

Application Guidelines

What Does a Balancer Do?

Spring Tool Balancers are time and effort savers, keeping your assembly tools close at hand and easy to grab. Any load correctly suspended will "float" in space and can be moved with minimal effort. With heavy items, the spring tool balancer helps prevent workplace injuries by allowing a more than 350 lb object to be moved up and down with two fingers.



Balancer Safety Warnings

- Do not lift or transport personnel with spring tool balancers.
- 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 balancer.
- Check all applicable industry, trade association, federal, state and local regulations.
- Read all operating instructions and warnings carefully.
- Tool Balancers are designed to be hung and operated vertically. Operating horizontally or at an angle may result in damage to the balancer or an unsafe work environment.
- Always attach secondary support cable(s) to the eyelet provided for additional safety.
- If multiple balancers are used close together, install them at staggered heights to keep them from colliding with one another.

Choosing the Right Balancer

The maximum capacity of the balancer should be as close as possible to the weight of the item that will hang from it. When selecting the appropriate stroke keep in mind that you will want your operator to use 70-80% of the balancer's total available stroke for optimal results. If your work place has the potential to be an explosive environment, you need to consider an Explosion Resistant spring tool balancer.

Do I need an Explosion Resistant Balancer?

Explosion Resistant Balancers are designed to perform in potentially explosive environments that contain either gas, dust, or both without performance issue or safety hazard. If your facility operates with either of these conditions then an Explosion Resistant balancer should be selected.

The ratings for the Explosion Resistant Balancers in this catalog are:

- GAS: ATEX classification II 2G c T6.
- GAS and DUST: ATEX classification 2G c T6 / II 2D c T185°F

Accessories

(Accessories can be user-installed and added to any appropriate balancer.)



ROTARY INSULATING DEVICE

The Rotary Insulating Device (swivel hook) is highly recommended for larger balancer models. It provides electrical isolation for the hook area. The swivel action protects the cable from twisting which prevents premature cable failure and allows for 360 degree rotation without damaging the balancer cable. (Part number TE70477.)

RUBBER GUARD ACCESSORY

The Rubber Guard accessory prolongs the life of the balancer by covering the balancer housing to provide added protection against bumps and dents.

The Rubber Guard Accessory (TE37827) is available and recommended for all balancers in the TE9320-9323 family. (Not recommended for explosion resistant balancers.)



BALANCER EXTENSIONS

Balancer Extensions easily attach to the hook of your balancer, and extend the stroke of your balancer to a length that fits your needs. Extensions should only be used if **vertical** stroke distance is an issue and not to extend the radial range of the balancer.



(Options must be factory installed.)

MANUAL BRAKE OPTION

The Manual Brake option is an operator controlled locking device that allows the operator to lock the balancer at a certain level of extension and then easily unlock when they are ready to again have the load float. This option must be factory installed.

Add ".B" to the part number to specify this option, or indicate ".BG" to combine with the Rubber Guard option.



FRICTION STOP OPTION

The optional Friction Stop (or Brake) option slows down the extension and retraction of the cable, providing the operator more control of their load.

Add ".F" to the part number to specify this option. To combine with the Rubber Guard option, add ".FG," or to combine with the Explosion Resistant option add ".AXF" to the part number.



The Rubber Guard option prolongs the life of the tool balancer by covering the housing to provide added protection against bumps and dents. (Not available on explosion resistant balancers.)

Add~".G"~to~the~part~number~to~specify~this~option.~Add~".BG"~to~the~part~number~to~combine~the~Rubber~Guard~Option~with~the~Manual~Brake~option,~or~add~".FG"~to~the~part~number~to~combine~the~Rubber~Guard~option~with~the~Friction~Stop~option.





