Dual Drum “SDS”







Dual Drum “SDS” Balancer



Dual Drum SDS - front view



Dual Drum - side view



Dual Drum - side view 2



Safety chain hook

Dual Drum Air Balancer with SDS Technology

Series: DKBC500S / DKBC700S

Knight designed the **"Dual Drum"** air balancer with integrated **Safety Drop Stop "SDS"** technology and a proprietary dual-chain design. This type of balancer is typically used in applications that involve handling **bulky or oversized parts**. With long parts, a single suspension point cannot keep the load steady – some applications require the gripper to stay square to the part, and **2 hook points** keep the tool from rotating out of position.

With **2 synchronized drums in a single housing**, the Dual Drum balancer improves balancing of off-center loads and loads with uneven weight distribution by lifting and balancing from **2 separate suspension points**.

The balancer comes standard with **External Retract Control**. Optional travel limit switches are also available.

Air balancers are used in applications that require **"float" mode** – allowing final positioning of the load **hands-free**. Lifting and lowering speeds are faster than a conventional hoist, and the load can be "feathered" into position. The ergonomic handle has color-coded thumb levers.

Knight balancer chain is **special Grade 80 chain** with a proprietary surface treatment, extending chain life by up to **300%** compared with standard Grade 80 chain.

***DKBCS Series models:** DKBC500S-078 & DKBC700S-048. Each model is available in 6 configurations (chain size 33/38 + EX/LS1/LS2).

Features & Benefits

Features

- CE compliant upon request
- Redundant dual-chain design for safe operation:
- 2 synchronized drums in one housing
- Hands-free operation
- Standard "Float" mode
- Standard External Retract control
- Requires clean, dry, non-lubricated air
- Maximum balanced load: **700 lbs [318 kg]**
- Standard travel: up to **78 in [1,981 mm]**

Benefits & Options

- Balances off-center or bulky loads from 2 suspension points
- Prevents gripper rotation when handling long parts
- Optional limit switches (1 or 2)
- Optional High Relieving & Feathertouch controls
- Multiple suspension kits available
- Special Grade 80 chain – up to 300% longer life
- Compatible with Knight rotary unions

- Ideal for installing car hoods, windshields, seats...

DKBCS Series Specifications

***Model code key:**

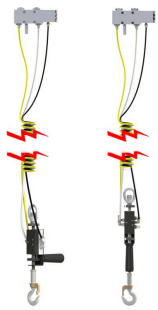
- **33 / 38**: Chain size / distance between the 2 hook points
- **EX**: External Retract (no limit switch)
- **LS1**: Limit Switch 1 (1 limit switch)
- **LS2**: Limit Switch 2 (2 limit switches)

Model	Load Capacity		Travel		Configuration
lbs	kg	in	mm		
DKBC500S-078-33-EX	500	227	78	1,981	Chain 33 / External Retract
DKBC500S-078-33-LS1	500	227	78	1,981	Chain 33 / 1 Limit Switch
DKBC500S-078-33-LS2	500	227	78	1,981	Chain 33 / 2 Limit Switch
DKBC500S-078-38-EX	500	227	78	1,981	Chain 38 / External Retract
DKBC500S-078-38-LS1	500	227	78	1,981	Chain 38 / 1 Limit Switch
DKBC500S-078-38-LS2	500	227	78	1,981	Chain 38 / 2 Limit Switch
DKBC700S-048-33-EX	700	318	48	1,219	Chain 33 / External Retract
DKBC700S-048-33-LS1	700	318	48	1,219	Chain 33 / 1 Limit Switch
DKBC700S-048-33-LS2	700	318	48	1,219	Chain 33 / 2 Limit Switch
DKBC700S-048-38-EX	700	318	48	1,219	Chain 38 / External Retract
DKBC700S-048-38-LS1	700	318	48	1,219	Chain 38 / 1 Limit Switch
DKBC700S-048-38-LS2	700	318	48	1,219	Chain 38 / 2 Limit Switch

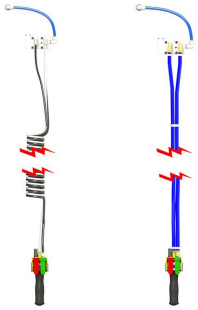
Pneumatic Controls



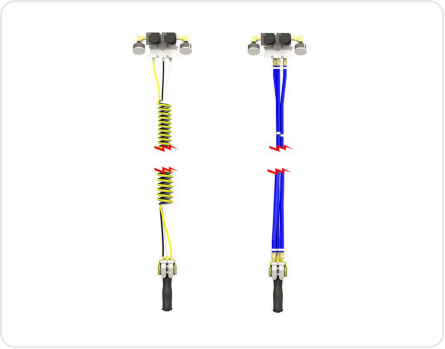
Knight Rotary Union 7 ports 1/8" NPT – 1 MPa BPA2001 / BPA2002 1,000 lbs [454 kg] Rotary



