

Knight air balancer is the most-used balancer in the world.
It has various controllers and options.
Please refer to following contents to select it.



1. Controllers

1 – (1) You can control balancer at UP/DOWN button
like hoist [UP/DOWN controller]

* This control module doesn't have "balance" mode.
However, you can push it by hand and uphold it after UP/DOWN
movement.
This is the different between balancer and hoist.



BCS3017 . . . Straight hose

BCS3320 . . . Coiled hose

* Hoisting speed can be changed by adjusting screw which is located
beneath the module.

Each hoses are 3m.

1 – (2) This control is activated by an up or down movement of the control handle.
[Feather Touch Balance Control Module]



BCS2214 . . . Vertical Handle (Handle length 470mm)

BCS2213 . . . Horizontal Handle (Handle length 356mm)

* Hoisting speed can be changed by adjusting screw which is
located beneath the module.



1 – (3) It supports a constant weight at zero gravity. [Single Balance Control Module]



BCS2018

BCS2018 . . . Max Load 60kg
 BCS2090 . . . Max Load 60kg~110kg
 BCS2322 . . . Max Load 110kg~250kg
 * Max Load can be changed by adjusting screw which is located beneath the module

BCS2090 / BCS2322

* This control module can be used at balance mode for only one kind load.

If you need to use the balance mode at 2 kinds (with load/no load), please select dual balance control modules.

1 – (4) It supports a constant weight at zero gravity. Used for near capacity or heavy weight applications greater [Dual Balance Control Module]



BCS2323 . . . Straight Hose

BCS2215 . . . Coiled Hose

* Max Load can be changed by adjusting screw which is located beneath the module

Each hoses are 3m

BCS2214 . . . Vertical Handle (Grip length 470mm)

BCS2213 . . . Horizontal Handle (Grip length 356mm)

* Max Load can be changed by adjusting screw which is located beneath the module

1 – (5) Move up and down by hand for 3-4 kinds loads [3 pressures /4 pressures balance control module]

【Control Module】

BG-3 . . . 3 pressures balance module

BG-4 . . . 4 pressures balance module

* It's manufactured product.

【Control Switch】

G-3 . . . 3 pressures exchange switch

G-4 . . . 4 pressures exchange switch

* BG-3+G-3 if it is 3 pressures

BG-4+G-4 if it is 4 pressures

Control BOX

3 buttons (G-3)
 56x47x138



Usage example (BG-3) :
 No load pressure1+Load pressures2---To change the loads, push the each buttons.

1 – (6) Make it zero balance mode at unspecified loads automatically. It can be move up/down by hand. [Automatic Balance Control Module]

【Control Module】

1PB . . . 3 buttons(UP/DOWN/BALANCE button)

Type 5 . . . 2 buttons(UP/DOWN button)

* It's manufactured product



【Control Switch】

Grip switch

(Coiled hose 2000mm)

2 buttons(G-2) 46x47x138

3 buttons(G-3) 56x47x138



Button Switches

(Coiled hose 2000mm)

Size 60x110x30



2 buttons(B2)

3 buttons(B3)

Slide Grip Switch

(Coiled hose 2000mm)

Size 55x206x70



UP/DOWN action(GS)

With button(SB)

1PB Balance mode:

1. Push "Balance" button after lifting loads by pushing "UP" or "DOWN" button, it is fixed at sensed load and you can operate it by hand.
2. "UP""DOWN" speed can be adjusted separately.
3. Usage range is 10%~80% of air balancer's max load (10kg~80kg if the max load is 100kg)
4. UP /DOWN is locked after pushing "UP""DOWN", before pushing "BALANCE".
5. You can select it "with no load balance" or "without no load balance" (With no load balance: B1 / Without no load balance: B0)

Type 5 Balance mode:

1. It is same as "1PB Balance" if get off "BALANCE" button from 1PB Balance
2. Push "UP" or "DOWN" button to lift the load. If you release your finger from the buttons, it becomes zero balance mode automatically depends on the loads' weight. You can operate it by hand.

☆Indication method of the model numbers

Ex : Balancer KBA150-076+1PB+G-3+with no load balance

KBA150-176 + 1PB-G3-B1

1 – (7) Optional : Applied circuit (Controlled by Interlock or Electropneumatic)

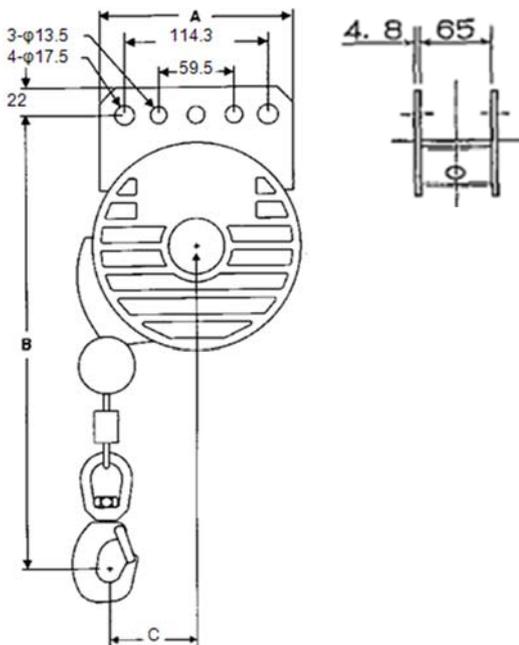
- (A) Sensing no load interlock: The circuit accept the direction to un-clamp or vacuum-off only it is no load. Please refer to "Sensing no load interlock" for its details.
- (B) Use electro-pneumatic regulator to switch the balance by control equipment.
- (C) Switch the balance by using solenoid valve.
- (D) Switch the balance by interlock with clamp or vacuum signal.

The above options need to be designed specifically. Please contact us.

NOTE:

To use Knight Air Balancer, for Balance mode, we recommend models bellow;
KBA100-028, KBA150-076, KBA225-073, KBA225-110, KBA350-073,
KBC150-070, KBC200-110, KBC225-067, KBC350-067
The other model, need almost 10 % manipulating force for operator.

2. Optional parts



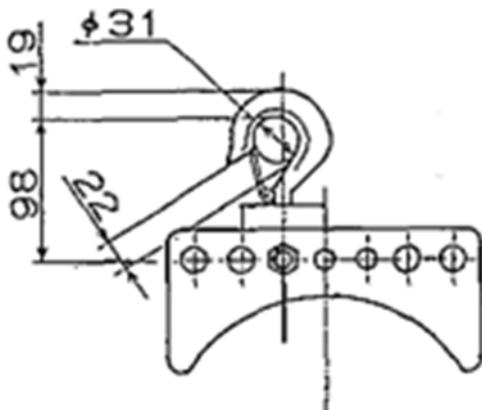
Standard Knight air balancer equips flange system like as the left drawing.

If you install it by yourself, please consider the strength.

We supply various optional parts to hang Knight air balancer.

Please select it depends on your needs.

2 – (1) Top Mount Hook : Model# BPA2016

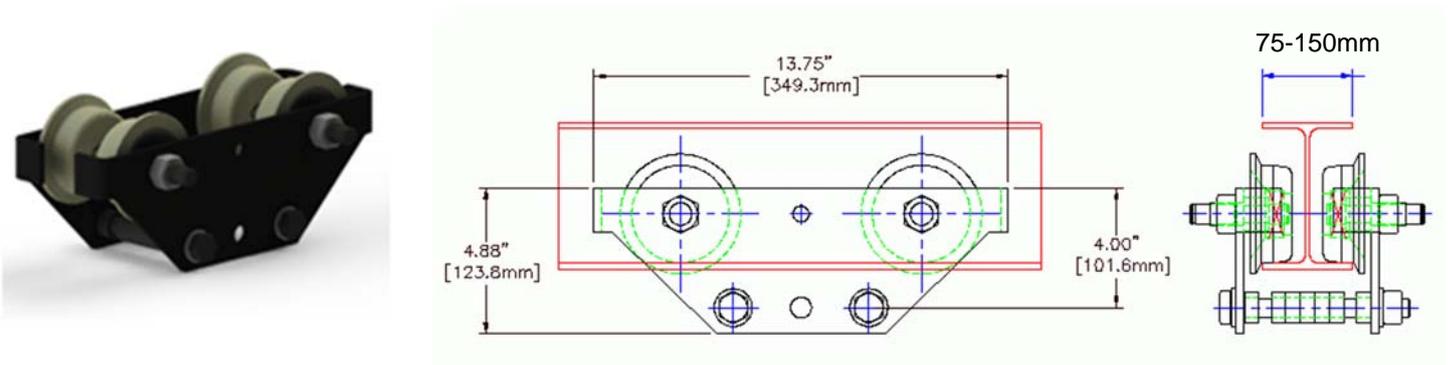


It is installed by hook.

This product doesn't fit to the balancer which has circuit BOX(1-(5) or 1-(6)).

Please select it with controller from 1-(1) to 1-(4).

2 – (2) I-beam trolley : Model# MRTA2013



It is installed to commercially available i-beam.

Its flange size is 75mm~150mm.

2 – (3) Knight rail trolley: Model#

MRTA4001 (4" aluminum)、MRTA7706 (8" aluminum)、
MRTA5301 (4" steel)、MRTA5501 (6" steel)、MRTA5706 (7" steel)



They can be installed into Knight rail directly.

2 – (4) The other applications



Banjo Arm

JB Arm

Stacking Arm

Various applications can be manufactured by using Knight air balancer.

Please contact us or distributors for its details.

3. Selection of Knight air balancer



Model #	Max load	Max load	Lift	Weight	Connecti ng gauge
	0.7MPa時	0.4MPa時	Travel		
KBA100-028	45kg	25kg	711mm	15kg	RC 3/8
KBA150-073	68kg	38kg	1930mm	22kg	
KBA225-073	102kg	58kg	1854mm	28kg	
KBA225-110	102kg	58kg	2794mm	40kg	
KBA350-073	159kg	90kg	1854mm	35kg	
KBA500-080	227kg	129kg	2032mm	51kg	
KBA700-054	318kg	181kg	1371mm	41kg	
KBC150-070	68kg	38kg	1778mm	23kg	
KBC200-110	91kg	50kg	2794mm	42kg	
KBC225-067	102kg	58kg	1702mm	29kg	
KBC350-067	159kg	90kg	1702mm	35kg	
KBC500-080	227kg	129kg	2032mm	52kg	
KBC700-052	318kg	181kg	1320mm	43kg	

Please select Knight air balancer based on the above diagram.

Please select it well in advance.

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