LIGHTBALANCERS

.5 lb - 31 lb capacities

Balancer	Capacity Range (lb.)	Weight (lb.)	Stroke (in.)	Friction Stop Option 1	Rubber Guard Option ₂	Explosion Resistant Option 3
TE9300	0.4 - 1	0.9	63			
TE9301	0.9 - 2.2	1.0	63			
TE9311	0.9 - 2.2	1.2	63			TE9311.AX
TE9302	2.2 - 4.4	1.0	63			
TE9312	2.2 - 4.4	1.3	63			TE9312.AX
TE9320	2.2 - 5.5	3.6	79		TE37827	TE9320.AX
TE9303	4.4 - 6.6	1.4	63			
TE9313	4.4 - 6.6	1.6	63			TE9313.AX
TE9321	4.4 - 8.8	4.1	79		TE37827	TE9321.AX
TE9336	4.4 - 8.8	6.9	98			TE9336.AX
TE9346	4.4 - 8.8	6.9	98	TE9346.F		TE9346.AX
TE9322	8.8 - 13.2	4.3	79		TE37827	TE9322.AX
TE9337	8.8- 13.2	7.2	98			TE9337.AX
TE9347	8.8 - 13.2	7.3	98	TE9347.F		TE9347.AX
TE9323	13.2 - 17.6	5.0	79		TE37827	TE9323.AX
TE9338	13.2 - 17.6	7.4	98			TE9338.AX
TE9348	13.2 - 17.6	7.4	98			TE9348.AX
TE9339	17.6 - 22.0	7.5	98			TE9339.AX
TE9349	17.6 - 22.0	7.6	98	TE9349.F		TE9349.AX
TE9340	22.0- 30.9	7.8	98			TE9340.AX
TE9350	22.0 - 30.9	7.9	98	TE9350.F		TE9350.AX
TE9354	8.8 - 15.4	10.8	79	TE9354.F	TE9354.G	TE9354.AX
TE9355	15.4 - 22.0	11.6	79	TE9355.F	TE9355.G	TE9355.AX
TE9356	22.0 - 30.9	12.5	79	TE9356.F	TE9356.G	TE9356.AX

TIP: A Rubber Guard (TE37287) can be added to balancers on this page marked +. The Rubber Guard accessory prolongs the life of the balancer by protecting it from bumps and dents.



balancer, choose a balancer that has a maximum capacity close to the weight you'll be balancing. Using this approach will make your balanced load essentially weightless.

TIP: When sizing your

Visit www.industrialspringbalancer.com for more information.

⁻ All Standard Model balancers come with a Stainless Steel Cable. However, a Nylon Rope option is available in place of the stainless steel cable on all models on this page.

 $_{\rm 1}$ The Friction Stop controls the speed of the drum, and therefore the speed at which the cable is released and retracts. It can be easily adjusted for optimal performance. It may be combined with the Rubber Guard Option (.FG) or Explosion Resistant model (.AXF).

 $_{2}$ The Rubber Guard prolongs balancer life by preventing dents and dings. On smaller models it is available as an accessory and must be ordered separately using part number TE37827. On larger models, it is a factory installed option and must be ordered by adding ".G" to the end of the part number. It may be combined with the Friction Stop option (.FG).

 $_{\scriptscriptstyle 3}$ The Explosion Resistant option for balancers on this page have been engineered specifically for potentially explosive environments where gas is present.

