWF-70X	25.1 (11.4)
154.3 to 198.4 (70 to 90)	6.56 (2.0)	EWF-90X	48.5 (22.0)
198.4 to 231.5 (90 to 105)	6.56 (2.0)	EWF-105X	53.0 (24.0)
231.5 to 264.5 (105 to 120)	6.56 (2.0)	EWF-120X	61.7 (28.0)

## Dimensions

The following pages are where you will find the dimensions for the corresponding Balancer.

- EW Style - Page 9
- EWS Style - Page 18
- EWF Style - Page 14



EWS-5X



EWF-22X

# EW-Y Series “ECO” Balancers

The Series “Y” balancers are the “eco-friendly” balancers. These are ideal when particulates from the standard exterior finish might get into food or sensitive assemblies, and where a buffed/polished housing and food-grade grease are not required. The basic features of the EW style can be found on Page 12-13, EWS style on Page 18, and EWF Style on Page 14. The specific features of the “Y” version are as follows:

- Unpainted casing and cover (not buffed)
- Standard grease on the spring
- Zinc plated steel lower hook, plug, rivet, bolts and screws
- Clear painted rivet
- Zinc plated upper hook and pins

## Rope Types

- EW-3 to EWS-7: White nylon, 3 mm diameter. EWF-9 to EWF-15: Black nylon, 4mm diameter
- EWF-22 to EWF-120: Stainless steel, 4.8 mm diameter

Maximum Capacity: lb (kg)	Cable Travel: ft (m)	Part Number	Weight: lb (kg)
2.2 to 6.6 (1.0 to 3.0)	4.27 (1.3)	EW-3Y	3.1 (1.4)
3.3 to 6.6 (1.5 to 3.0)	4.27 (1.3)	EWS-3Y	4.2 (1.9)
5.5 to 11.0 (2.5 to 5.0)	4.27 (1.3)	EW-5Y	3.3 (1.5)
6.6 to 11.0 (3.0 to 5.0)	4.27 (1.3)	EWS-5Y	4.6 (2.1)
11.0 to 15.4 (5.0 to 7.0)	4.27 (1.3)	EWS-7Y	4.6 (2.1)
9.9 to 19.8 (4.5 to 9.0)	4.27 (1.3)	EWF-9Y	7.5 (3.4)
19.8 to 33.1 (9.5 to 15.0)	4.93 (1.5)	EWF-15Y	8.4 (3.8)
33.1 to 48.5 (15 to 22)	4.93 (1.5)	EWF-22Y	16.1 (7.3)
48.5 to 66.1 (22 to 30)	4.93 (1.5)	EWF-30Y	17.0 (7.7)
66.1 to 88.2 (30 to 40)	4.93 (1.5)	EWF-40Y	21.4 (9.7)
88.2 to 110.2 (40 to 50)	4.93 (1.5)	EWF-50Y	11.7 (10.1)
110.2 to 132.3 (50 to 60)	4.93 (1.5)	EWF-60Y	24.5 (11.1)
132.3 to 154.3 (60 to 70)	4.93 (1.5)	EWF-70Y	25.1 (11.4)
154.3 to 198.4 (70 to 90)	6.56 (2.0)	EWF-90Y	48.5 (22.0)
198.4 to 231.5 (90 to 105)	6.56 (2.0)	EWF-105Y	53.0 (24.0)
231.5 to 264.5 (105 to 120)	6.56 (2.0)	EWF-120Y	61.7 (28.0)

## Dimensions

The following pages are where you will find the dimensions for the corresponding Balancer.

- EW Style - Page 9
- EWS Style - Page 18
- EWF Style - Page 14



EWS-5Y



EWF-22Y

# EWS Series Safety Balancers

The EWS Series Balancers offer true zero gravity, with no drifting or strain. Tapered drum, quality springs and bearings provides smooth cable travel throughout the stroke. This model combines and the smaller capacity EW series balancers with the safety features of teh larger EWF series balancers. The EWS series has a manual drum lock which allows for easy change out of tools and fall arrest device. Tension adjustment is performed easily with a wrench. Additionally, the casing is fully enclosed, eliminating any potential pinch points around the drum. Other feature include:

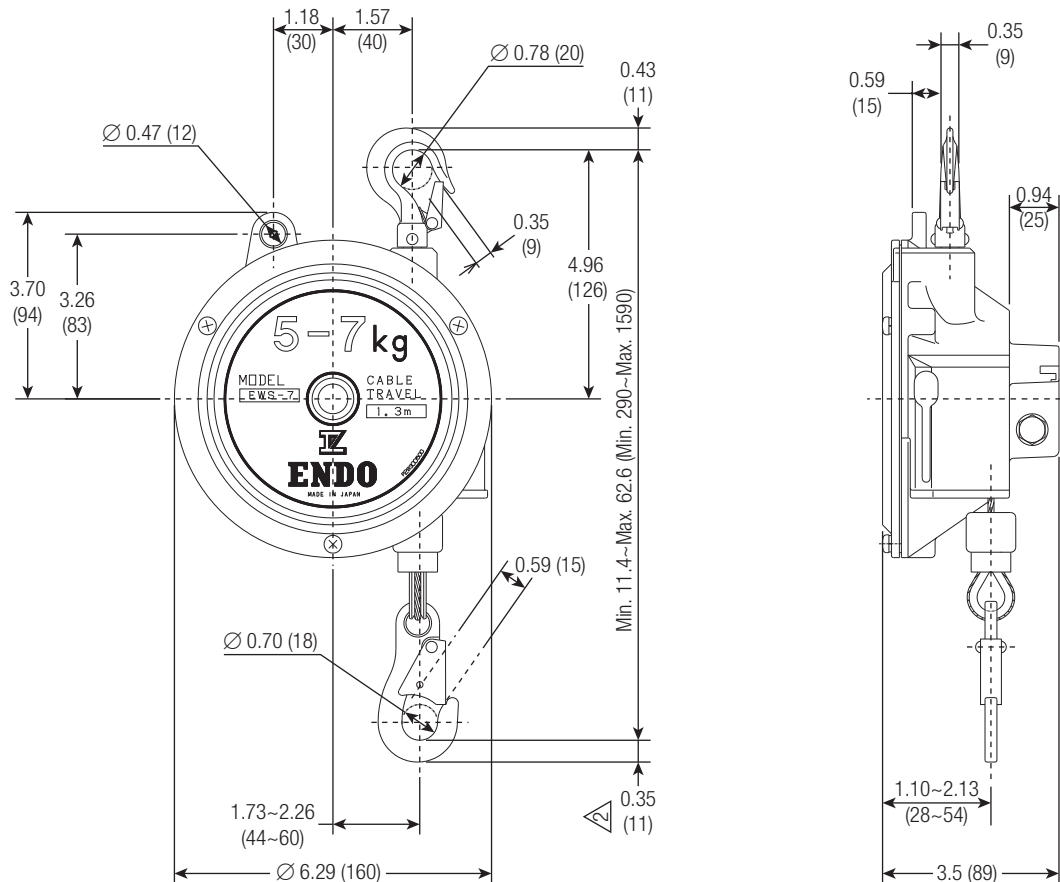
- Tension adjustment is easy and precise
- Cast aluminum case
- Forged steel swivel hook
- Exclusive 18 month warranty

Choose an EWS balancer based upon the total weight to be balanced (tool and all accessories) and stroke requirements. Try to utilize the upper range of the EWS capacity ratings.



Capacity Range: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in. (mm)	Weight: lb (kg)
3.3 to 6.6 (1.5 to 3.0)	4.27 (1.3)	EWS-3	0.12 (3.0)	4.2 (1.9)
6.6 to 11.0 (3.0 to 5.0)	4.27 (1.3)	EWS-5	0.12 (3.0)	4.6 (2.1)
11.0 to 15.4 (5.0 to 7.0)	4.27 (1.3)	EWS-7	0.12 (3.0)	4.6 (2.1)

## Dimensions



# ETP Series High Capacity

The ETP high capacity balancers offer true zero gravity, with no drifting or strain. Tapered drum, quality springs and bearings provides smooth cable travel throughout the stroke. The ETP series is used for welding guns, large impact wrenches, and other heavy tools. All high capacity ETP balancers include the fall arrest device (auto-brake).

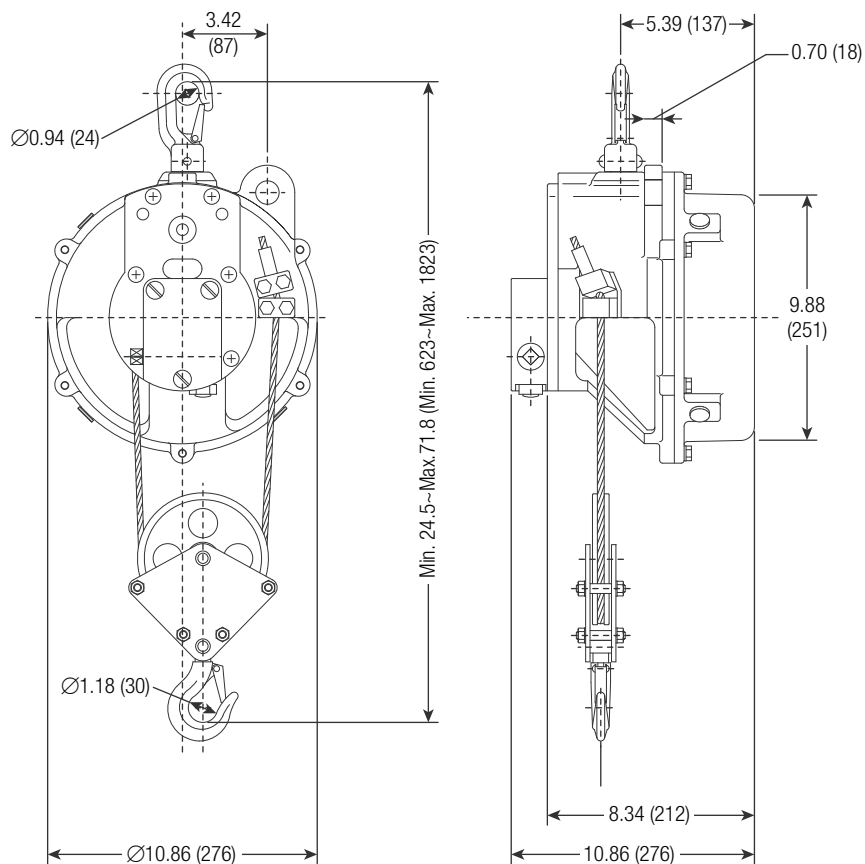
When choosing a balancer, selection is based upon the total weight to be balanced (tool and all accessories) and stroke requirements. Try to utilize the upper range of the capacity ratings.

- Tension adjustment is easy and precise
- Cast aluminum case
- Forged steel swivel hook
- Exclusive 18 month warranty



Capacity Range: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in. (mm)	Weight: lb (kg)
264.6 to 308.6 (120.0 to 140.0)	3.94 (1.2)	ETP-14	0.24 (6.0)	53.1 (24.1)
308.6 to 374.8 (140.0 to 170.0)	3.94 (1.2)	ETP-15	0.24 (6.0)	63.3 (28.7)
374.8 to 440.9 (170.0 to 200.0)	3.94 (1.2)	ETP-16	0.24 (6.0)	65.5 (29.7)

## Dimensions





# EWA Series Specialty Balancers

## EWA Series “Snap-Back Prevention” Balancer

The EWA Series safety balancers offer true zero gravity, with no drifting or stain. Tapered drum, quality springs and bearings provides smooth cable travel throughout the stroke. The EWA Series is used in conjunction with the heaviest tools and welding machines. They are very similar to the standard ENDO balancers, but incorporate an additional safety mechanism to prevent injury to the user.

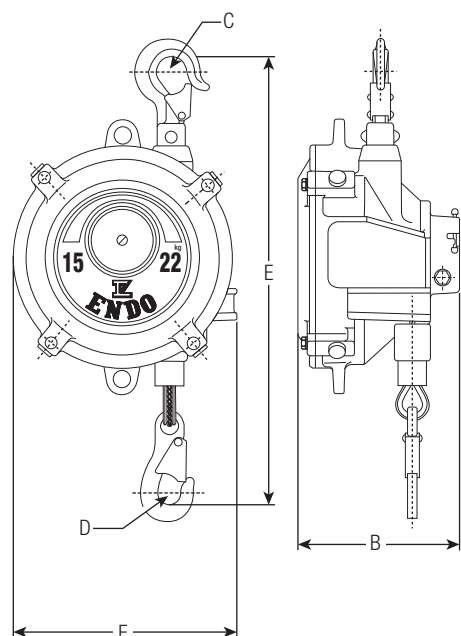
If the suspension cable is cut, a centrifugal brake engages and the drum locks. This prevents the cable from snapping back and injuring operators or damaging equipment. The distance the severed cable will travel before the centrifugal brake engages is 3.9 inches (100 mm) or less. Used by several automotive manufacturers, the EWA sets the new standard for employee safety and ergonomics.

- Easy and precise tension adjustment
- Cast aluminum case
- Forged steel swivel hook
- Tension gauge
- Fall arrest device
- Spring Cartridge
- Drum lock
- Plug-in cable set



Capacity Range: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in. (mm)	Weight: lb (kg)
33.1 to 48.5 (15.0 to 22.0)	4.93 (1.5)	EWA-22	0.19 (4.76)	19.4 (8.8)
48.5 to 66.1 (22.0 to 30.0)	4.93 (1.5)	EWA-30	0.19 (4.76)	20.3 (9.2)
66.1 to 88.2 (30.0 to 40.0)	4.93 (1.5)	EWA-40	0.19 (4.76)	26.5 (12.0)
88.2 to 110.2 (40.0 to 50.0)	4.93 (1.5)	EWA-50	0.19 (4.76)	27.8 (12.6)
110.2 to 132.3 (50.0 to 60.0)	4.93 (1.5)	EWA-60	0.19 (4.76)	29.1 (13.2)
132.3 to 154.3 (60.0 to 70.0)	4.93 (1.5)	EWA-70	0.109 (4.76)	32.6 (14.8)

## Dimensions



Part Number	A - in. (mm)	B - in. (mm)	C - in. (mm)	D - in. (mm)	E - in. (mm)
EWA-22	8.6 (218)	6.2 (157)	1.18 (29.9)	0.86 (21.8)	1.69 to 76.0 (42.9 to 1930)
EWA-30	8.6 (218)	6.2 (157)	1.18 (29.9)	0.86 (21.8)	1.69 to 76.0 (42.9 to 1930)
EWA-40	8.7 (220)	7.4 (187)	1.8 (29.9)	0.86 (21.8)	1.69 to 76.0 (42.9 to 1930)
EWA-50	8.7 (220)	7.4 (187)	1.8 (29.9)	0.86 (21.8)	1.69 to 76.0 (42.9 to 1930)
EWA-60	8.7 (220)	7.4 (187)	1.8 (29.9)	0.86 (21.8)	1.69 to 76.0 (42.9 to 1930)
EWA-70	8.7 (220)	7.4 (187)	1.8 (29.9)	0.86 (21.8)	1.69 to 76.0 (42.9 to 1930)



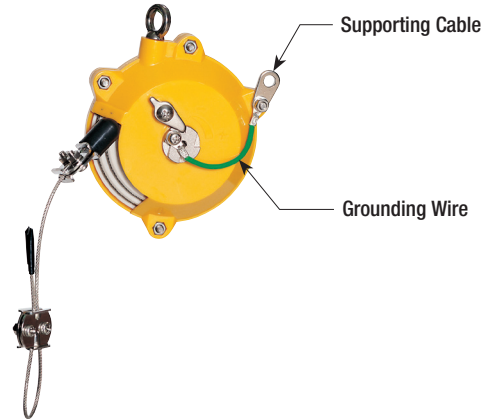
# EKN Series Specialty Balancers

## EKN Series Electrostatic Discharge Balancer

The EKN series balancers offer true zero gravity, with no drifting or strain. Tapered drum and quality springs and bearings provides smooth cable travel throughout the stroke. The EKN series is used where electrostatic discharge can damage electronics or other sensitive assemblies, but where a “clean room” balancer is not needed. The EKN is fitted with a grounding wire, which attaches from the balancer to the secondary support hook. The grounding wire safely dissipates any static electricity charge generated by the friction of the cable while the balancer is in use.

When choosing a balancer, selection is based upon the total weight to be balanced (tool and all accessories) and stroke requirements. Try to utilize the upper range of the balancer capacity ratings.

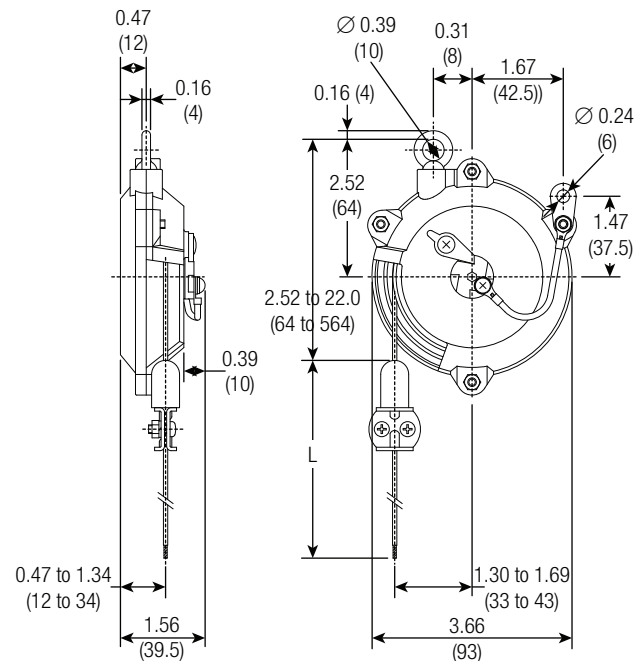
- 0 spring tool balancers Tension adjustment is easy and precise
- High impact plastic case
- Forged steel swivel hook
- Exclusive 18 month warranty



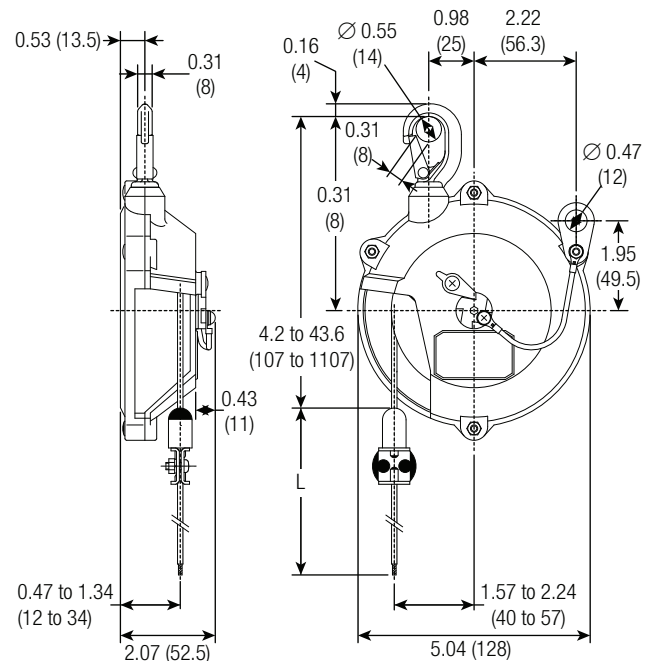
Capacity Range: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in (mm)	Weight: lb (kg)
1.1 to 3.3 (0.5 to 1.5)	1.64 (0.5)	EKN-00	0.08 (2.0)	0.4 (0.2)
1.1 to 3.3 (0.5 to 1.5)	3.28 (1.0)	EKN-0	0.12 (3.0)	1.0 (0.5)

## Dimensions

### EKN-00



### EKN-0



# SBC Series Specialty Balancer

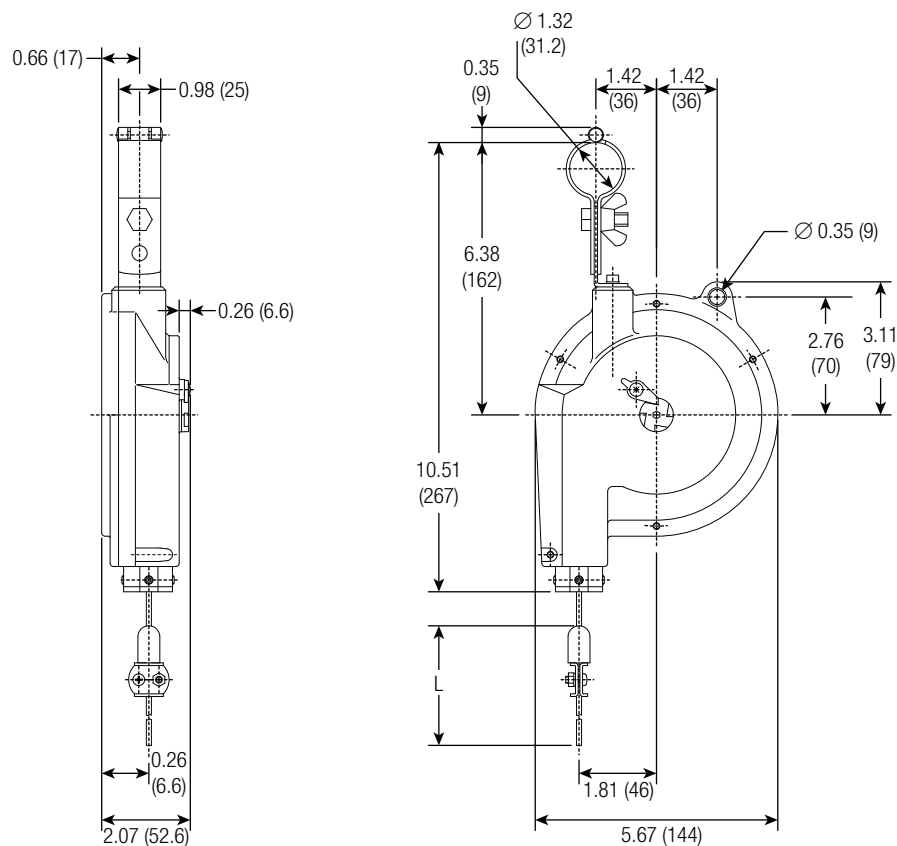
## SBC Series Clean Room Balancer

The SBC-15 is a “clean room” tool balancer used in production of electronics, pharmaceuticals, and other environmentally sensitive components. It’s specially sealed aluminum case provides a Class 10 protection rating which meets most clean room requirements. The cable is sheathed in nylon to prevent metal flaking and contamination of the clean environment. It can be used with a multitude of tools including torque drivers and vacuum pin setters. Like the EKN series, these balancers can be fitted with a grounding wire to dissipate static electricity.



Capacity Range: lb (kg)	Cable Travel: ft (m)	Part Number	Cable Diameter: in (mm)	Weight: lb (kg)
1.1 to 3.3 (0.5 to 1.5)	3.28 (1.0)	SBC-15	0.12 (3.0)	2.6 (1.2)

## Dimensions



# Air Tool Balancers

Air tool balancers provide a safer and more organized workspace by eliminating the need for an air supply hose and a separate cable balancer. Air Tool Balancers are available in either 1/4" ID (Model ATB) or 3/8" ID (Model THB) both with braided urethane hose. Casings are made from durable, lightweight, high impact ABS resin.

Conductix-Wampfler offer a special kit\* for the THB and ATB series balancers that allows air tools with bottom air inlets to hand right-side up. The kit has a fixture, a cable and air line joint, plus an additional 13 inches of hose travel. The Air Tool Balancers feature:

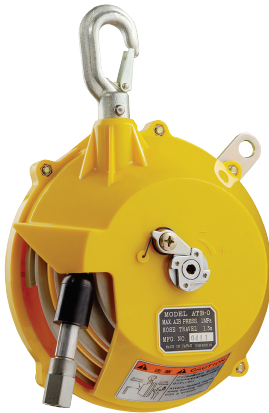
- Easy and precise balancer tension adjustment
- High impact ABS case
- Forged steel swivel hook
- Pressure rating: 145 psi

Exclusive 18 month warranty



ATB Series with kit\*

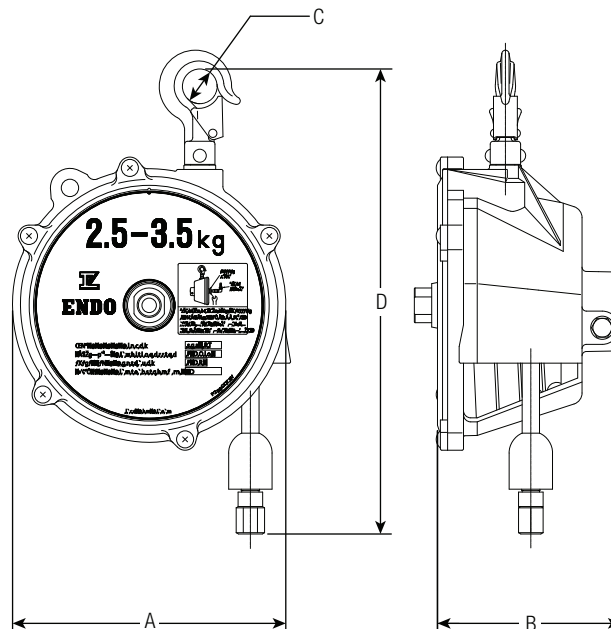
## ATB Series - 1/4" ID Hose



Capacity Range: lb (kg)	Hose Travel: ft (m)	Part Number	Air Inlet	Weight: lb (kg)
1.1 to 3.3 (0.5 to 1.5)	4.27 (1.3)	ATB-0	1/4" NPT	3.5 (1.58)
3.3 to 6.6 (1.5 to 3.0)	4.27 (1.3)	ATB-1	1/4" NPT	3.7 (1.66)
6.6 to 11.0 (3.0 to 5.0)	4.27 (1.3)	ATB-2	1/4" NPT	3.8 (1.73)

## Dimensions

Part Number	A - in. (mm)	B - in. (mm)	C - in. (mm)	D - in. (mm)
ATB	7.5 (190)	3.3 (83.8)	0.75 (19)	10.0 to 61.3 (254 to 1557)



# Air Tool Balancers

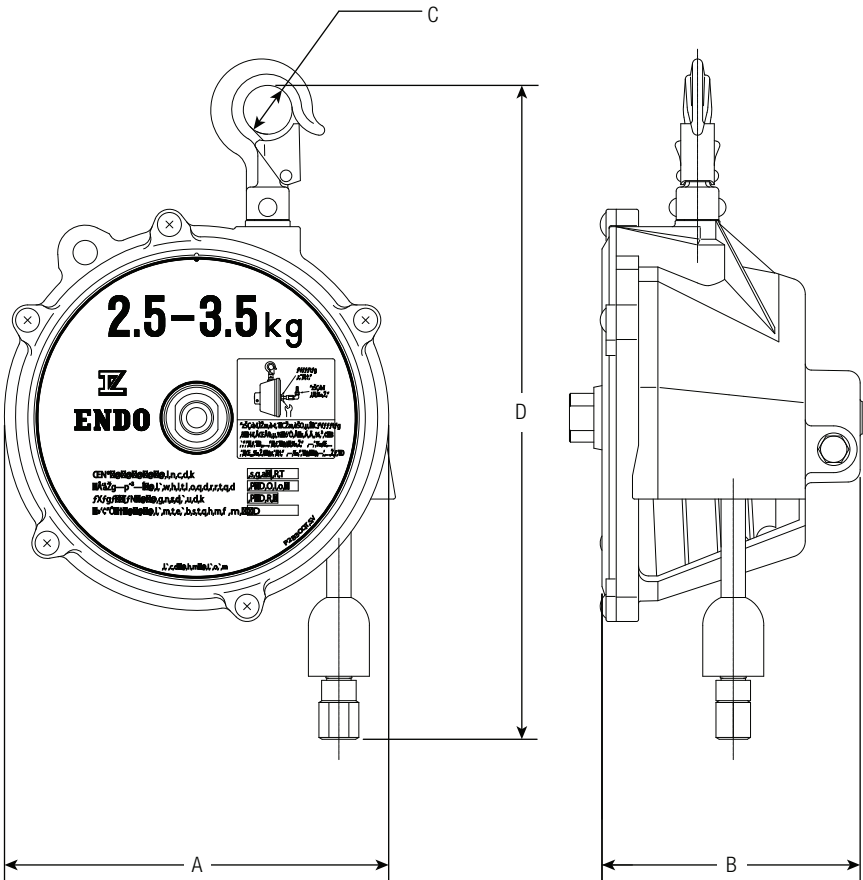
THB Series - 3/8" ID Hose



Capacity Range: lb (kg)	Hose Travel: ft (m)	Part Number	Air Inlet	Weight: lb (kg)
1.1 to 3.3 (0.5 to 1.5)	4.27 (1.3)	THB-15	3/8" NPT	4.2 (1.9)
3.3 to 5.5 (1.5 to 2.5)	4.27 (1.3)	THB-25	3/8" NPT	4.4 (2.0)
5.5 to 7.7 (2.5 to 3.5)	4.27 (1.3)	THB-35	3/8" NPT	4.6 (2.1)
7.7 to 11.0 (3.5 to 5.0)	4.27 (1.3)	THB-50	3/8" NPT	4.6 (2.1)
11.0 to 14.3 (5.0 to 6.5)	4.27 (1.3)	THB-65	3/8" NPT	4.9 (2.2)

Dimensions

Part Number	A - in. (mm)	B - in. (mm)	C - in. (mm)	D - in. (mm)
ATB	7.5 (190)	3.3 (83.8)	0.75 (19)	10.0 to 61.3 (254 to 1557)



# Air Tool Balancers

## ST-30 Series Twin-Hose Balancer

The ST-30 air tool balancer is to be use with feed-back air tools. The air is supplied through the outer hose to the tool, the inner hose provides the controller with the feed-back signal.

- Unique solution for feed-back tools
- Easy and reliable operation
- Eliminates problems with coiled hose
- Exclusive 18 month warranty

Main air inlet: R 3/8" NPT with 3/8" hose barb

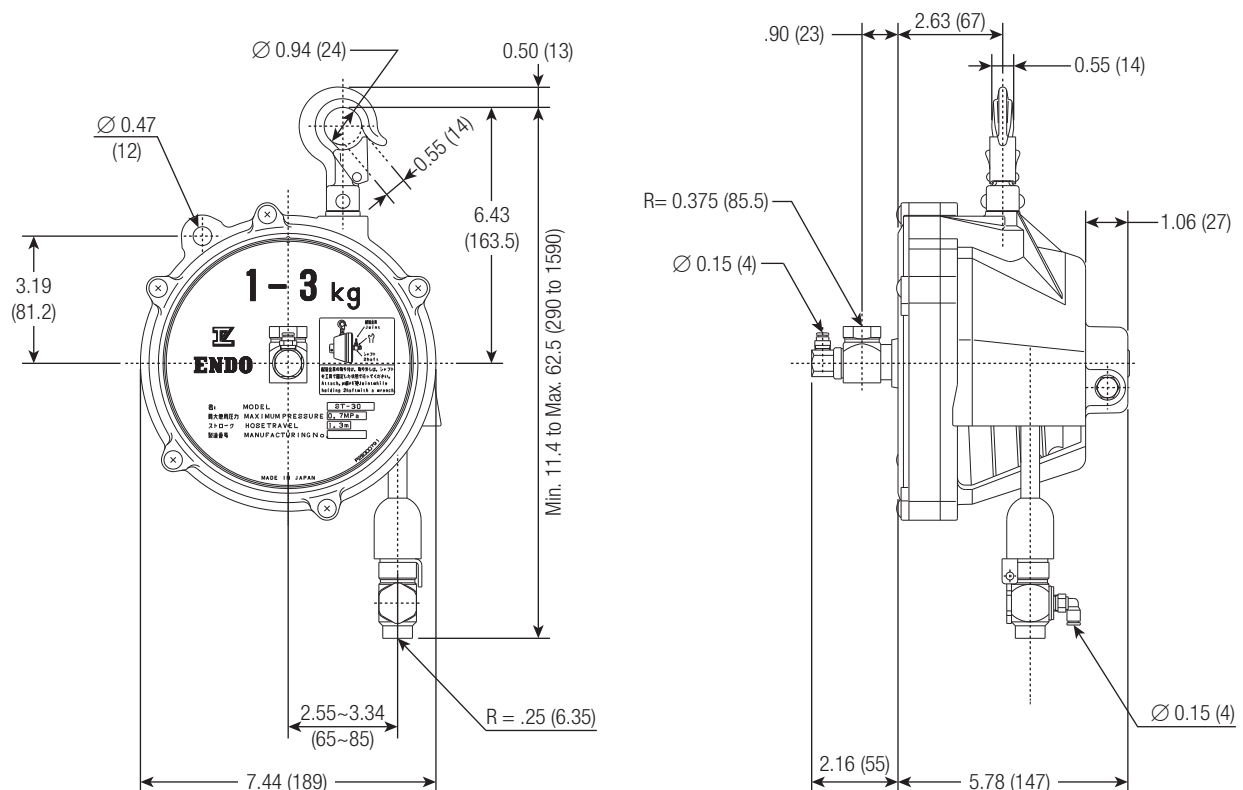
Main air outlet: R 1/4" with adaptor for 1/4" FPT

Signal air inlet and outlet: Quick release coupling for 4 mm OD hose.



Capacity Range: lb (kg)	Hose Travel: ft (m)	Part Number	Outer Hose ID	Inner Hose ID	Weight: lb (kg)
2.2 to 6.6 (1 to 3)	4.27 (1.3)	ST-30	3/8"	1/8"	6.2 (2.8)

## Dimensions



# Air Tool Balancers

## ATR Series Air Tool Reel

The air tool reel provides air hot and ratched mechanism that allows a tool to stay suspended. To disengage the ratchet and enable the hose to retract, simply pull lightly on the hose. The reel comes with a standard 6.5 ft (2.0 m) 3/8" hose. Additionally hose can be added in 3.28', 6.56', and 9.84' (1, 2, and 3 meter) lengths. The reel also is made with a fall prevention device. In the case the spring breaks, the device prevents the tool from falling and becoming damaged. Available as booth a hood mount (ATR-50) and as a wall mount (ATR-5-1).

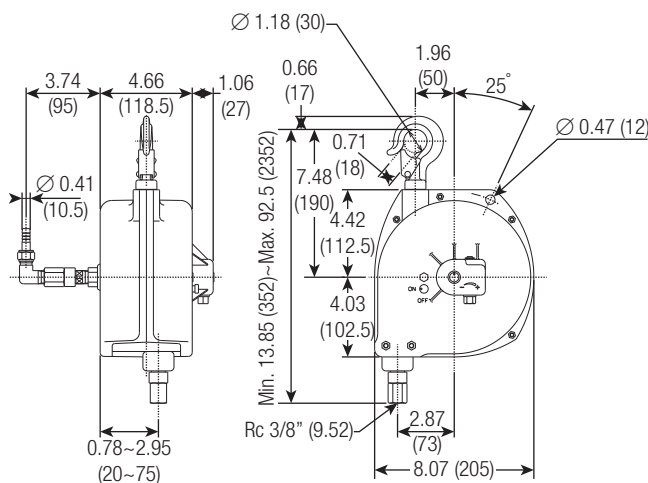
- Hook, wall, or ceiling mount
- Tension adjustment is easy and precise
- High impact ABS case and a forged swivel hook



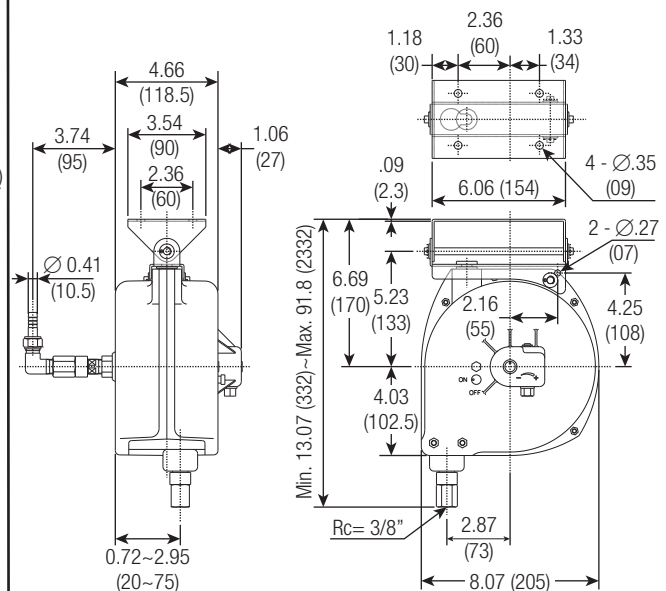
Maximum Tension: N (ft lbs)	Maximum Pressure: Bar (PSI)	Hose Travel: ft (m)	Part Number	Weight: lb (kg)
49 (11)	10 (142)	6.5 (2.0)	ATR-5	8.4 (3.8)
49 (11)	10 (142)	6.5 (2.0)	ATR-5-1	9.3 (4.2)

## Dimensions

Series ATR-5



Series ATR-5-1



# Accessories

## Air Tool Accessories



Description	Length: ft (m)	Part Number
Adjustable rubber ball stop	-	LBP007933
Special hose for extending length, with swivel joint	3.28 (1.0)	LBP000663
Special hose for extending length, with swivel joint	6.56 (2.0)	LBP000664
Special hose for extending length, with swivel joint	9.84 (3.0)	LBP000665

## Series PTF Manual Trolleys for I-Beams

The Series PTF manual trolleys are used for suspending all types of ENDO tool balancers for I-beams, railways, or jib booms. Model PTF-125 and PTF-250 are easily adjustable for different size beams. In addition, the frame is manufactured to protect the wheels from collisions with other trolleys. These trolleys can also be fitted with rubber bumpers for further protection.

Capacity: lb (kg)	Minimum Curve Radius: in (mm)	Part Number	Beam Width: in (mm)	Weight: lb (kg)
132 (60)	N/A	PTF-60	2.95 (75)	1.80 (.80)
276 (125)	24 (600)	PTF-125	2.0 / 2.95 (50 / 75)	3.50 (1.60)
551 (250)	35 (900)	PTF-250	2.95 / 3.93 / 4.92 (75 / 100 / 125)	9.25 (4.20)

## Series PTF-60



## Series PTF-125



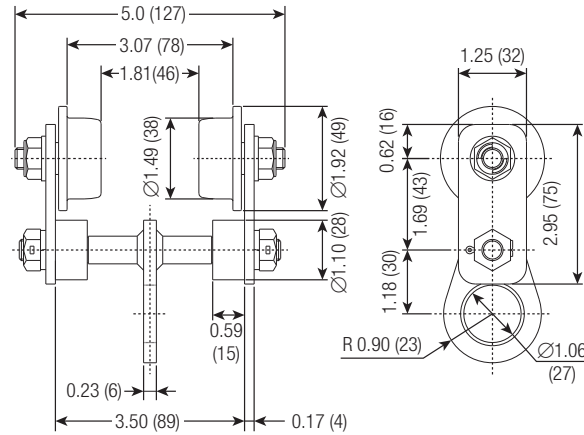
## Series PTF-250



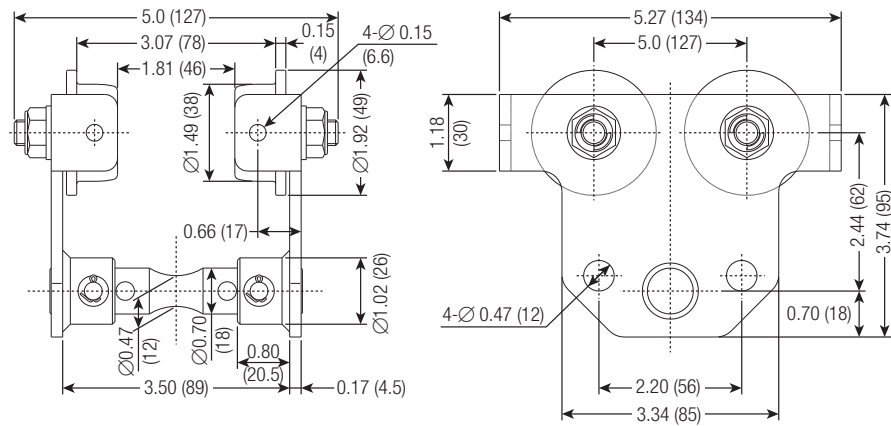
# Accessories

## Dimensions - Series PTF Manual Trolleys for I-Beams

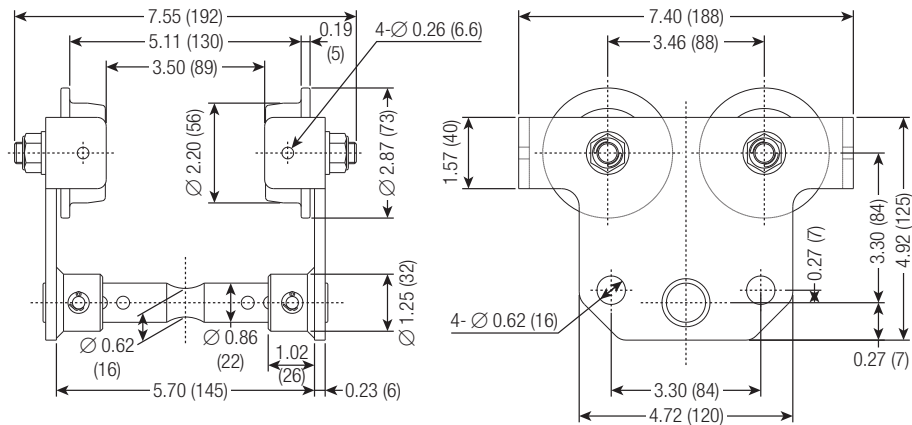
### PFT-60



### PFT-125



### PFT-250



Part Number	Series EW	Series EK	Series ELB	Series ETP
PTF_60	3-60	--	15-60	--
PTF-125	3-70	11-13	15-60	--
PTF-250	3-70	11-13	15-70	14-16



# Accessories

---

## Balancer Cushions

---

Balancer Cushions protect the body of the balancer if they are placed so close together that they might collide into one another.

Type	Part Number
A	P2B300789
B	P2B300799

---

### Type A

---



---

### Type B

---



# Spare Springs, Cables, and Hoses

Encapsulated Spring



Non-Encapsulated Spring



Cable



Hose



Balancer Model	Spring			Cable Part Number	Hose Part Number
	Part Number	Quantity Required	Encapsulated		
ELF-15	LBP000607	1	YES	LBP000223a	N/A
ELF-22	LBP000608	1	YES	LBP000223a	N/A
ELF-30	LBP000609	1	YES	LBP000223a	N/A
ELF-40	LBP000610	1	YES	LBP000223a	N/A
ELF-50	LBP000611	1	YES	LBP000223a	N/A
ELF-60	LBP000612	1	YES	LBP000223a	N/A
ELF-70	LBP000613	1	YES	LBP000223a	N/A
ER-3A	P2B300089	1	NO	LBP000095	N/A
ER-3B	P2B300089	1	NO	LBP000095	N/A
ER-5A	P2B300090	1	NO	LBP000095	N/A
ER-5B	P2B300090	1	NO	LBP000095	N/A
ER-10A	P2B300037a	1	NO	LBP000026	N/A
ER-10B	P2B300037a	1	NO	LBP000026	N/A
ELF-1	P2B300255	1	NO	LBP000298	N/A
ELF-2	P2B300256	1	NO	LBP000298	N/A
ELF-3	P2B300257	1	NO	LBP000298	N/A
ETP-14	P2B300264	2	NO	LBP000324	N/A
ETP-15	P2B300265	3	NO	LBP000324	N/A
ETP-16	P2B300267	3	NO	LBP0000324	N/A
EW-3	P2B300074	1	NO	LBP000133	N/A
EW-5	P2B300075	1	NO	LBP000133	N/A
EW-9	LBP000596a	1	YES	LBP000136	N/A
EW-15	LBP000597a	1	YES	LBP000136	N/A
EW-22	LBP000598	1	YES	LBP000139	N/A
EW-30	LBP000599	1	YES	LBP000139	N/A
EW-40	LBP000600	1	YES	LBP000139	N/A
EW-50	LBP000601	1	YES	LBP000139	N/A
EW-60	LBP000602	1	YES	LBP000139	N/A
EW-70	LBP000603	1	YES	LBP000139	N/A
EW-90	LBP001137	1	YES	LBP001147	N/A
EW-105	LBP001138	1	YES	LBP001147	N/A
EW-120	LBP001139	1	YES	LBP001147	N/A
EWS-3	P2B300089a	1	NO	LBP000748	N/A
EWS-5	P2B300507	1	NO	LBP000748	N/A
EWS-7	P2B300508	1	NO	LBP000748	N/A
ATB-0	P2B300216	1	NO	N/A	LBP000164
ATB-1	P2B300217	1	NO	N/A	LBP000164
ATB-2	P2B300218	1	NO	N/A	LBP000164
ATR-5	P2B300428	1	NO	N/A	LBP000657
ATR-5-1	P2B300428	1	NO	N/A	LBP000657
THB-15	P2B300633	1	NO	N/A	LBP000768
THB-25	P2B300534a	1	NO	N/A	LBP000768
THB-35	P2B300535a	1	NO	N/A	LBP000768
THB-50	P2B300549	1	NO	N/A	LBP000768
THB-65	P2B300613a	1	NO	N/A	LBP000768
ST-30	P2B300535a	1	NO	N/A	LBP001070

# ENDO Spring Balancer Warranty

## For ENDO Balancers Distributed by Conductix-Wampfler

If an ENDO Spring Balancer is distributed by Conductix-Wampfler and show on the list below, fails to perform within 18 months of the customer purchase date or within the stated “working cycles” <sup>1</sup>, whichever comes first, Conductix-Wampfler will supply part(s) to replace the failed part(s) free of charge and freight prepaid. If the Spring Balancer itself is returned to Conductix-Wampfler for repair, the freight cost and the repair labor cost shall be charged to the customer.

This warranty is only valid if the balancer has not been physically altered and has been operated and maintained in accordance with the instruction manual provided. The actual working cycles claimed by our customer will be accepted by Conductix-Wampfler based on the application offered by our customer.

Part Number	Maximum Load: lb (kg)	Stroke: ft (m)	Working Cycles <sup>1</sup>
EK-00	3.3 (1.5)	1.64 (0.5)	500,000
EK-0	3.3 (1.5)	3.28 (1.0)	500,000
EW-3	6.6 (3.0)	4.26 (1.3)	500,000
EW-5	11.0 (5.0)	2.95 (0.9)	500,000
EW-9	19.8 (9.0)	2.95 (0.9)	500,000
EW-15	33.0 (15.0)	2.95 (0.9)	200,000
EW-22	48.5 (22.0)	4.26 (1.3)	130,000
EW-30	66.1 (30.0)	4.26 (1.3)	90,000
EW-40	88.1 (40.0)	4.26 (1.3)	120,000
EW-50	110.2 (50.0)	4.26 (1.3)	90,000
EW-60	132.2 (60.0)	4.26 (1.3)	90,000
EW-70	154.3 (70.0)	4.26 (1.3)	70,000
EW-90	198.4 (90.0)	4.92 (1.5)	120,000
EW-105	231.4 (105.0)	4.92 (1.5)	120,000
EW-120	264.5 (120.0)	4.92 (1.5)	120,000
ELF-3	6.6 (3.0)	5.56 (2.0)	300,000
ELF-5	11.0 (5.0)	6.56 (2.0)	300,000
ELF-9	19.8 (9.0)	6.56 (2.0)	200,000
ELF-15	33.0 (15.0)	6.56 (2.0)	50,000
ELF-22	48.5 (22.0)	7.87 (2.4)	40,000

Part Number	Maximum Load: lb (kg)	Stroke: ft (m)	Working Cycles <sup>1</sup>
ELF-30	66.1 (30.0)	7.87 (2.4)	40,000
ELF-40	88.1 (40.0)	7.87 (2.4)	40,000
ELF-50	110.2 (50.0)	7.87 (2.4)	40,000
ELF-60	132.2 (60.0)	7.87 (2.4)	40,000
ELF-70	154.3 (70.0)	7.87 (2.4)	40,000
EWS-3	6.6 (3.0)	3.93 (1.2)	500,000
EWS-5	11.0 (5.0)	3.93 (1.2)	500,000
EWS-7	15.4 (7.0)	3.93 (1.2)	500,000
ETP-14	308.6 (140.0)	3.28 (1.0)	40,000
ETP-15	374.7 (170)	3.28 (1.0)	50,000
ETP-16	440.9 (200.0)	3.28 (1.0)	40,000
ATB-0	3.3 (1.5)	4.26 (1.3)	200,000
ATB-1	6.6 (3.0)	4.26 (1.3)	200,000
ATB-2	11.0 (5.0)	4.26 (1.3)	200,000
THB-25	5.51 (2.5)	4.26 (1.3)	200,000
THB-35	7.71 (3.5)	4.26 (1.3)	200,000
THB-50	11.02 (5.0)	4.26 (1.3)	200,000
ERP-06	1.32 (0.6)	4.92 (1.5)	200,000
ERP-1	2.20 (1.0)	4.92 (1.5)	200,000
ERP-2	4.40 (2.0)	4.92 (1.5)	200,000

<sup>1</sup> Working Cycle: Means that the full maximum rated load is carried by the balancer on full “stroke” (i.e. starting at the bottom minimum height, then traveling all the way up, then back down to the minimum height)

# Terms, Conditions, and General Warranty

The technical data and images which appear in this catalog are for informational purposes only. NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE CREATED BY THE DESCRIPTIONS AND DEPICTIONS OF THE PRODUCT SHOWN IN THIS CATALOG. Conductix-Wampfler ("seller") makes no warranty and assumes no liability as to the function of equipment or the operation of systems built according to customer design or of the ability of any of its products to interface, operate or function with any portions of customer systems not provided by Conductix-Wampfler.

