



Handling Devices

Made for the interaction of man and machine

Ingersoll Rand offers:

- ▶ Standard and custom solutions
- ▶ Manual and powered tilt and rotation packages
- ▶ Innovative designs from the simplest to the most complex device

Handling Devices

The Ingersoll Rand handling device **ADVANTAGE**

- ▶ **Safety:** most Ingersoll Rand handling devices come equipped with a safety interlock system that will not allow the operator to accidentally disengage the part during transfer
- ▶ **Ergonomics:** handling devices can be designed with manual or powered tilt and rotation packages, which allow the operator to orient the part to the proper position with minimal effort
- ▶ **Flexibility:** through a variety of pneumatic packages, each system is matched to a control package that is tailored to the lifting and positioning task



Standard 4-cup vacuum handling device

- ▶ Safety Interlock prevents accidental release of load
- ▶ Improve productivity through effective box or flat part pickup, orientation, transfer, and positioning
- ▶ Adjustable handle and controls reduce operator fatigue
- ▶ Protects surface quality with positive secure vacuum gripping and setdown
- ▶ Gives operator complete control throughout the handling operation



Model no.	Cup centerline dimensions (mm)	Lift capacity		Cup diameter (mm)
		Vacuum (hPa)	@ 6.9 bar (100 psi)	
87306338	127 x 178	200 (porous)	20 kg	76
		610	44 kg	76
		850 (non-porous)	54 kg	76
87306486	254 x 356	200 (porous)	20 kg	76
		610	44 kg	76
		850 (non-porous)	54 kg	76

To be used with "BW" series pneumatic balancers. Alternate layout and vacuum cup sizes available on request
Note: vacuum cups require a flat, non-porous surface. Consult factory for applications with porous surfaces.

Vacuum handling device

Model no.	Description
ZV1S	1-Cup handling device
ZV1ST	1-Cup handling device with tilt
ZV4S	4-Cup handling device
ZC2S	Standard clamp device



Signature bundle handlers

- ▶ Designed to meet the needs of the printing industry in handling logs from 55 cm to 122 cm and up to 110 kg
- ▶ Single (250 mm stroke) and dual (760 stroke) air cylinders with 400 kg clamping force at 6.2 bar (90 psi)
- ▶ Safety interlock prevents accidental release of load
- ▶ Standard paddles for end boards up to 305 mm x 305 mm (extended paddle configurations available — contact factory)
- ▶ Power rotation and self-leveling packages available. Contact factory for further information
- ▶ Lightweight aluminum construction



Single cylinder with top swivel handle control



Dual cylinder with top swivel handle control

Model no.	Body style	Control type	Bundle size (mm)	Stroke (mm)
SBH1-1-1	Single cylinder	Single side control	610-813	254
SBH1-2-1		Dual side control		
SBH1-3-1		End control		
SBH1-4-1		Side and end control		
SBH1-5-1		Top swivel handle control		
SBH1-1-2	Single cylinder	Single side control	813-1016	254
SBH1-2-2		Dual side control		
SBH1-3-2		End control		
SBH1-4-2		Side and end control		
SBH1-5-2		Top swivel handle control		
SBH1-1-3	Single cylinder	Single side control	1016-1219	254
SBH1-2-3		Dual side control		
SBH1-3-3		End control		
SBH1-4-3		Side and end control		
SBH1-5-3		Top swivel handle control		

Consult factory for applications that require greater than 254 mm stroke, dual cylinder available.



Dual cylinder with side control

Rotary action handlers

- Provides effortless 90 degree manual rotation of rolls up to 135 kg
- Non-destructive rubber band style as well as pin style noses engage the ID of the core
- Safety interlock prevents accidental release of load
- Offered in both lightweight aluminum and rugged steel construction
- Integrated up/down controls work seamlessly with Ingersoll Rand pneumatic balancer



Effortless horizontal to vertical rotation

Body selection chart

Body material	Capacity (kg)	Max. core length (mm)	Max. core O. D. (mm)
Aluminum	45.4	305	762
Steel	136.1	310	1067

Nose selection chart

Nose style	Capacity (kg)
3 Pin	45.4
6 Pin	163.1
Single band	90.7
Double band	136.1