IEDIUM_{BALANCERS}

25 lb - 135 lb capacities

Balancer	Capacity Range (lb)	Stroke (in)	Weight (lb)	Friction Stop Option ₁	Manual Brake Option ₂	Rubber Guard Option ₃	Explosion Resistant Option ₄
TE9361	22.0 - 33.1	79	20.2		TE9361.B	TE9361.G	
TE9357	30.9 - 39.7	79	13.8	TE9357.F		TE9357.G	TE9357.AX
TE9520	26.5 - 44.1	106	28.2				TE9520.AX
TE9362	33.1 - 44.1	78	20.9		TE9362.B	TE9362.G	
TE9401	33.1- 44.1	98	43.3		TE9401.B	TE9401.G	
TE9431	33.1 - 44.1	118	45.7		TE9431.B	TE9431.G	
TE9358	39.7 - 48.5	78	12.9	TE9357.F		TE9358.G	TE9358.AX
TE9363	44.1 - 55.1	78	21.6		TE9363.B	TE9363.G	
TE9432	44.1 - 55.1	118	45.7		TE9432.B	TE9432.G	
TE9359	48.5 - 55.1	78	14.3	TE9359.F		TE9359.G	TE9359.AX
TE9402	44.1 - 66.1	98	46.5		TE9402.B	TE9402.G	
TE9502	44.1 - 66.1	82	27.7				TE9502.AX
TE9521	44.1 - 66.1	106	27.7				TE9521.AX
TE9364	55.1 - 66.1	78	22.4		TE9364.B	TE9364.G	
TE9433	55.1 - 77.2	118	48.9		TE9433.B	TE9433.G	
TE9365	66.1 - 77.2	78	23.3		TE9365.B	TE9365.G	
TE9403	66.1 - 88.2	98	46.5		TE9403.B	TE9403.G	
TE9503	66.1 - 88.2	82	33.5				TE9503.AX
TE9522	66.1 - 88.2	106	34.8				TE9522.AX
TE9366	77.2 - 99.2	78	24.2		TE9366.B	TE9366.G	
TE9434	77.2 - 99.2	118	53.9		TE9434.B	TE9434.G	
TE9404	88.2 - 110.2	98	48.5		TE9404.B	TE9404.G	
TE9435	88.2 - 110.2	118	52.1		TE9435.B	TE9435.G	
TE9504	88.2 - 110.2	82	34.1				TE9504.AX
TE9523	88.2 - 110.2	106	33.9				TE9523.AX
TE9367	99.2 - 121.3	78	24.9		TE9367.B	TE9367.G	
TE9405	110.2 - 132.3	118	50.8		TE9405.B	TE9405.G	
TE9436	110.2 - 132.3	118	54.4		TE9436.B	TE9436.G	

TIP: The Friction Stop option controls the speed at which the cable extends and retracts. Adjustment is easy and precise, making loads even easier to manage.



The factory installed Friction Stop option controls the speed of the drum, and therefore the speed at which the cable is released and retracts. It can be easily adjusted for optimal performace, and may be combined with the Rubber Guard option (.FG) or the Explosion Resistant Option (.AXF).



[.] The factory installed Manual Brake option is an operator controlled lock that holds the cable length at a chosen point. It may be combined with the Rubber Guard factory installed option (.BG).

The factory installed Rubber Guard option on these tool balancers prolongs the life of the balancer by preventing dents and dings. It may be combined with the Friction Stop option (.FG) or the Manual Brake option (.BG).

[,] The Explosion Resistant option for balancers on this page have been engineered specifically for potentially explosive environments where gas and/or dust are present.