Seller agrees to repair or exchange the goods sold hereunder necessitated by reason of defective workmanship, and material discovered and reported to Seller within one year after shipment of such goods to Buyer. Except where the nature of the defect is such that it is appropriate in Seller's judgement to effect repairs on site, the Seller's obligation hereunder to remedy defects shall be limited to repairing or replacing (at Seller's option), FOB point of original shipment by Seller, any part returned to Seller at the risk of cost of Buyer. Defective parts replaced by Seller shall become the property of Seller.

Seller shall only be obligated to make such repair or replacement of goods which have been used by Buyer in service recommended by Seller and altered only as authorized by Seller. Seller is not responsible for defects which arise from improper installation, neglect, or improper use or from normal wear and tear.

Additionally, Seller's obligation shall be limited by the manufacturer's warranty (and shall not be further warranted by Seller) for all parts procured from other according to published data, specifications, or performance information not designed by or for Seller.

Seller further agrees to replace, or at Seller's option to provide a refund of the sales price of any goods that did not conform to applicable specifications or which differ from that agreed to be supplied which non-conformity is discovered and forthwith reported to Seller within thirty (30) days after shipment to Buyer. Seller's obligation to replace or refund the purchase price for non-conforming goods shall arise once Buyer returns such good FOB point of original shipment by Seller at the risk and cost of Buyer. Goods replaced by Seller shall become property of Seller.

There is no guarantee or warranty as to anything made or sold by Seller, or any service performed, except as to title and freedom from encumbrances, and except and herein expressly stated and particularly without limiting and foregoing. There is no guarantee or warranty, express or implied, of merchantability or of fitness for any particular purpose or against claim or infringement or the like.

Seller makes no warranty (and assumes no liability) as to function of equipment or operation of systems built to Buyer's design or of the ability of any goods to interface, operate or function with any portions of Buyer's system not provided by Seller.

Seller's liability on any claim; whether in contract (including negligence) or otherwise, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery, resale, repair, replacement or use of any products or services shall in no case exceed the price paid for the product or services or any part thereof which give rise to the claim. In no event shall Seller be liable for consequential, special, identical or other damages, nor shall Seller be liable in respect to personal injury or damage to property on the subject matter hereof unless attributable to gross misconduct of Seller, which shall mean an act of omission by Seller demonstrating reckless disregard of the foreseeable consequences thereof.

Seller is not responsible for incorrect choice of models or where products are used in excess of their rated and recommended capacities and design functions or under abnormal conditions. Seller assumes no liability for loss of time, damage or injuries to property or persons resulting from the use of Seller's products. Buyer shall hold Seller harmless from all liability, claims, suits and expenses in connection with loss or damage resulting from operation of products or utilization of services, respectively, of Seller and shall defend any suit or action which might arise there from Buyer's name - provided that Seller shall have the right to elect to defend any such suit or action for the account of Buyer. The foregoing shall be the exclusive remedies of the Buyer and all person and entities claiming through the Buyer.







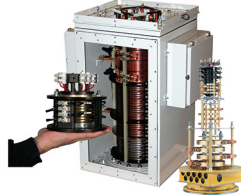
# Other Products from Conductix-Wampfler

The products described in this catalog represent a few of the products from the broad spectrum of Conductix-Wampfler components and systems for the transfer of energy, data, gases, and fluids. The solutions we deliver for your applications are based on your specific requirements. In many cases, a combination of several different Conductix-Wampfler products are needed to fill the application. You can count on all of Conductix-Wampfler's business units for hands-on engineering support - coupled with the perfect solution to meet your energy management and control needs.



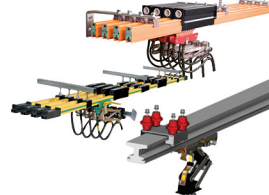
## Motor driven cable reels

Motor driven reels by Conductix-Wampfler are the perfect solution for managing long lengths of heavy cable and hoses in very demanding industrial applications. Monospiral, level wind, and random wind spoils.



## Slip ring assemblies

Whenever powered machinery needs to rotate 360°, field proven slip ring assemblies by Conductix-Wampfler can flawlessly transfer energy and data. Here, everything revolves around flexibility and reliability.



## Conductor bar

Whether they are enclosed conductor rails, expandable single-pole bar systems, or high amperage bar for demanding steel mill use up to 6000 amps. Conductix-Wampfler's conductor bar is the proven solution to reliably move people and material.



## Spring driven cable reels

We have 60 years experience and trusted brands such as Insul-8, Wampfler, and IER. We offer small cord reels all the way to large multi-motor units, a wide range of accessories, and hazardous location reels.



## Cable Festoon systems

It's hard to imagine Conductix-Wampfler cable trolleys not being used in virtually every industrial application. They are reliable and robust and available in an enormous variety of sizes and models.



## Push Button Pendants

Our ergonomic pendants are ideally suited for industrial control applications. They are available in a wide range of configurations for overhead cranes and other machinery.



## Radio remote controls

Safe, secure, and reliable radios use the latest in microprocessor technology. Available in several models for overhead crane control and other types of machinery.



## Inductive Power Transfer IPT®

The contact-less system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear.



## Data Transfer: ProfiDAT® | Nexus

Safe & reliable wireless communication using slotted waveguide technology that's PROFIsafe compatible.

Nexus NB for narrow band signal transfer over power conductors



## LJU Automation EMS Controller

Specialized controllers Programmable by parameters, Ideal for Electrified Monorails at automotive plants, with over 1500 in service worldwide. Adaptable for other applications



## BridgeGuard™

Prevents crane to crane and crane to end collisions. IP69K rated for indoor and outdoor use, with a 3 ft to 150 ft range. Compliant with IEC 60068-2-6:2007



## Air & Spring balancers | Air hoists

Conductix-Wampfler offers the full line of ENDO positioning devices. Rugged, reliable steel construction increasing safety and decreasing fatigue and body stress.

# www.conductix.us

## Conductix-Wampfler

has just one critical mission:  
To provide you with energy and  
data transmission systems that  
will keep your operations up  
and running 24/7/365.

To contact your nearest  
sales office, please refer to:  
[www.conductix.contact](http://www.conductix.contact)