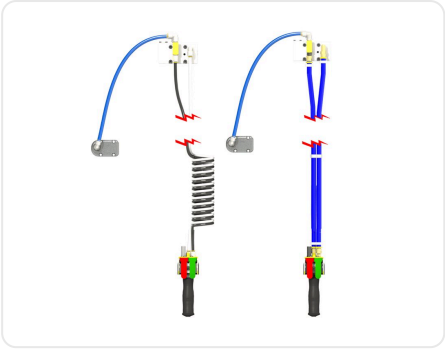
Feather-Touch Handle Horizontal / vertical handle BCS2213 / BCS2214 12.4 lbs [5.64 kg] 100lbs



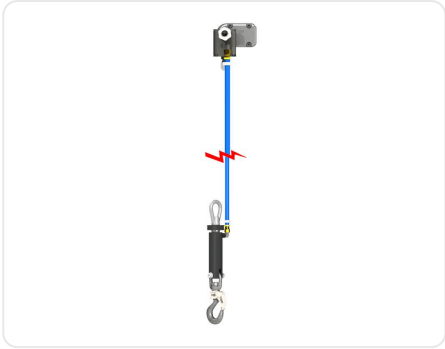
Up/Down Pendant + Manifold Kit Straight / coiled hose 10 ft [3 m] BCS3017 / BCS3320 2 buttons Standard



Dual Control Handle Supports 2 zero-gravity weights BCS2215 / BCS2323 10.2 lbs [4.63 kg] Dual



Tandem Up/Down Pendant for tandem & dual drum balancers BCS2326 / BCS3330 10 ft [3 m] Tandem



High Relieving Module 2090: ≤250 lbs / 2322: ≤500 lbs BCS2090 / BCS2322 10 ft [3 m] Heavy

Chain Attachments & Gauges



Chain Wear Gauge for 4mm & 5mm chain KSAA1003 0.87 lbs [0.39 kg] Gauge



Safety Chain Shackle 360° swivel, connects the safety chain BPA2410 2.7 lbs [1.23 kg] Shackle



Balancer Chain Hook Crosby® Bullard self-closing, 360° swivel BPA2113 2.4 lbs [1.08 kg] Hook



Quick-Disconnect Swivel 360° swivel, with safety chain pin BPA2035 4.8 lbs [2.22 kg] 700lbs

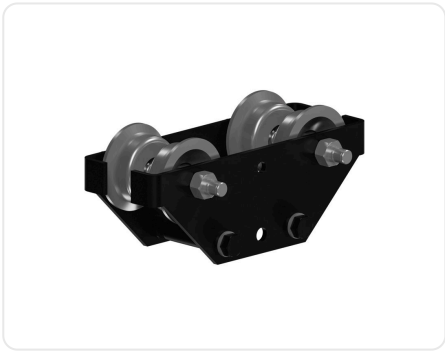
Load Trolleys



Load Trolley – Rail RAD6110 Max. load 1,600 lbs [725 kg] MRTA6106 6 lbs [2.72 kg] RAD6110



Load Trolley – Rail RAD7510 Max. load 3,000 lbs [1,360 kg] MRTA7706 9 lbs [4.08 kg] RAD7510

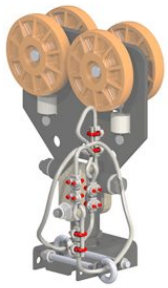


W-Beam Load Trolley Steel wheels, for W/I-Beam RTA2013 23 lbs [10.4 kg] W-Beam · I-Beam

Safety Cable Kits



Standard Safety Cable 4 Crosby® clips + 2 thimbles RWA4133 6 ft [1.8 m] / 6mm Standard



Eye Bolt Safety Cable Eye bolt safety cable kit FDA4133 10 ft [3 m] / 6mm Eye Bolt



Oval Sleeve Safety Cable 2 oval copper sleeves + 2 thimbles NICORWA4133 2 lbs [0.91 kg] Oval

Technical Documents

Brochures & Spec Sheets

- Dual Drum "SDS" Balancer – Spec Sheet PDF
- Knight Global Air Balancer Brochure PDF
- Knight Rotary Union Brochure PDF

Manuals & Operating Instructions

- Balancer Operation Manual 2019 (English) PDF
- Air Balancer Troubleshooting Guide 2021 PDF
- Air Balancer Troubleshooting Guide 2017 PDF
- Balancer Periodic Inspection Form PDF

Installation & Connection Guides

- Air Connection Diagram – Logic Box PDF
- Air Connection Diagram – Manifold PDF
- Eye Bolt Safety Cable Installation Guide PDF
- External Safety Retract Control Information PDF
- Knight Rotary Union Guide PDF

FULL-SHARP AUTOMATIZED VN (FULLSHARP)

Authorized distributor of Knight Global air balancers and lifting equipment in Vietnam

For help configuring a Dual Drum SDS Balancer for your project (chain size, travel, limit switches, etc.), please contact a FULLSHARP representative for a quotation and detailed design drawings.

Contact us for consultation and a quotation

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Specifications may vary with the ordered configuration. Please contact FullSharp for exact details.