HEAVY BALANCERS

125 lb - 400 lb capacities

Balancer	Capacity Range (lb)	Stroke (in)	Weight (lb)	Manual Brake Option₁	Rubber Guard Option ₂	Explosion Resistant Option ₃
TE9505	110.2 - 132.3	82	36.8	TE9505.B		TE9505.AX
TE9524	110.2 - 132.3	82	36.5	TE9524.B		TE9524.AX
TE9368	121.2 - 143.3	78	27.1	TE9368.B	TE9368.G	
TE9411	132.3 - 154.3	98	56.3	TE9411.B	TE9411.G	
TE9441	132.3 - 154.3	118	56.3	TE9441.B	TE9441.G	
TE9506	132.3 - 154.3	82	34.1	TE9506.B		TE9506.AX
TE9525	132.3 - 154.3	106	34.6	TE9525.B		TE9525.AX
TE9369	143.3 - 165.3	78	29.1	TE9369.B	TE9369.G	
TE9412	154.3 - 176.4	98	58.9	TE9412.B	TE9412.G	
TE9442	154.3 - 176.4	118	58.9	TE9442.B	TE9442.G	
TE9507	154.3 - 176.4	82	39.0	TE9507.B		TE9507.AX
TE9370	165.3 - 198.4	78	35.4	TE9370.B	TE9370.G	
TE9413	176.4 - 198.4	98	61.5	TE9413.B	TE9413.G	
TE9443	176.4 - 198.4	118	61.5	TE9443.B	TE9443.G	
TE9508	176.4 - 198.4	82	35.7	TE9508.B		
TE9444	176.4 - 220.5	118	62.7	TE9444.B	TE9444.G	
TE9414	198.4 - 220.5	98	62.7	TE9414.B	TE9414.G	
TE9509	198.4 - 220.5	82	37.0	TE9509.B		TE9509.AX
TE9371	198.4 - 220.5	78	37.9	TE9371.B	TE9371.G	
TE9451	220.5 - 253.5	118	80.7	TE9451.B	TE9451.G	
TE9422	220.5 - 253.5	98	80.7	TE9422.B	TE9422.G	
TE9452	253.5 - 286.6	118	81.0	TE9452.B	TE9452.G	
TE9423	264.6 - 308.6	98	84.9	TE9423.B	TE9423.G	
TE9453	286.6 - 308.6	118	84.9	TE9453.B	TE9453.G	
TE9424	286.6 - 308.6	98	85.6	TE9424.B	TE9424.G	
TE9454	308.6 - 330.6	118	85.6	TE9454.B	TE9454.G	
TE9425	308.6 - 330.6	98	90.1	TE9425.B	TE9425.G	
TE9455	308.6 - 352.7	118	90.1	TE9455.B	TE9455.G	
TE9426	352.7 - 396.8	98	95.2	TE9426.B	TE9426.G	

The factory installed Rubber
Guard option will
prolong balancer
life by providing additional protection
for the exterior of
the balancer.



The Manual Brake is an operator controlled cable stop that can be used to hold the balancer at a length chosen by the operator, and then unlock to retract or change lengths at their discretion.

 $_{
m 1}$ The factory installed Manual Brake option is an operator controlled lock that holds the cable length at a chosen point. It can be combined with the Rubber Guard option (.BG).

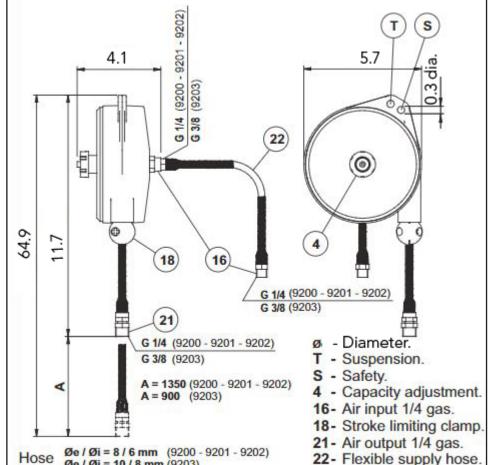
² The factory installed Rubber Guard option on these tool balancers prolongs the life of the balancer by preventing dents and dings. It can be combined with the Manual Brake option (.BG).

 $_{3}$ The Explosion Resistant option for balancers on this page have been engineered specifically for potentially explosive environments where gas and/or dust are present.

Air Hose BALANCERS 0.88 - 11 lb capacities



Air hose balancers are designed to be compatible with pnuematic tools. Keeping tools off the ground and always within operator reach increases safety and efficiency in your workplace.



The Rotary Insulating Device is an accessory that protects the the balancer cables from untwisting and allows the tool the freedom to turn 360 degrees without damage.

- Units are in inches unless otherwise specified

Øe / Øi = 10 / 8 mm (9203)

Balancer	Capacity Range (lb)	Stroke (in)	Weight (lb)
TE9200	.9 - 1.8	53	2.8
TE9201	1.7- 3.3	53	2.9
TE9202	2.7 - 5.5	53	3.0
TE9203	6.6 - 11.0	35	3.0



Industrial Spring Balancer is a T. J. Snow company that distributes and repairs TECNA® brand tool balancers ranging in capacities from .5 - 400 lb from our extensive ready-to-ship stock. Balancers available include standard, air hose, and explosion resistant options with additional safety features, accessories, and repair services available as needed.



For more information on tool balancers and repairs, contact us at: