

InteLIFT® Series Balancers

Intelligent lifting system

InteLIFT® is an intelligent assist device (IAD); it converts intuitive operator input into smooth, effortless up / down motion. The force-sensing control handle responds to operator input quickly and seamlessly for precise positioning of loads.

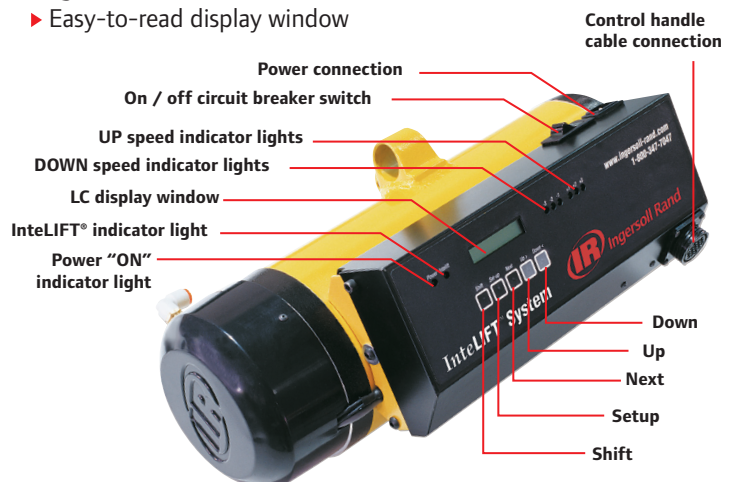
The Ingersoll Rand InteLIFT Balancer **ADVANTAGE**

- ▶ **Self-balancing:** intuitive speed control for different weights
 - ▶ **Hands-on maneuvering:** InteLIFT senses force input of the user and translates that to assisted lifting / lowering of the load without the need for up / down buttons
 - ▶ **Float mode:** throughout entire range of motion
 - ▶ **Robust design:** electric over air design allows continuous duty with minimal maintenance
 - ▶ **Part present:** eliminates potential to accidentally drop part
 - ▶ **3-Speed select:** enables speed selection to match application and operator comfort level
- Same green features as the Pneumatic Balancer**
- ▶ **Low air consumption**
 - ▶ **Clean, oil-free operation**



Integrated InteLIFT® control module

- ▶ Integral element of the balancer itself
- ▶ Simple programming of functions with a keypad and indicator lights
- ▶ Easy-to-read display window



Ergonomic control handle



InteLIFT® Series Balancers

Control options



IB

InteLIFT® basic unit, without control

Features:

- ▶ No controls
- ▶ Standard InteLIFT features

Suitable for:

- ▶ Integration with end effector



IA

InteLIFT® with pendant control and pre-coil cable

Features:

- ▶ InteLIFT ergonomic pendant control handle with up/down rocker switch
- ▶ Precise, high-speed positioning
- ▶ 3.7 m twin bonded pre-coil cable including pre-coil air hose for handling device integration

Suitable for:

- ▶ Pick and place
- ▶ Precision assembly
- ▶ Floating capacity



IC

InteLIFT® with force-sensing control (without up/down buttons)⁽¹⁾

Features:

- ▶ InteLIFT ergonomic force-sensing control handle
- ▶ Intuitive up/down control
- ▶ 3.7 m twin bonded pre-coil cable including pre-coil air hose for handling device integration

Suitable for:

- ▶ High-cycle pick and place
- ▶ Precision assembly
- ▶ Multiple load capacity



IS

InteLIFT® with pendant control and straight cable

Features:

- ▶ InteLIFT ergonomic pendant control handle with up/down rocker switch
- ▶ Precise, high-speed positioning
- ▶ 3.7 m straight electric cable

Suitable for:

- ▶ Pick and place
- ▶ Precision assembly
- ▶ Floating capacity

(1) IC control option includes force sensing load cell which must be mounted to end effector for proper operation

Technical specifications

Model no. / B control	Model no. / IA control	Model no. / IC control	Model no. / IS control	SWL @ 500kPa (kg)	SWL @ 600kPa (kg)	SWL @ 700kPa (kg)	Lifting travel (m)	Body diameter (mm)	Weight (kg)
Single wire rope									
IBW015080 ⁽²⁾	IAW015080 ⁽²⁾	ICW015080 ⁽²⁾	ISW015080 ⁽²⁾	49	58	68	2.0	165	27
IBW020120	IAW020120	ICW020120	ISW020120	65	78	91	3.0	254	33
IBW033080	IAW033080	ICW033080	ISW033080	107	128	150	2.0	254	33
IBW050080	IAW050080	ICW050080	ISW050080	162	194	227	2.0	254	54
Reeved wire rope									
IBW040060	IAW040060	ICW040060	ISW040060	130	156	182	1524	254	30
IBW066040	IAW066040	ICW066040	ISW066040	114	256	300	1016	254	35
IBW100040	IAW100040	ICW100040	ISW100040	324	388	454	1016	254	57

(2) Not available with Z Stop option.

See model identification codes on following page.

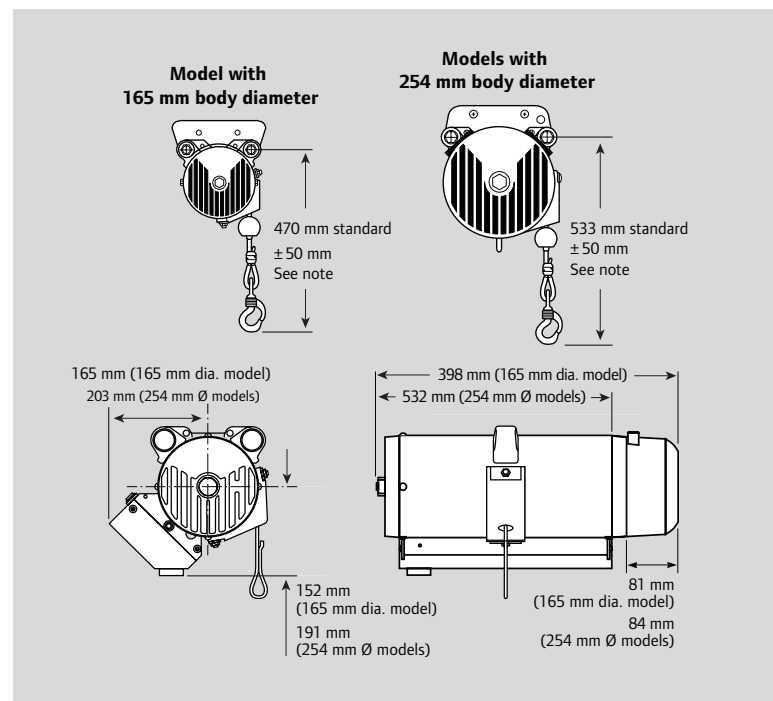
IntelIFT® Series Balancers

Model identification codes

Example: IAW020120 **A2 2 S 0**

Option code	Description
Suspension	
00	No suspension
S2	IR ZRS2 steel rail
S3	IR ZRS3 steel rail
HM	Hook mount
TR ⁽³⁾	T-Rail / I-Beam
AT	IR ZRAT alu. rail
A1	IR ZRA1 alu. rail
A2	IR ZRA2 alu. rail
K1	KBK1 (Demag)
K2	KBK2 (Demag)
Input voltage	
1	115V 50/60 Hz 1Ph
2	230V 50/60 Hz 1Ph.
Z-stop	
0	None
S	Z-stop
Power cord	
0	None (plug / no wire)

Dimensions



Note: add 25 mm in length for Z-Stop option. Add 152 mm for reeved units.

IntelIFT® integrated solutions

A complete range of end effectors can be used with IntelIFT controls for greater efficiency, from the simplest to the most complex device.

The IntelIFT unit incorporates a fully grounded, fault-protected electrical system, with fused circuits and memory that automatically reinstates function selections following a power interruption. In every respect, the Ingersoll Rand IntelIFT air balancer is an essential solution for a more productive workplace; empowering individuals to work comfortably and effectively, significantly contributing to product and process quality.

The closed-loop feedback system delivers precise, responsive motion control suitable for a wide range of applications in:



Vehicle assembly



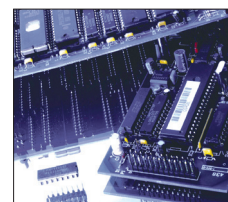
General industry



Beverage and warehouse



Biotechnology



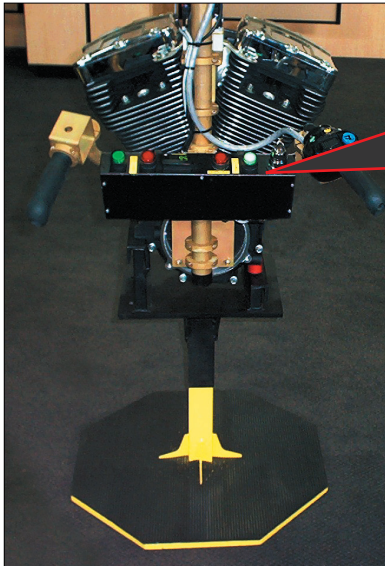
Electronics



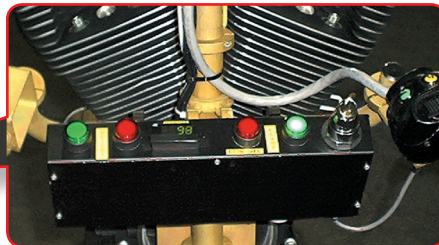
Aerospace

InteLIFT® Series Balancers

InteLIFT® integrated solutions



The engine-handling device shown uses the unique features of the InteLIFT balancer. Features include: auto clamp, interlock, up control disable, weight sensing with automatic alarm, and keyed lockout.



Error-proof assembly:

The device digitally displays the weight of the part picked up. Device will not allow the operator to move the part if not clamped properly. The key allows the operator the ability to lock the device. Allows 100 percent visual inspection of the assembly.

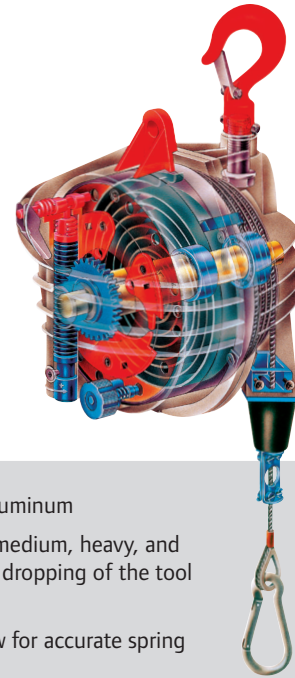
The warehouse-handling device shown is known for its versatility. The device mimics the human motion of picking up a part and placing it down. The same device can be used to pick up parts such as totes, trays, boxes, and milk crates. The self-balance feature allows the same device to pick up parts of different weights and sizes.



B-Series Spring Balancers

Features

B-Series spring balancers compensate weight of your power tools or other manufacturing equipment and enable operator to lift or lower it with minimal effort. Series BIDS, BHD and BSD(L) feature “Zero Gravity” effect allowing virtually effortless load repositioning all along cable travel.



The Ingersoll Rand spring balancer **ADVANTAGE**

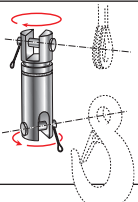
- ▶ **60 models** from which to choose
- ▶ **Five different series** to meet all balancing requirements
- ▶ Covers weight-balancing needs from **0.4 to 180 kg**
- ▶ Lifts ranging from **1.6 to 3 m**
- ▶ **“Gravity-free”** effect on intermediate, heavy, and super-duty models allows user to move tool with minimal effort
- ▶ Made of **rugged die-cast aluminum**
- ▶ **Safety locking device** on medium, heavy, and super-duty models prevents dropping of the tool should the spring fail
- ▶ **Easy-to-use controls** allow for accurate spring adjustment

Balancers product information

Standard equipment / Series	BLD Series	BMD Series	BIDS Series	BHD Series	BSD(L) Series
Stainless steel cable and anti-friction cable guide					
Auxiliary safety suspension					
Adjustable stroke limiting device					
Inert spring drum assembly					
Adjustable capacity (by means of a worm screw for BIDS, BHD & BSD Series)					
Rotary load hook	—	—	Option: OPTRI		
Automatic safety brake acting in case of spring breakage	—				
Top shackle for increased convenience (1)			—	—	—
Rotary upper suspension with safety hook on ball bearing	—	—			
Locking device to block the load at any height	—	/ —			
Tapered drum rotating on ball bearings for zero gravity effect	—	—			
Optional floor control locking	—	—	—	BIL-7343	BIL-3224

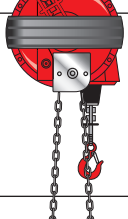
1) For retrofit or replacement use BIL-23223 for BLD Series, and BIL-23224 for BMD Series (BMD5, BMDLN and BMDLLN).

Options



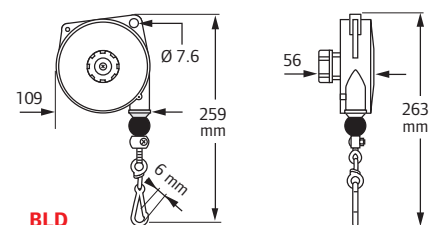
For rotating bottom hook, please order part no. OPTRI to install it on BIDS balancers. For BHD and BSD(L) Series, amend balancer part no. with “OPTRI”

Locking/unlocking device for control from the floor:
Part no. BIL-7343 (for BHD Series).
Part no. BIL-3224 (for BSD and BSD(L) Series)

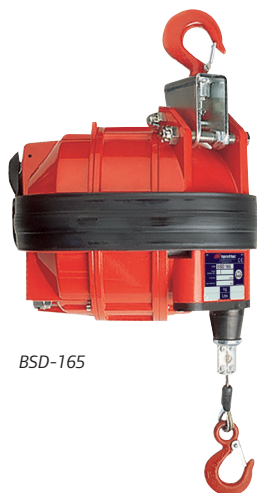


Light duty balancers

Model no.	Load capacity (kg)	Max. stroke (m)	Weight (kg)
BLD-1	0.4 - 1.0	1.6	0.6
BLD-2	1.0 - 2.0	1.6	0.6
BLD-3	2.0 - 3.0	1.6	0.7



B-Series Spring Balancers



BSD-165



BHD-20



BIDS-14



BMDLN-4



BMDS-6

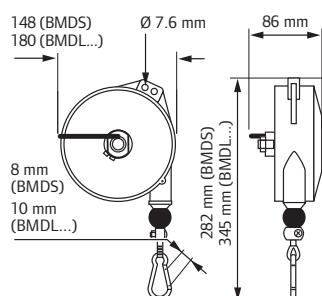
Medium and heavy duty balancers

Model no.	Load capacity (kg)	Max. stroke (m)	Weight (kg)
BMDS-2	1.0 - 2.5	2.0	2.0
BMDS-4	2.0 - 4.0	2.0	2.0
BMDS-6	4.0 - 6.0	2.0	2.3
BMDS-8	6.0 - 8.0	2.0	2.5
BMDLN-4	2.0 - 4.0	2.5	2.9
BMDLN-6	4.0 - 6.0	2.5	3.2
BMDLN-8	6.0 - 8.0	2.5	3.5
BMDLN-10	8.0 - 10	2.5	3.7
BMDLN-12	10.0 - 14	2.5	4.0
BMDLLN-4 ⁽¹⁾	2.0 - 4.0	2.5	3.0
BMDLLN-6 ⁽¹⁾	4.0 - 6.0	2.5	3.3
BMDLLN-8 ⁽¹⁾	6.0 - 8.0	2.5	3.6
BMDLLN-10 ⁽¹⁾	8.0 - 10	2.5	3.8
BIDS-7	4.0 - 7.0	2.0	5.0
BIDS-10	7.0 - 10	2.0	5.5
BIDS-14	10 - 14	2.0	5.5
BIDS-18	14 - 18	2.0	6.5
BIDS-22	18 - 22	2.0	6.0
BIDS-26	22 - 25	2.0	6.6
BHD-15	10 - 15	2.0	10.3
BHD-20	15 - 20	2.0	10.6
BHD-25	20 - 25	2.0	11.2
BHD-30	25 - 30	2.0	11.5
BHD-35	30 - 35	2.0	11.8
BHD-45	35 - 45	2.0	12.4
BHD-55	45 - 55	2.0	12.5
BHD-65	55 - 65	2.0	13.6

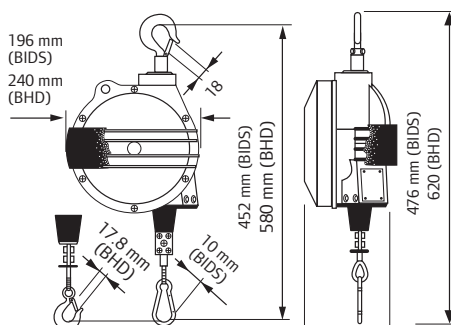
Super duty balancers

Model no.	Load capacity (kg)	Max. stroke (m)	Weight (kg)
BSD-20	15 - 20	2.5	19.0
BSD-30	20 - 30	2.5	19.8
BSD-40	30 - 40	2.5	20.8
BSD-50	40 - 50	2.5	23.9
BSD-60	50 - 60	2.5	25.4
BSD-70	60 - 70	2.5	26.8
BSD-80	70 - 80	2.5	27.8
BSD-90	80 - 90	2.5	28.8
BSD-100	90 - 100	2.5	35.6
BSD-120	100 - 120	2.5	38.8
BSD-140	120 - 140	2.5	41.8
BSD-150	130 - 150	2.5	44.5
BSD-165	150 - 165	2.5	48.2
BSDL-20	15 - 20	3.0	19.1
BSDL-25	20 - 25	3.0	19.9
BSDL-35	25 - 35	3.0	20.9
BSDL-45	35 - 45	3.0	23.8
BSDL-50	40 - 50	3.0	23.9
BSDL-60	50 - 60	3.0	25.3
BSDL-70	60 - 70	3.0	26.7
BSDL-80	70 - 80	3.0	28.0
BSDL-90	80 - 90	3.0	29.0
BSDL-100	90 - 100	3.0	36.8
BSDL-115	100 - 115	3.0	38.7
BSDL-130	115 - 130	3.0	39.9
BSDL-140	130 - 140	3.0	42.8
BSDL-150	140 - 150	3.0	45.6
BSDL-180	160 - 180	3.0	50.0

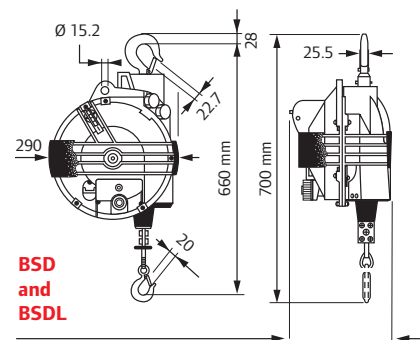
(1) Locking type balancer: sharp pull on the wire rope will lock it in position allowing attached load to be manipulated freely – without weight compensation. Pulling again will unlock the wire rope and resume weight compensation.



BMDS, BMDLN and BMDLLN



BIDS and BHD



BSD and BSDL

221 mm (BSD-20 to BSD-60 and BSDL-20 to BSDL35)
270 mm (BSD-70 to BSD-100 and BSDL-45 to BSDL-100)
355 mm (BSD-120 to BSD-165 and BSDL-115 to BSDL-180)