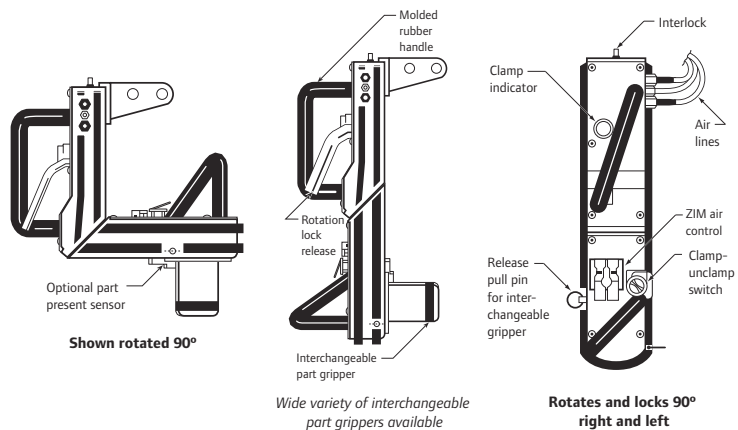


Band nose

Pin nose



Custom power tilt



- Other options available upon request:
- Stepped nose for multiple cores
- "V" groove for pin cart applications
- Special paint / plating
- Spindle end locator
- Adjustable bail
- Heavy duty pivot for steel rotary action handler offers capacity up to 200 kg



Stepped nose

Rotary Action Handler model driver – Example: RAHA020030TP

Device type	Body material	Core I.D.	Core length	Nose style	Options
RAH = Rotary action handler	A = Aluminum S = Steel	075 = 75 mm	020 = 2"	T = 3 Pin S = 6 Pin B = Single band D = Double band	P = Part present C = Side clamp (available only w/ steel body) I = Interchangeable nose w/ quick-release pins
		094 = 94 mm	030 = 3"		
		110 = 110 mm	040 = 4"		
		140 = 140 mm	050 = 5"		
		143 = 143 mm	060 = 6"		
			080 = 8"		
			030 = 3" (76 mm)		
			035 = 3.5" (89 mm)		
			040 = 4" (102 mm)		
			045 = 4.5" (114 mm)		
			050 = 5" (127 mm)		
			055 = 5.5" (140 mm)		
			060 = 6" (152 mm)		
			065 = 6.5" (165 mm)		
			070 = 7" (178 mm)		
			075 = 7.5" (190 mm)		
			080 = 8" (203 mm)		
			XXX = Length (to be specified. 12" Max. for aluminum. 24" Max. for steel)		

To be used with "BW" series Pneumatic Balancers.
Consult factory for applications with rolls prone to telescoping.

Custom devices

Ingersoll Rand is a world leader in the manufacture of ergonomic, in-process, manual and powered custom material handling systems. We offer a complete range of handling devices, from the simplest to the most complex custom device. We specialize in providing turnkey solutions utilizing our complete line of standard and custom products to create a combination that empowers individuals to work more comfortably and effectively.



Motor vehicle



Agricultural equipment



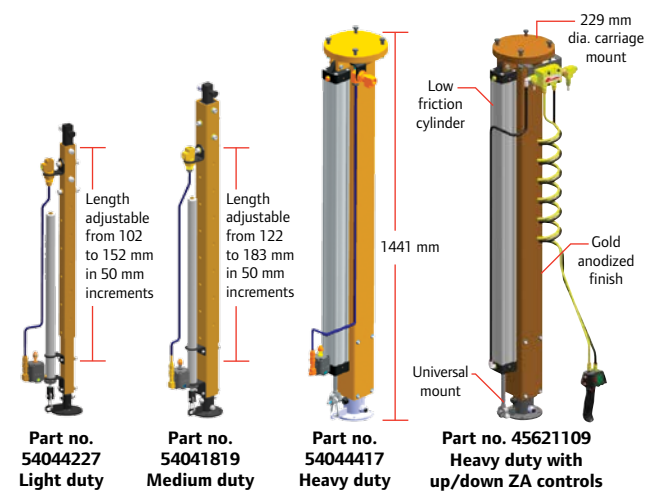
Furniture / household

CLAMP	HOOK / TRAP	VACUUM	PROBE
Cheese — food processing	Gaming table	Box — general industry	Steel roll
Box — general industry	Beverage handling	Toilet tank	Ceramic steel funnel
Floor scrubber	Vehicle transmission	Glass	HVAC — copper coil

Contact factory for thousands more application photos and videos. E-mail requests to asbu_proposal@irco.com.

The Ingersoll Rand torque tube ADVANTAGE

- ▶ **Guided lifting:** cylinder guides up/down motion, preventing load from swinging
- ▶ **Effortless vertical travel:** super linear bearings provide smooth, effortless motion
- ▶ **Versatility:** four models available for both torque reaction and lifting applications
- ▶ **Torque reaction:** 4 Delrin® wheels for torque reaction and side loading in all four directions
- ▶ **Adaptable:** universal mounting plate for bolt-on integration of tool holders and handling devices



Torque tube with integrated vacuum handling device

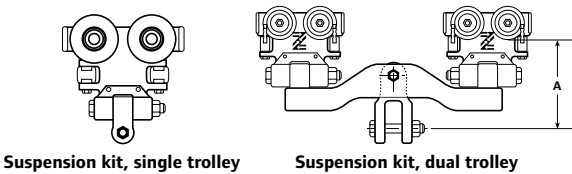
Torque tube models

Model no.	Description	Torque capacity (Nm)	Lift capacity at 6.9 bar (kg)	Weight (kg)	Travel (mm)	Control
54044227	IRZ-TT-100	100	27	18	508	BA regulator
54041819	IRZ-TT-250	250	27	23	610	BA regulator
54044417 (1)	IRZ-TT-500	500	45	34	914	BA regulator
45621109 (1) (2)	IRZ-ZA-500	500	45	36	914	ZA up/down

(1) Carriage mount option only.
(2) Accommodates offset loads to 24" (609 mm). Consult factory for special applications.

Optional cylinder air supply

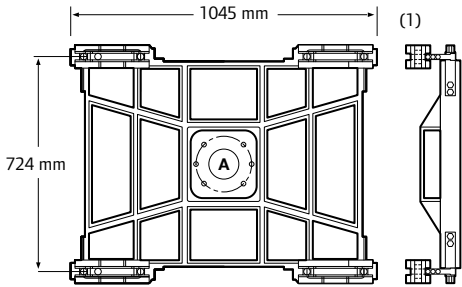
Part no. 90050. Cylinder air supply package. Includes regulator assembly and all required hose fittings to supply cylinder.



Suspension kit options – single and dual trolleys

Model no	Rail profile	"A" Dimension (mm)	Weight (kg)
Single trolley – Used for 80 Nm or less applications			
16610	ZRA2	120	2.0
16600	ZRAS2/3	120	2.0
16615	KBK-II/IIL	120	2.0
16635	ETA-8	120	2.0
16620	T-Rail	76	6.8
Dual trolley – Up to 150 Nm applications			
16755	ZRAT	165	4.8
16705	ZRA1	156	4.8
16710	ZRA2	172	4.8
16700	ZRAS2/3	172	4.8
16725	KBK-I	156	4.8
16715	KBK-II/IIL	172	4.8
16744	ETA-4	156	4.8
16735	ETA-8	172	4.8

Note: for use on torque tube part no. 54044227 and 54041819.



(1) Note: shown in low profile set-up.
A = 13 mm bolts (6), holes on a 190 mm bolt circle

Carriage options

Model no.	Description
40710	Carriage — basic, no trolleys
40709	Carriage assembly — T-rail / I-beam
30028-1	Carriage assembly — ZRA2 (reaction trolley)
30028-2	Carriage assembly — ZRS2 / ZRS3
30028-3	Carriage assembly — ZRA1
30028-4	Carriage assembly — ETA-8 (reaction trolley)
30028-5	Carriage assembly — KBK2

Note: for use on part no. 54044417 and 45621109
Lightweight ALMAG casting. Basic carriage weighs 27.3 kg
Each carriage drawing has info for both high and low profile assemblies

Assembly Solutions

Ingersoll Rand offers a full line of production fastening equipment, including DC electric fastening systems and air assembly tools in a broad range of configurations. See our website ingersollrandproducts.com



Industrial Lifting Equipment

Our range of industrial lifting equipment comprises air hoists and hoist-trolley combinations with load capacities from 250 kg to 50 ton — Control through pilot pendent for very precise positioning. See our website ingersollrandproducts.com





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www.ingersollrandproducts.com

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